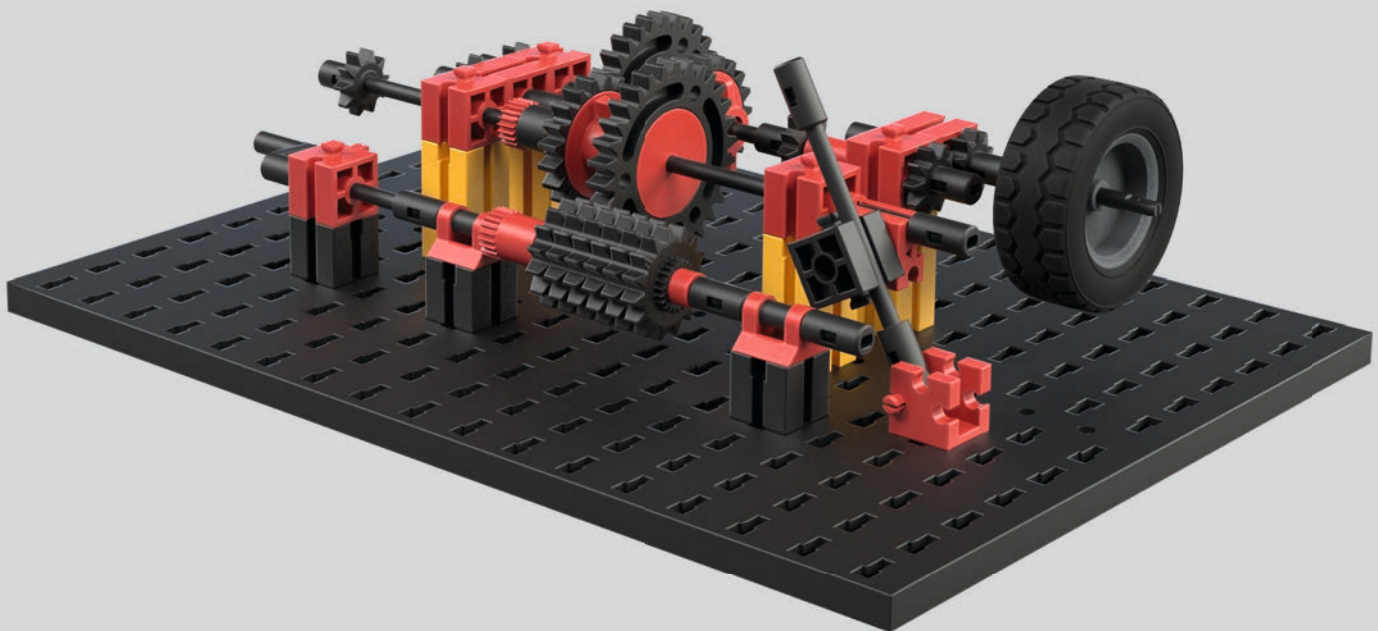


# STEM Gear Tech

Bauanleitung  
Assembly instruction  
Instructions de montage  
Bouwhandleiding  
Instrucciones de construcción  
Manual de montagem  
Istruzioni di montaggio  
Инструкция по сборке  
安装说明书



**S** **T** **E** **M** **M**ATHEMATIK  
**I** **N**FORMATIK  
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**T** **E**CHNIK

 SCIENCE  TECHNOLOGY  ENGINEERING  MATHEMATICS

17 Models



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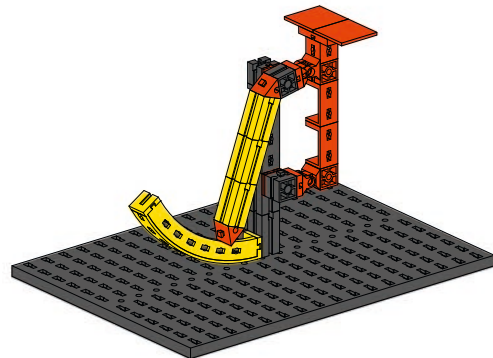
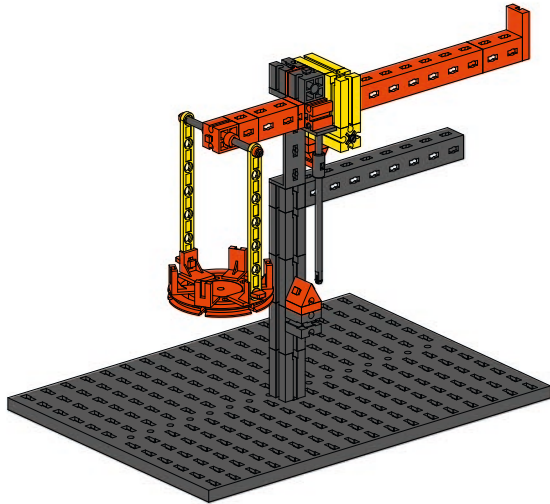
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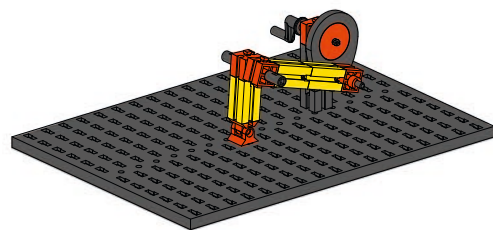
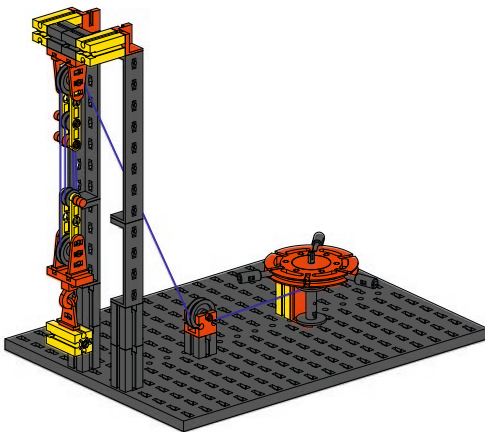
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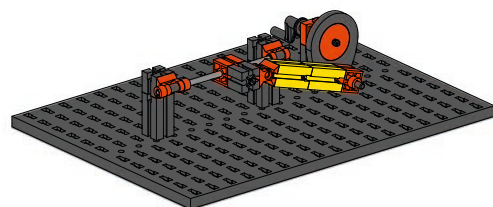
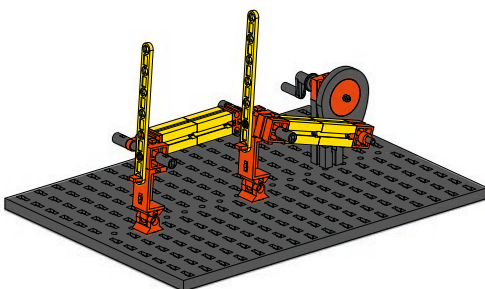
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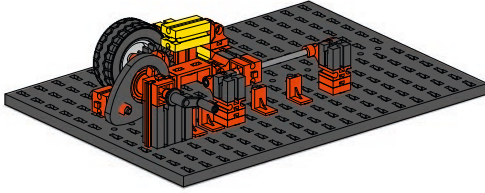
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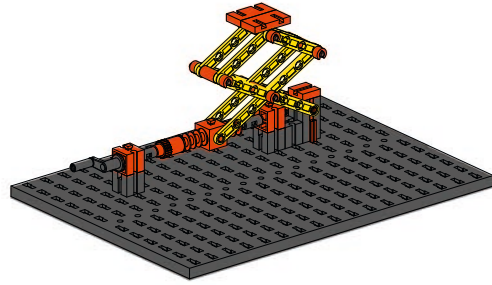


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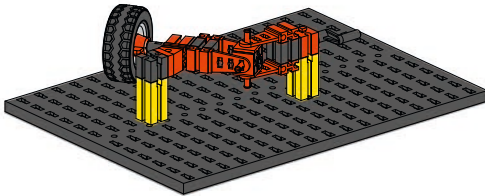
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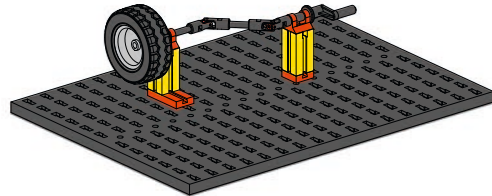
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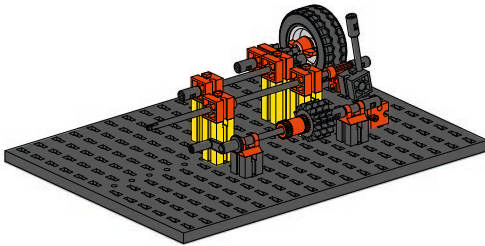
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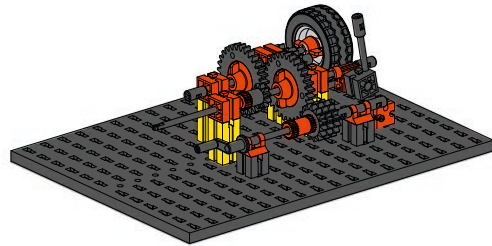
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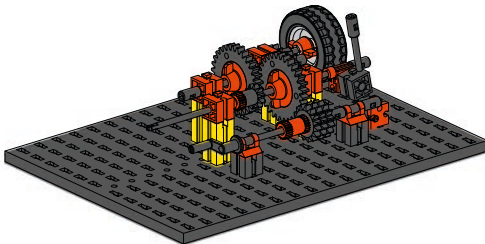
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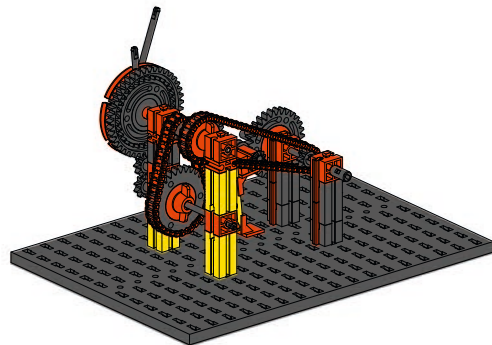
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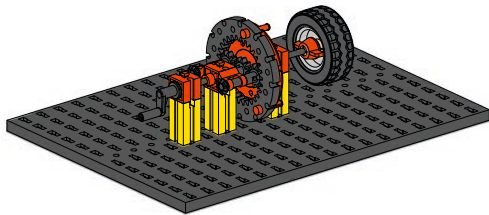
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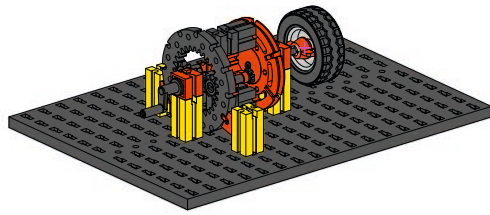
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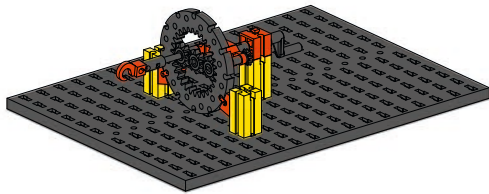
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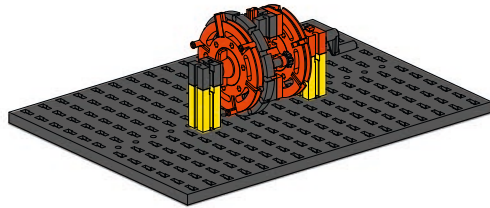
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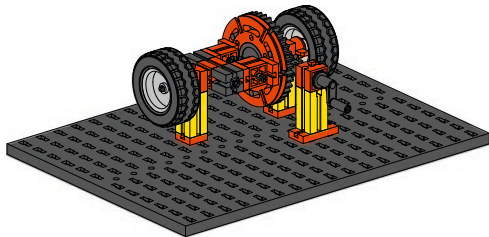
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### Einzelteilübersicht

#### Spare parts list

#### Liste des pièces détachées

### Onderdelenoverzicht






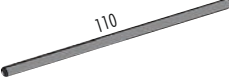














#### Lista da piezas


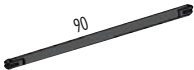
















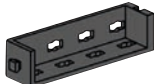









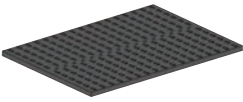










































#### Resumo de peça individual

### Singoli componenti

#### Перечень деталей

#### 零件概覽

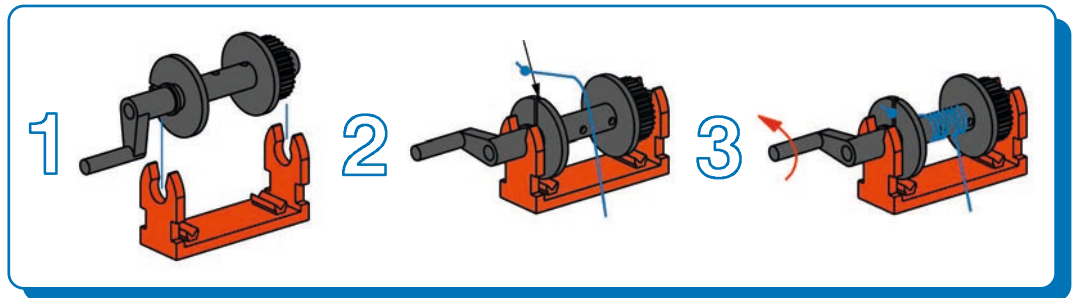
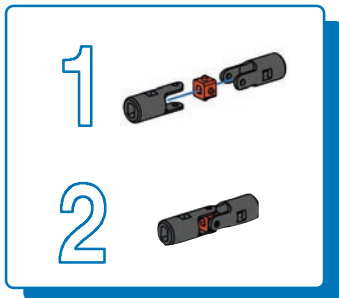
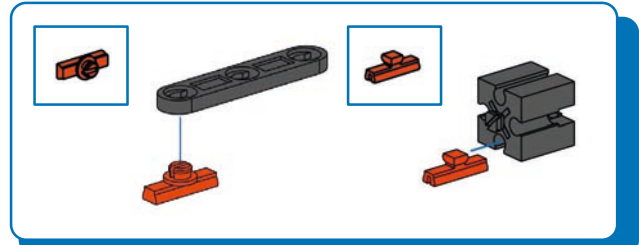
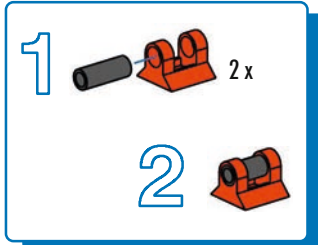
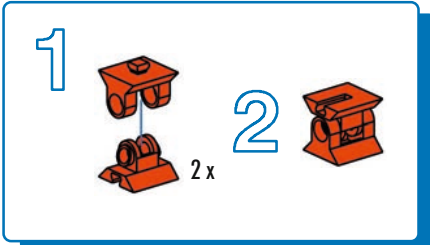
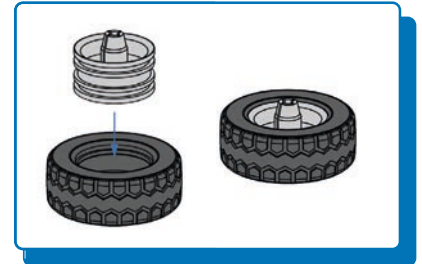
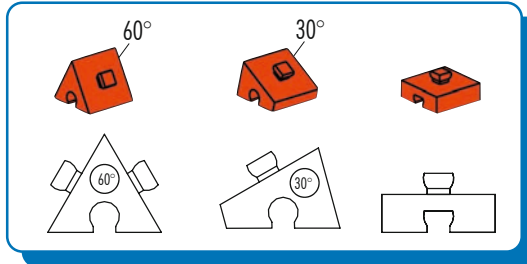
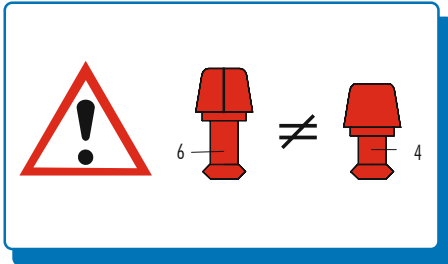
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	31 011 2 x		31 031 1 x		31 330 2 x		31 690 6 x
	31 019 2 x		31 058 4 x		31 426 2 x		31 848 2 x
	31 021 2 x		31 060 2 x		31 436 4 x		31 915 1 x
	31 022 1 x		31 061 4 x		31 597 4 x		31 982 2 x

	31 983 3 x		35 066 2 x		36 264 2 x		38 259 2 x
	32 064 7 x		35 069 1 x		36 293 2 x		38 260 4 x
	32 321 2 x		35 070 1 x		36 323 4 x		38 414 4 x
	32 879 4 x		35 073 7 x		36 819 3 x		38 416 1 x
	32 881 4 x		35 087 2 x		36 921 2 x		38 423 4 x
	32 882 4 x		35 088 1 x		37 237 6 x		38 428 2 x
	32 913 2 x		35 112 1 x		37 238 2 x		38 531 4 x
	32 985 1 x		35 113 2 x		37 468 5 x		38 538 2 x
	35 031 4 x		35 466 1 x		37 527 1 x		38 541 4 x
	35 033 2 x		35 694 1 x		37 636 1 x		68 535 1 x
	35 049 1 x		35 695 6 x		37 679 9 x		116 913 2 x
	35 054 1 x		35 797 3 x		37 858 1 x		127 471 1 x
	35 055 1 x		35 945 6 x		37 925 1 x		127 472 2 x
	35 061 3 x		35 971 4 x		37 926 1 x		130 593 2 x
	35 062 2 x		35 972 2 x		38 225 1 x		132 223 1 x
	35 063 3 x		35 980 2 x		38 240 2 x		136 528 4 x
	35 064 3 x		36 227 1 x		38 253 1 x		183 291 1 x
	35 065 2 x		36 248 98 x		38 258 2 x		

**Montagetipps**  
**Tips for assembly**  
**Tuyaux pour le montage**

**Montagetipps**  
**Consejos para el montaje**  
**"Dicas" para montagem**

**Consigli per il montaggio**  
**Советы по сборке**  
**装配建议**



**Sicherheitshinweise**  
**Safety Information**  
**Consignes de sécurité**

**Veiligheidsrichtlijnen**  
**Indicaciones de seguridad**  
**Observações sobre segurança**

**Informazioni per la sicurezza**  
**Указания по технике безопасности**  
**安全指南**

- Achtung! Verletzungsgefahr an Bauteilen mit funktionsbedingten scharfen Kanten und Spitzen!
- Caution! Be careful not to hurt yourself on components with sharp or pointed edges!
- Attention! Risque de blessure sur les éléments comportant des arêtes et o pointes vives indispensables au bon fonctionnement!
- Let op! U kunt zich bezeren aan bouwstenen met sherpe randen of punten!
- Attenzione! Esiste il pericolo di lesione con i pezzi di costruzione che hanno bordi e punte spigolosi necessari per la funzionalità del pezzo!

- Atenção! Perigo de ferimentos em peças componentes com cantos vivos e pontas obrigatórios para o funcionamento!
- Attenzione! Pericolo di lesioni dovute a componenti con spigoli vivi e punte per motivi funzionali!
- Будьте осторожны! Об острые края деталей и и наконечники можно порезаться!
- 注意！因功能需要而带有锋利的棱边和尖角的部件可能会带来受伤危险！

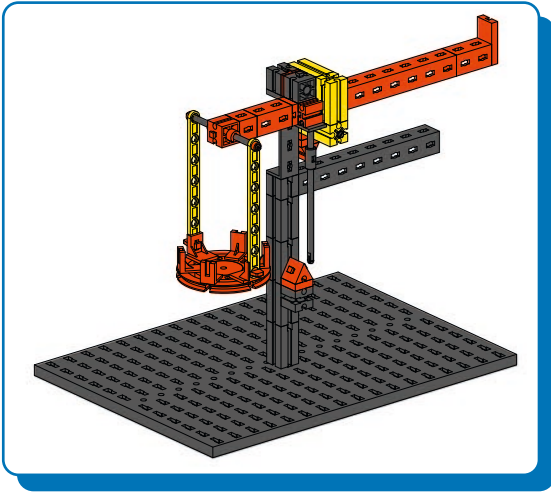
- Alle Einzelteile, insbesondere bewegliche Teile sind falls notwendig zu warten und zu reinigen.
- All components, especially moving parts, should be maintained and cleaned as necessary.
- Toutes les pièces détachées et en particulier les pièces mobiles, sont, si nécessaire, à entretenir et à nettoyer.
- Alle onderdelen, vooral de bewegende delen, kunnen, indien noodzakelijk, onderhouden en gereinigd worden.
- Es necesario mantener limpio y en buen estado cada una de las piezas. Particularmente las piezas móviles.

- Todas as peças individuais, especialmente peças móveis, devem ser submetidas à manutenção e limpas se necessário.
- Se necessario, tutti i singoli componenti, soprattutto le parti mobili, si devono eventualmente sottoporre a manutenzione e pulizia.
- Все детали, особенно подвижные, требуют ухода и чистки.
- 必要时应保养和清洁所有零件，尤指运动部件。



Hinweise zum Umweltschutz / Instructions for Environmental Protection / Remarques de protection de l'environnement / Bescherming van het milieu / Notas con respecto a la protección del medio ambiente / Instruções para a proteção do meio ambiente / Indicazioni sulla tutela ambientale / Указания по охране окружающей среды / 有关环保的提示：

[www.fischertechnik.de/environment](http://www.fischertechnik.de/environment)



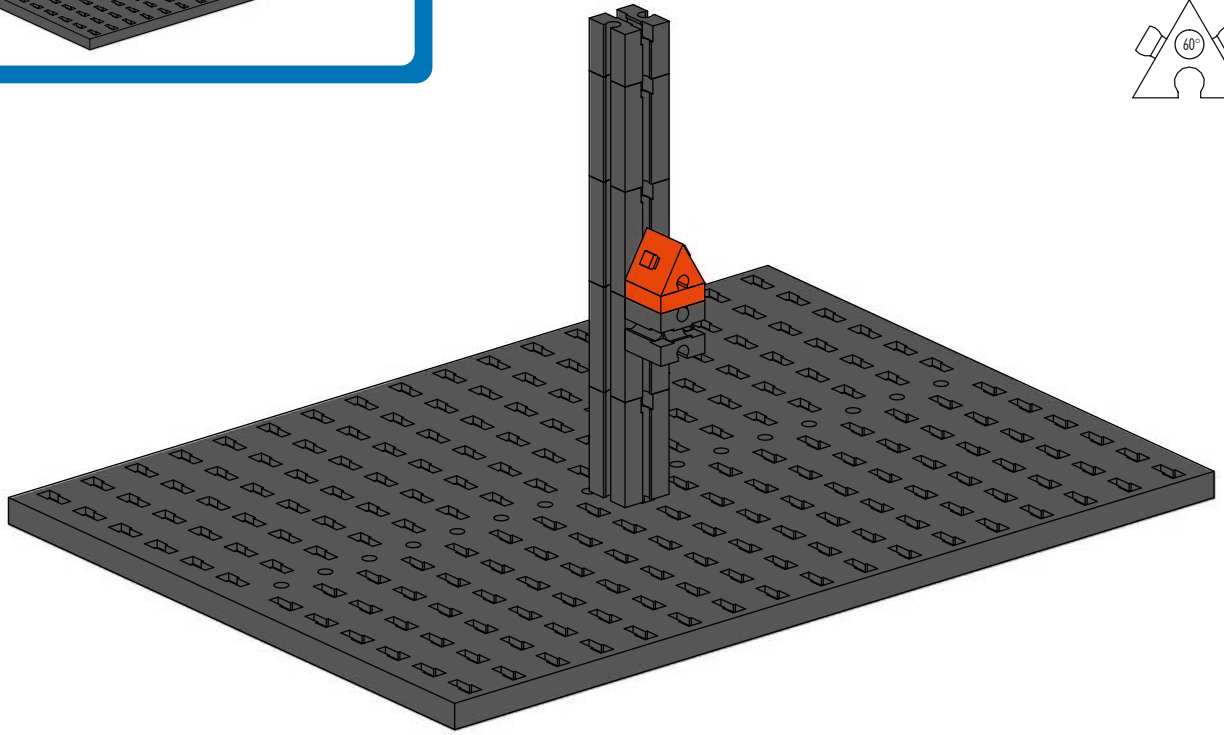
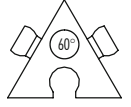
Balkenwaage  
Beam scale  
Echelle de faisceau

Balk schaal  
Escala de vigas  
Escala de feixe

Scala del fascio  
Шкала луча  
光束刻度

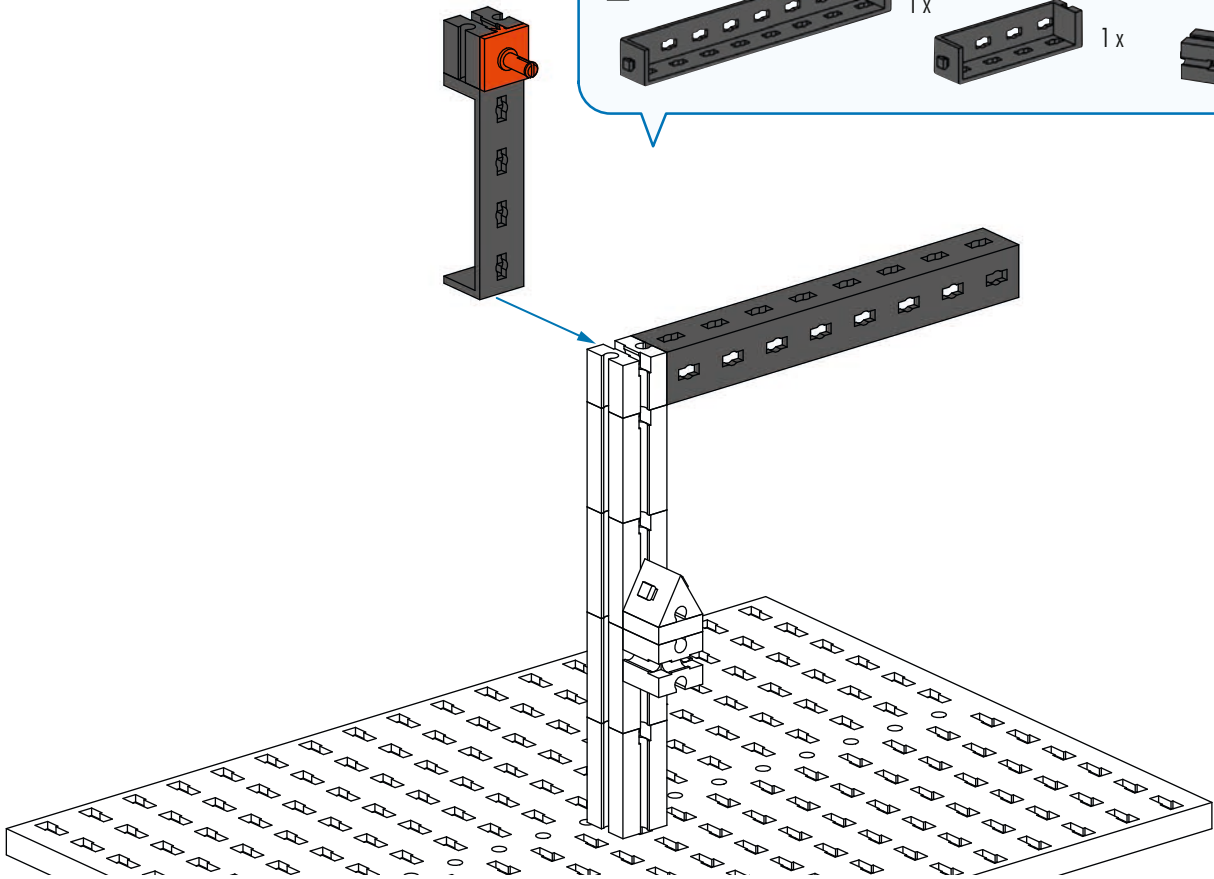
**1**

- 1 x
- 4 x
- 2 x
- 1 x
- 1 x



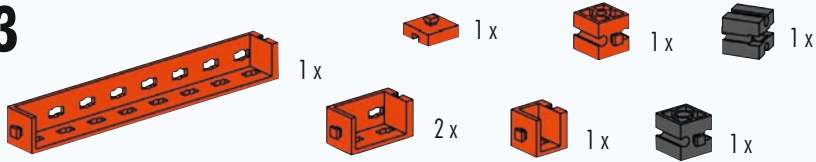
**2**

- 1 x
- 1 x
- 1 x
- 1 x

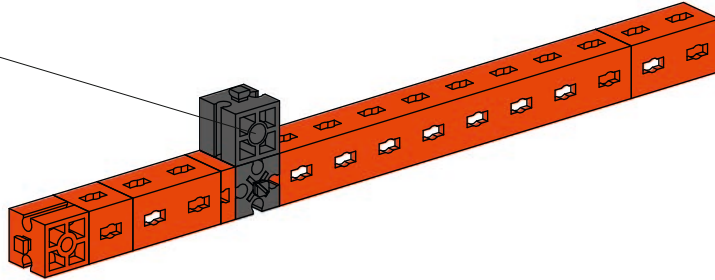




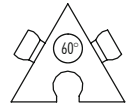
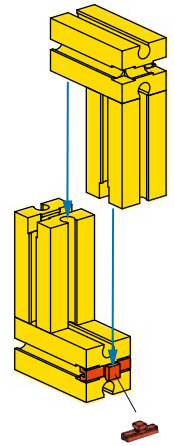
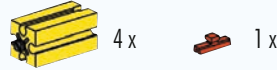
3



Große Bohrung  
 Large drilling  
 Alésage large  
 Grote boring  
 Perforación grande  
 Orificio grande  
 Grande foro  
 Большое отверстие  
 大孔



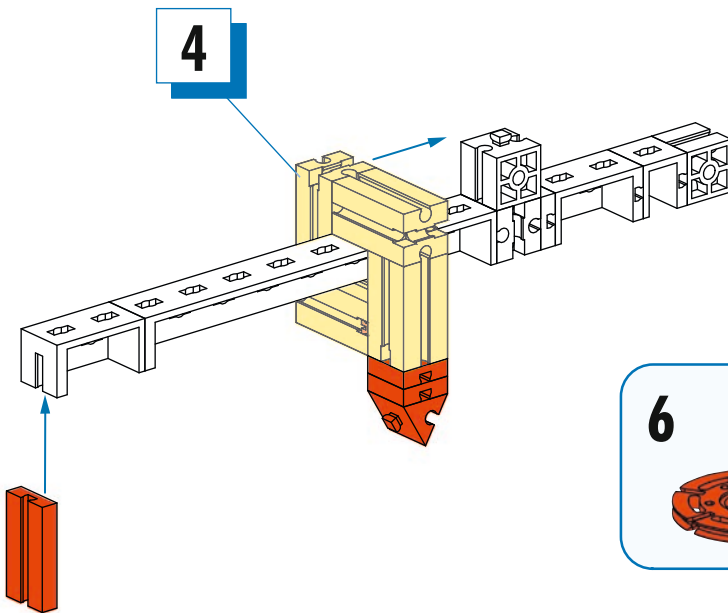
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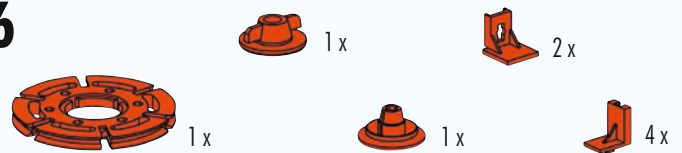
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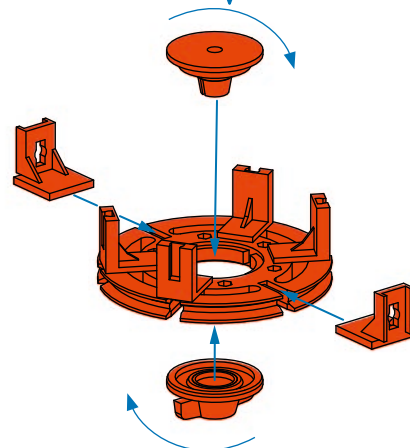
4



6



- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



7

2 x

2 x

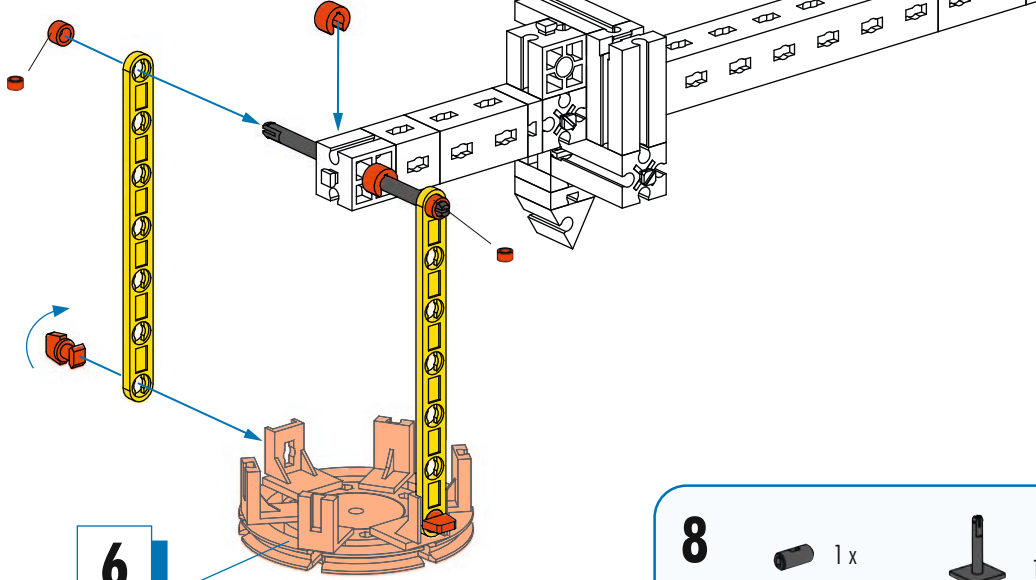
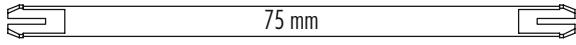
2 x

90

2 x

75

1 x



6

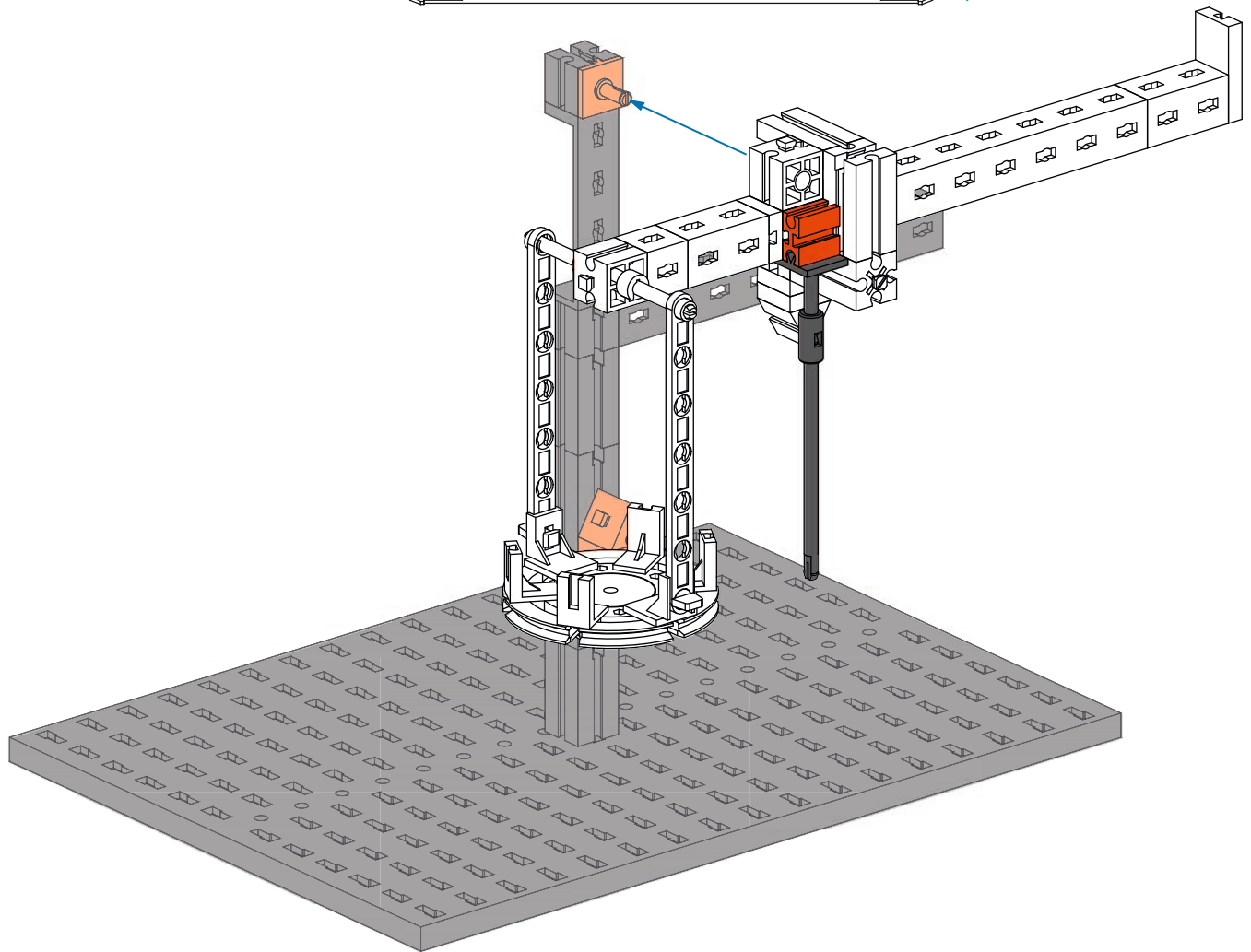
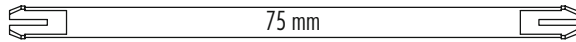
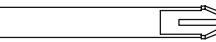
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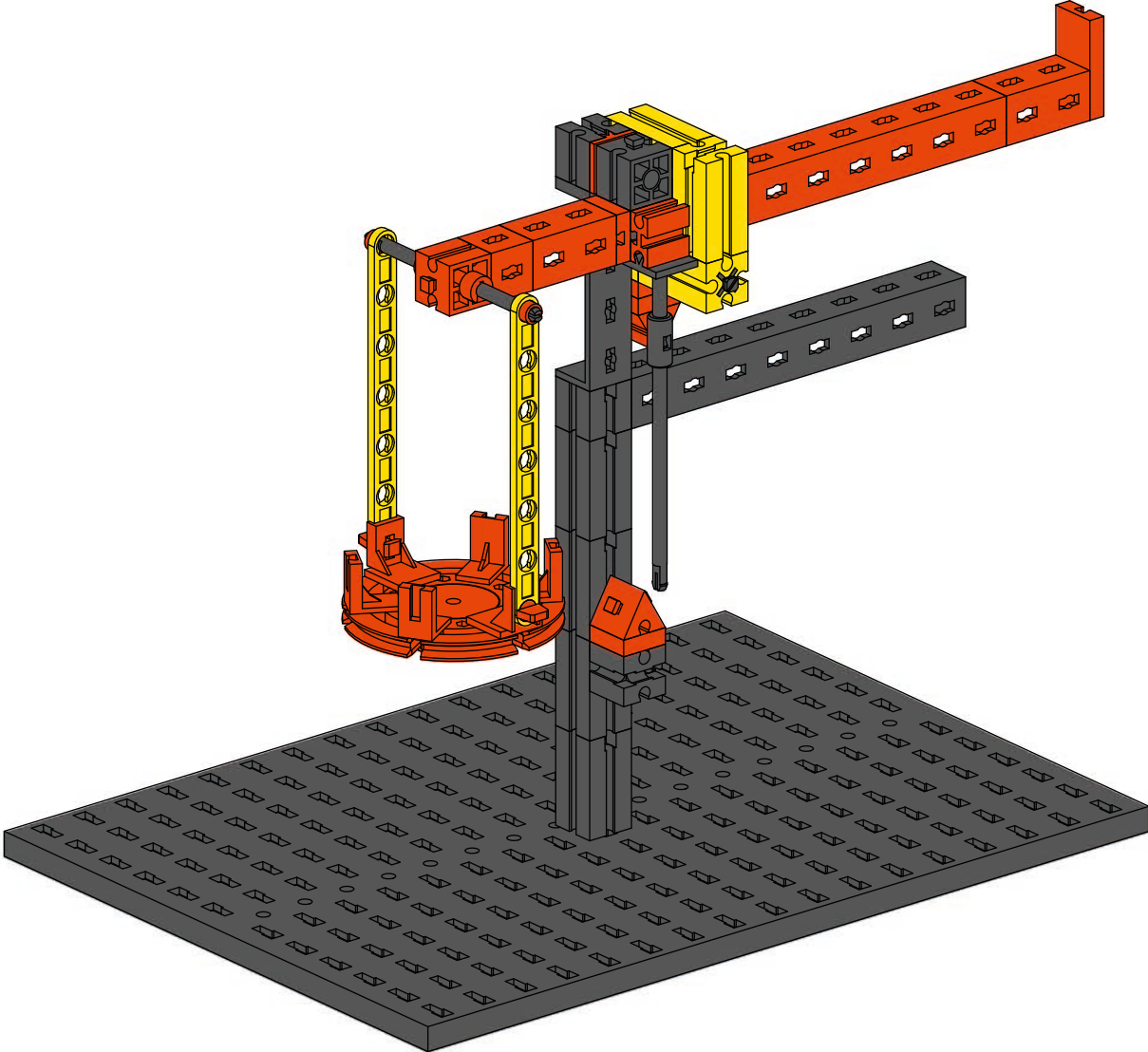
1 x

1 x

75 1 x

1 x

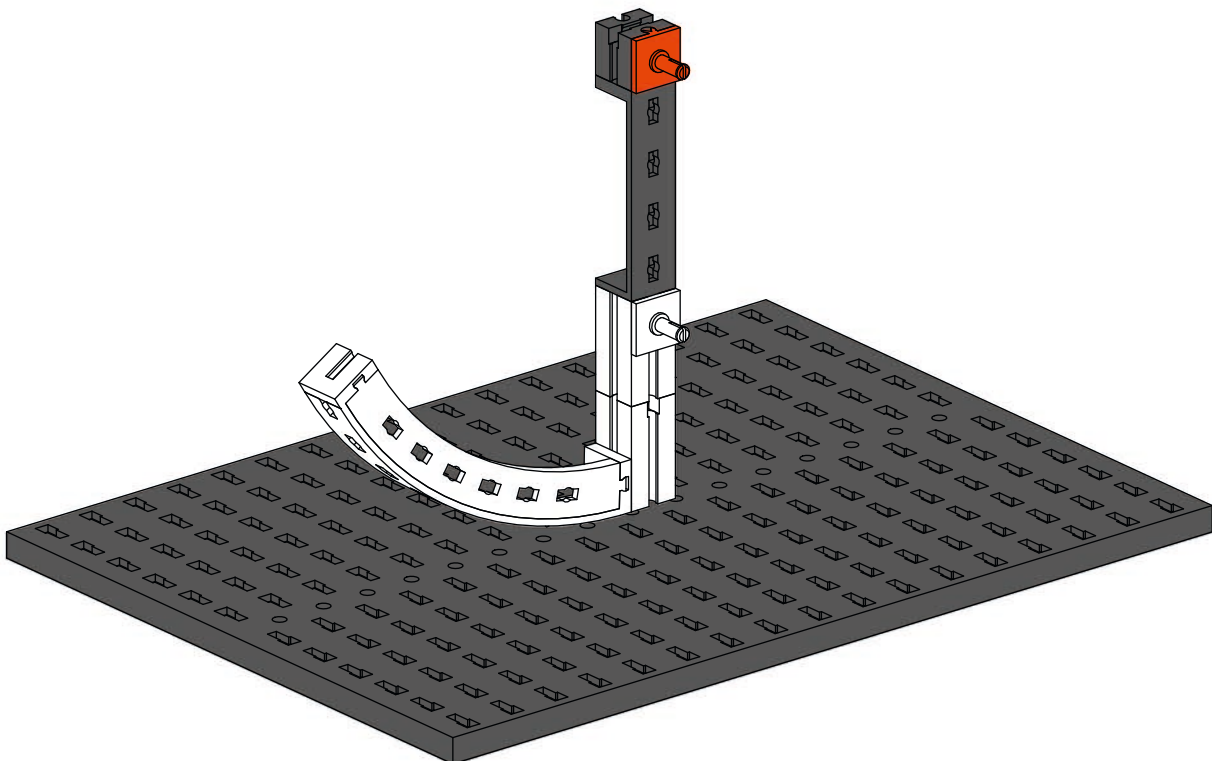
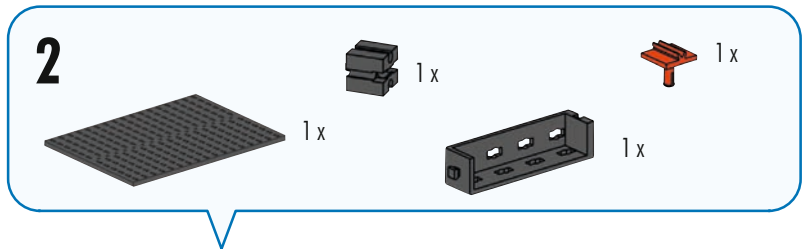
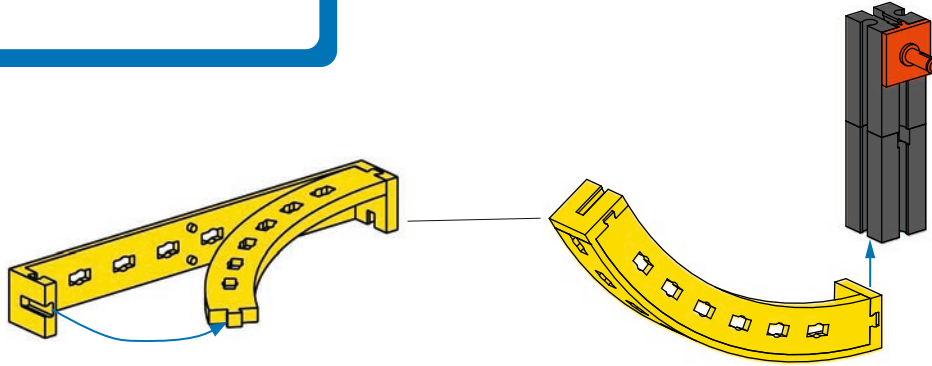
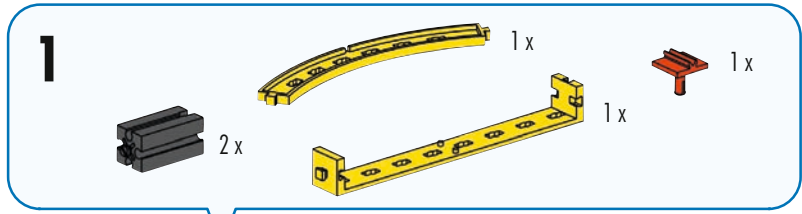
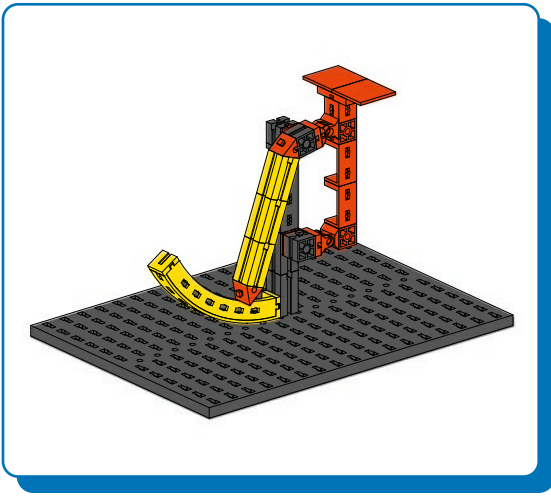




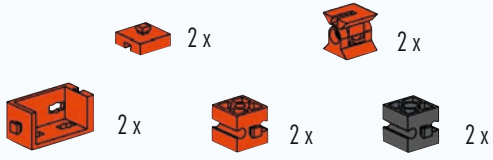
Briefwaage  
Letter scale  
Échelle des lettres


Briefschaal  
Escala de letras  
Escala de letras

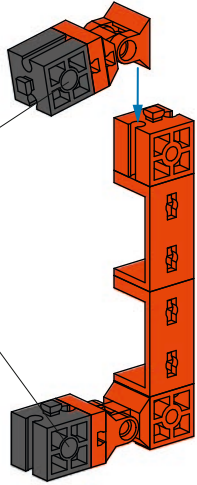
Scala delle lettere  
Шкала букв  
字母比例



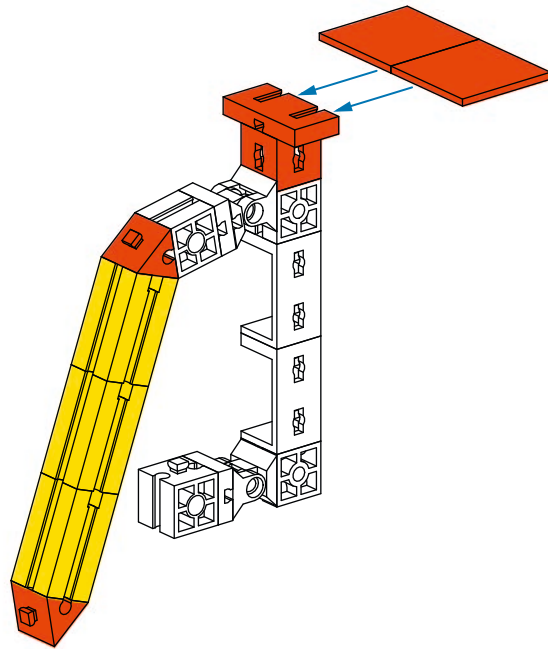
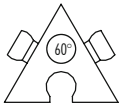
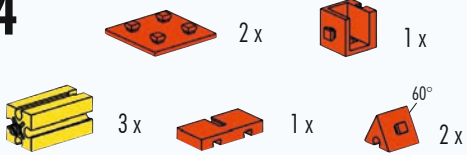
3

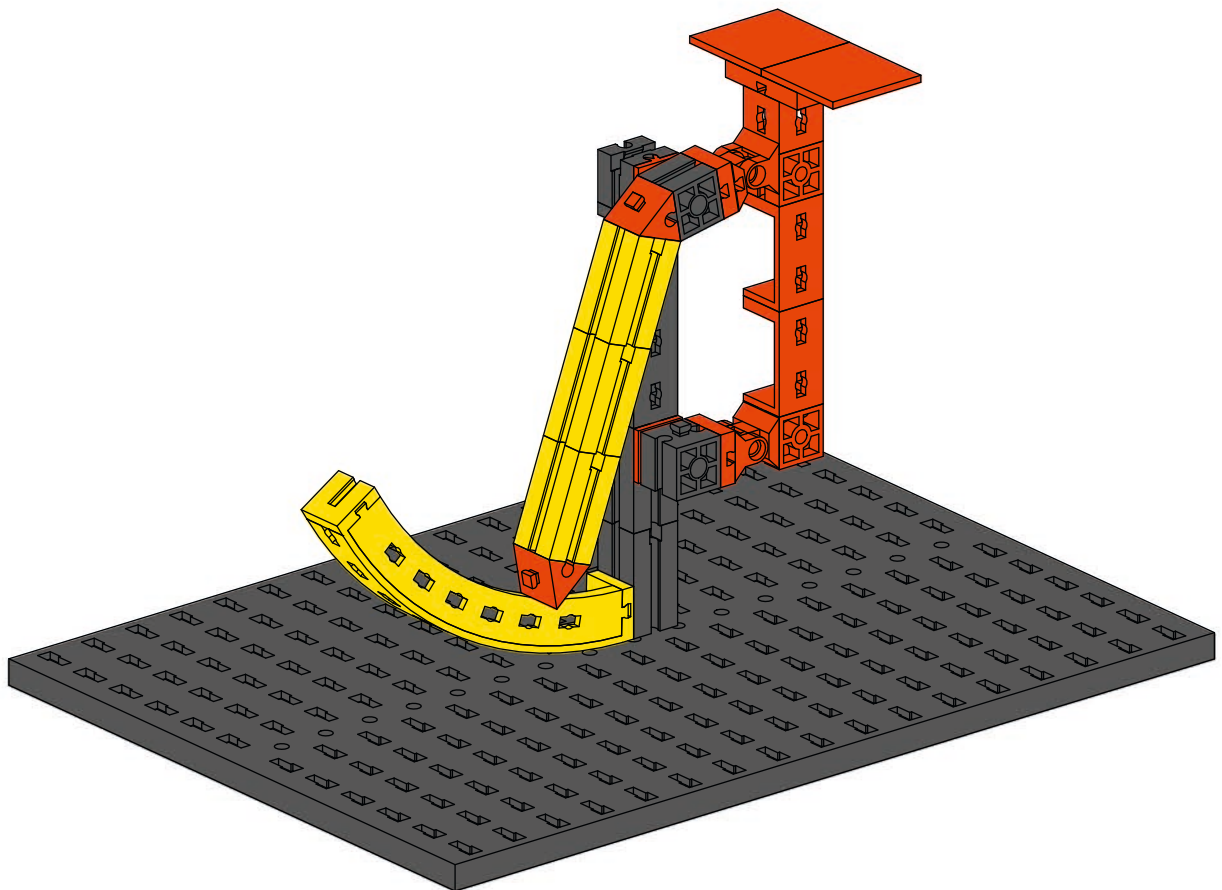
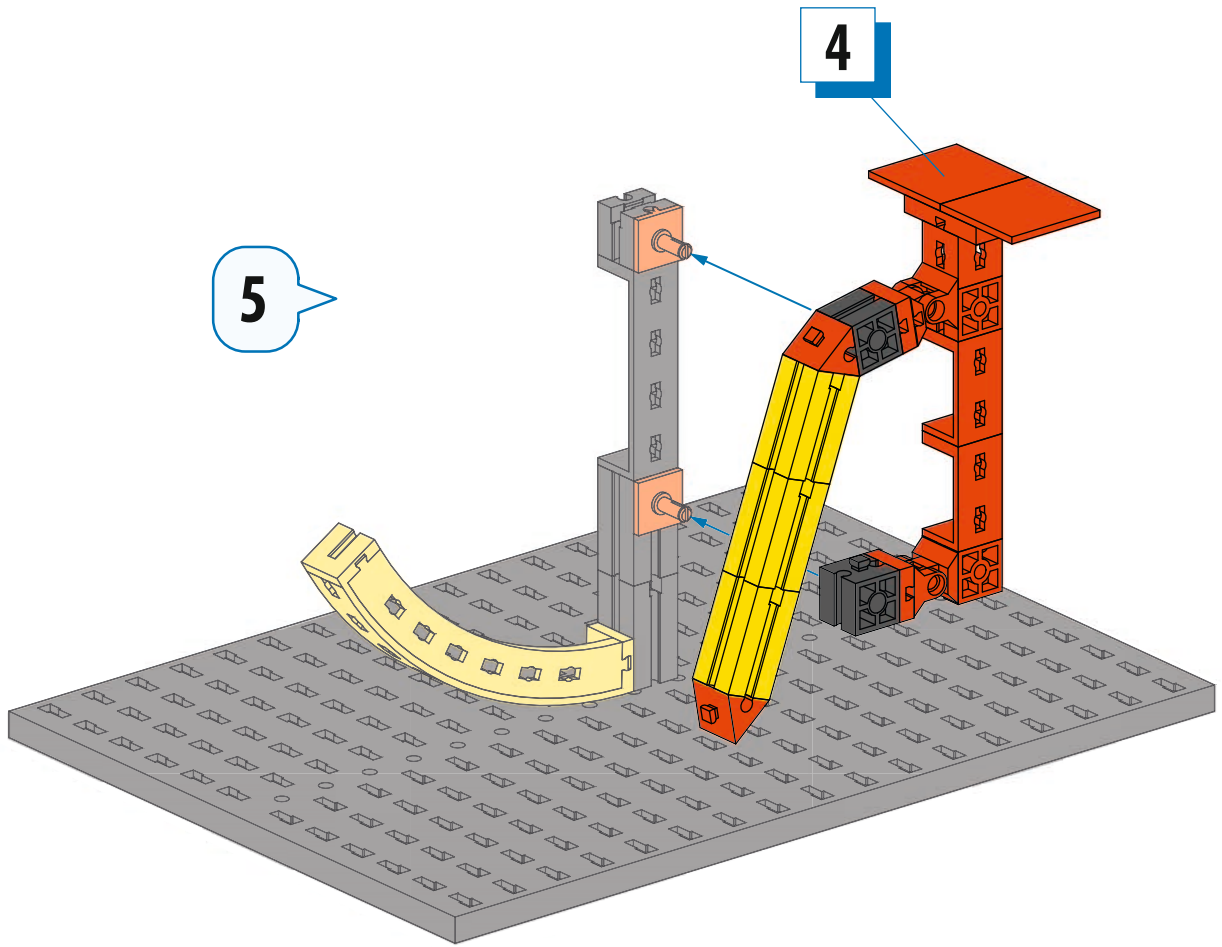


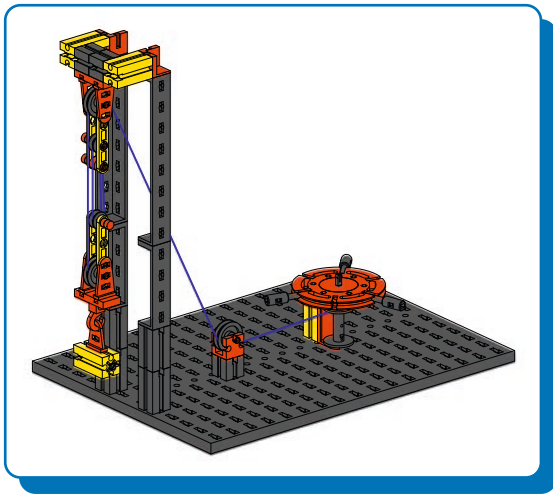
  
 Große Bohrung  
 Large drilling  
 Alésage large  
 Grote boring  
 Perforación grande  
 Orificio grande  
 Grande foro  
 Большое отверстие  
 大孔



4



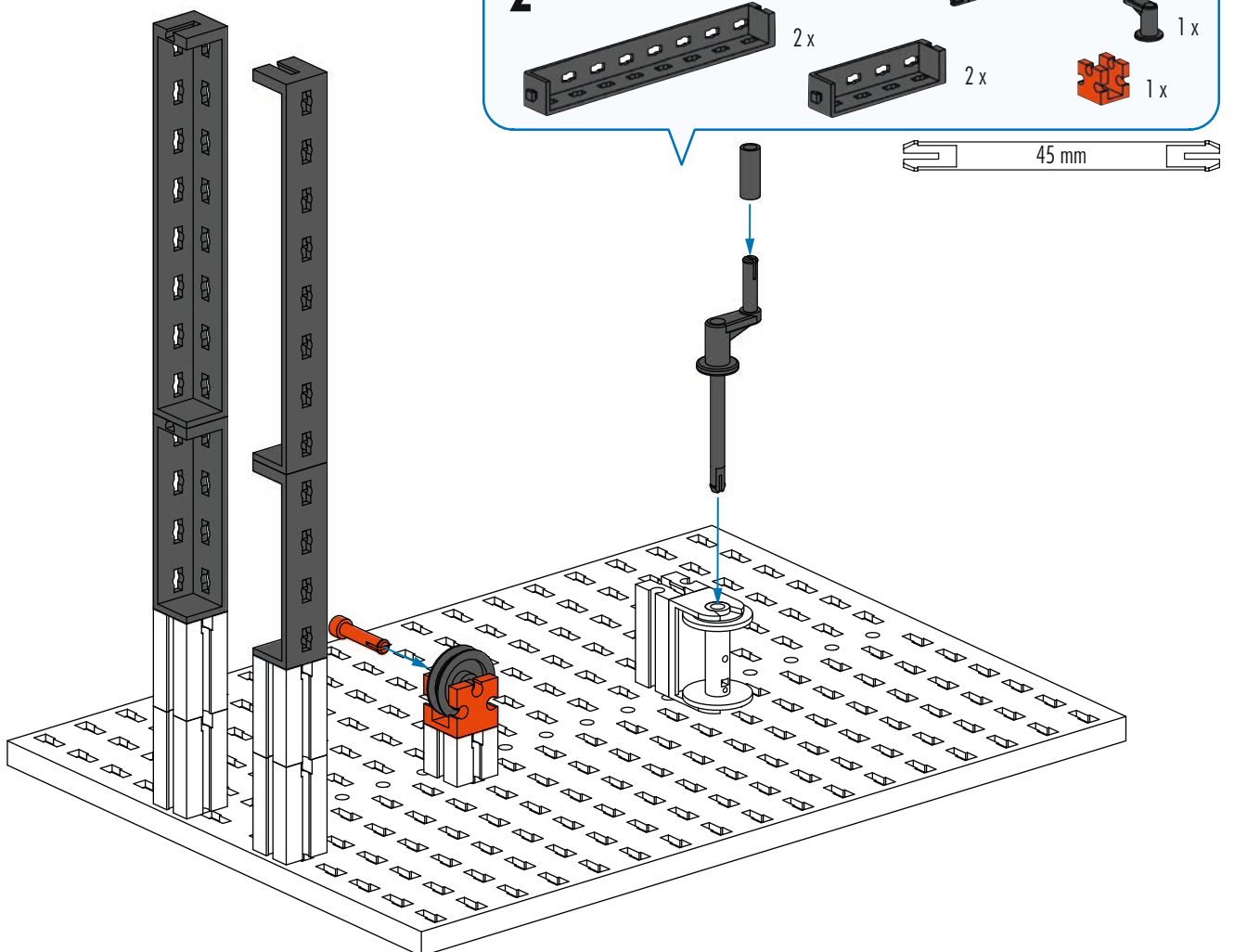
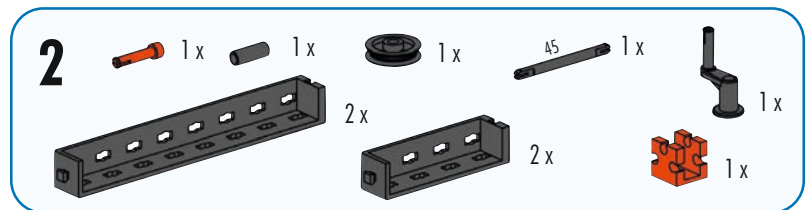
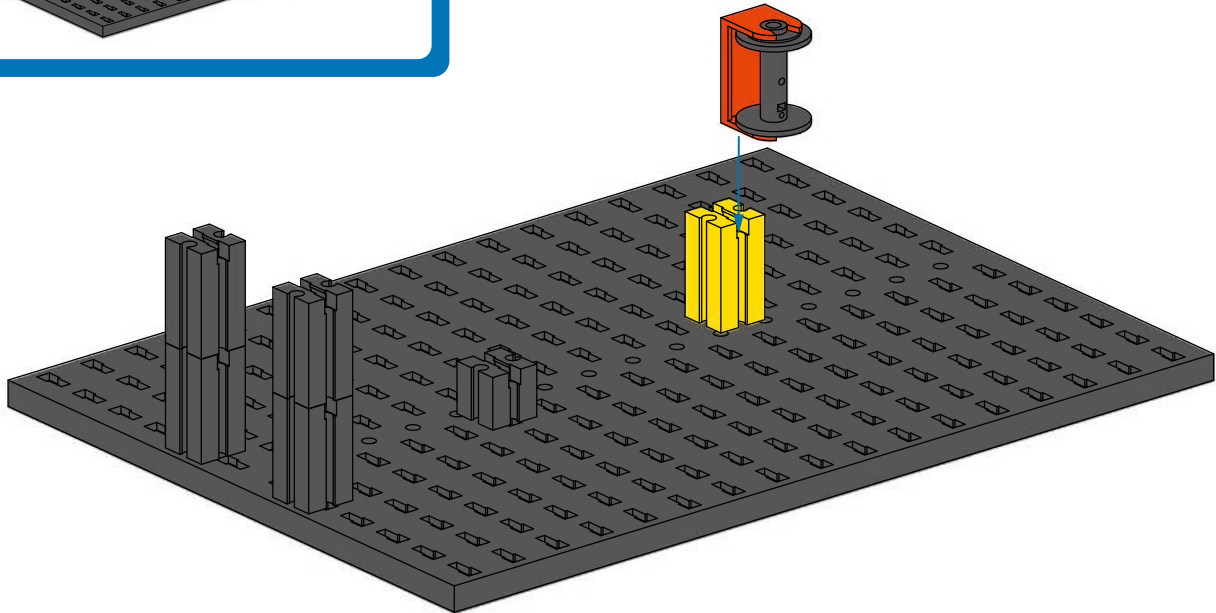
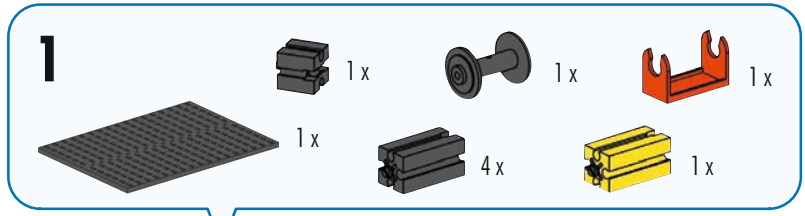


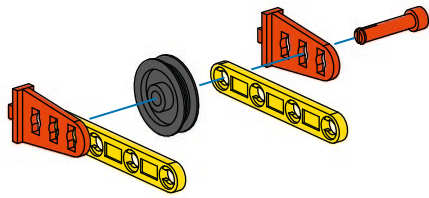


Flaschenzug  
Pulley block  
Bloc de poulie

Katrolblok  
Bloque de poleas  
Bloco de roldanas

Blocco della puleggia  
блок Пули  
滑轮组



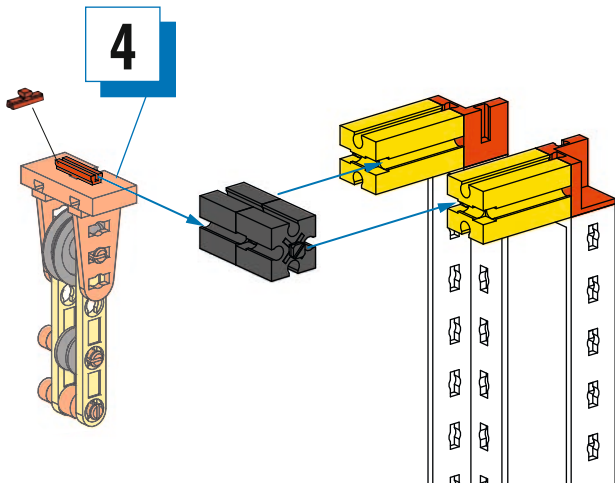
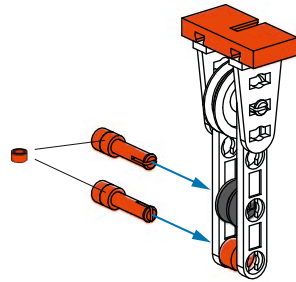


**3**

- 1x (grey pulley wheel)
- 1x (red axle)
- 2x (yellow Technic beam 45)
- 2x (orange Technic beam)

**4**

- 1x (grey pulley wheel)
- 2x (red axle)
- 1x (orange Technic beam)
- 2x (red Technic pin)
- 1x (red Technic bush)

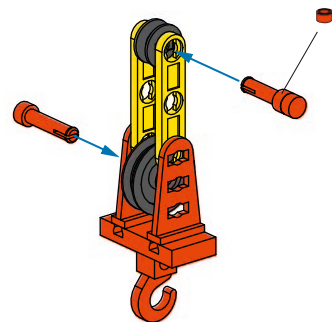


**5**

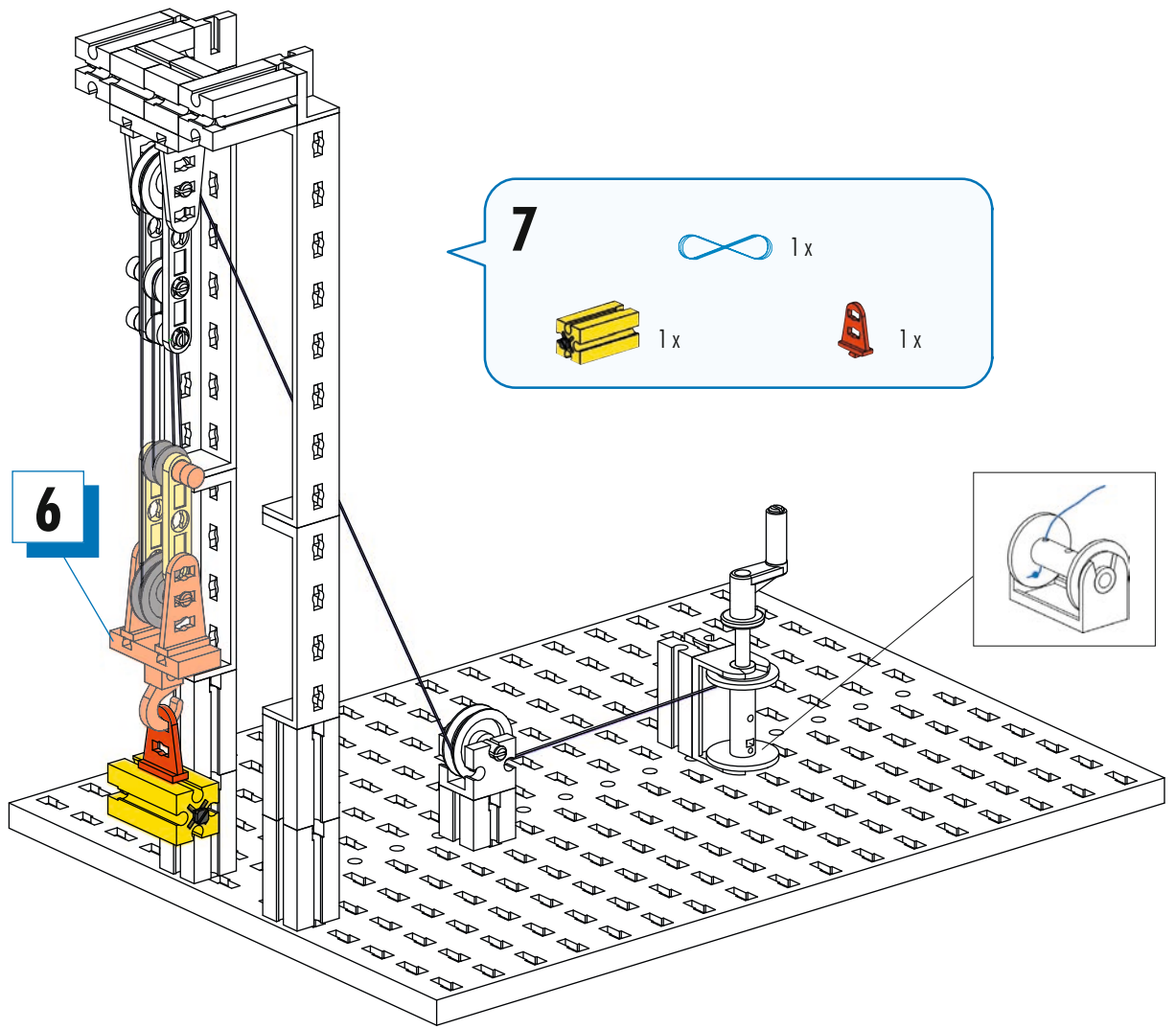
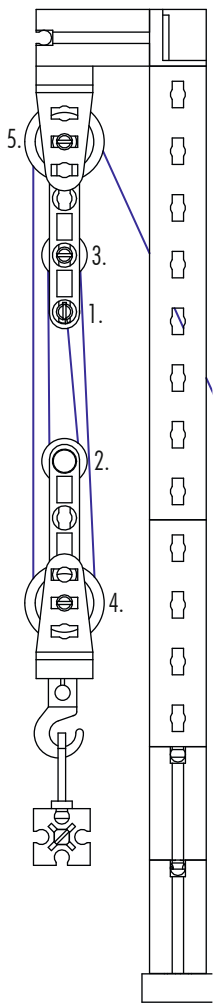
- 1x (grey Technic beam)
- 1x (grey Technic beam)
- 2x (yellow Technic beam)
- 2x (orange Technic beam)
- 1x (red Technic pin)

**6**

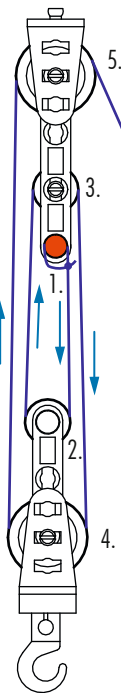
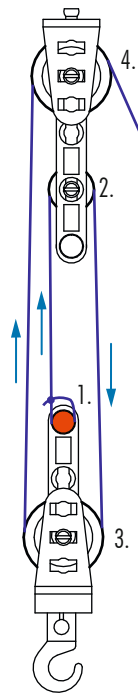
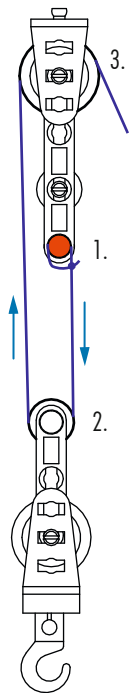
- 1x (grey pulley wheel)
- 1x (red hook)
- 2x (red axle)
- 1x (red Technic pin)
- 1x (orange Technic beam)
- 2x (yellow Technic beam 30)
- 1x (grey pulley wheel)
- 2x (orange Technic beam)



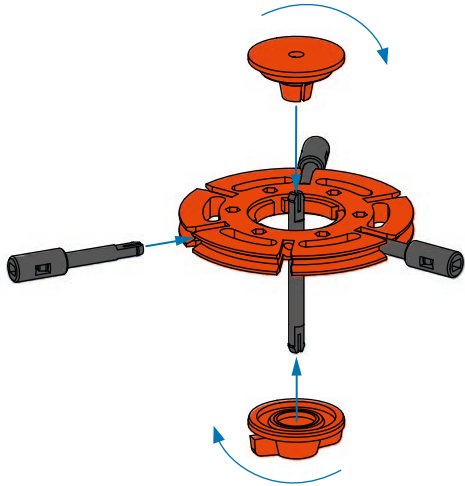
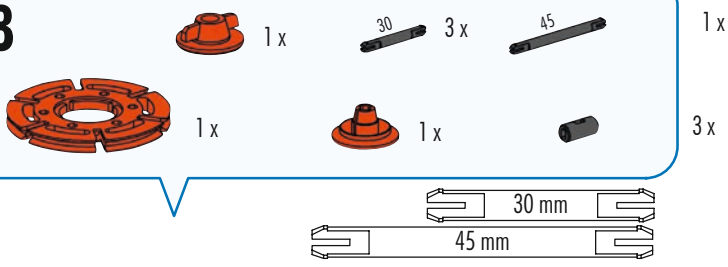




umbauen  
 modify  
 modifier  
 veranderen  
 modificar  
 modificar  
 modificare  
 переделат  
 改装

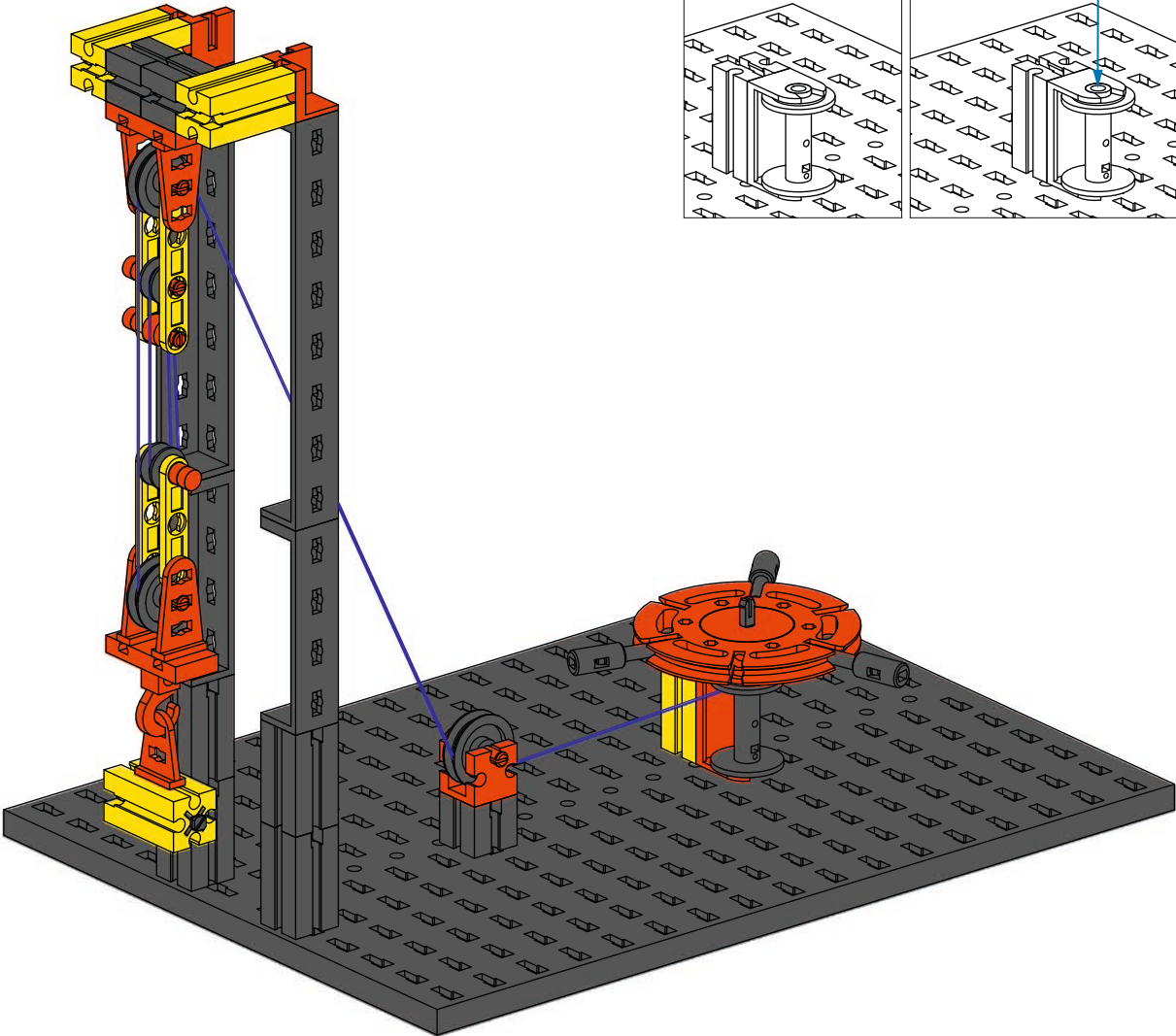
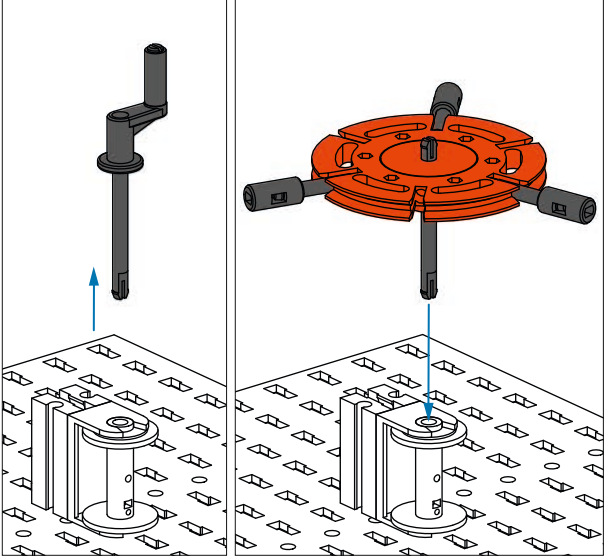


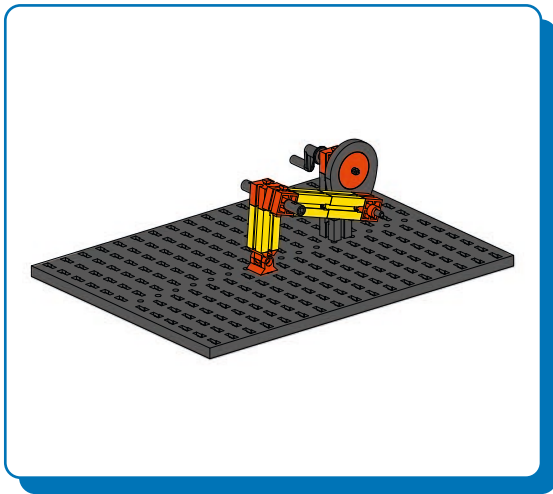
8




- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertas
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

umbauen  
 modify  
 modifier  
 veranderen  
 modificar  
 modificar  
 modificare  
 переделать  
 改装

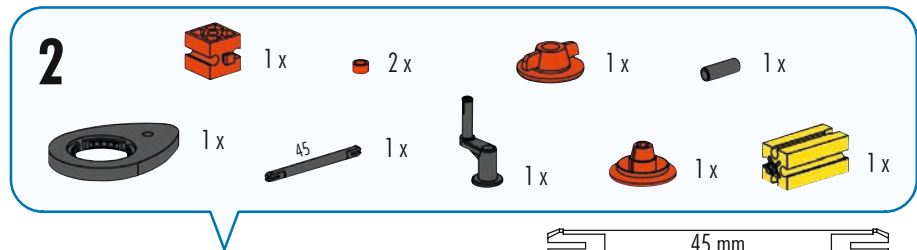
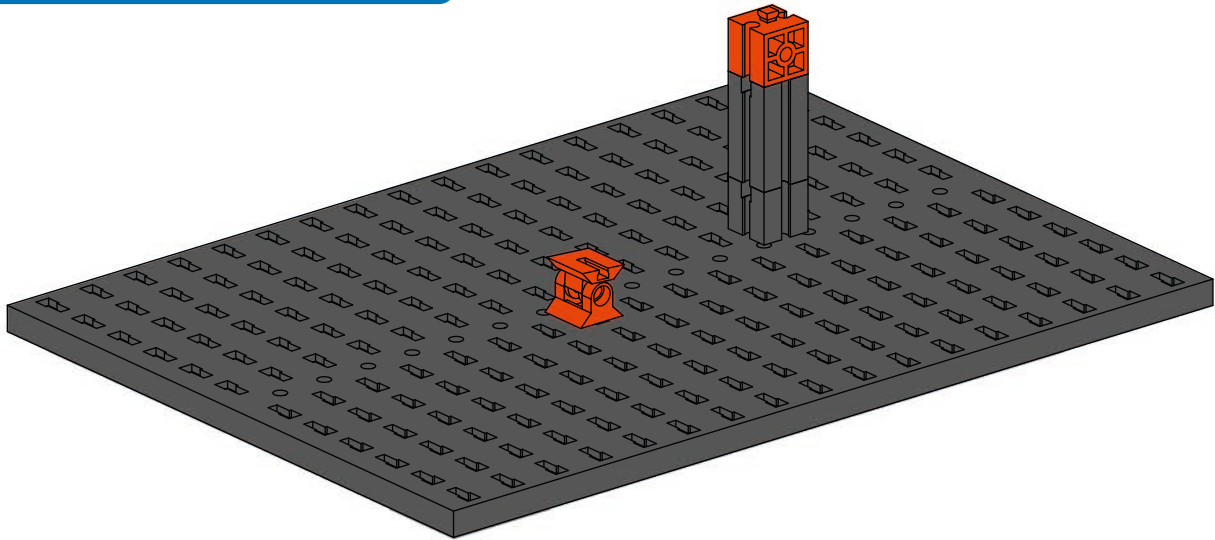
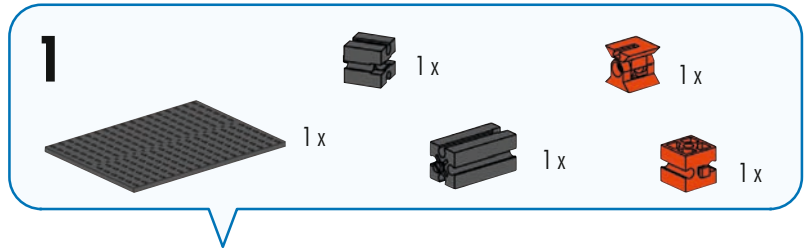




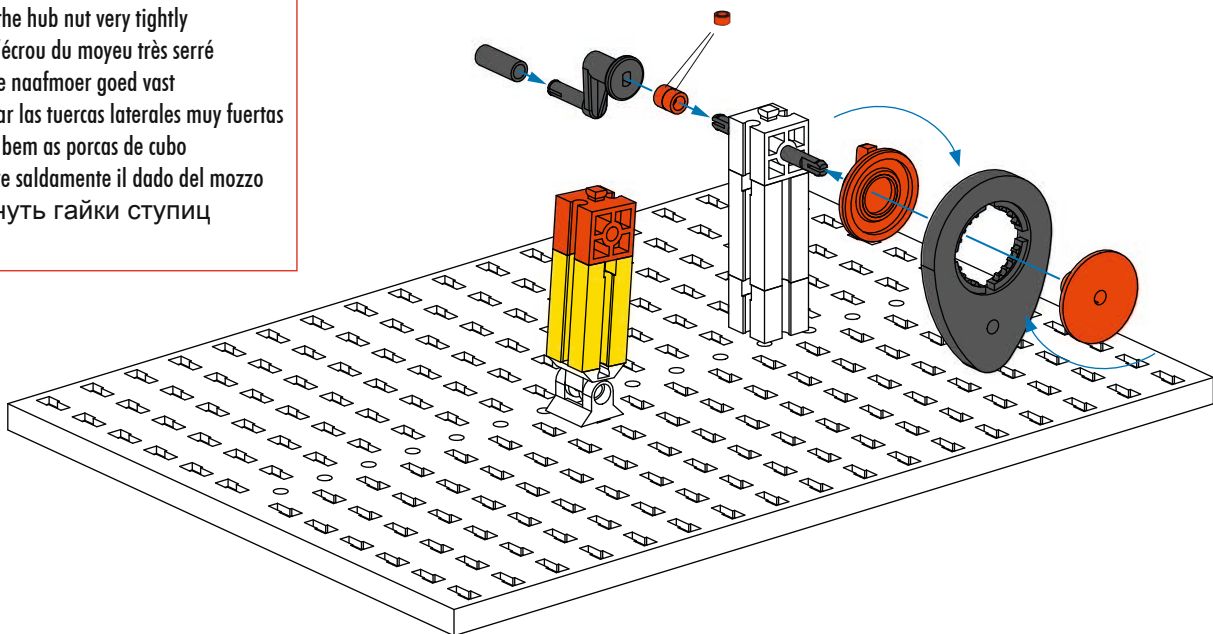
Kurbelschwinge  
Crank arm  
Balancement de la manivelle

Slinger  
Balanceo de la manivela  
Balanco da manivela








Manovella oscillante  
качели кривоши  
пнкоятки  
曲柄摆动



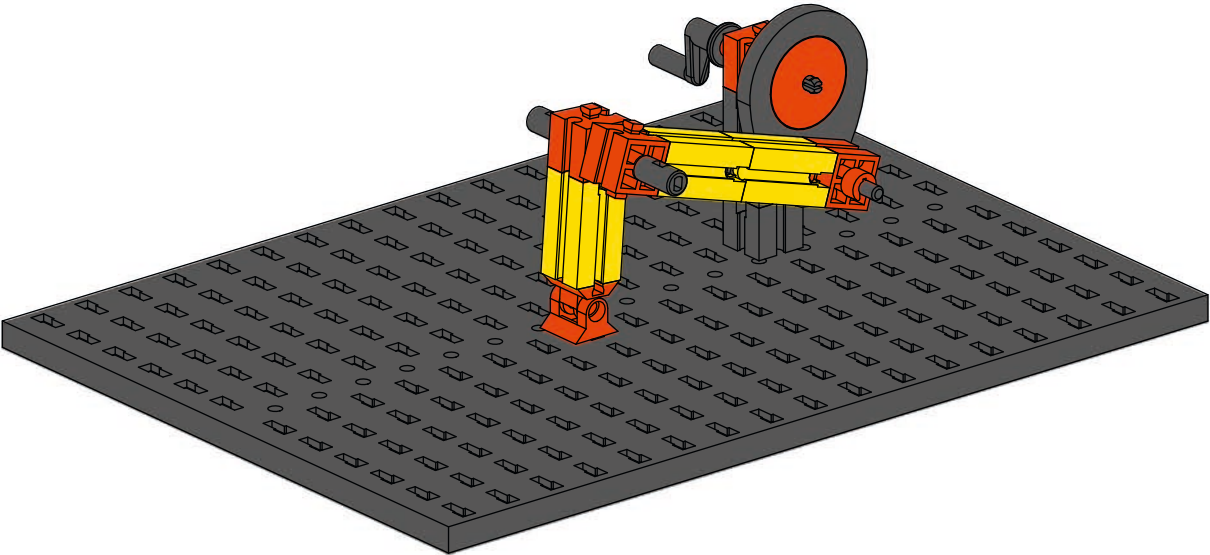
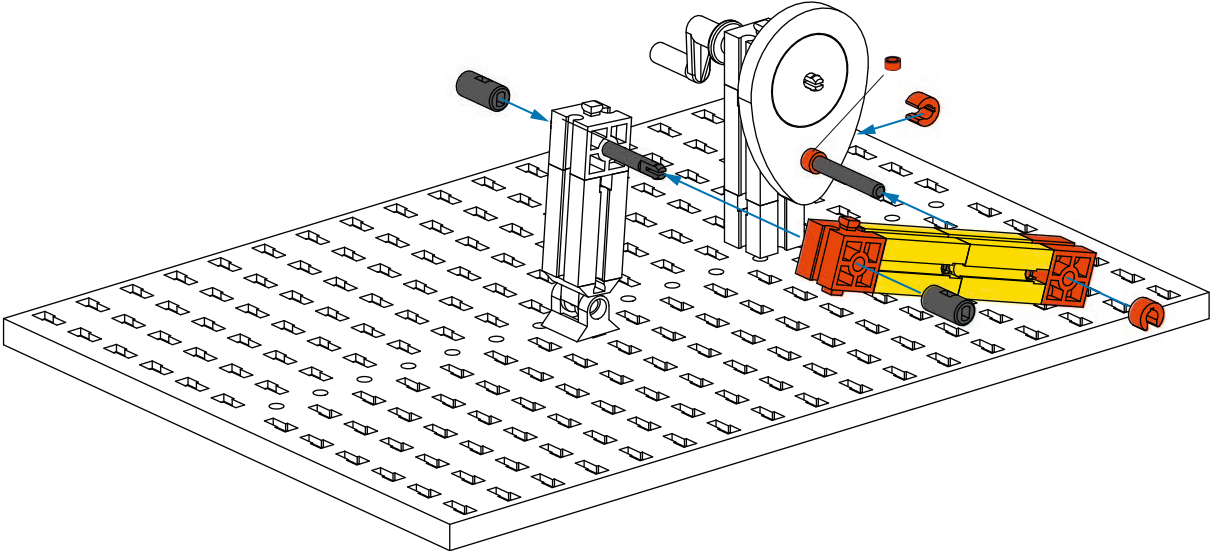
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

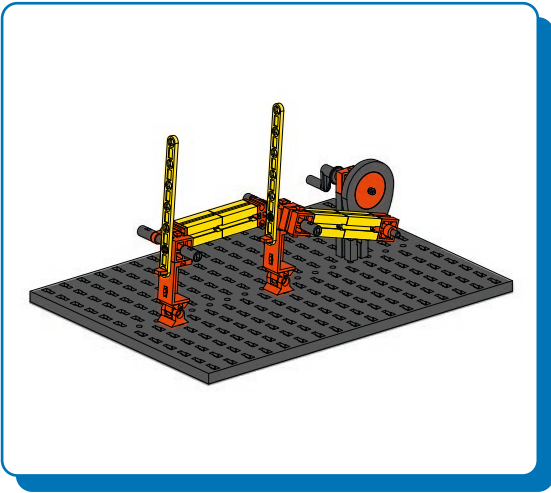


**3**

	2 x		2 x		1 x
	2 x		1 x		2 x
					1 x

45 mm  
40 mm

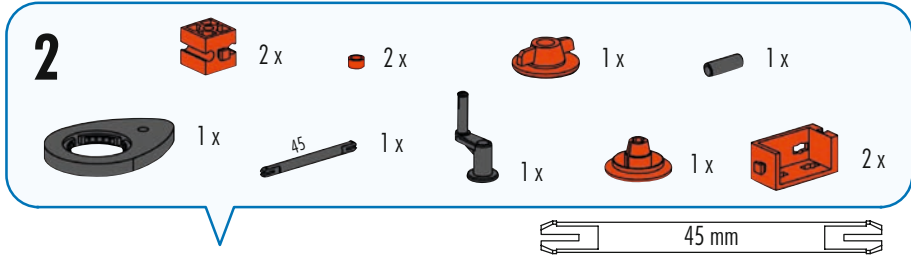
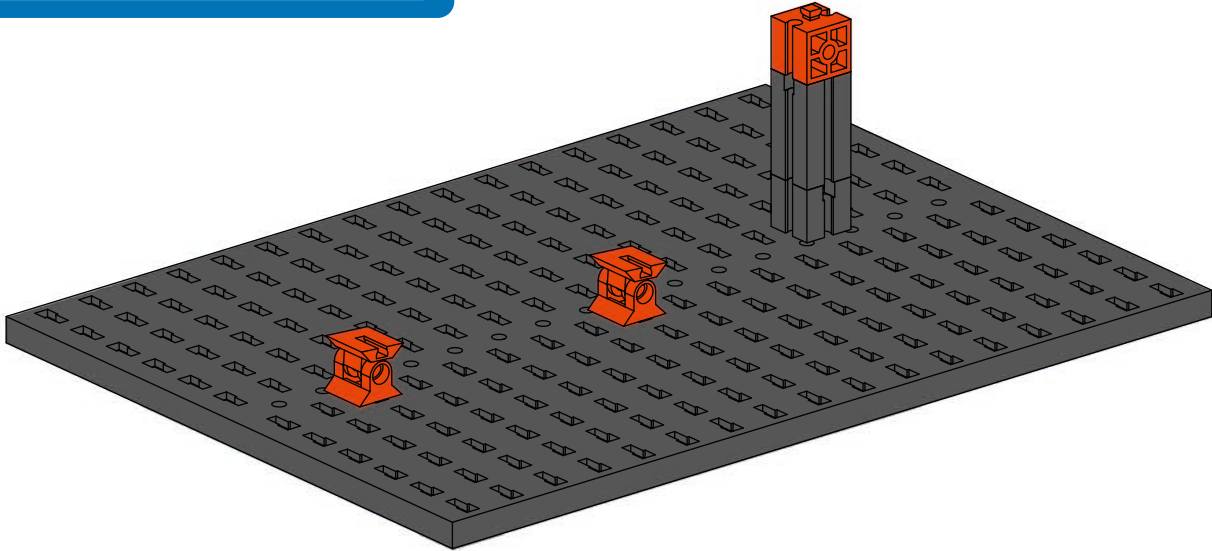
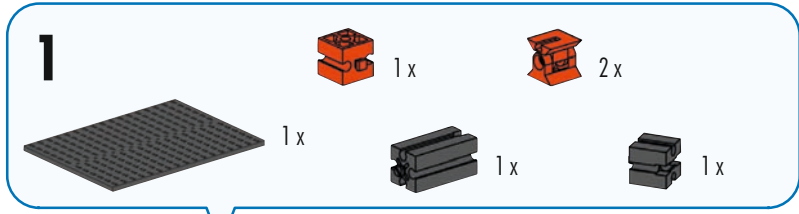




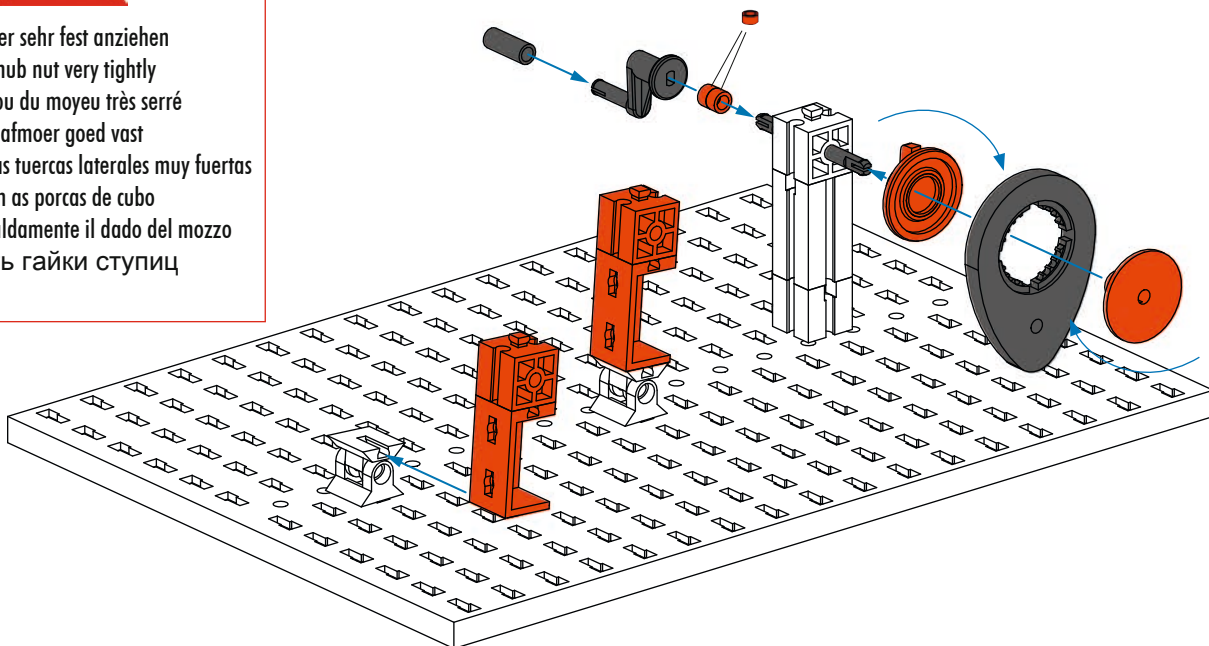
Scheibenwischer  
Windscreen wiper  
Essuie-glace

Ruitenwisser  
Limpaparabrisas  
Limpador de pára-brisas

Tergicristallo  
Стеклоочиститель  
ветрового стекла  
挡风玻璃雨刷



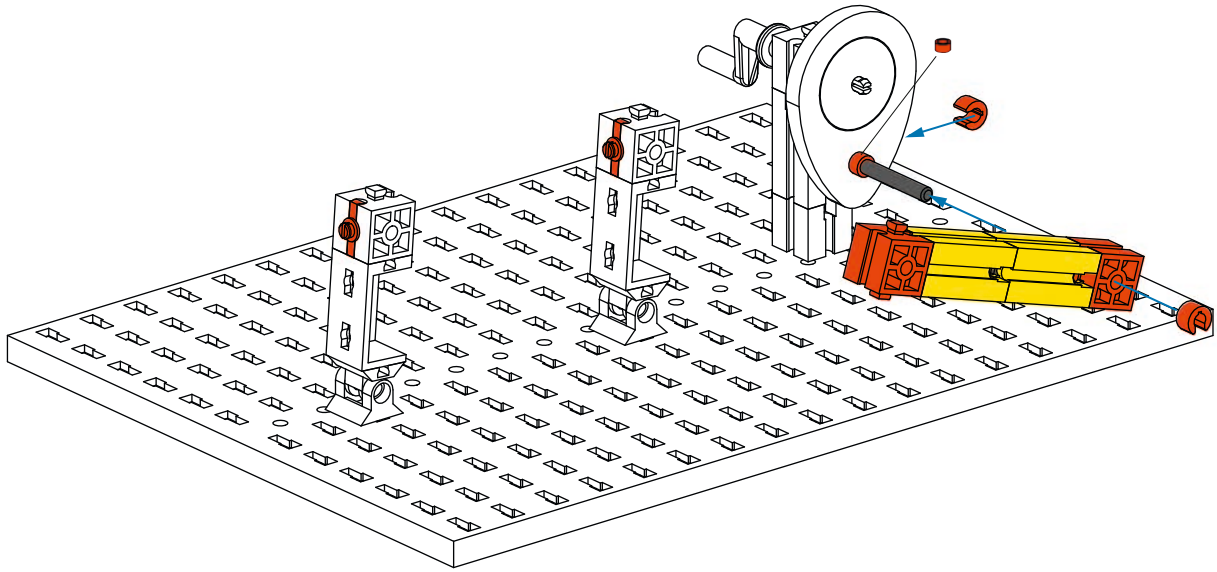
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



**3**

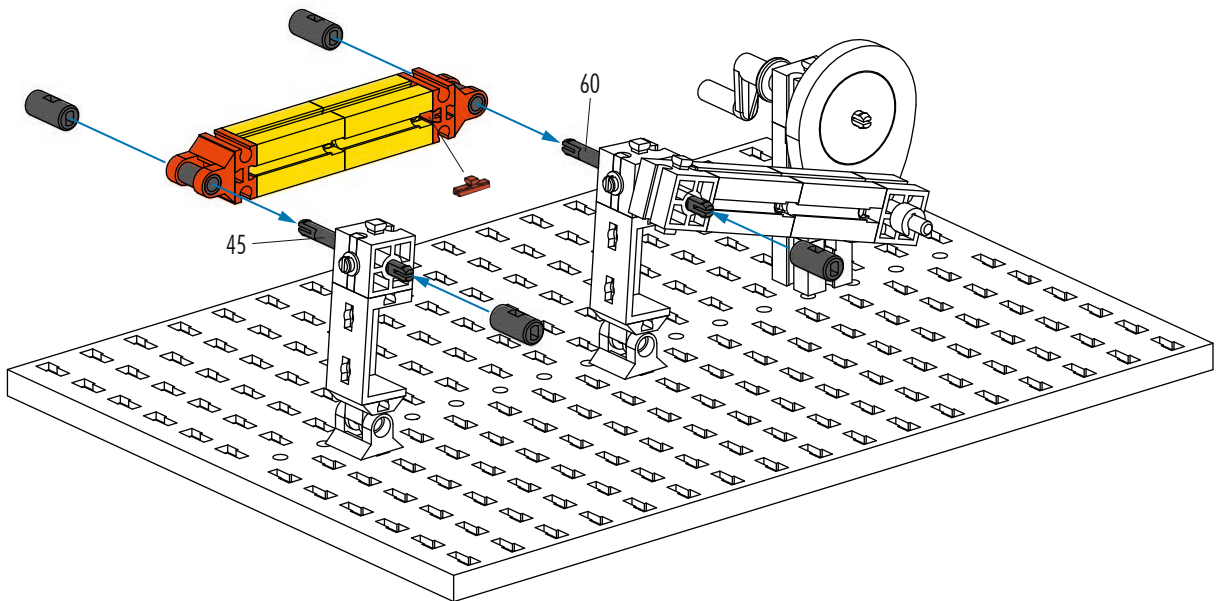
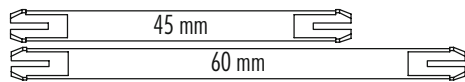
- 2 x (Red Technic Pin)
- 2 x (Red Technic 1x2 Brick with Hole)
- 1 x (Grey Technic Pin 40)
- 2 x (Yellow Technic Beam 3)
- 2 x (Red Technic Pin with Friction Ridge)
- 1 x (Red Technic Pin)

40 mm



**4**

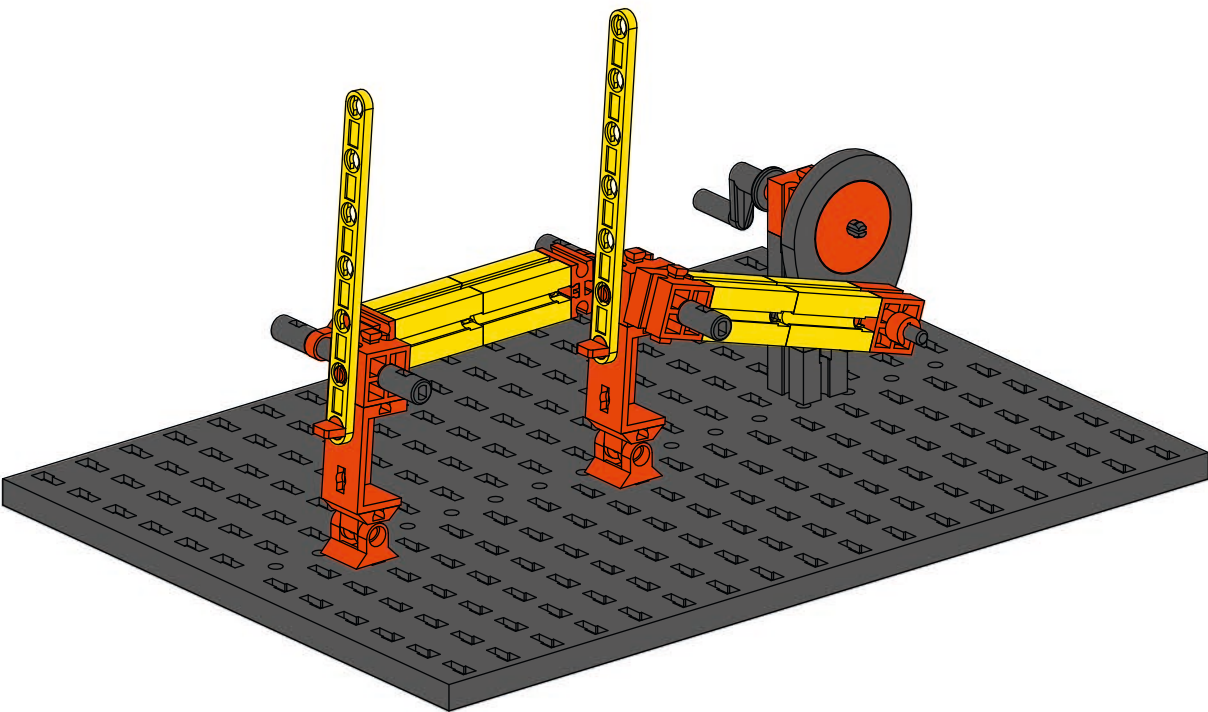
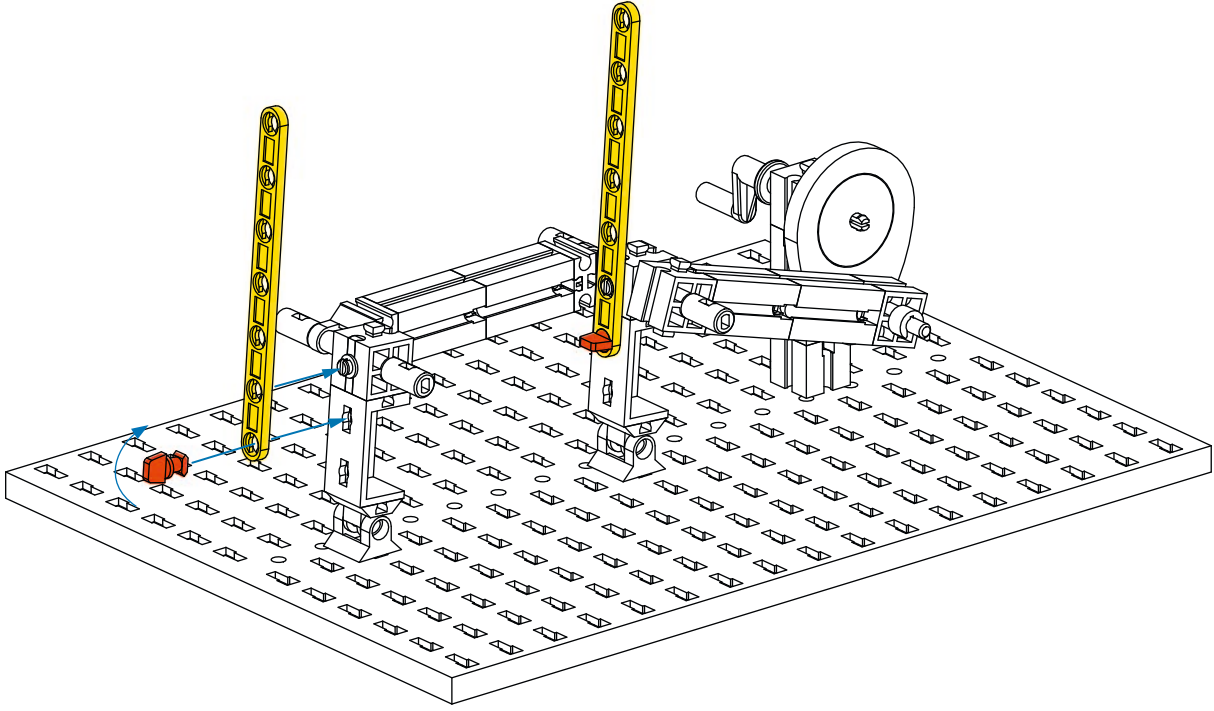
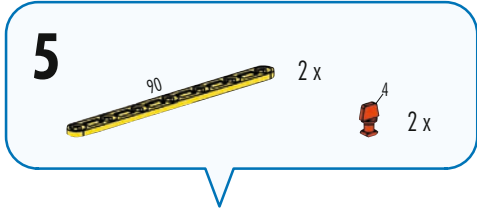
- 1 x (Red Technic Pin)
- 4 x (Grey Technic Pin)
- 2 x (Red Technic 1x2 Brick with Hole)
- 2 x (Yellow Technic Beam 3)
- 1 x (Grey Technic Pin 45)
- 1 x (Grey Technic Pin 60)
- 2 x (Red Technic 1x2 Brick with Hole)

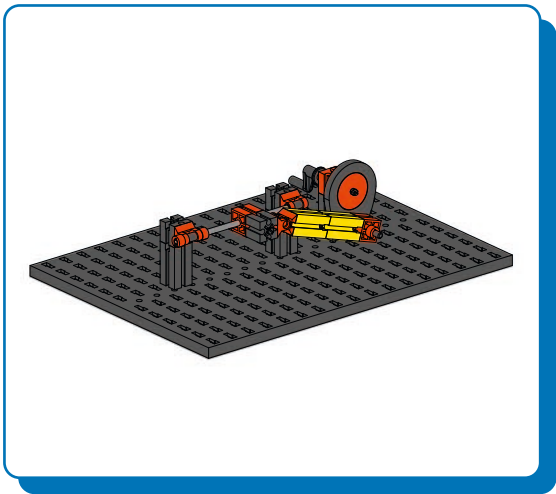


**5**

90 2 x

A 2 x

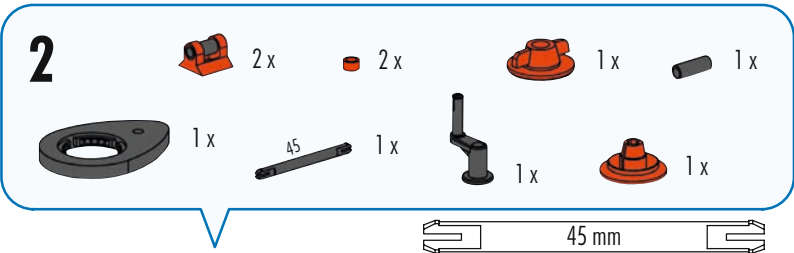
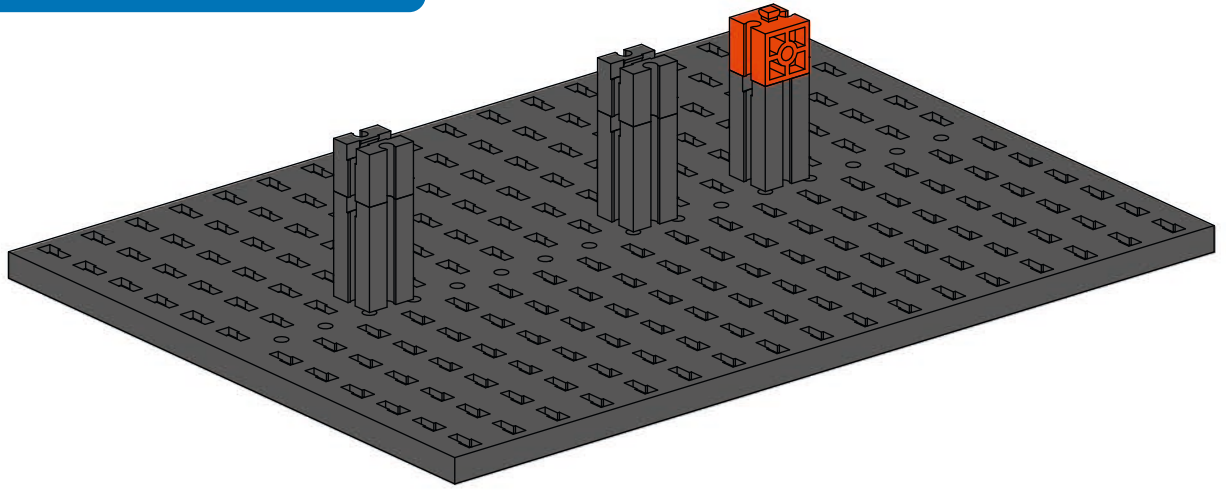
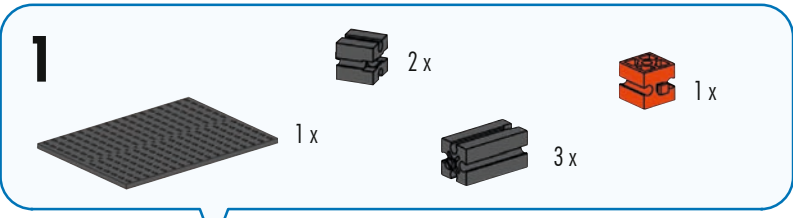




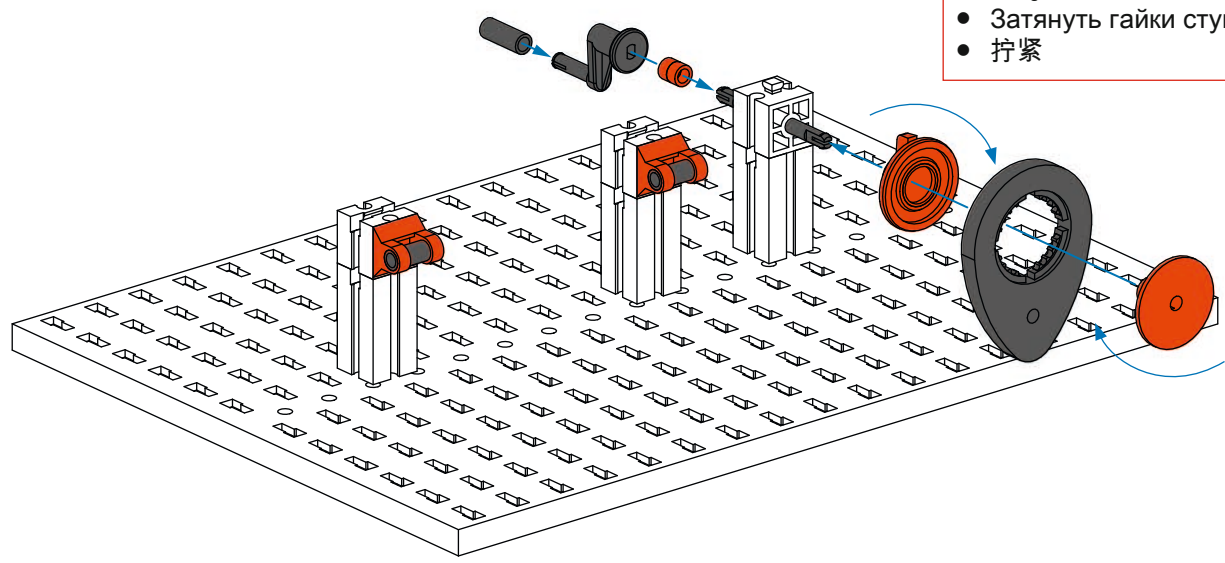
Schubkurbel  
Push crank  
Poussez la manivelle

Duw slinger  
Manivela de empuje  
Manivela de empurrar

Spingere la manovella  
Пуш-шатун  
推曲柄



- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧





3

2 x

1 x



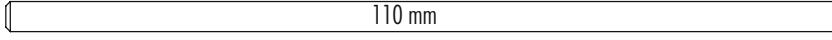
2 x



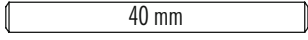
1 x



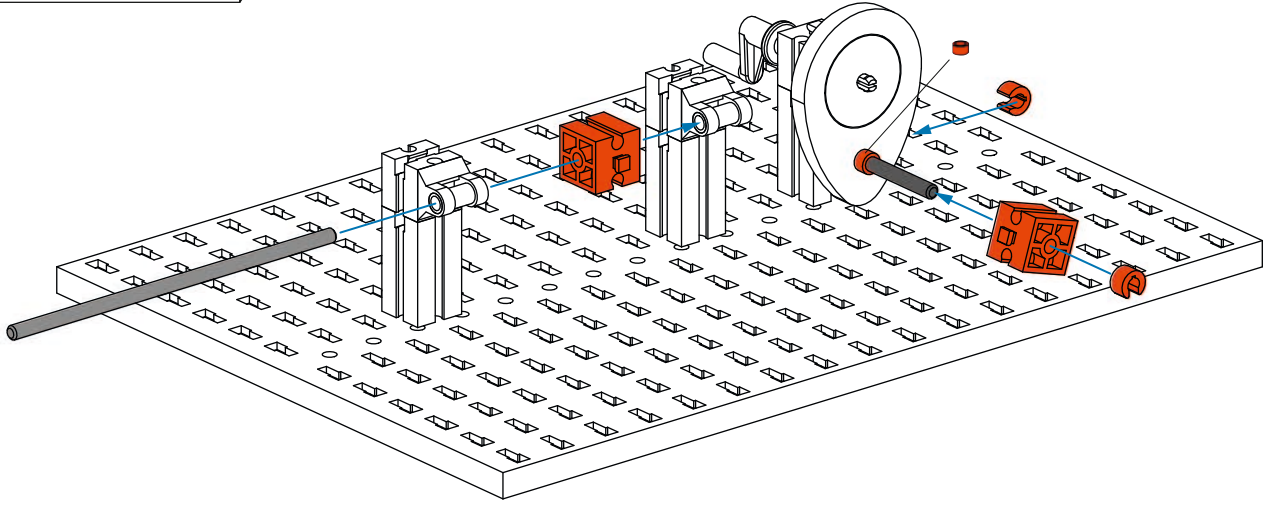
1 x



110 mm



40 mm



4



2 x

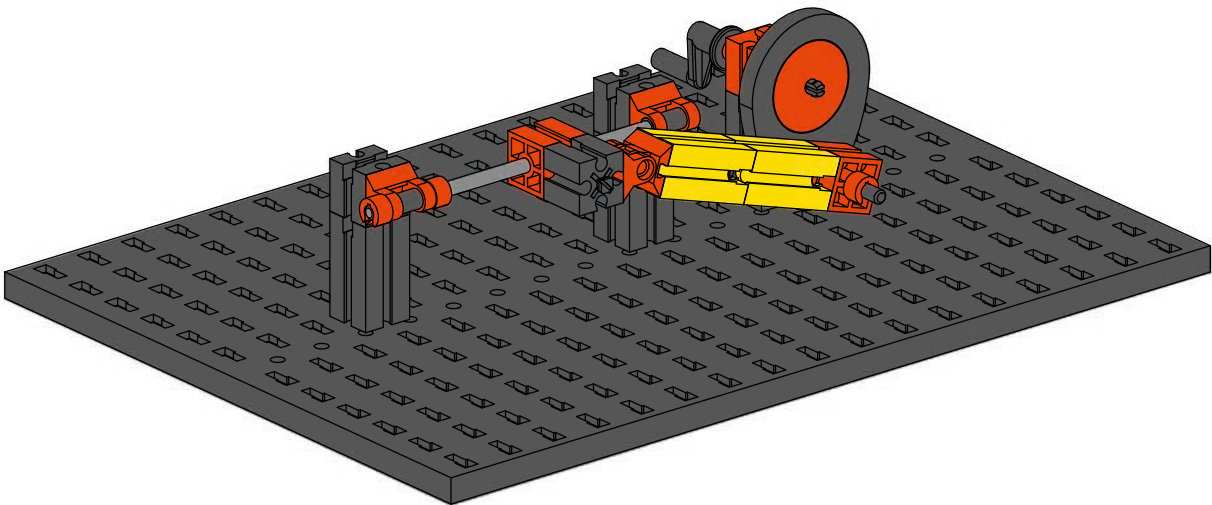
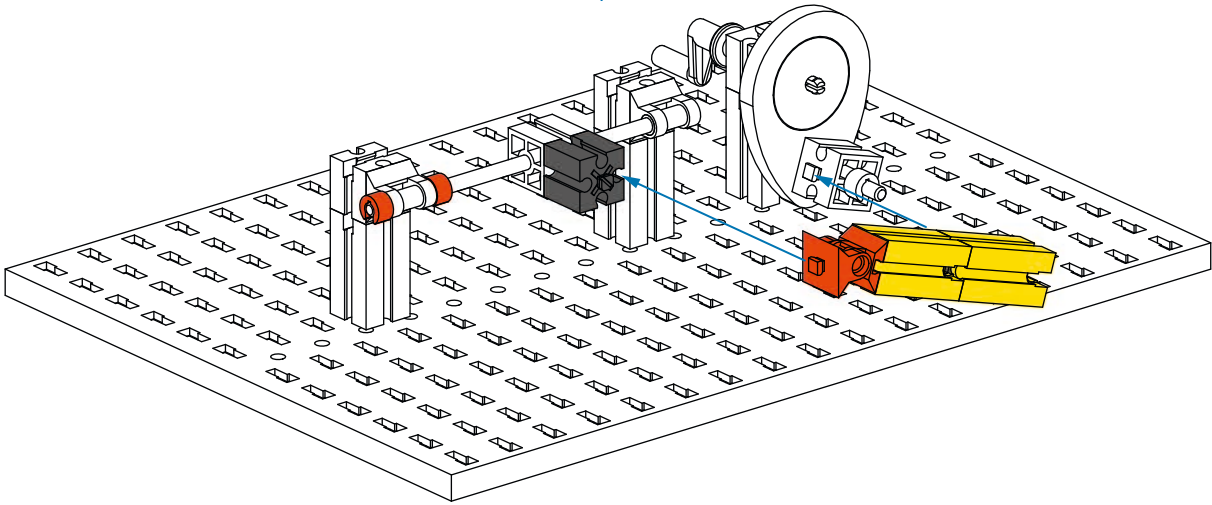


1 x

2 x



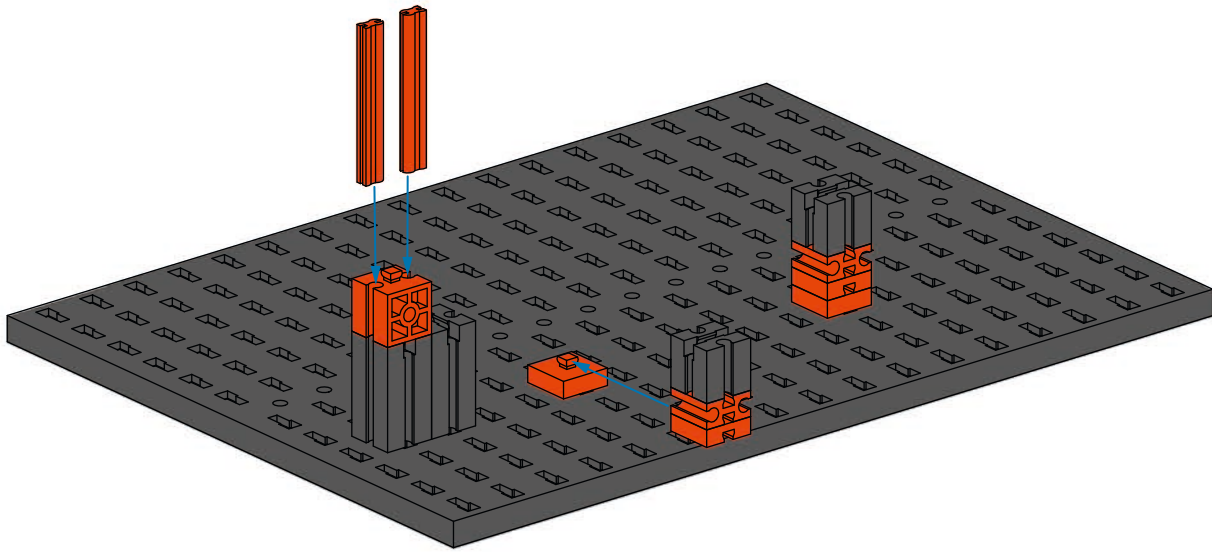
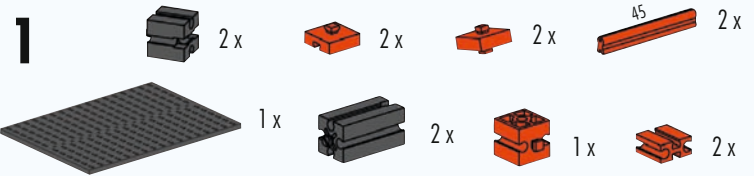
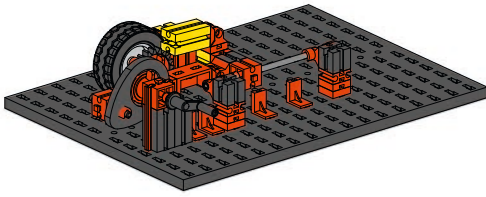
1 x



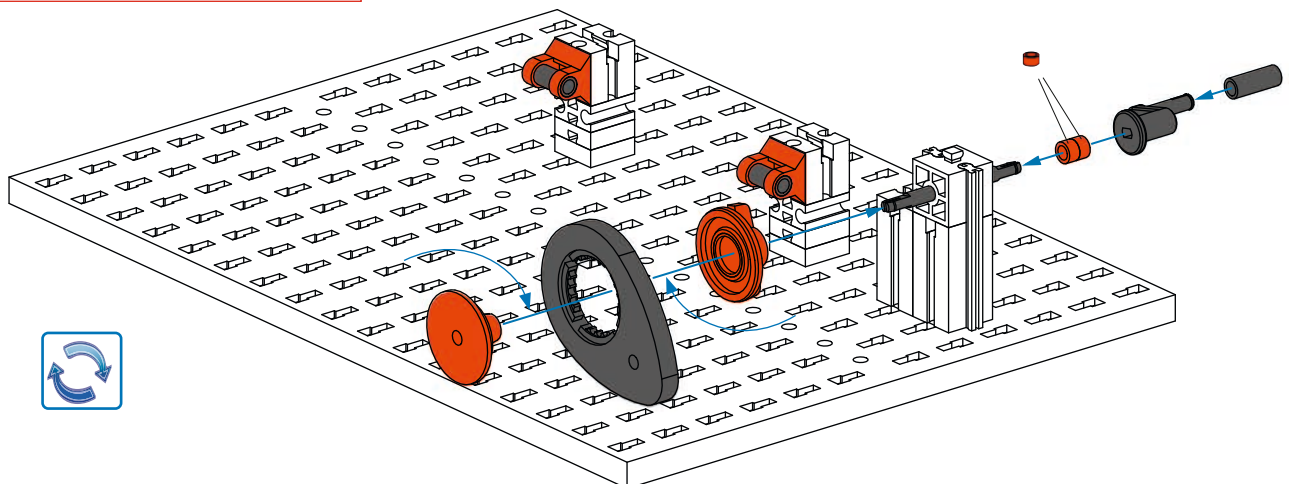
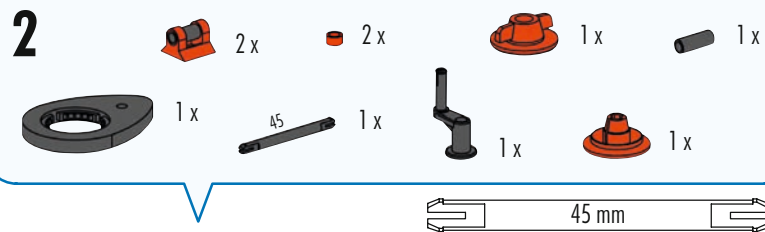
Vorschubgetriebe  
Feed gearbox  
Boîte d'alimentation

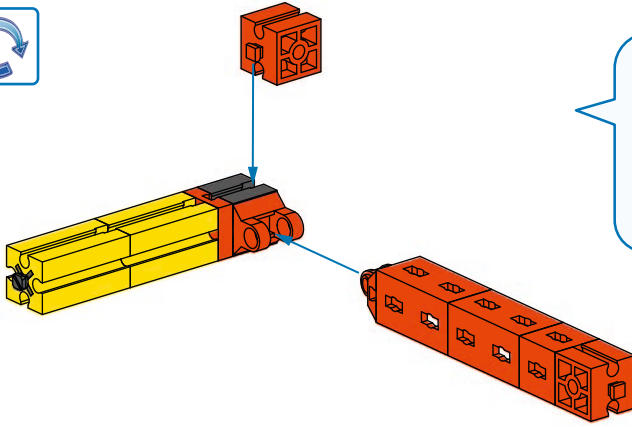
Voertandwielkast  
Caja de cambios de alimentación  
Caixa de alimentação

Cambio di alimentazione  
Редуктор питания  
送料齿轮箱

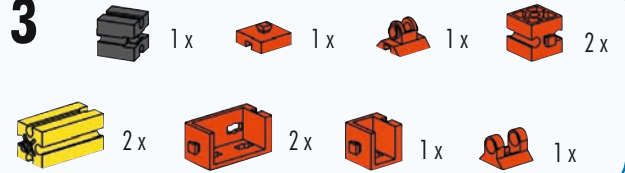


- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

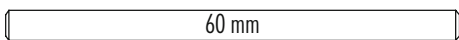
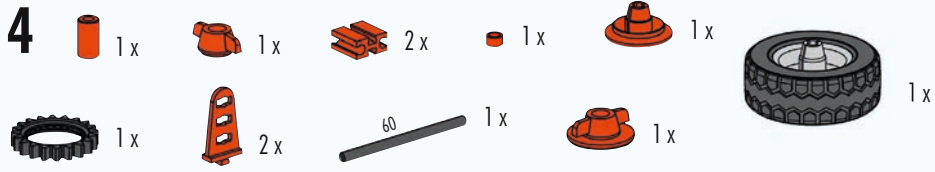




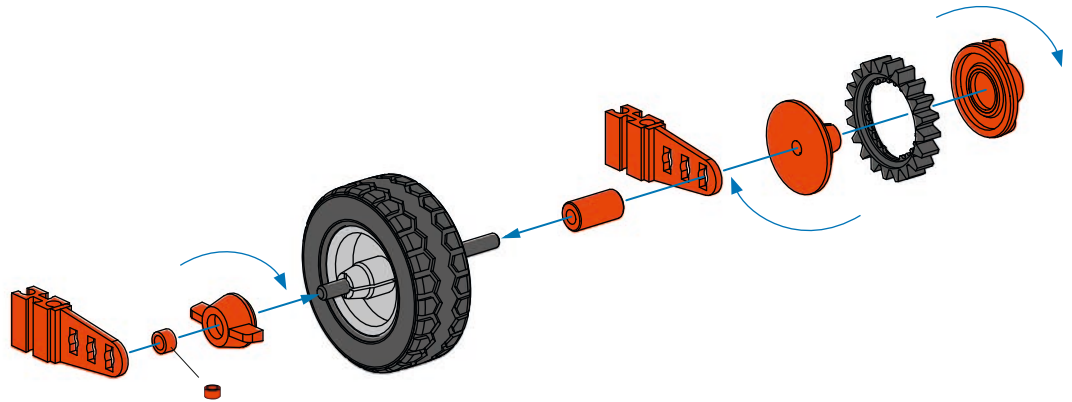
3



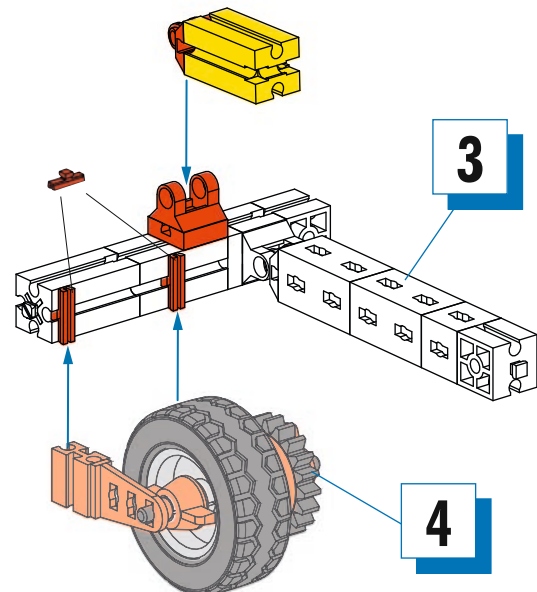
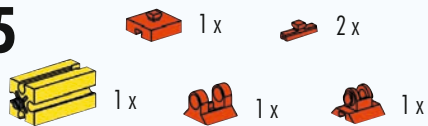
4



- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



5

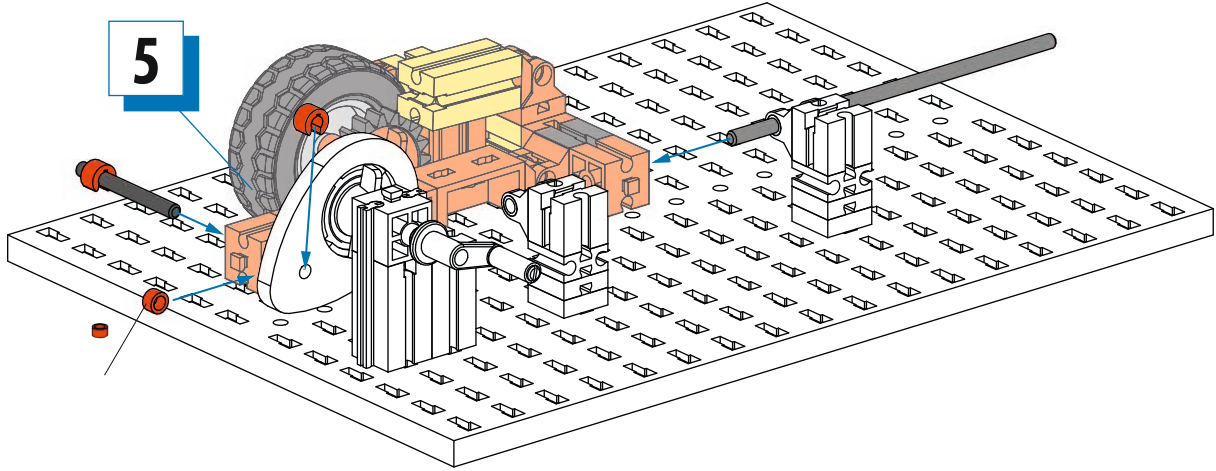
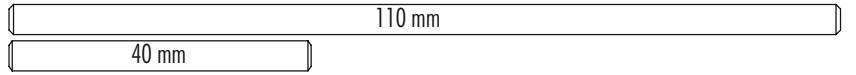


3

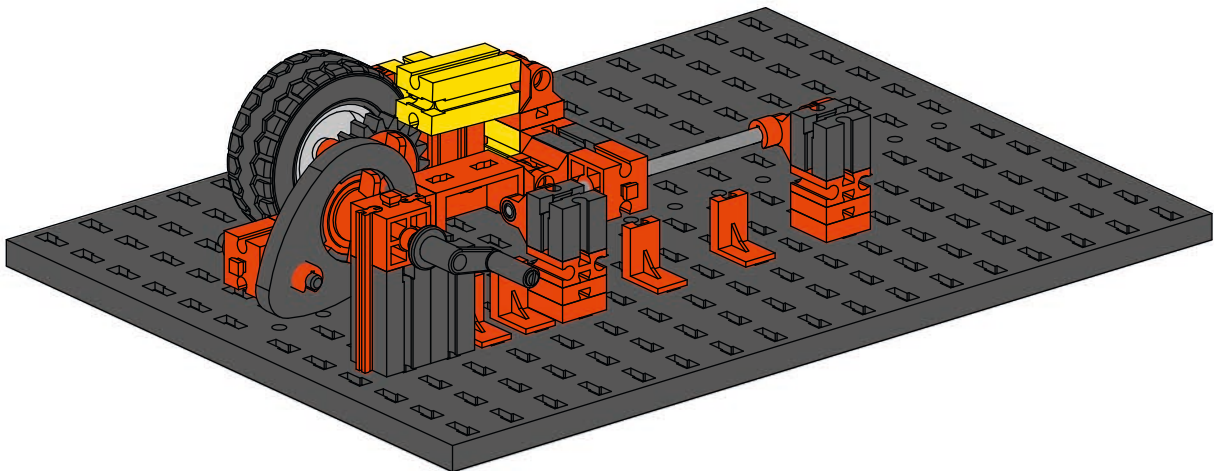
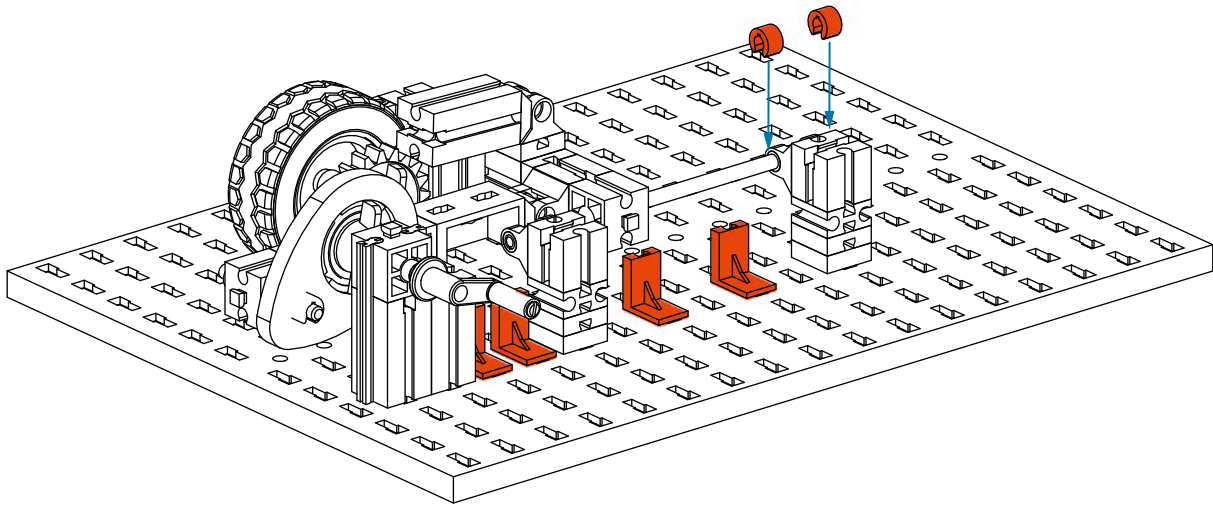
4

**6** ■ 1 x ■ 2 x

110 1 x 40 1 x



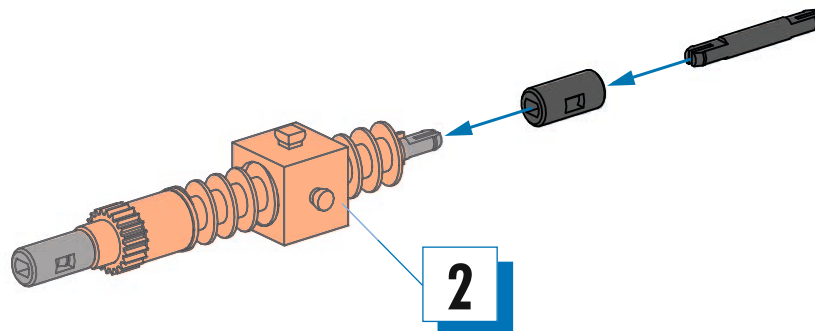
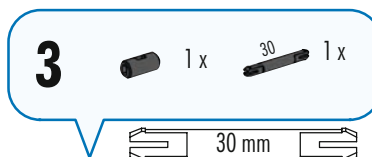
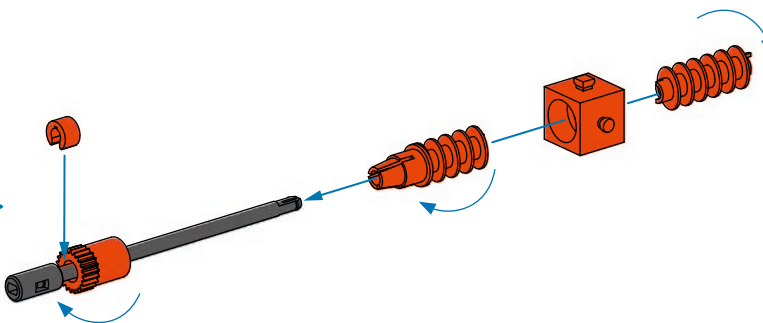
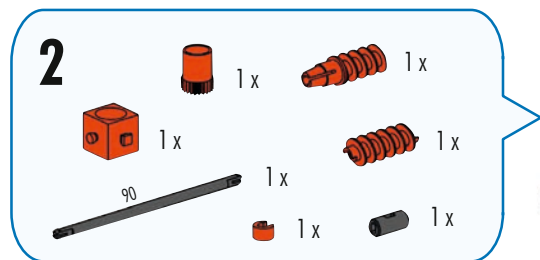
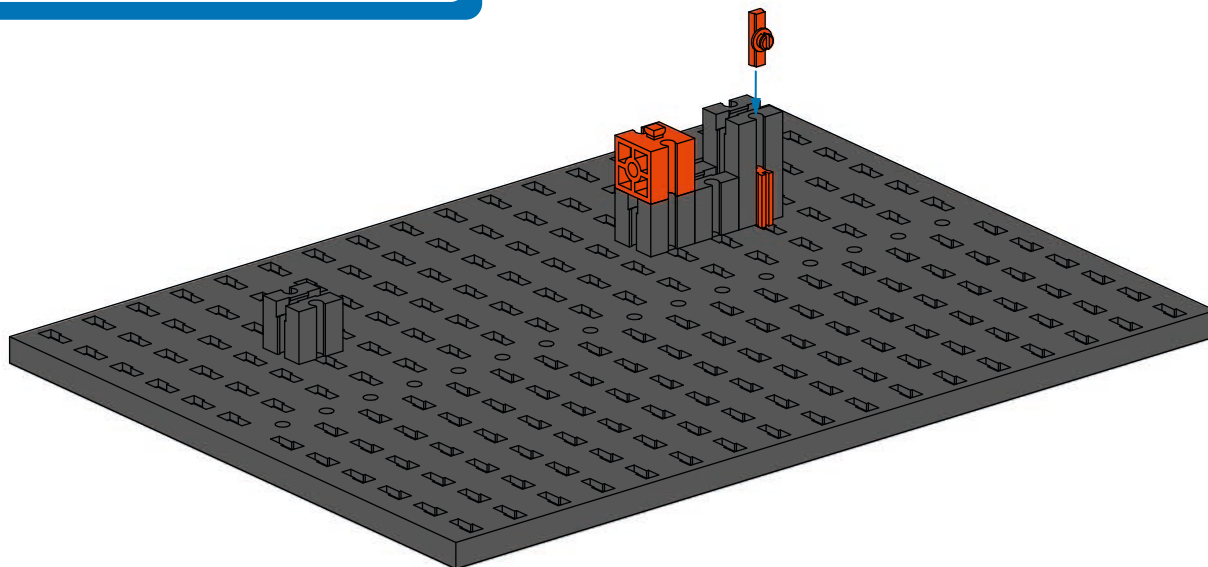
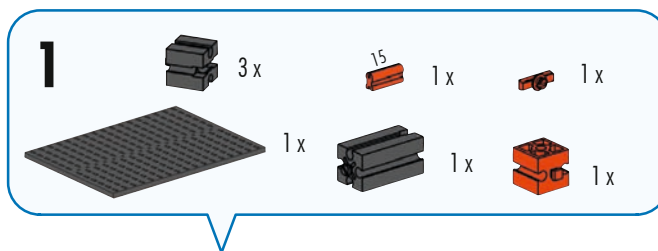
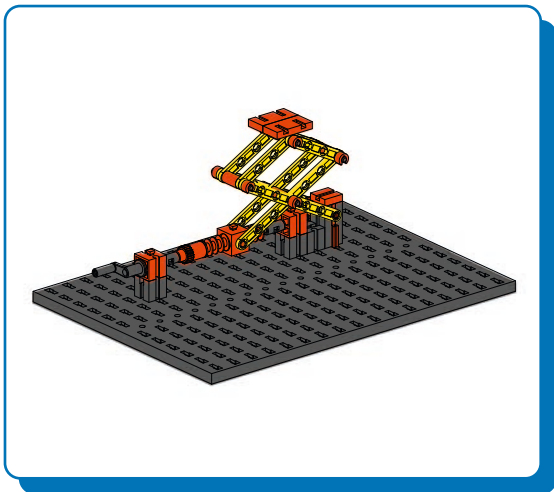
**7** ■ 4 x ■ 2 x



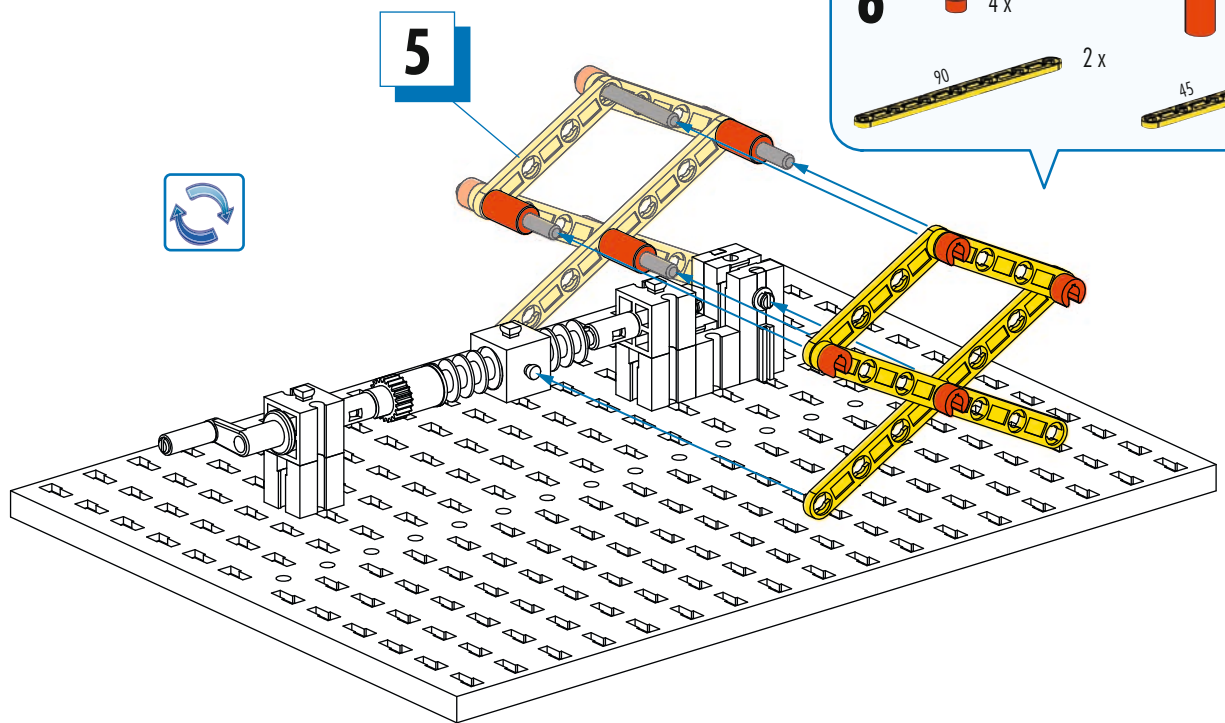
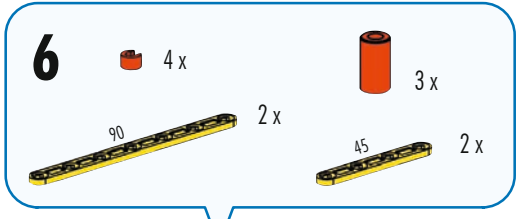
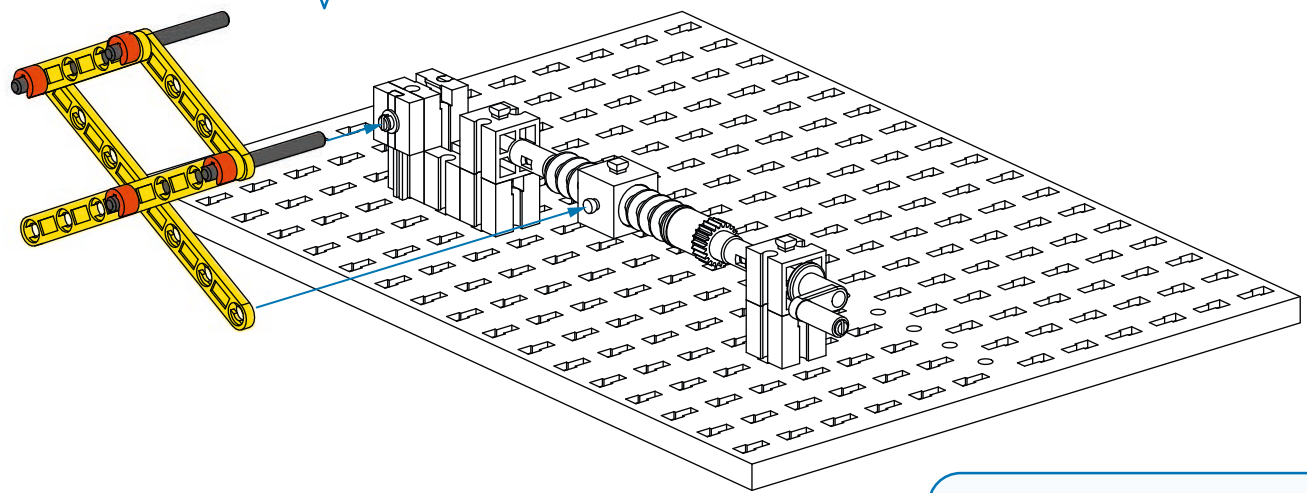
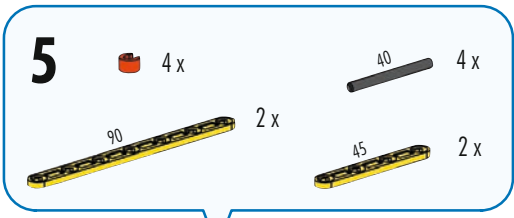
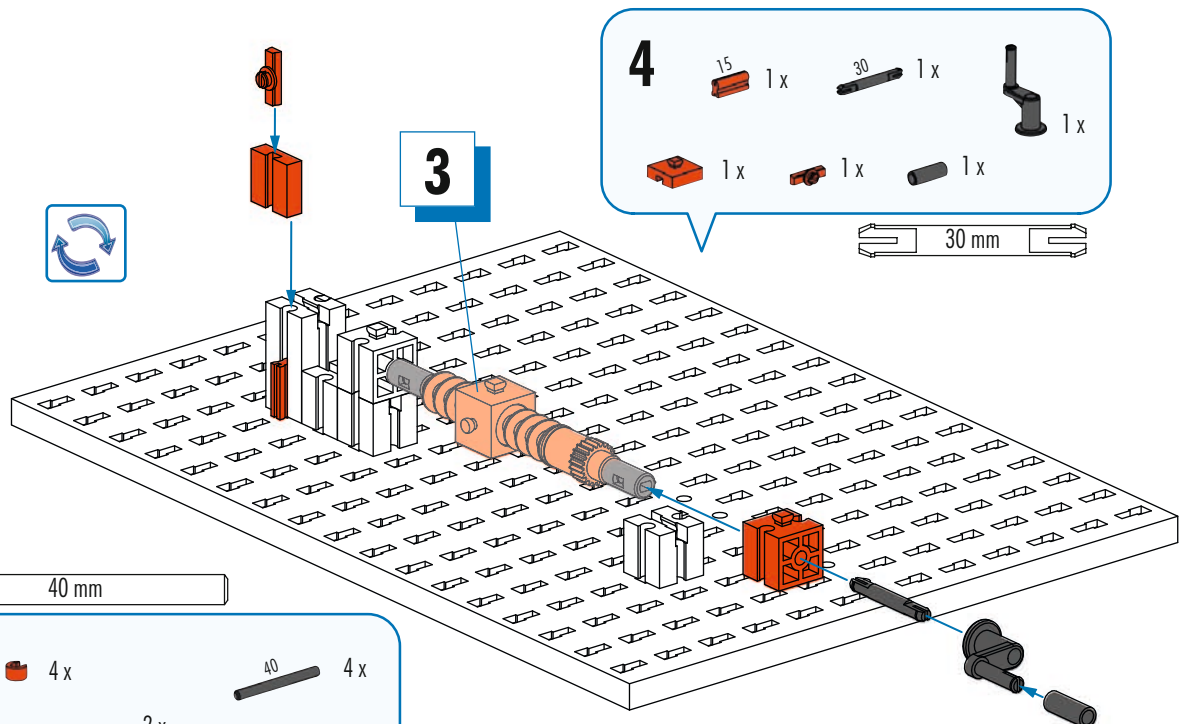
Scherenhubgetriebe  
 Scissor lifting gear  
 Appareils de levage à ciseaux  
 Scharhefwerktuig

Aparato elevador de tijera  
 Aparelhos de elevação em tesoura  
 Apparecchiatura di sollevamento a forbice  
 Ножничный подъёмник




剪式起重设备

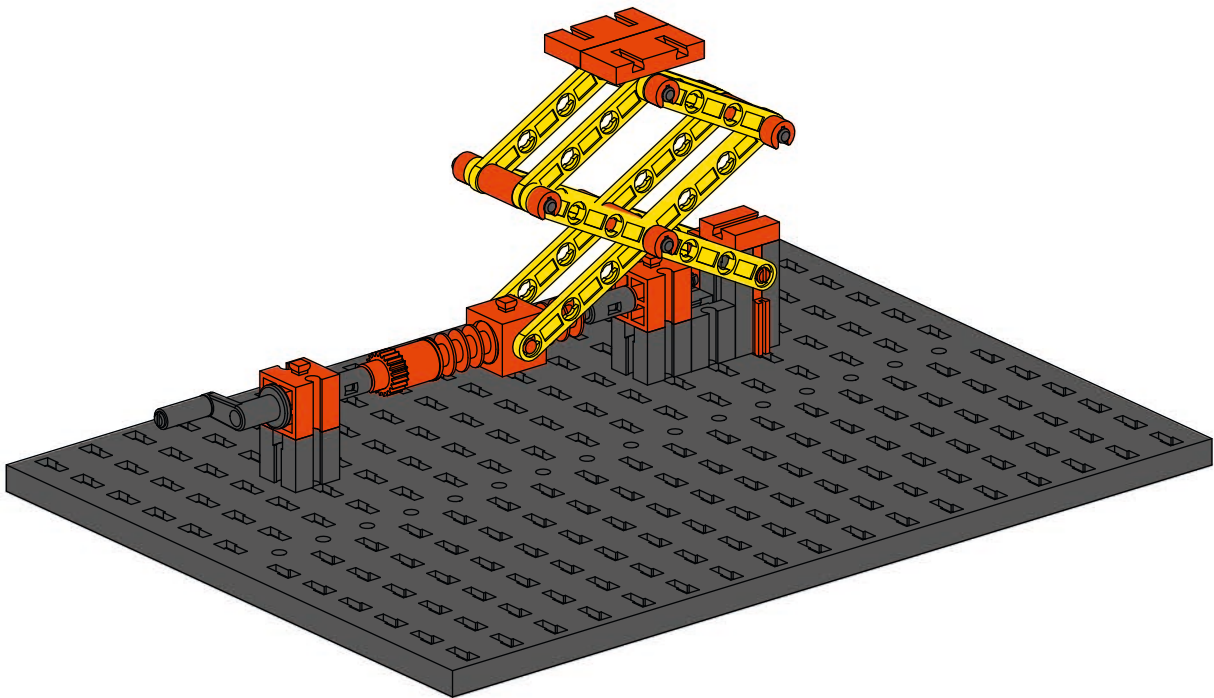
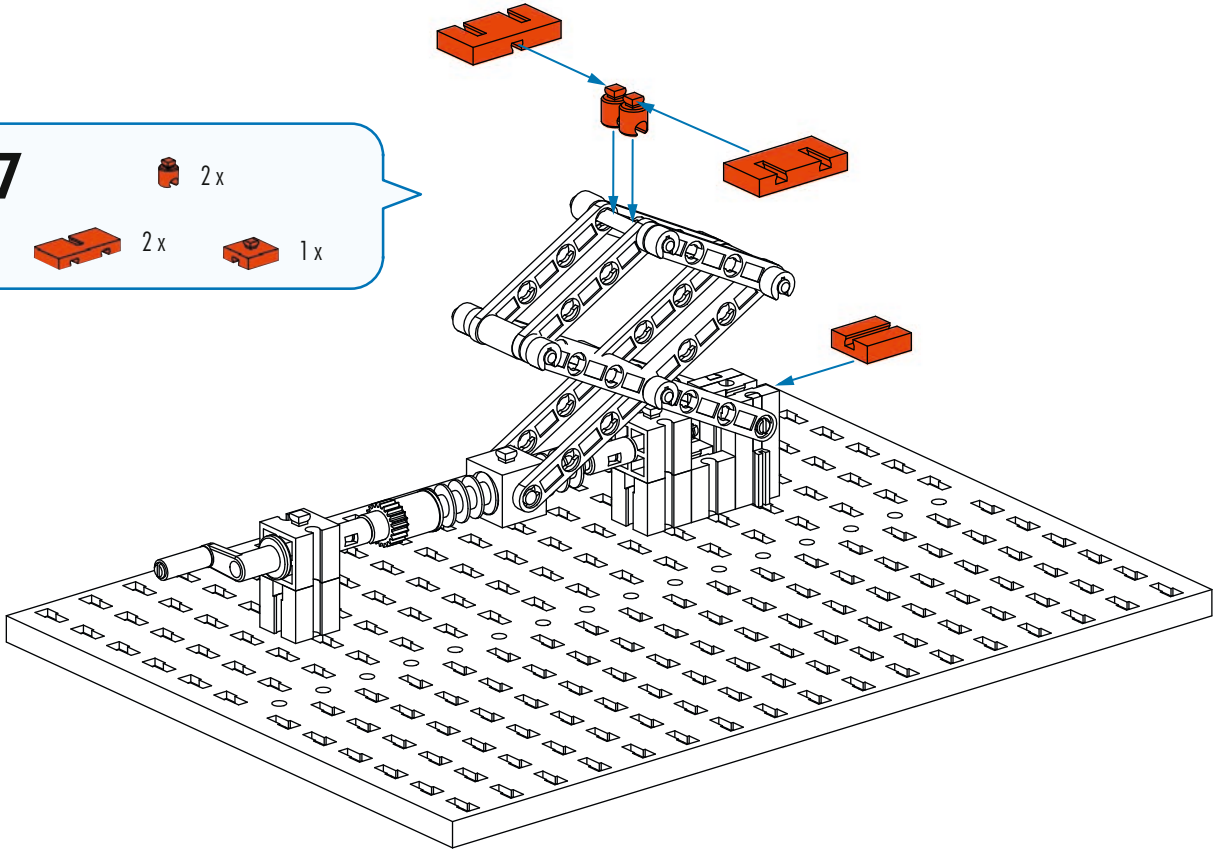


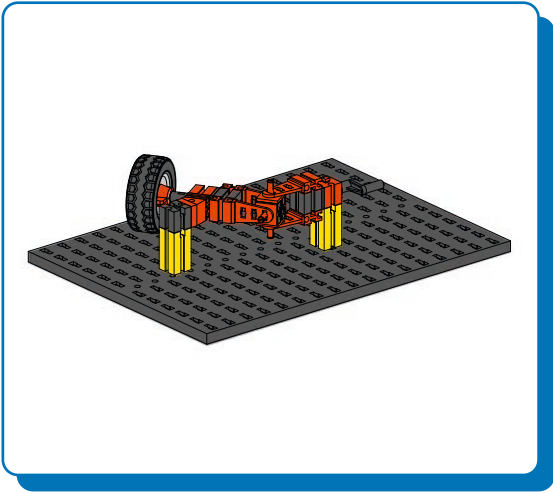
2



**7**

-  2 x
-  2 x
-  1 x

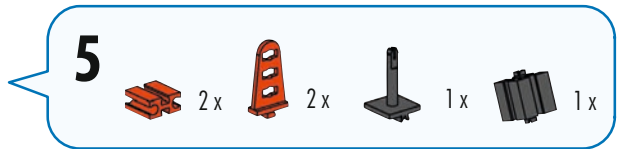
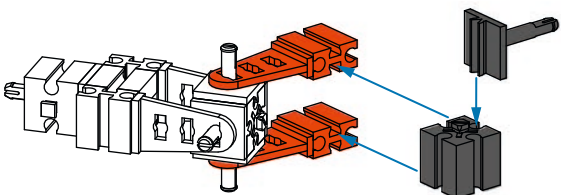
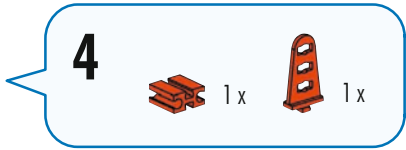
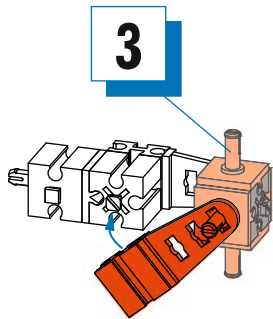
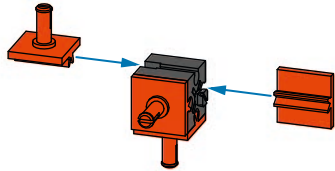
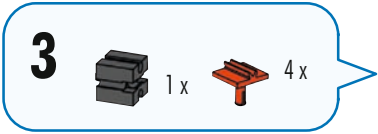
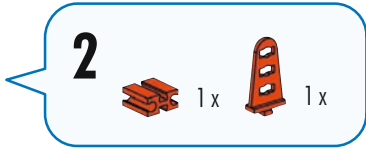
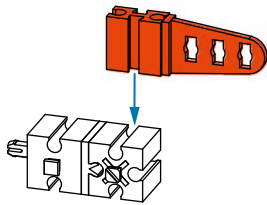
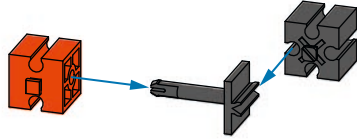
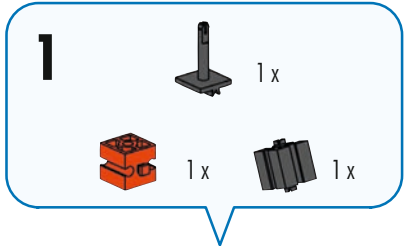




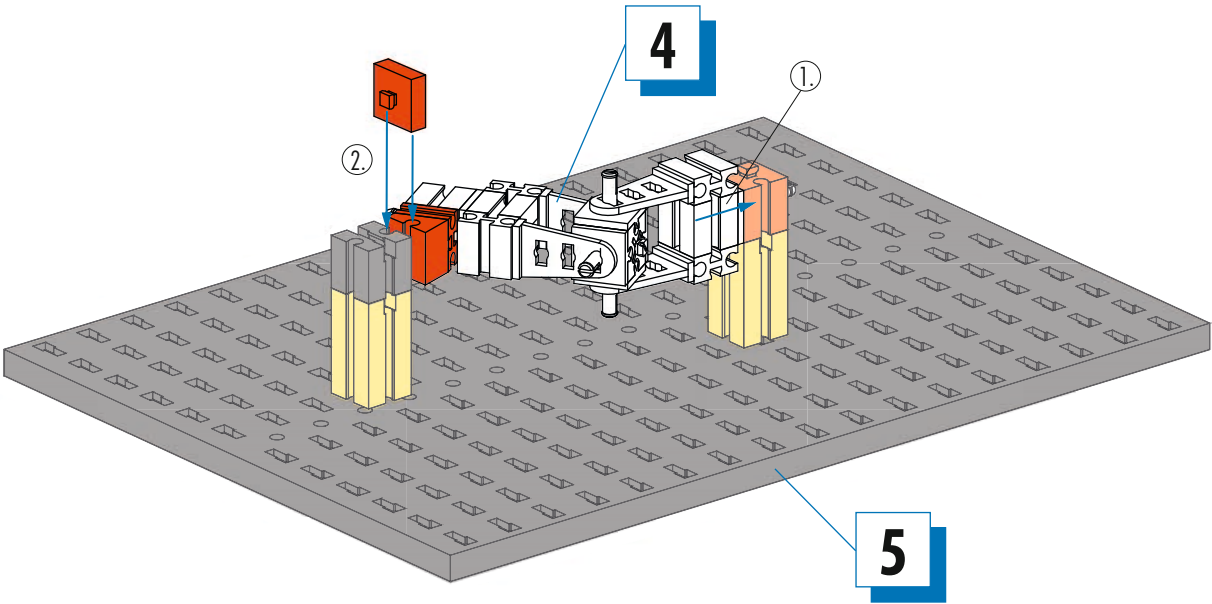
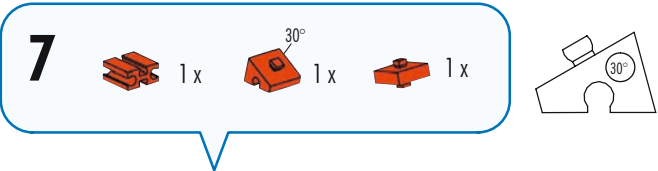
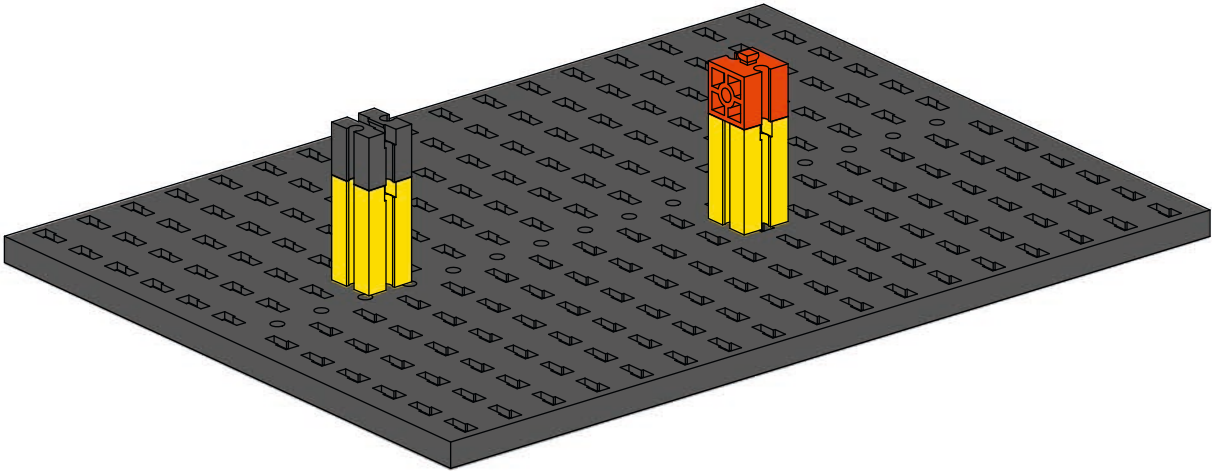
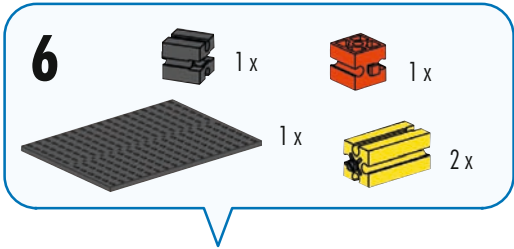
Kardangelen  
Cardan joint  
Joint de Cardan

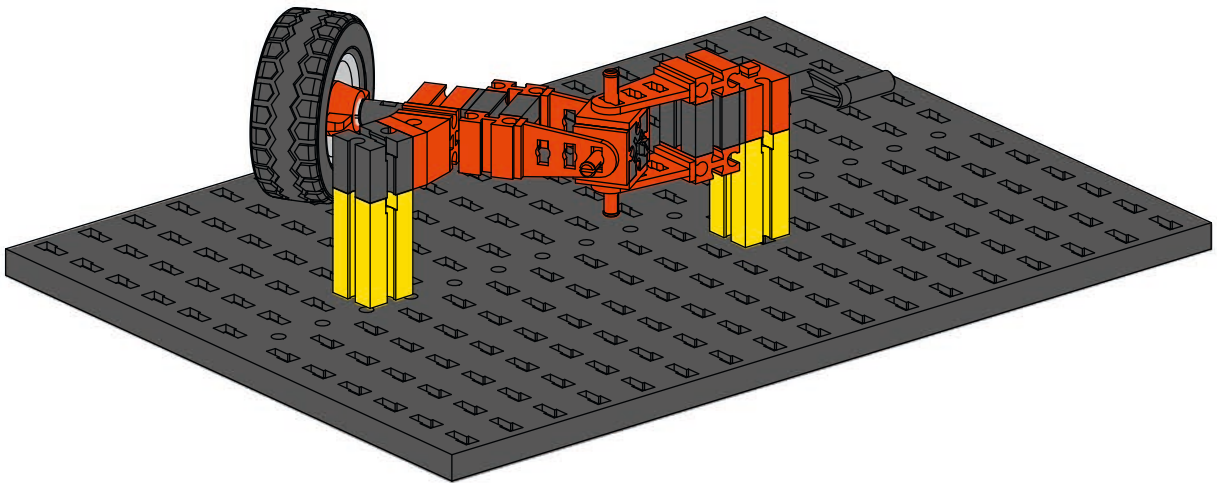
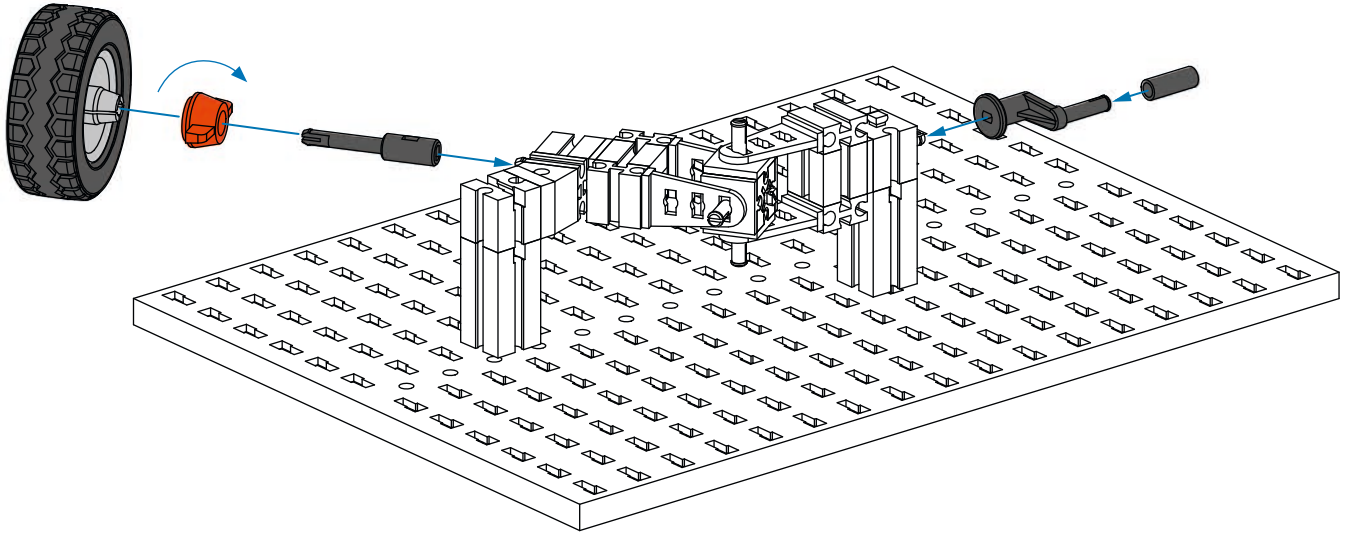
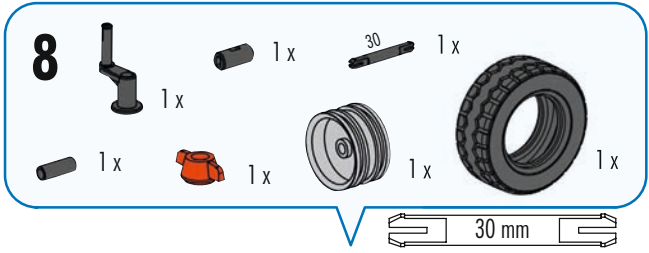
Cardan-verbinding  
Junta de cardán  
Junta Cardan

Giunto cardanico  
карданный шарнир  
卡丹关节



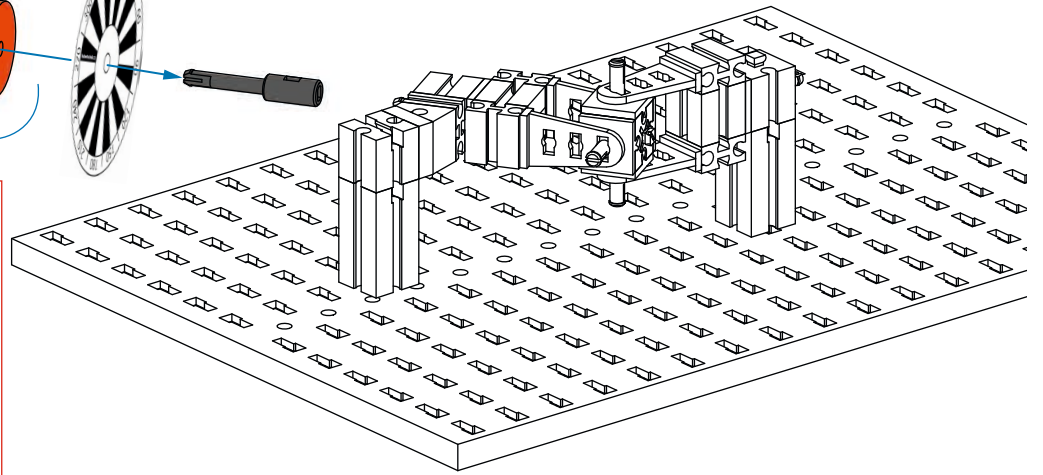
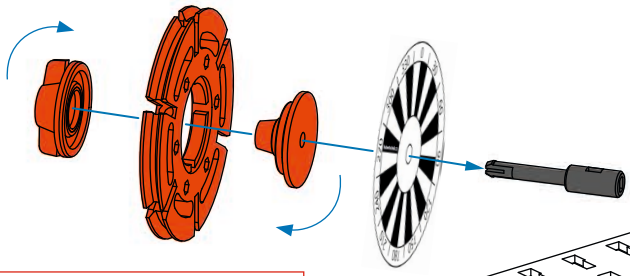
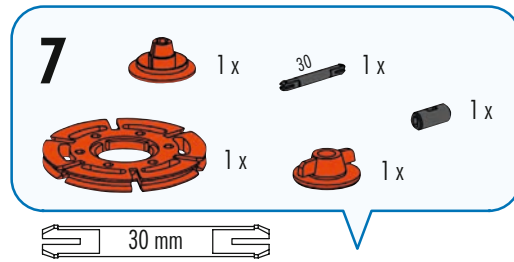




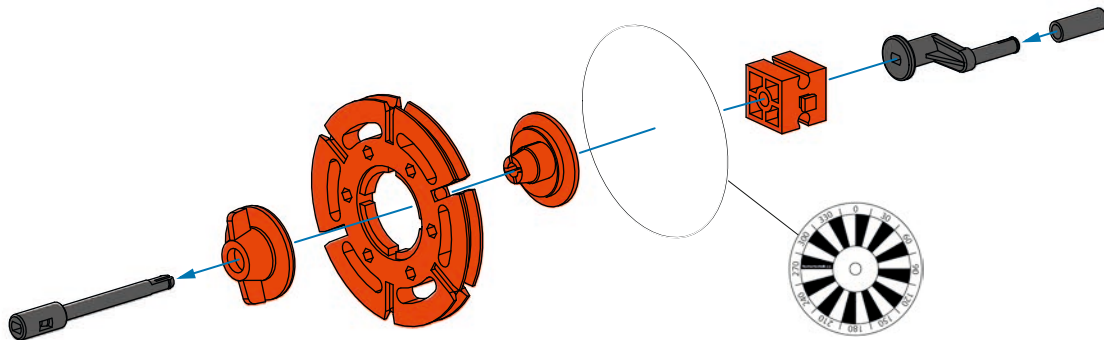
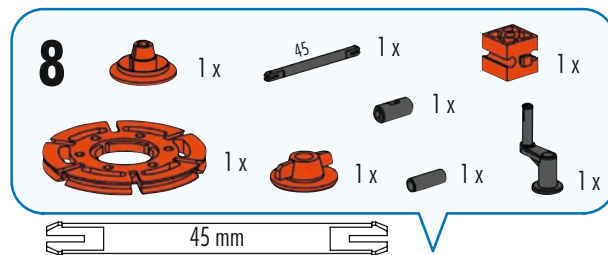



# 1-6

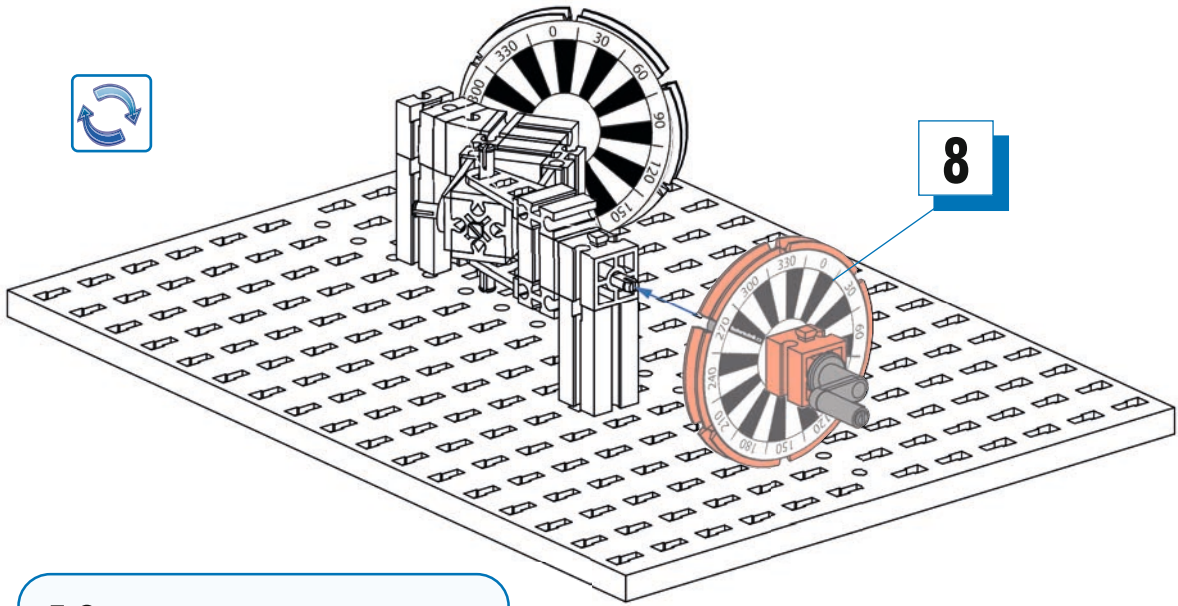
Seite 30  
 Page 30  
 Page 30  
 Bladzijde 30  
 Página 30  
 Pagina 30  
 Pagina 30  
 Страница 30  
 页次 30






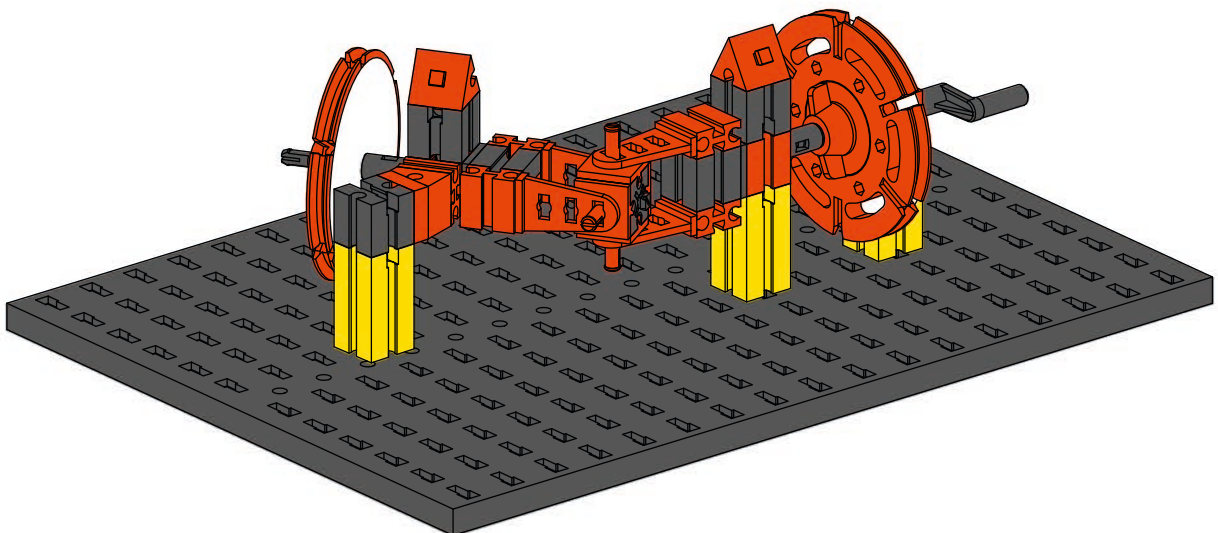
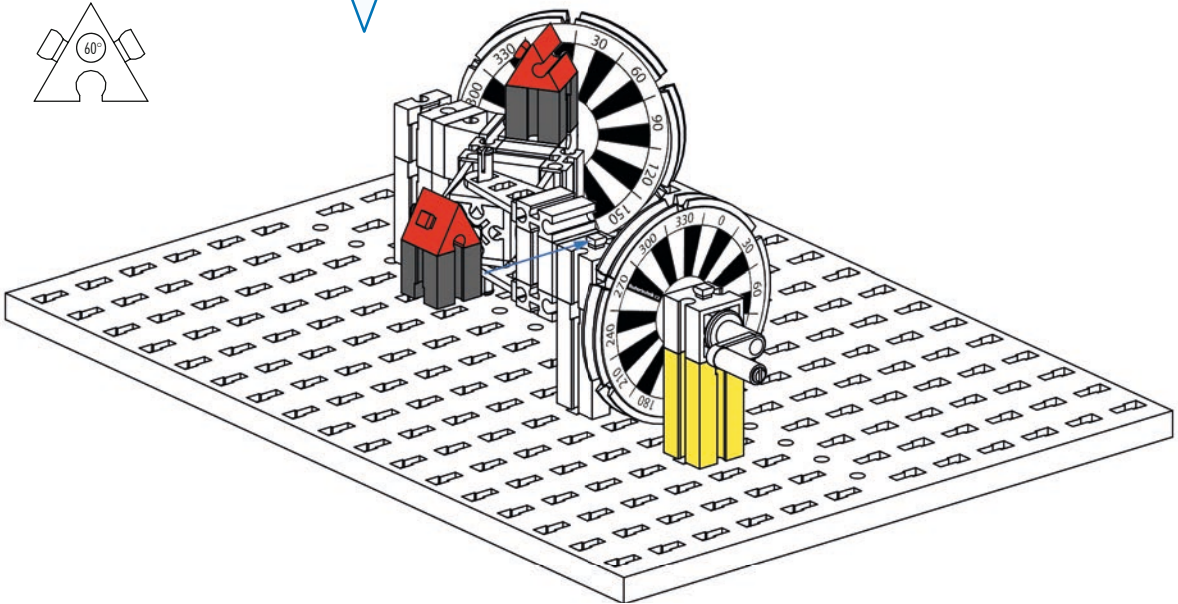
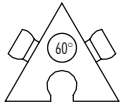
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



9  1x



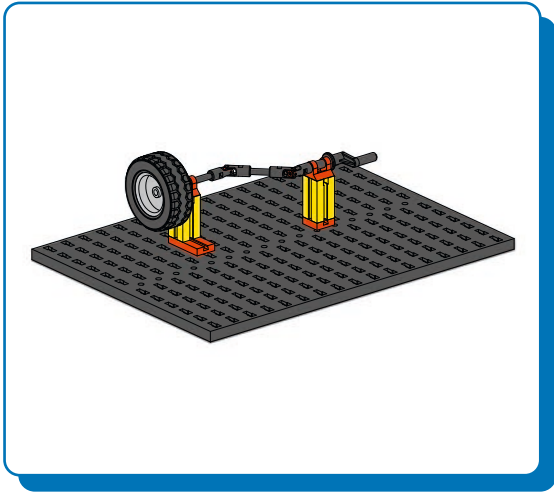
10  1x  2x  2x



Kardanwelle  
Cardan shaft  
Arbre à cardan

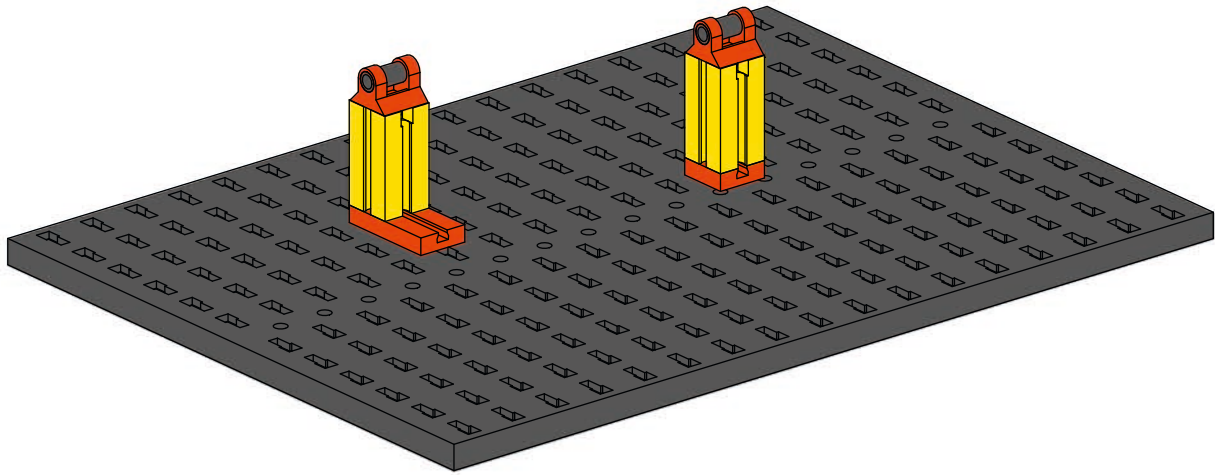
Cardanas  
Eje cardán  
Eixo Cardan

Albero cardanico  
вал карданный  
万向轴



**1**

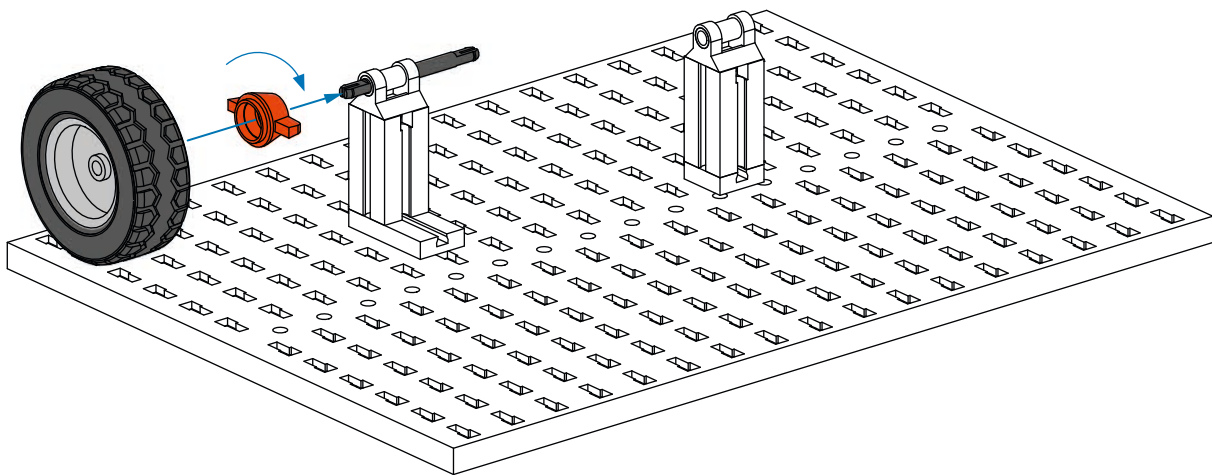
- 1x grey Technic plate
- 1x orange Technic 1x3 Technic brick with hole
- 1x orange Technic 1x3 Technic brick with hole
- 2x yellow Technic axle pins
- 2x orange Technic axle pins



**2**

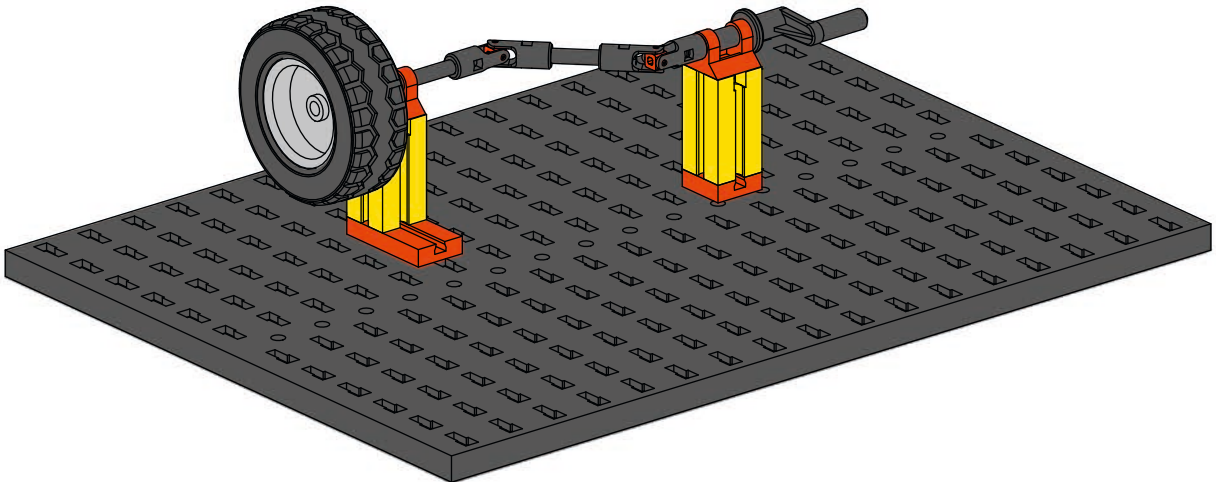
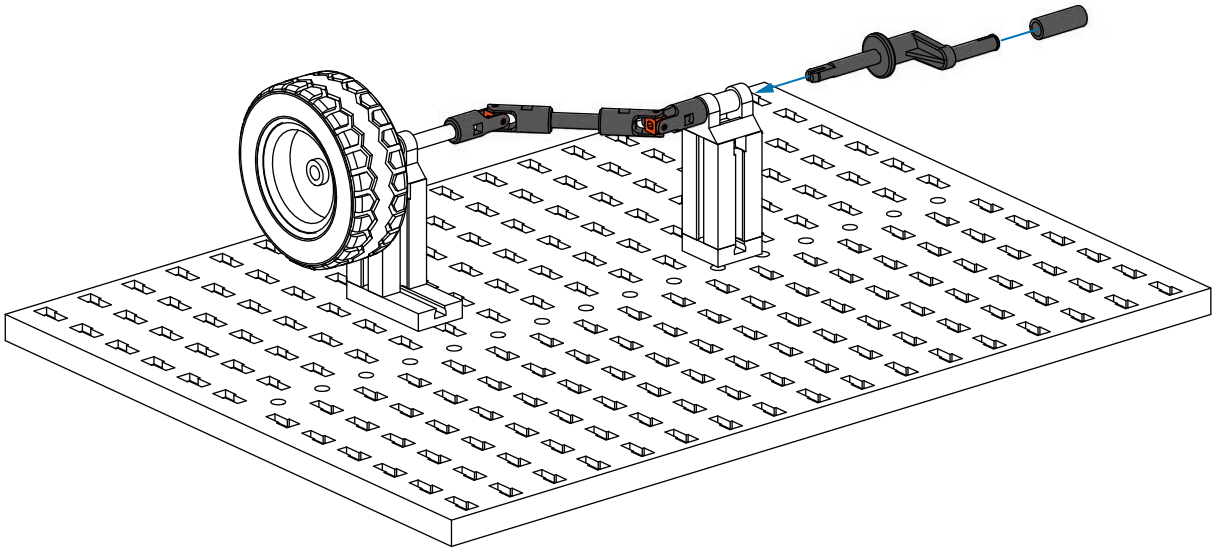
- 45 1x black axle pin
- 1x orange Technic axle pin
- 1x black tire on a grey hub

45 mm



**3**

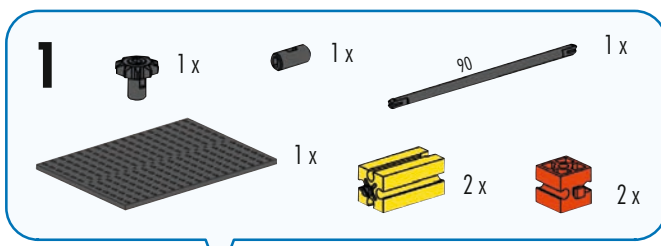
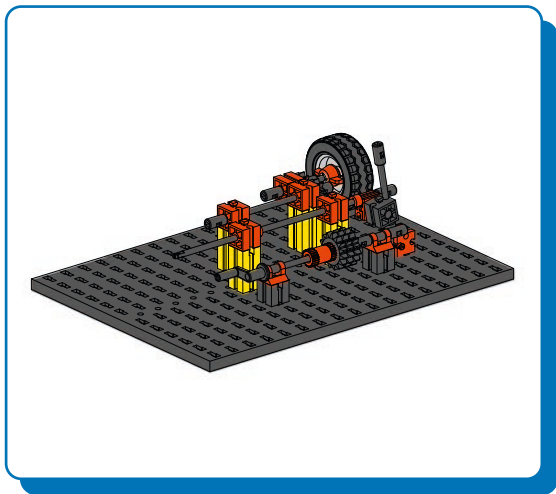
30 2x      1x      1x  
 30 mm 2x



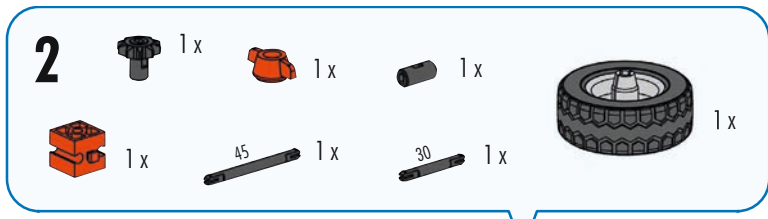
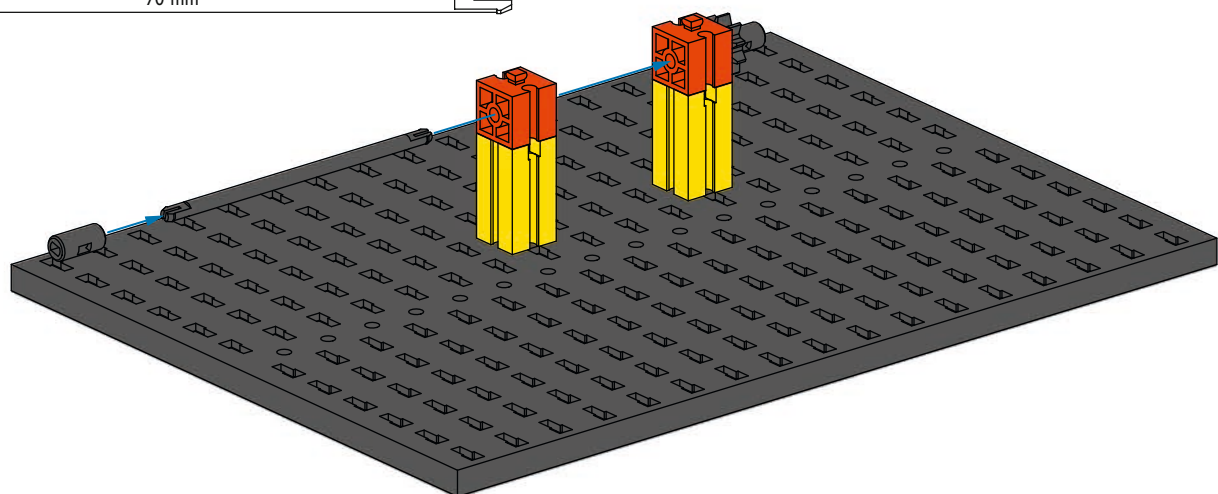
Schaltgetriebe - Basismodell  
 Basic model  
 Modèle de base

Basismodel  
 Modelo básico  
 Modelo básico

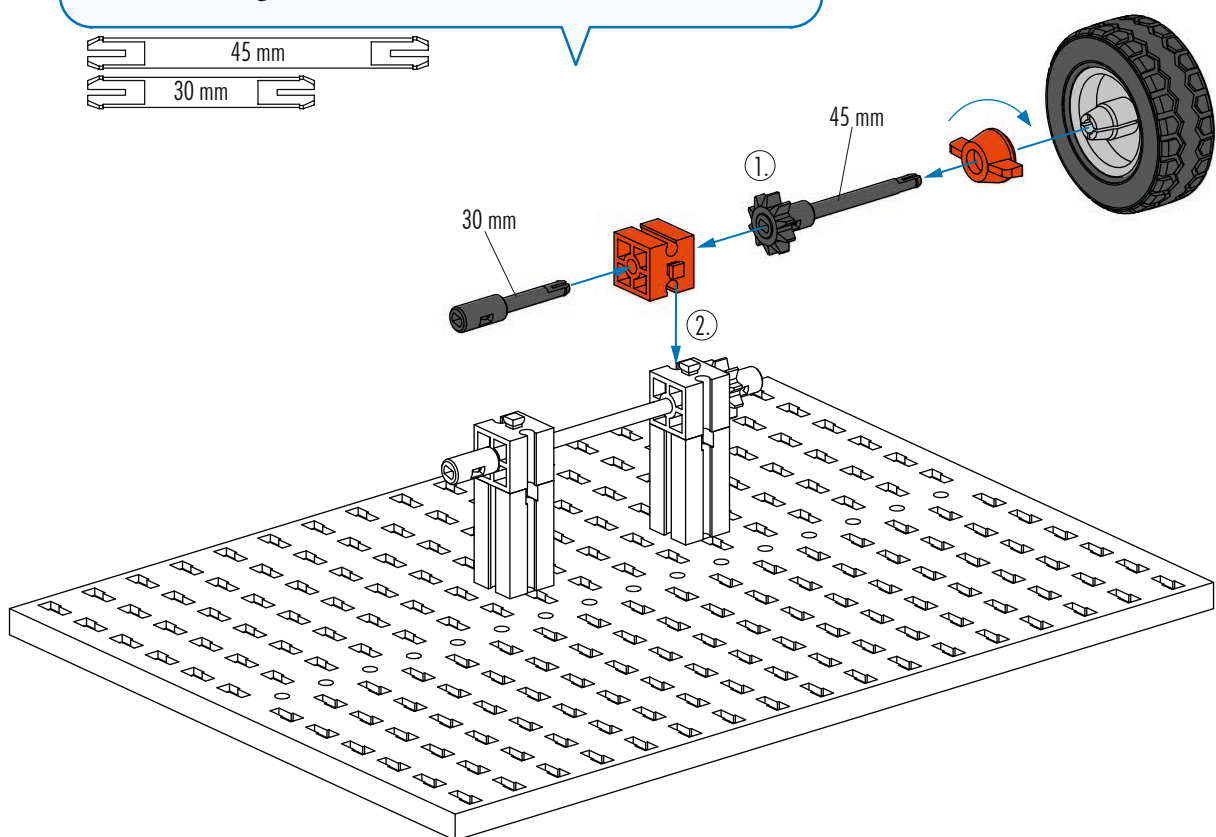
Modello di base  
 Базовая модель  
 基本模型



90 mm

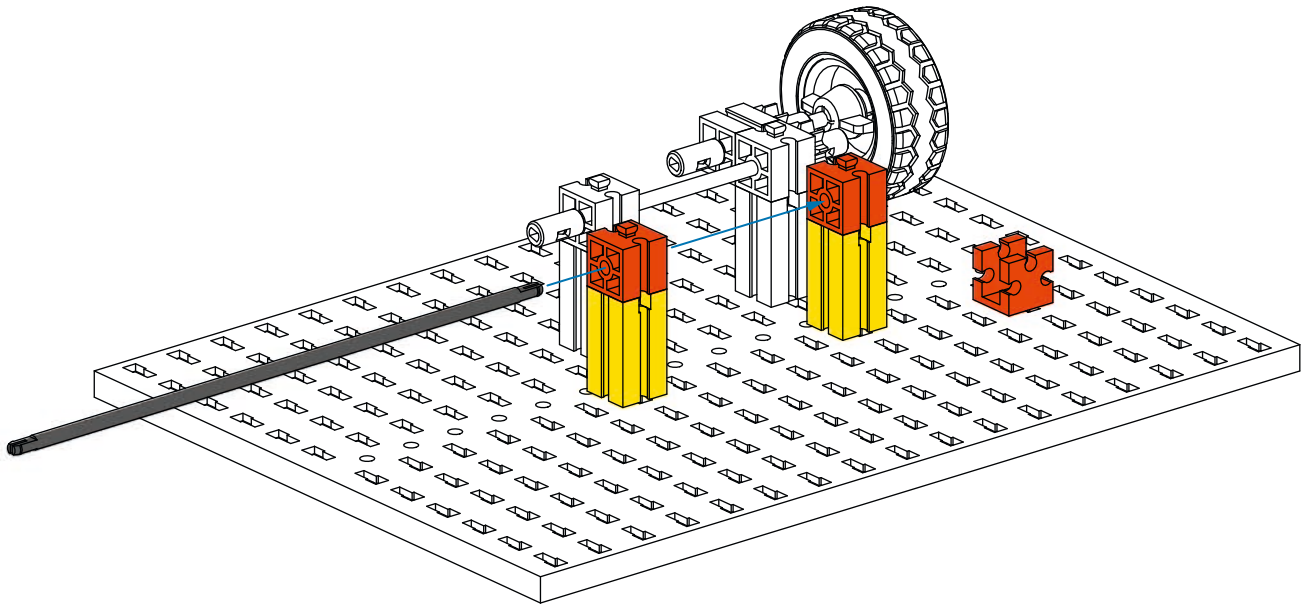
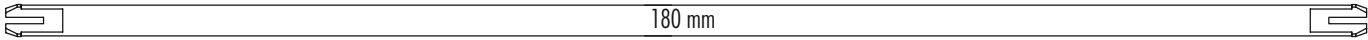


45 mm  
 30 mm



**3**

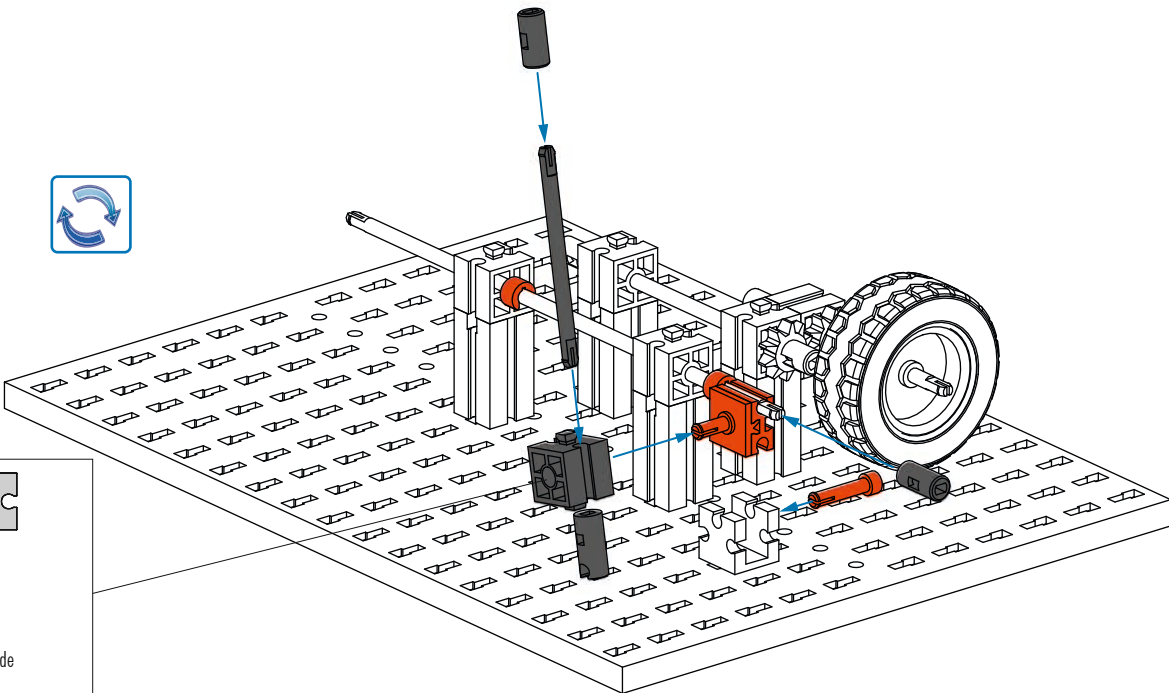
- 2x (Red 1x2 Technic Brick)
- 1x (Red 1x2 Technic Brick with Hole)
- 2x (Yellow 1x2 Technic Brick)
- 1x (Black Technic Pin, 180)




**4**

- 2x (Black Technic Pin)
- 1x (Black Technic Pin)
- 1x (Red Technic Pin)
- 2x (Red Technic Pin)
- 1x (Black Technic Pin, 60)
- 1x (Red Technic Pin)
- 1x (Black Technic Pin)
- 1x (Red Technic Pin)



60 mm






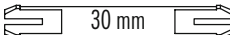
  
 Große Bohrung  
 Large drilling  
 Alésage large  
 Grote boring  
 Perforación grande  
 Orificio grande  
 Grande foro  
 Большое отверстие  
 大孔

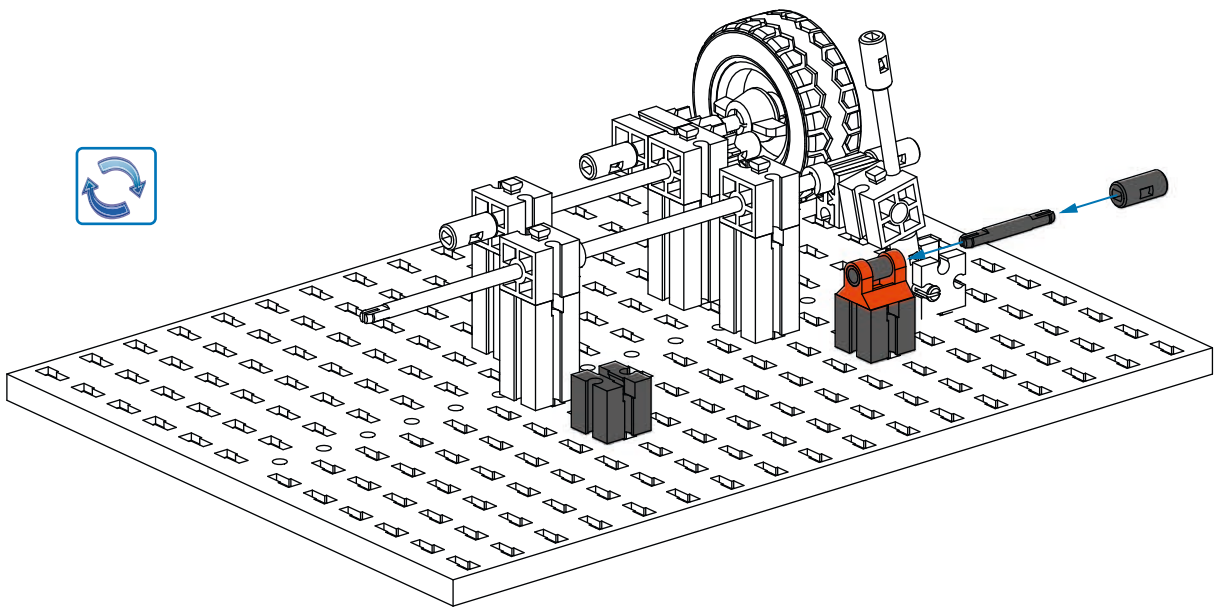


**5**




1 x  1 x 

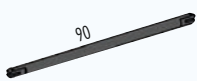

2 x  1 x  1 x 

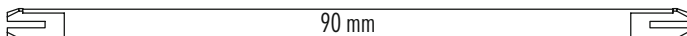


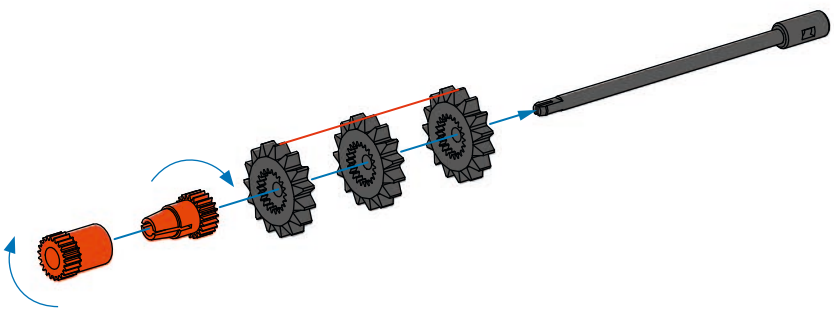
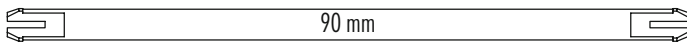



**6**

1 x  1 x  1 x 

1 x  3 x 



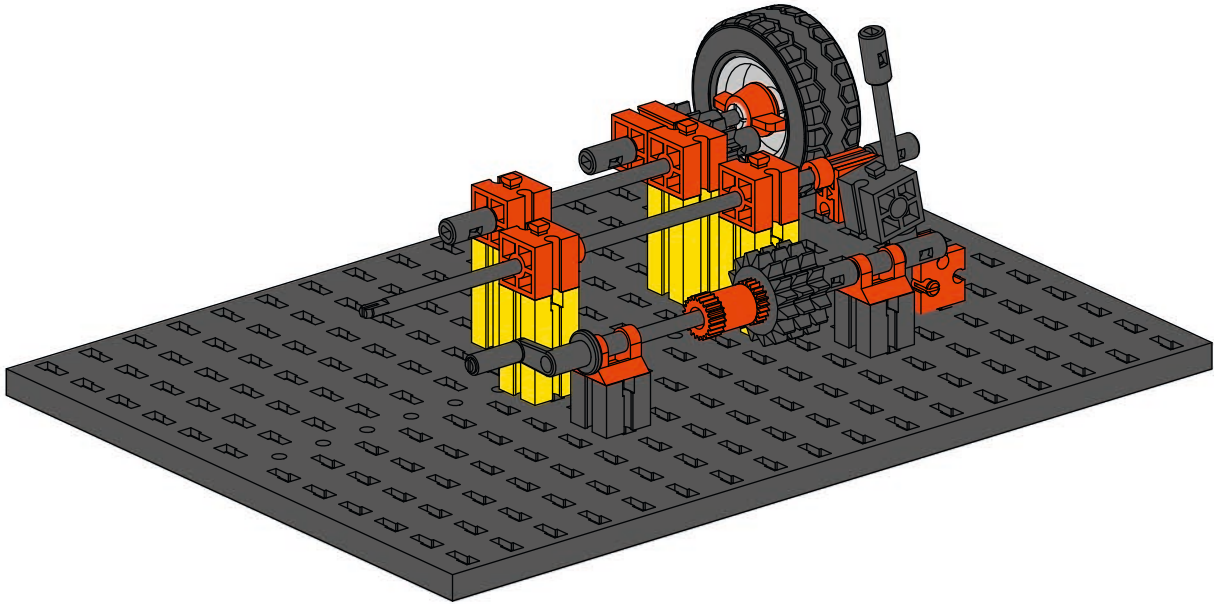
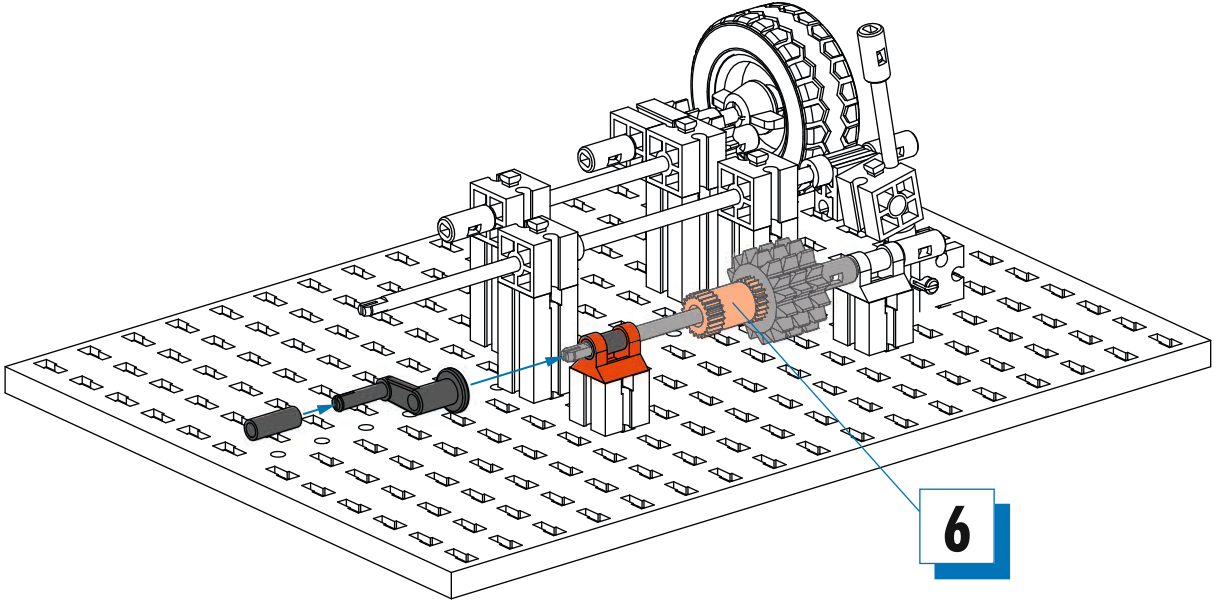
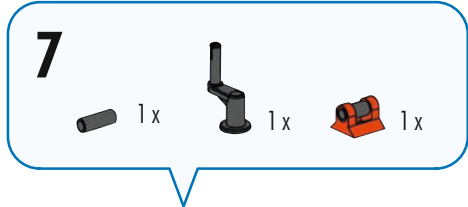
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

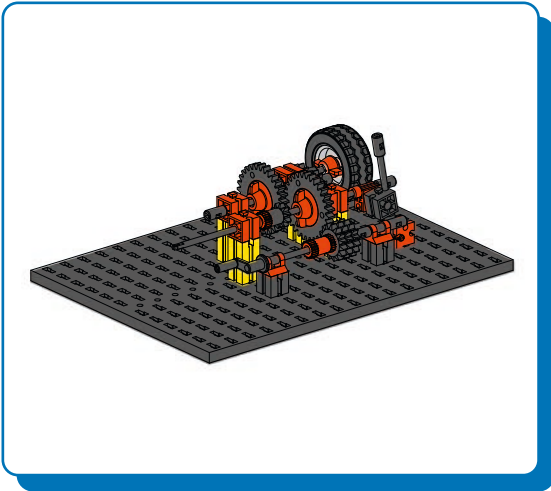



Markierung beachten!  
 Note marking!  
 Tenir compte des repères!  
 Let op de markering!  
 ¡Tener en cuenta el marcaje!  
 Observar a marcação!  
 Osservare il contrassegno!  
 Учитывайте маркировку  
 注意标记！

**7**

1x 1x 1x

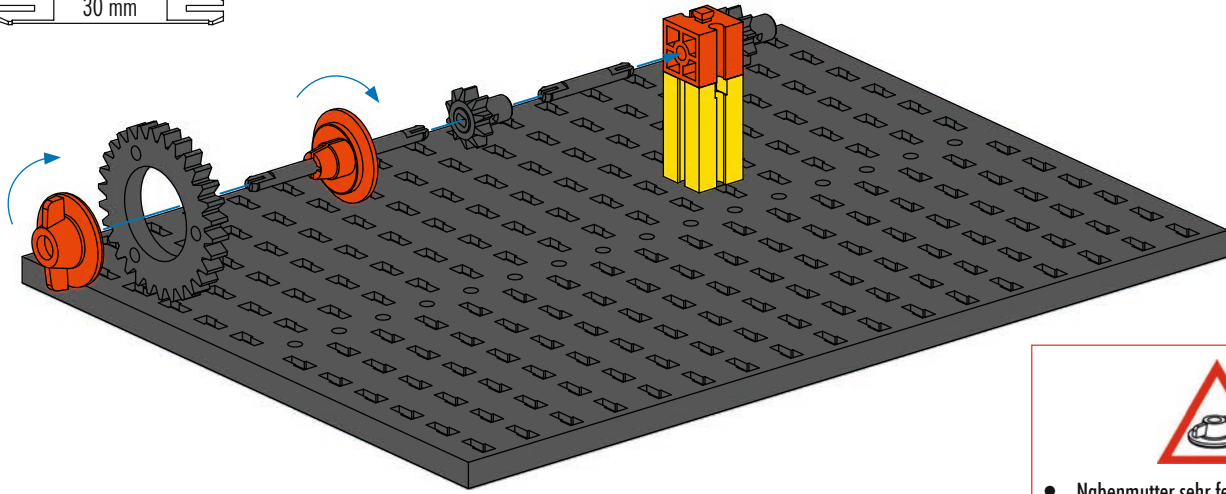
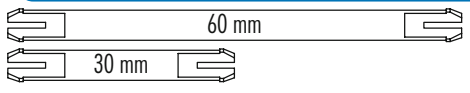
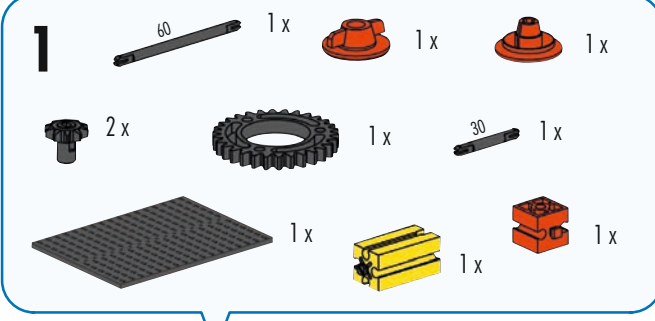




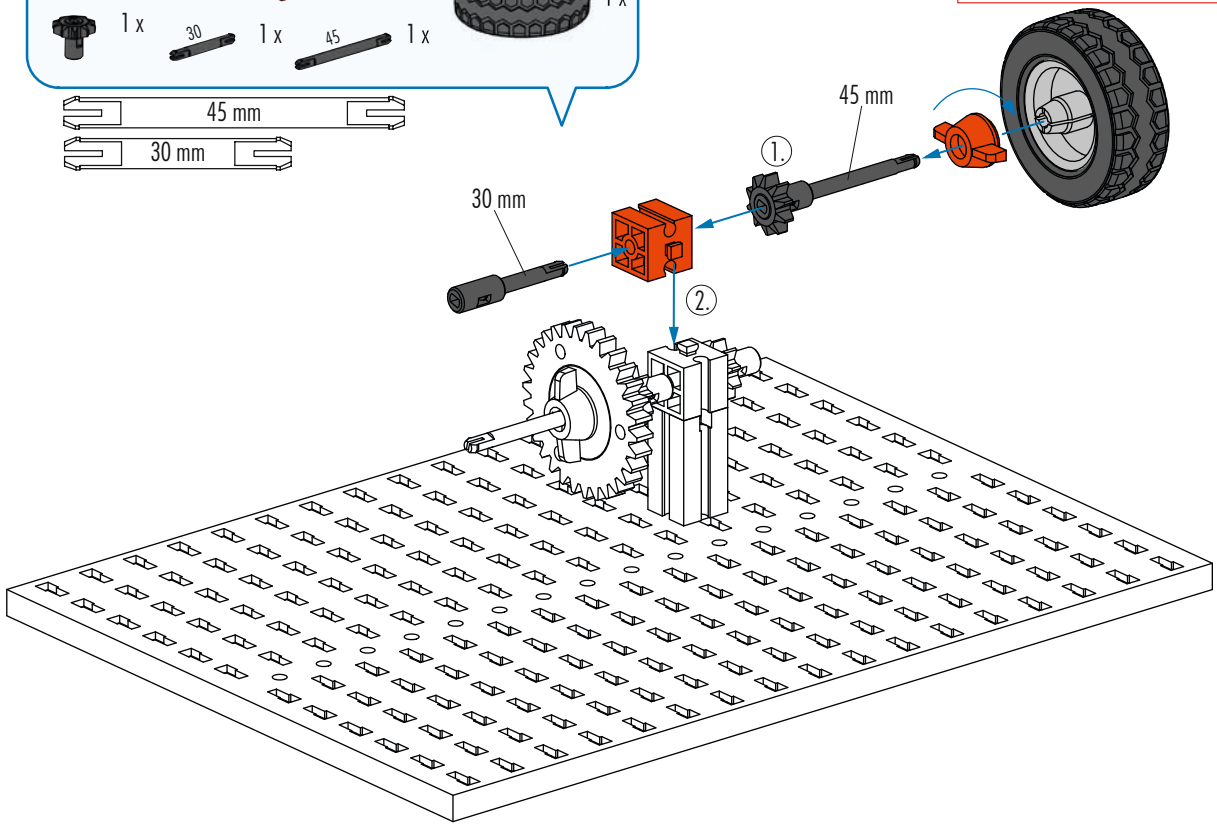
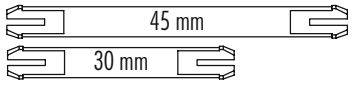
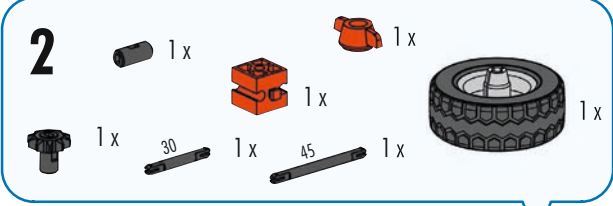
Schaltgetriebe - 2 Gang  
Manual gearbox - 2 gear  
Boîte de vitesses manuelle -  
2 rapports  
Handgeschakelde versnellingsbak -  
2 velocidades

2 versnellingen  
Caja de cambios manual -  
2 marchas  
Caixa de velocidades manual -  
2 velocidades

Cambio manuale - 2 marce  
Механическая  
коробка передач -  
2 передача  
手动变速箱--2档



- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertas
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



3

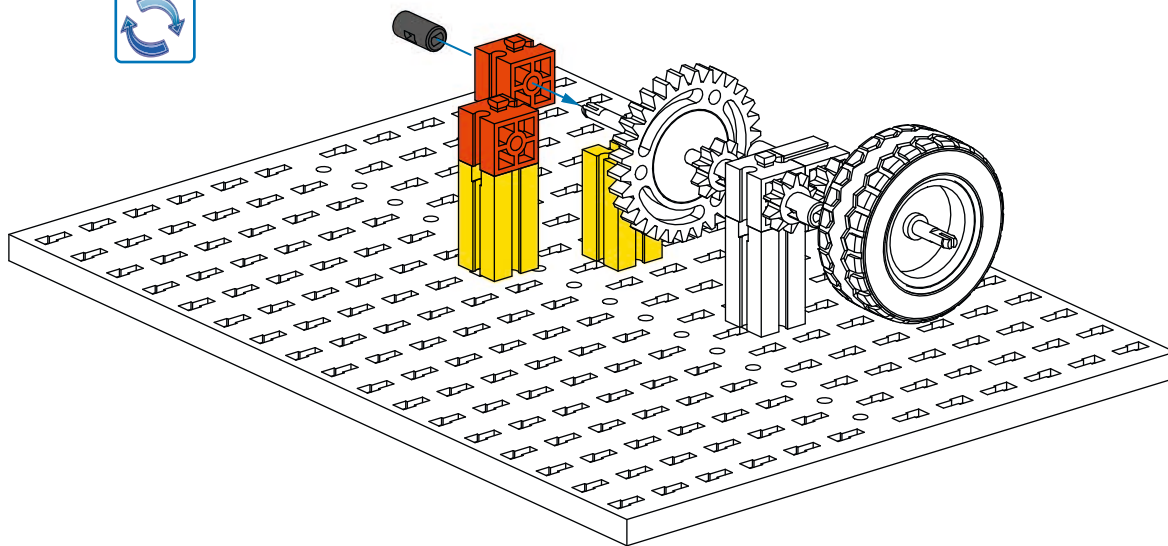
1x



2x



2x



4



1x



1x



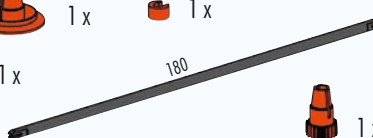
1x



1x



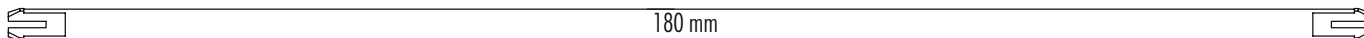
1x



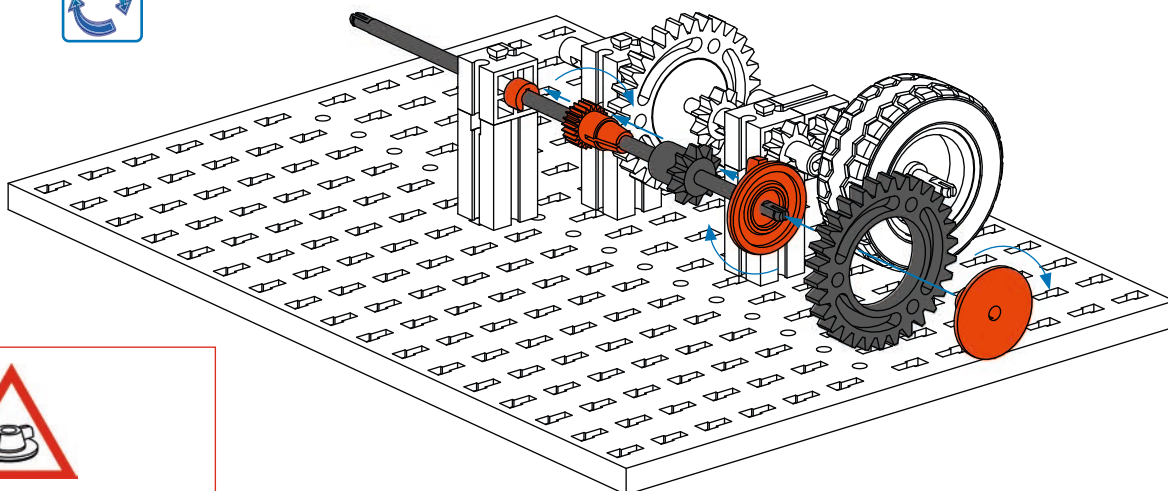
1x



1x







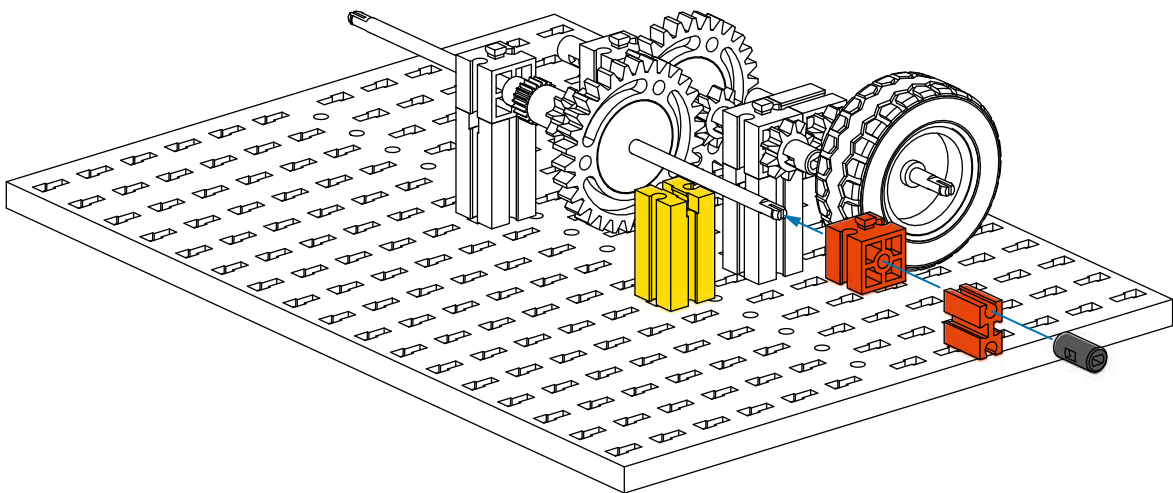
180 mm










- Nabenmutter sehr fest anziehen
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- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

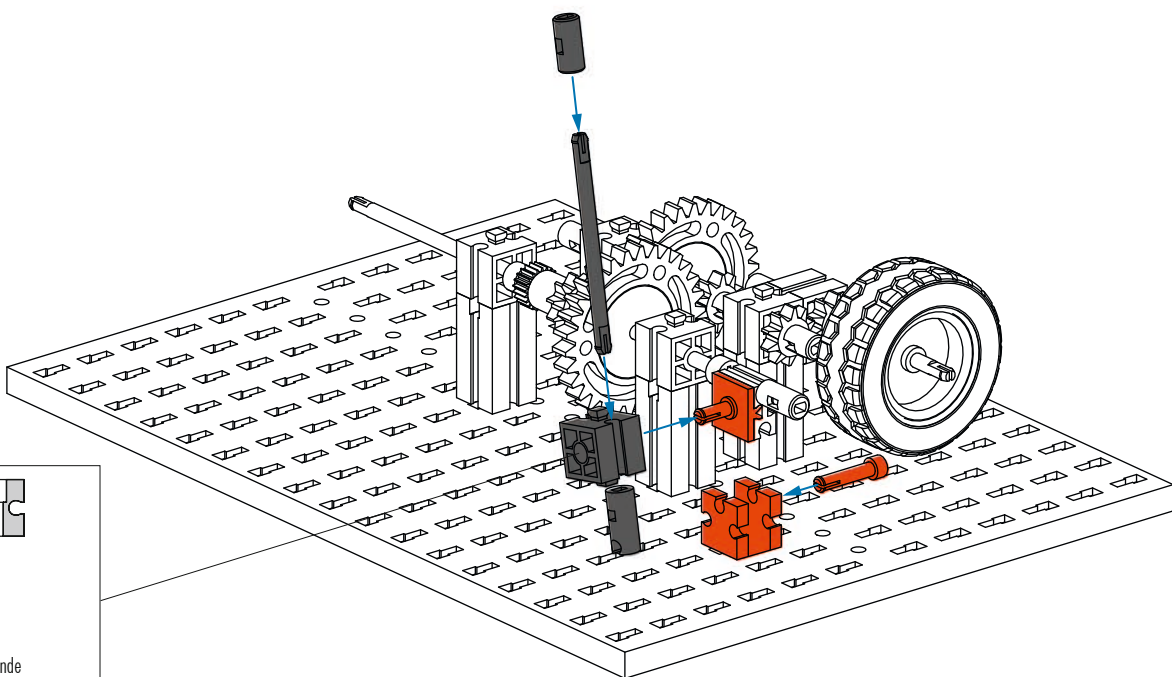
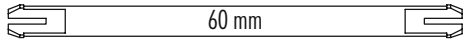

**5**

	1x		1x
	1x		1x

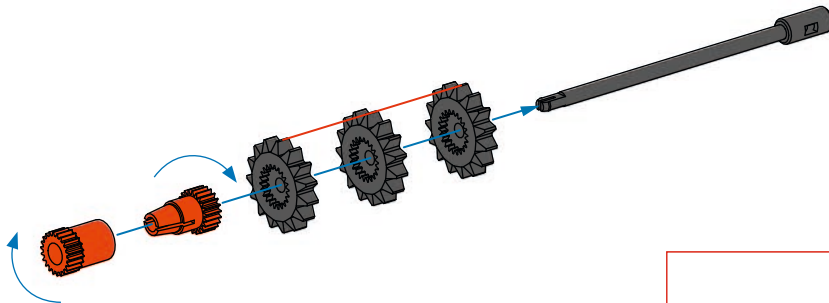
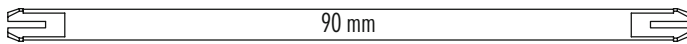
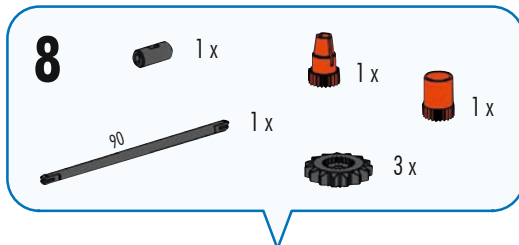
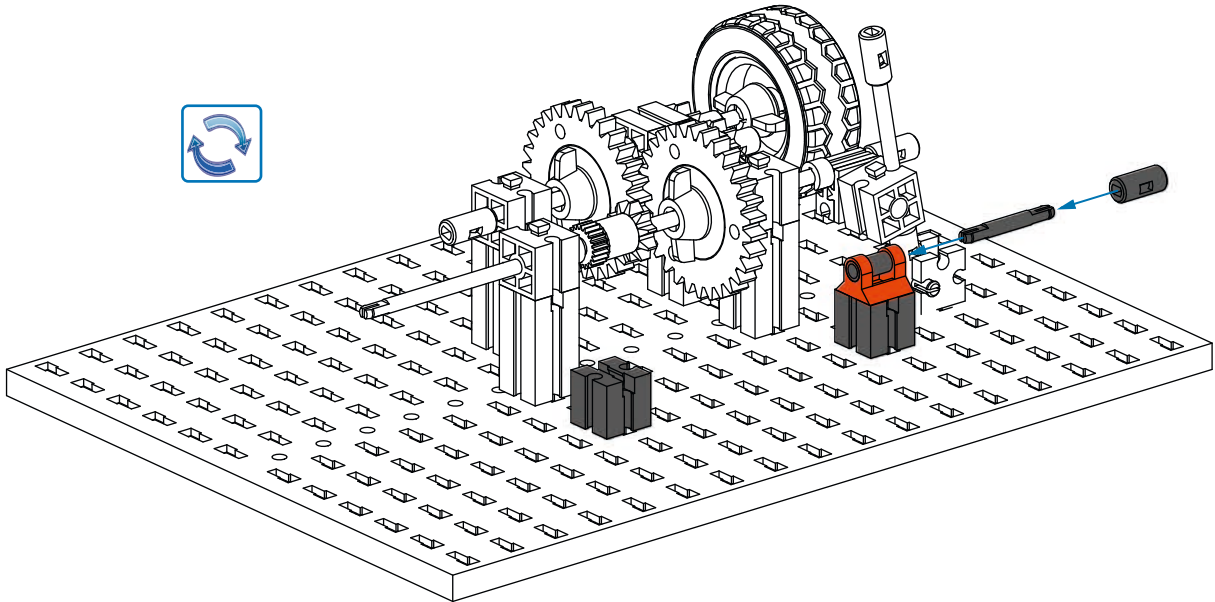
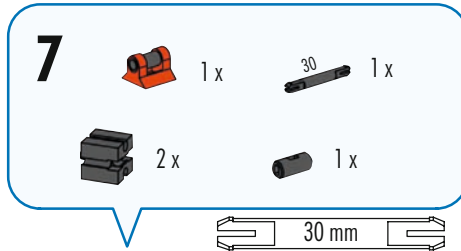


**6**

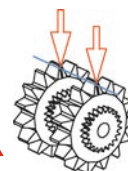
	1x		1x		1x		
	1x		1x		1x		1x

Große Bohrung  
 Large drilling  
 Alésage large  
 Grote boring  
 Perforación grande  
 Orificio grande  
 Grande foro  
 Большое отверстие  
 大孔



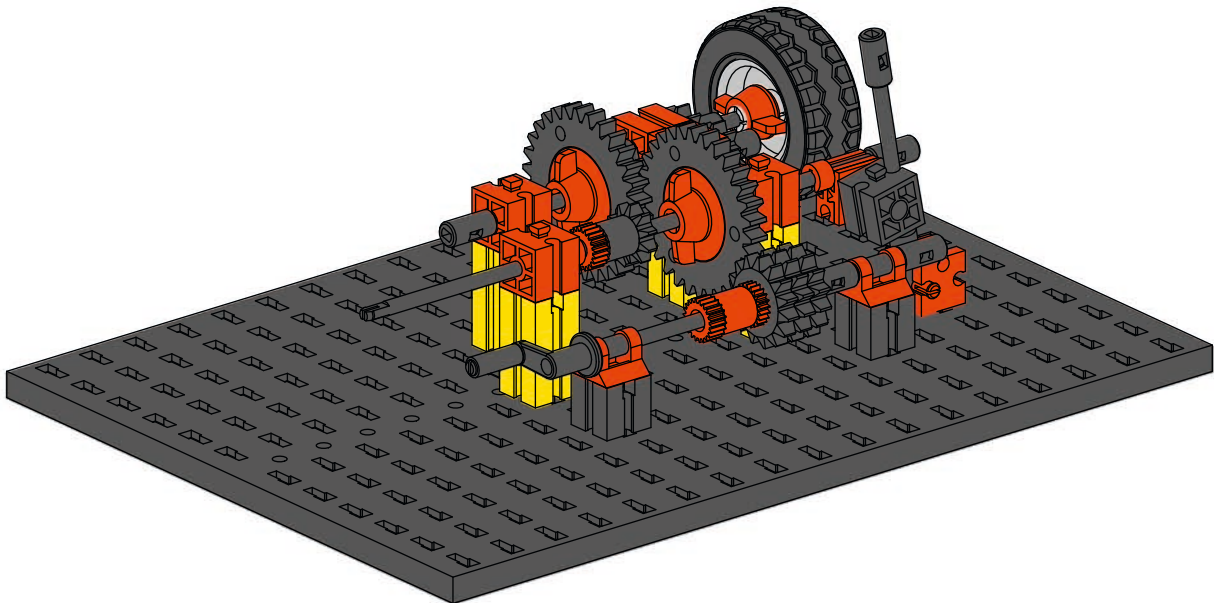
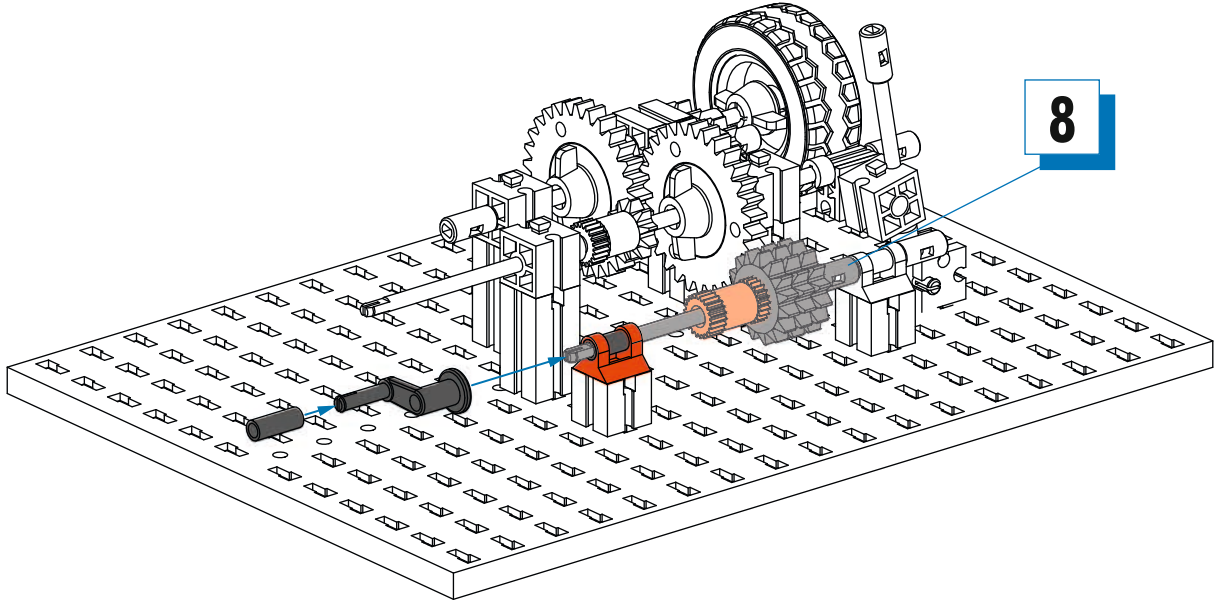
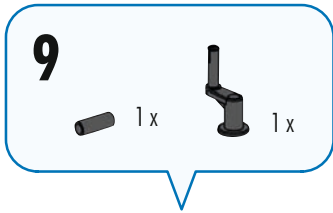
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



Markierung beachten!  
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 注意标记!

**9**

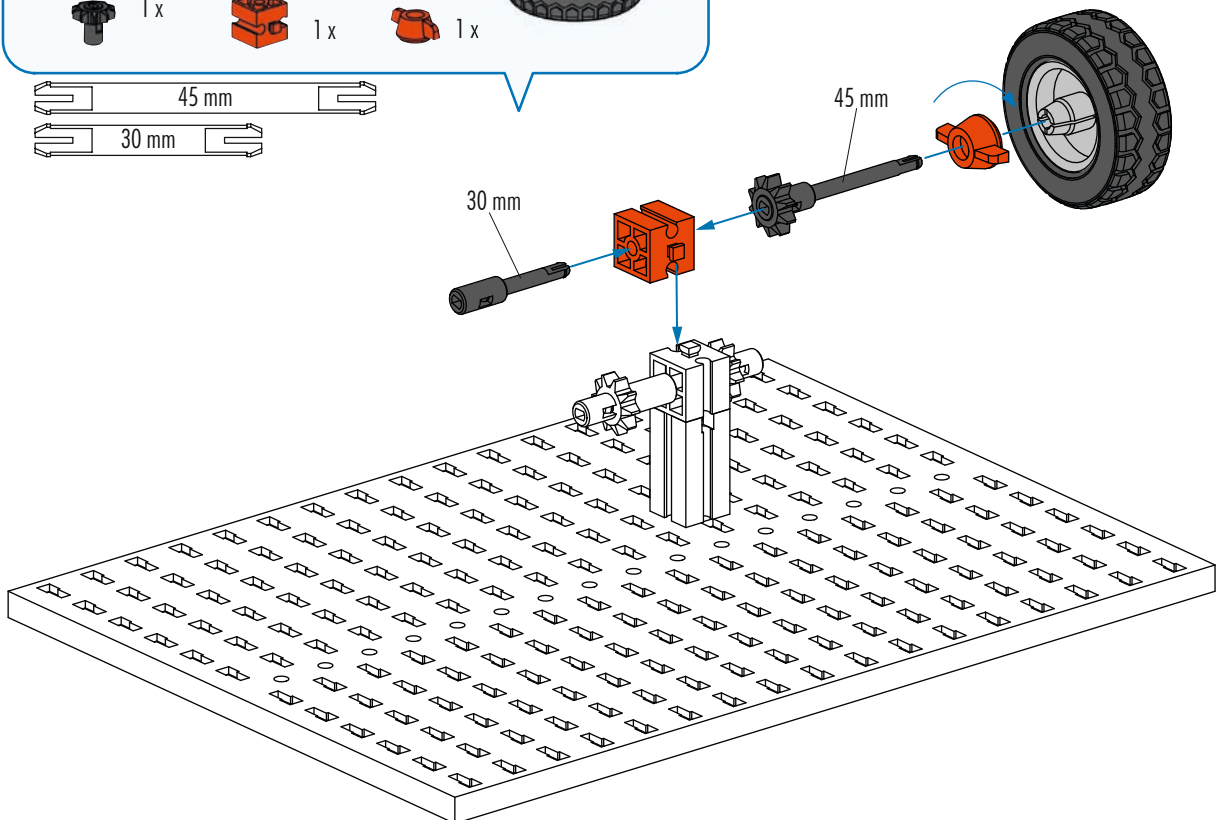
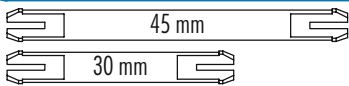
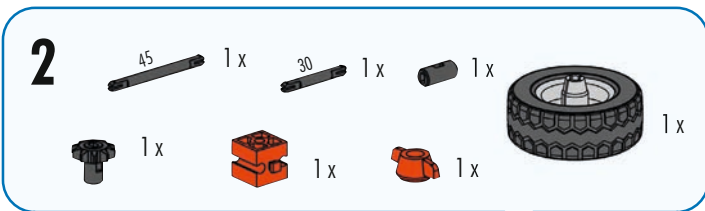
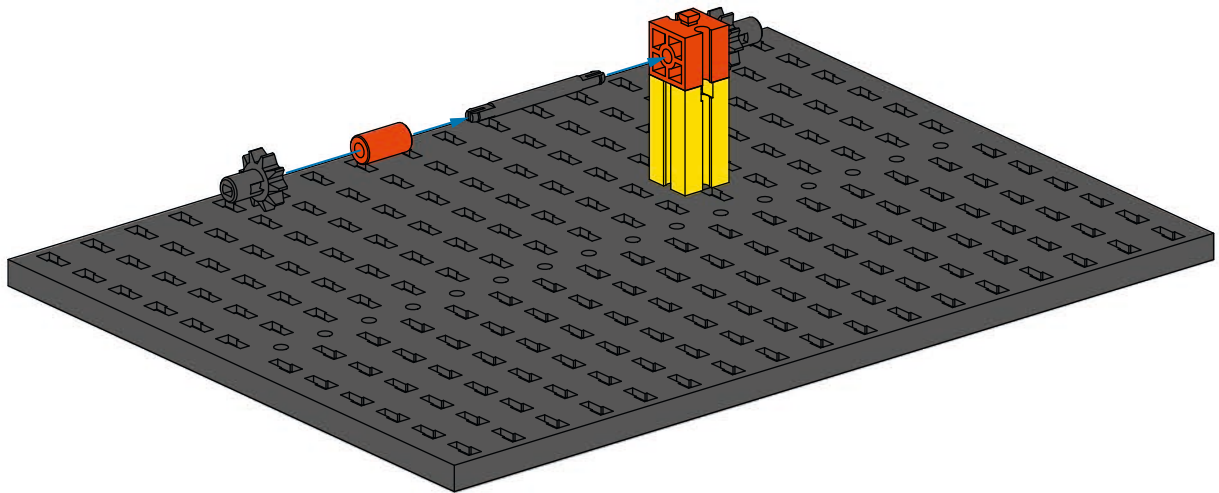
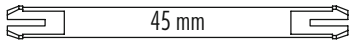
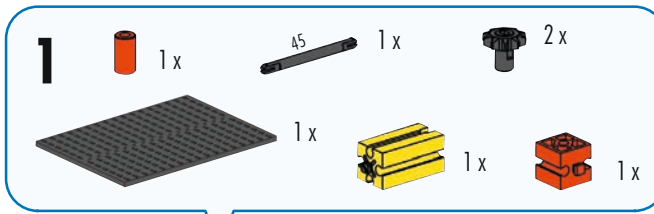
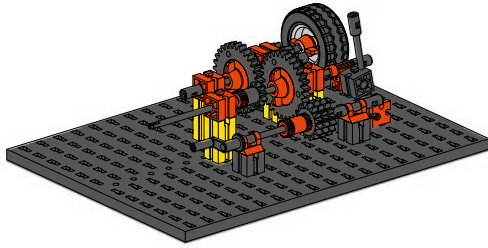
1x 1x



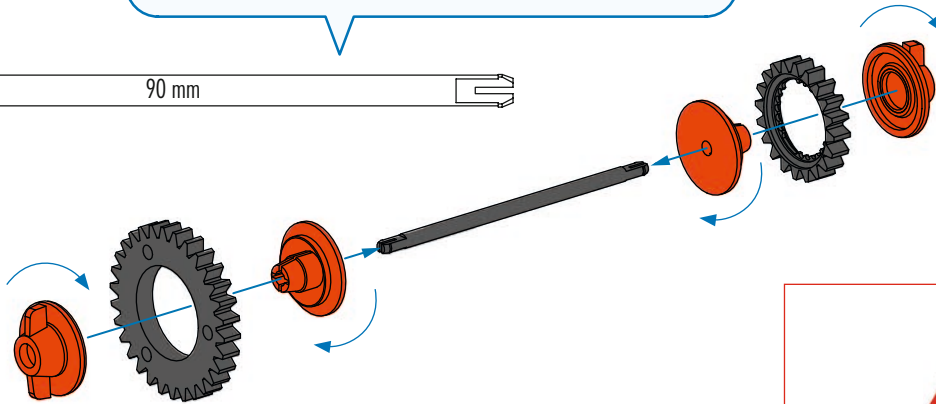
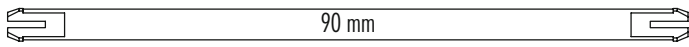
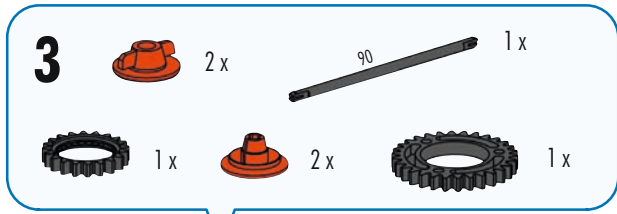
Schaltgetriebe - 3 Gang  
 Manual gearbox - 3 gear  
 Boîte de vitesses manuelle -  
 3 rapports  
 Handgeschakelde versnellingsbak -  
 3 velocidades

3 versnellingen  
 Caja de cambios manual -  
 3 marchas  
 Caixa de velocidades manual -  
 3 velocidades

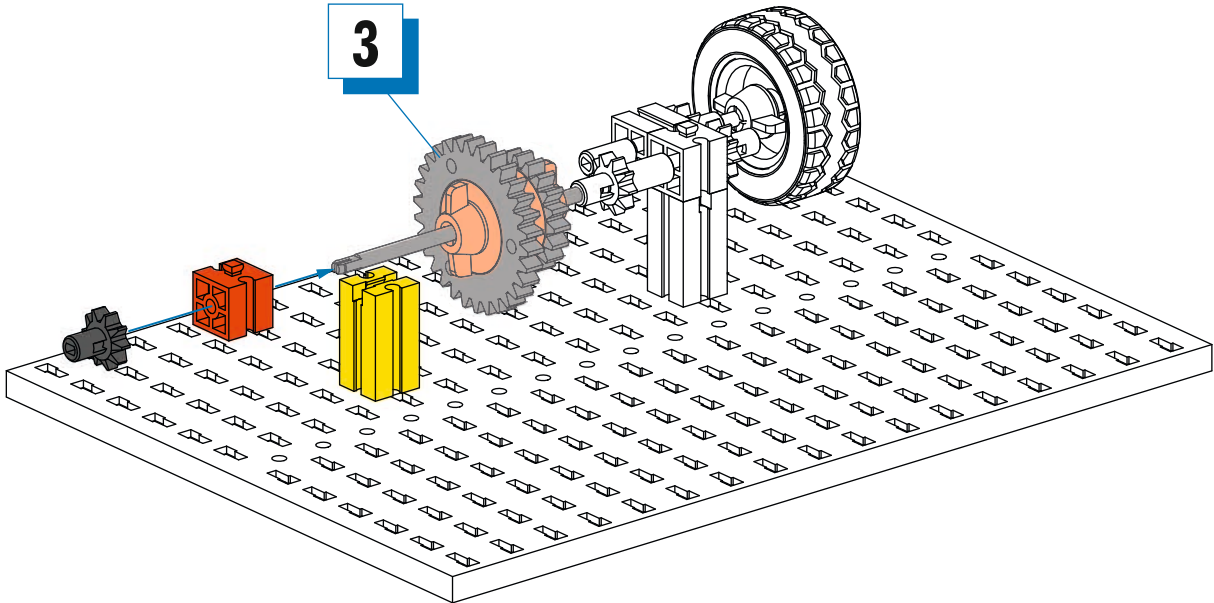
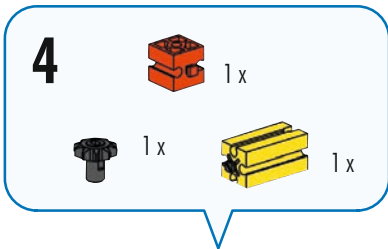
Cambio manuale - 3 marce  
 Механическая коробка  
 передач - 3 передача  
 手动变速箱-3档

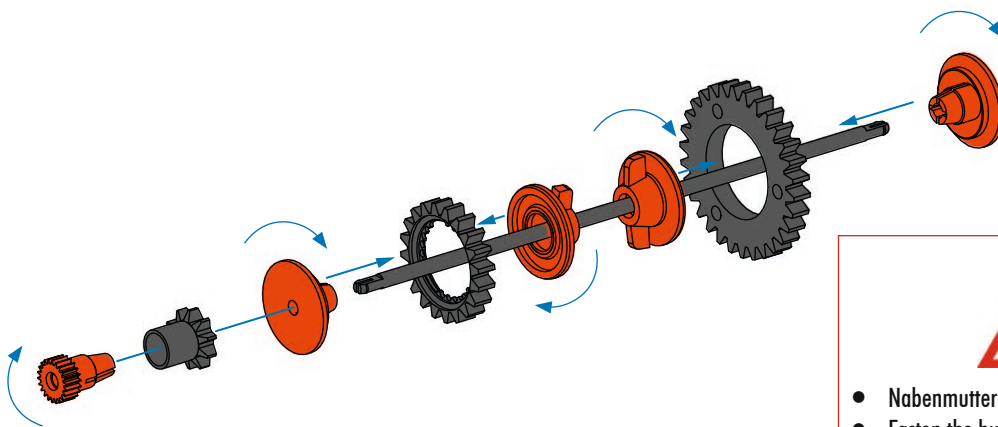
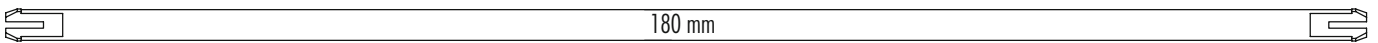
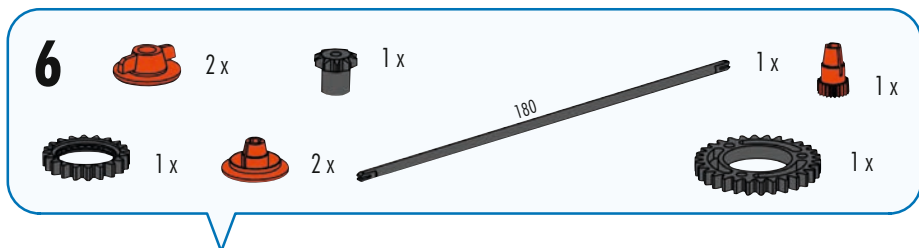
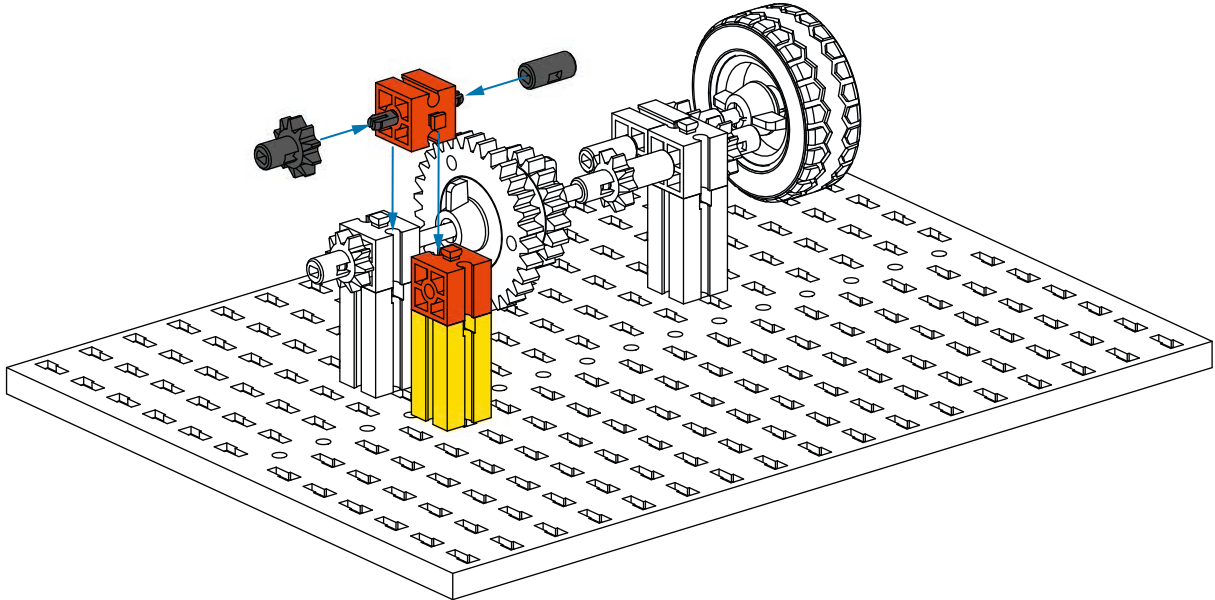
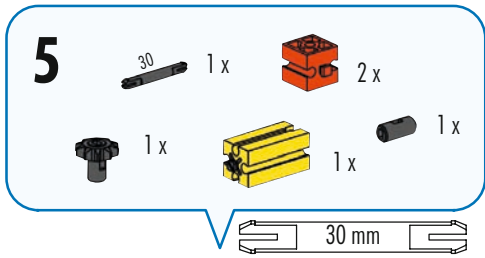






- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

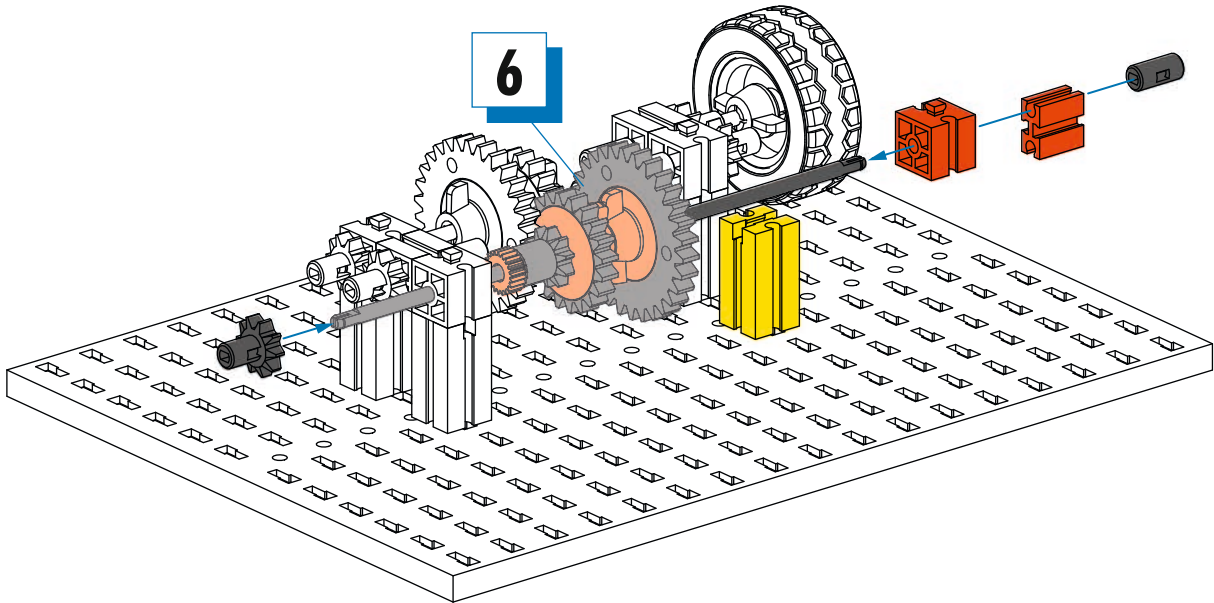




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- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
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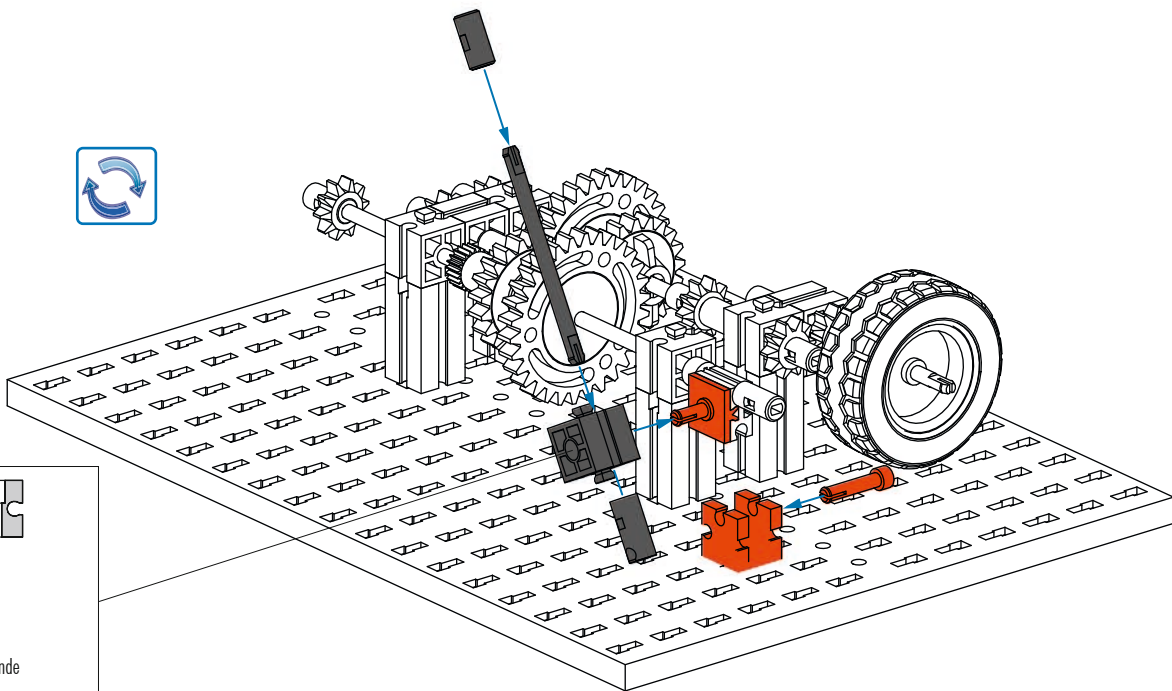
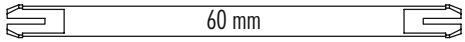
**7**

- 1x (Red 1x2 Technic Brick)
- 1x (Black Pin)
- 1x (Red Pin)
- 1x (Black Pin)
- 1x (Yellow Technic Beam)
- 1x (Red Technic Connector)



**8**

- 1x (Black Pin)
- 1x (Black Pin)
- 1x (Red Pin)
- 1x (Black Pin)
- 1x (Red Technic Connector)
- 1x (Red Technic Connector)
- 1x (Black Technic Connector)



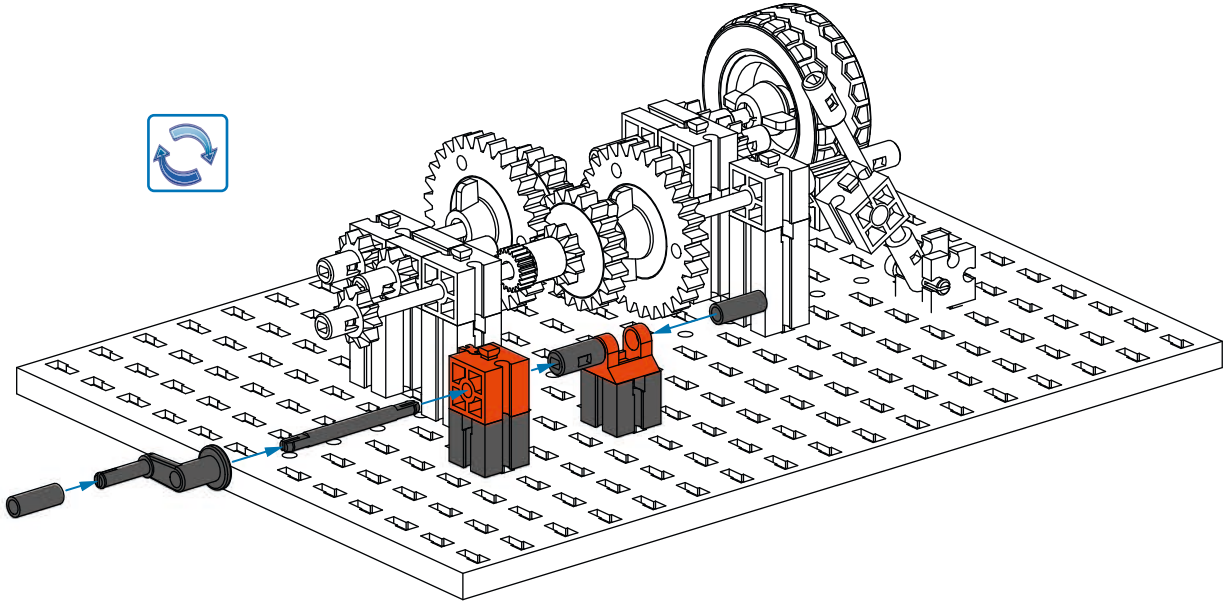
Große Bohrung  
 Large drilling  
 Alésage large  
 Grote boring  
 Perforación grande  
 Orificio grande  
 Grande foro  
 Большое отверстие  
 大孔

**9**

45 1x    1x    1x    1x

2x    1x    1x    1x

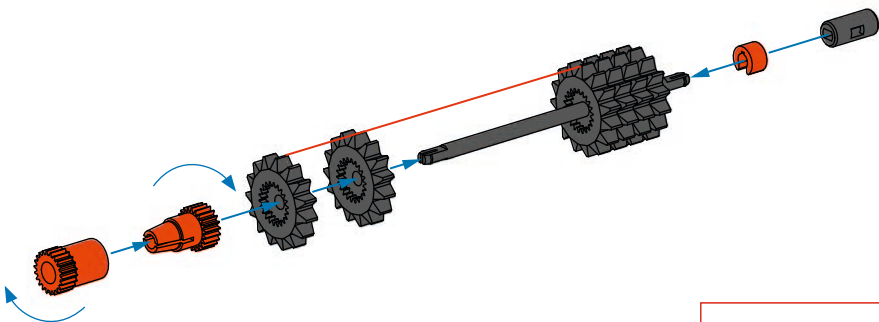
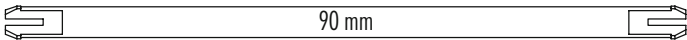
45 mm



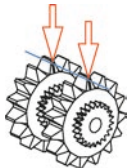
**10**

1x    1x    1x    1x

90 1x    6x



- Nabenmutter sehr fest anziehen
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- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

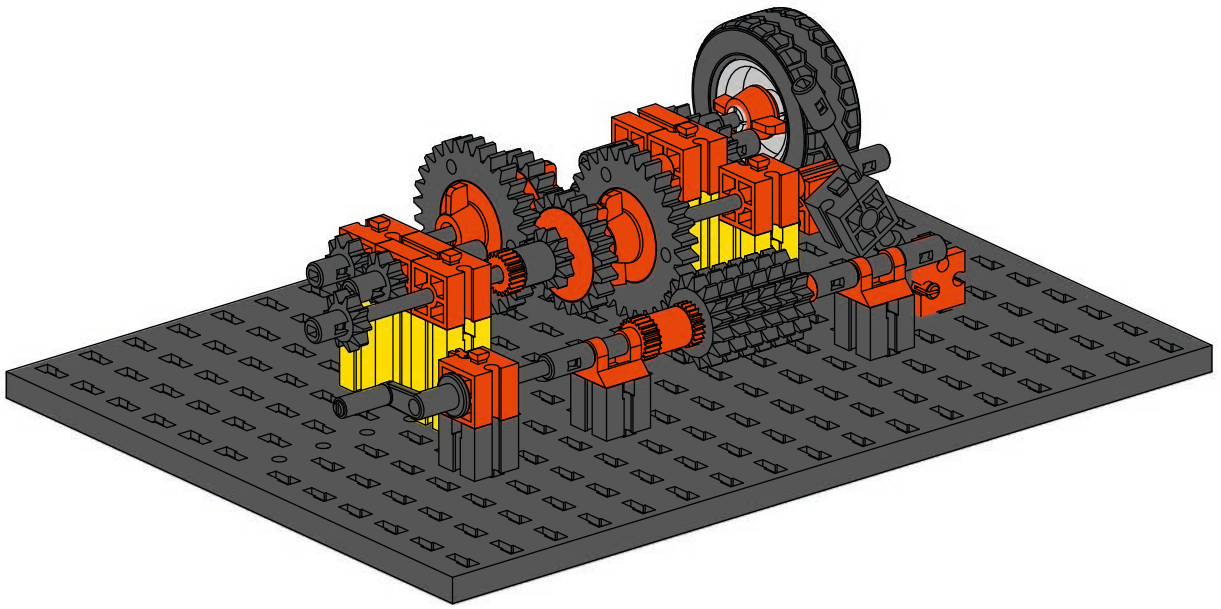
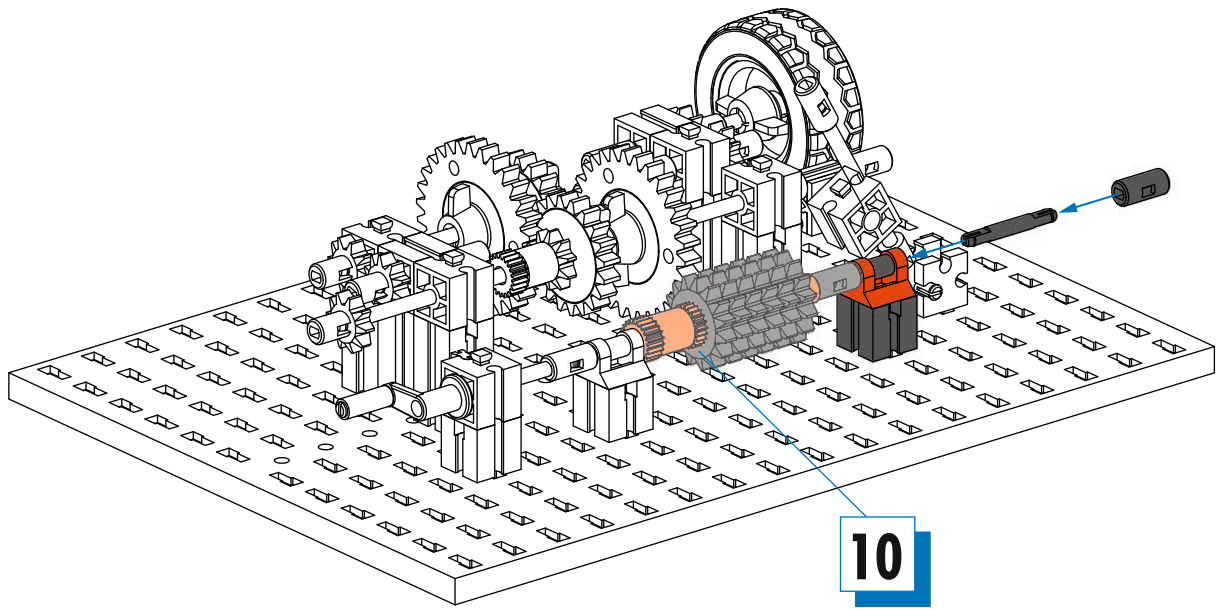


- Markierung beachten!
- Note marking!
- Tenir compte des repères!
- Let op de markering!
- ¡Tener en cuenta el marcaje!
- Observar a marcação!
- Osservare il contrassegno!
- Учитывайте маркировку
- 注意标记!

**11**

- 1 x [Black 1x2 Technic Brick]
- 1 x [Black Pin]
- 1 x [Red Technic Connector]
- 1 x [Black Pin 30]

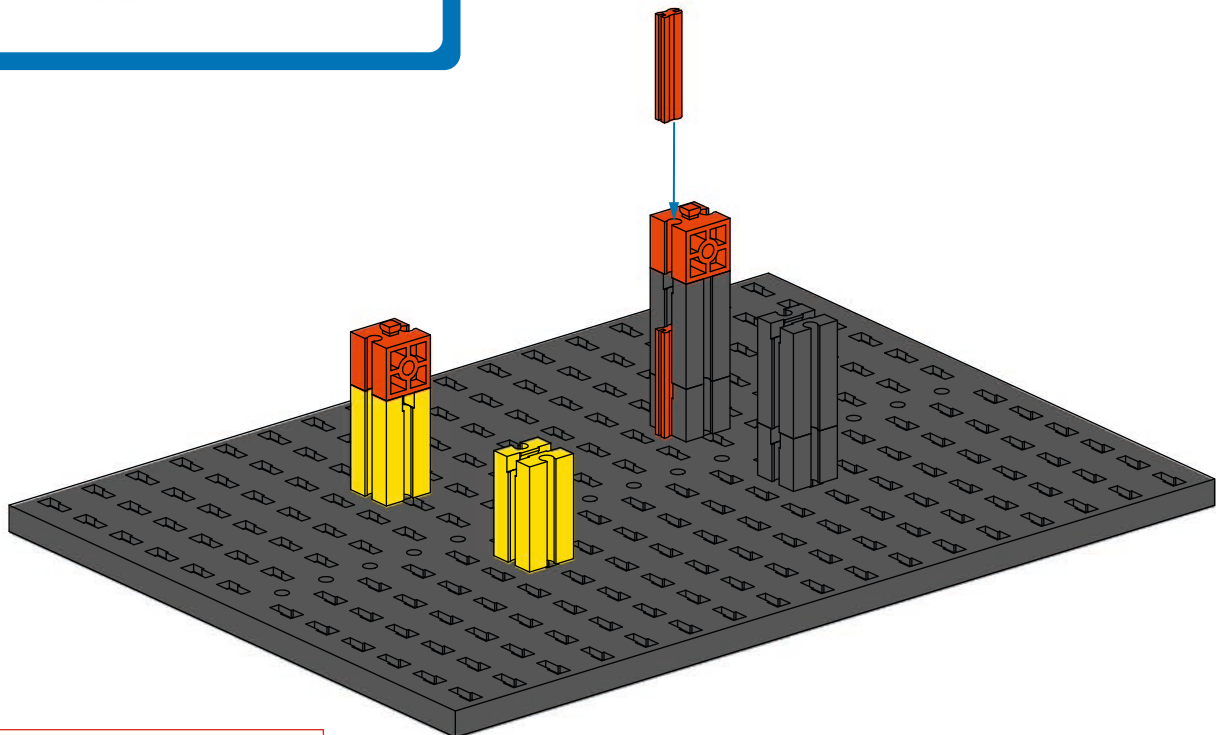
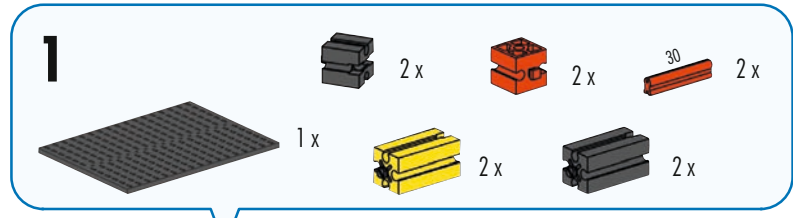
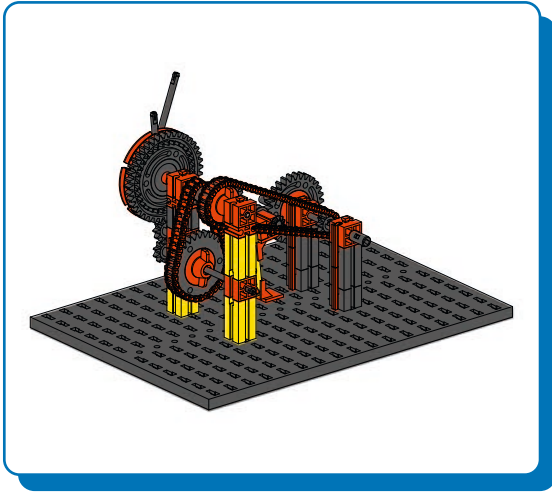
30 mm



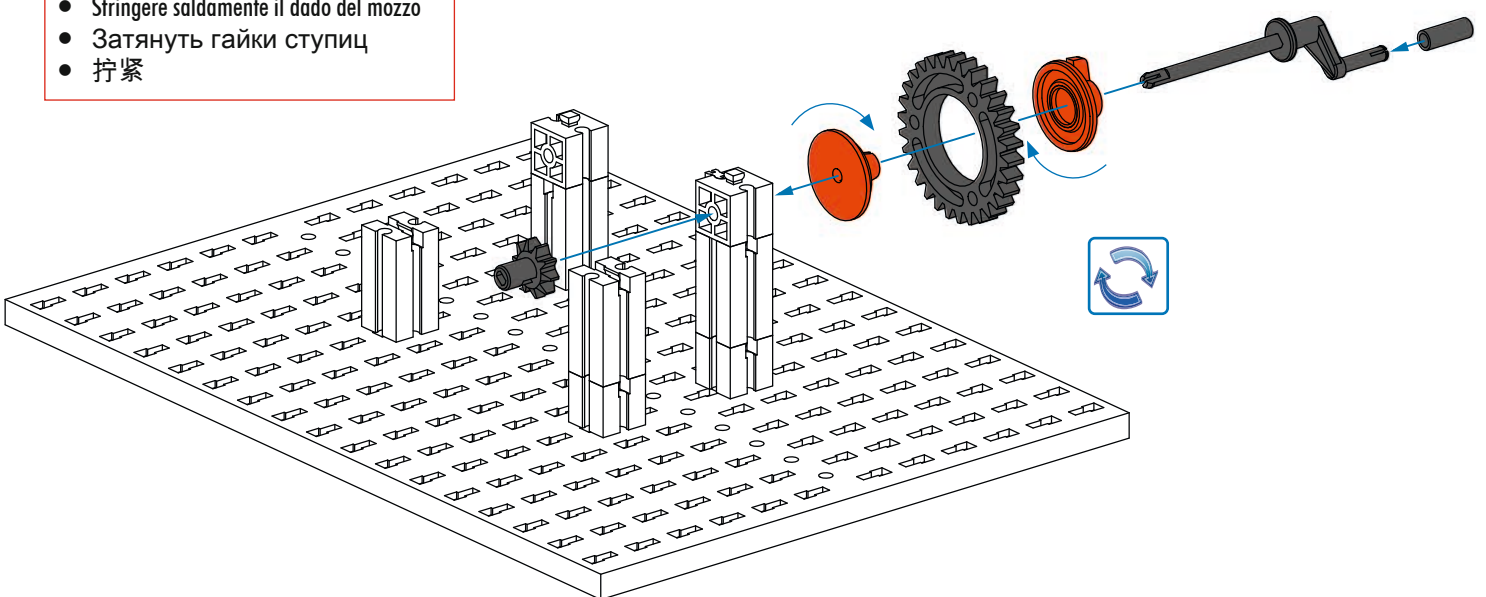
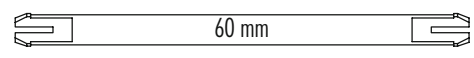
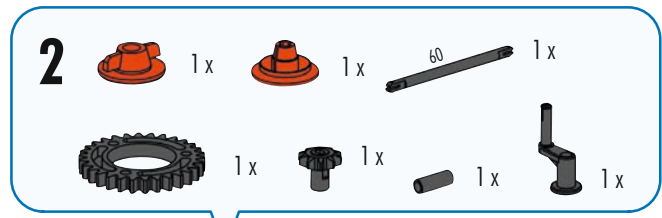
Uhrengetriebe  
Watch gearbox  
Boîte de montre

Kijk versnellingsbak  
Caja de cambios del reloj  
Caixa de relógios

Guarda il cambio  
Коробка передач часов  
观察齿轮箱



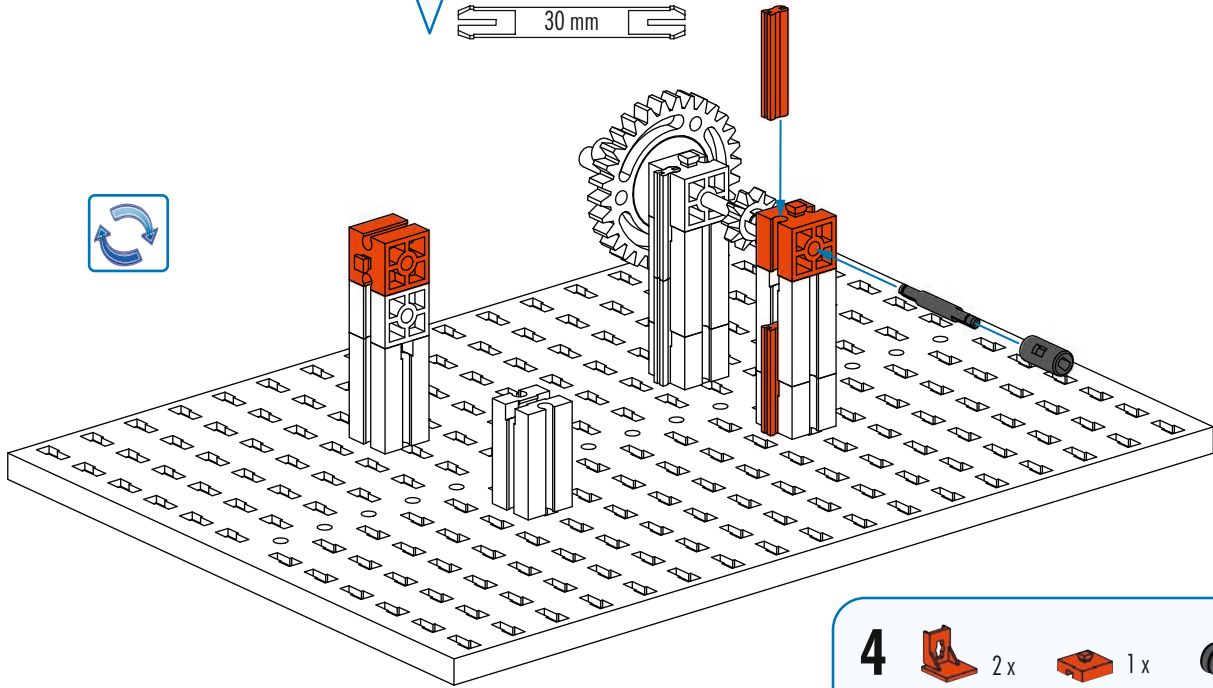
- Nabennutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



**3**

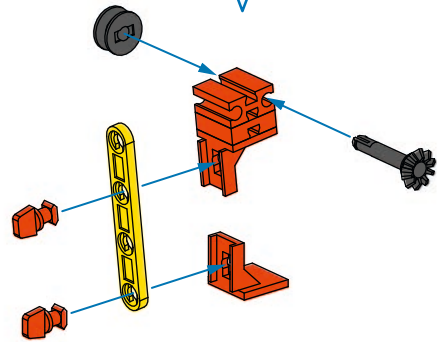
- 2 x
- 2 x
- 1 x
- 1 x

30 mm



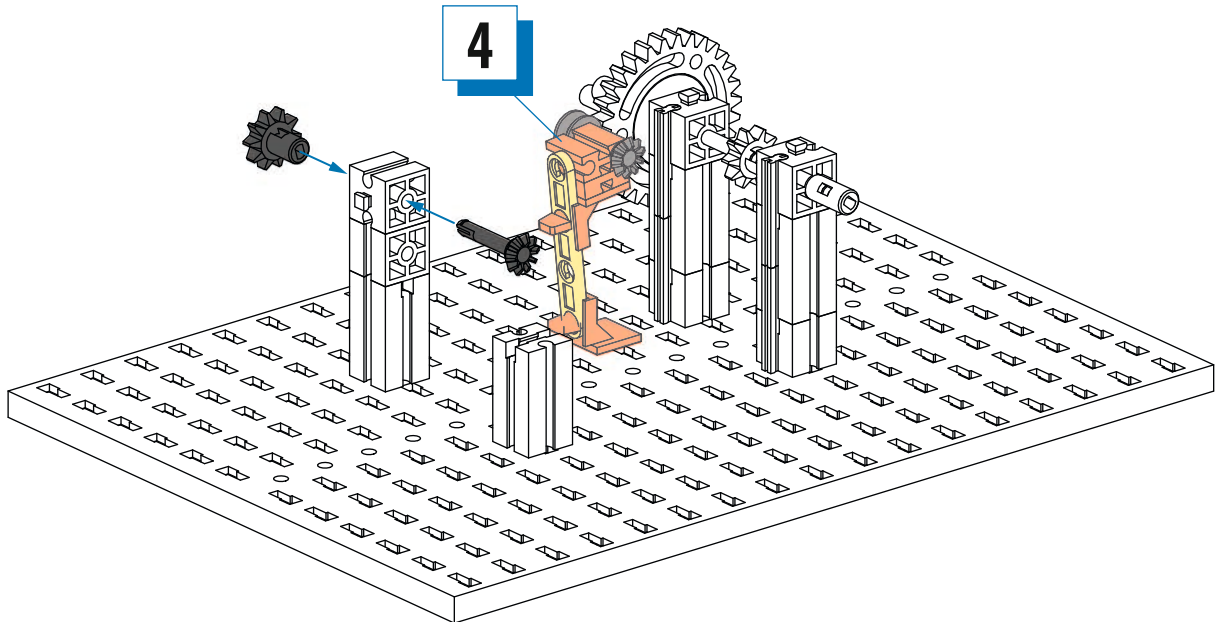
**4**

- 2 x
- 1 x
- 1 x
- 1 x
- 1 x
- 2 x
- 1 x

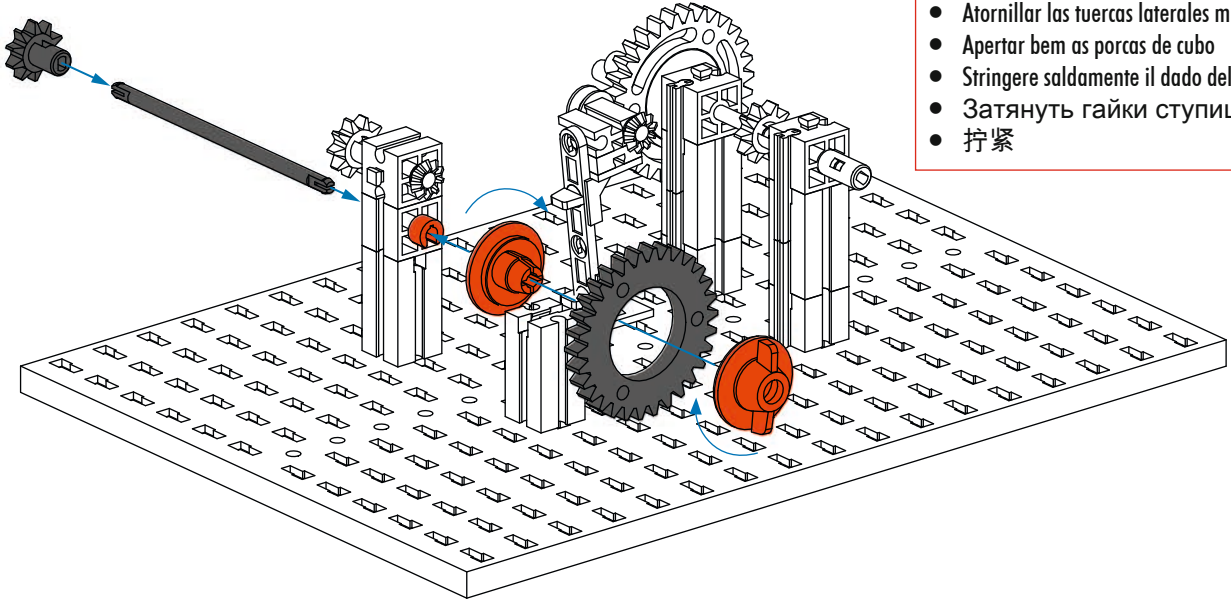
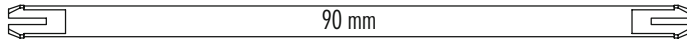
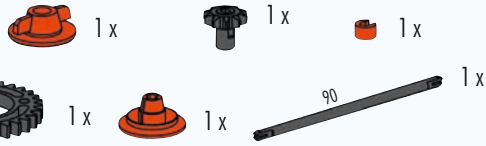


**5**

- 1 x
- 1 x

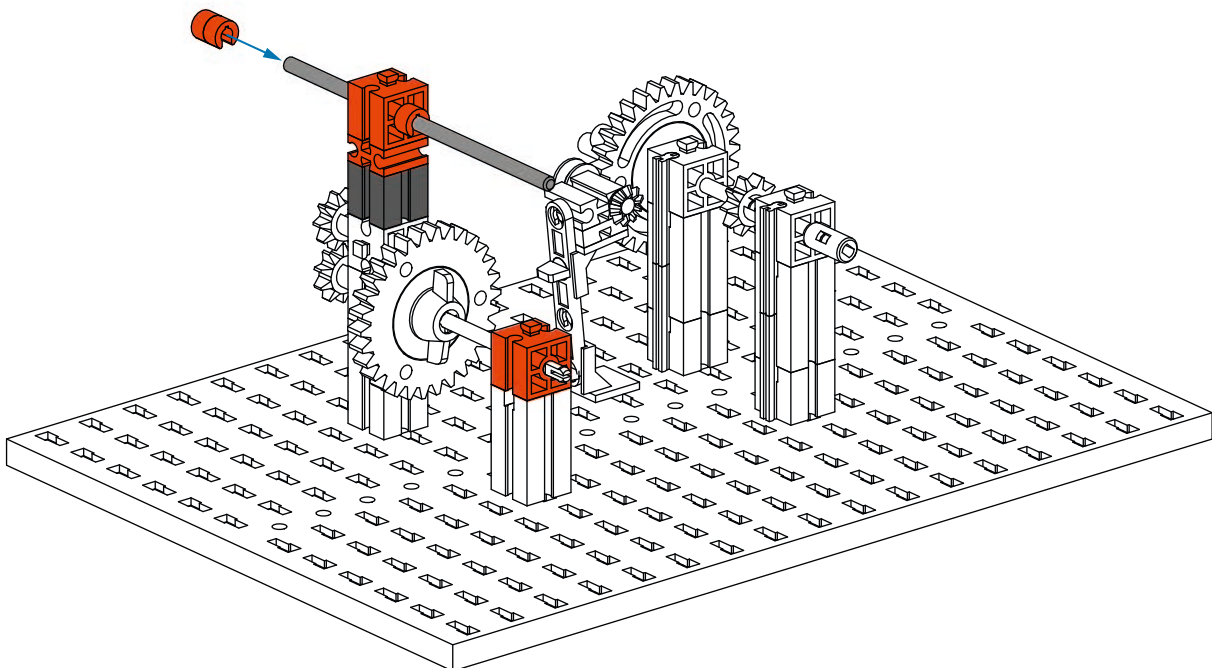
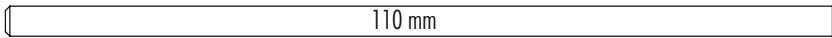
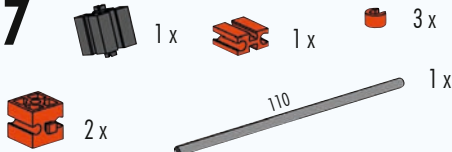


6

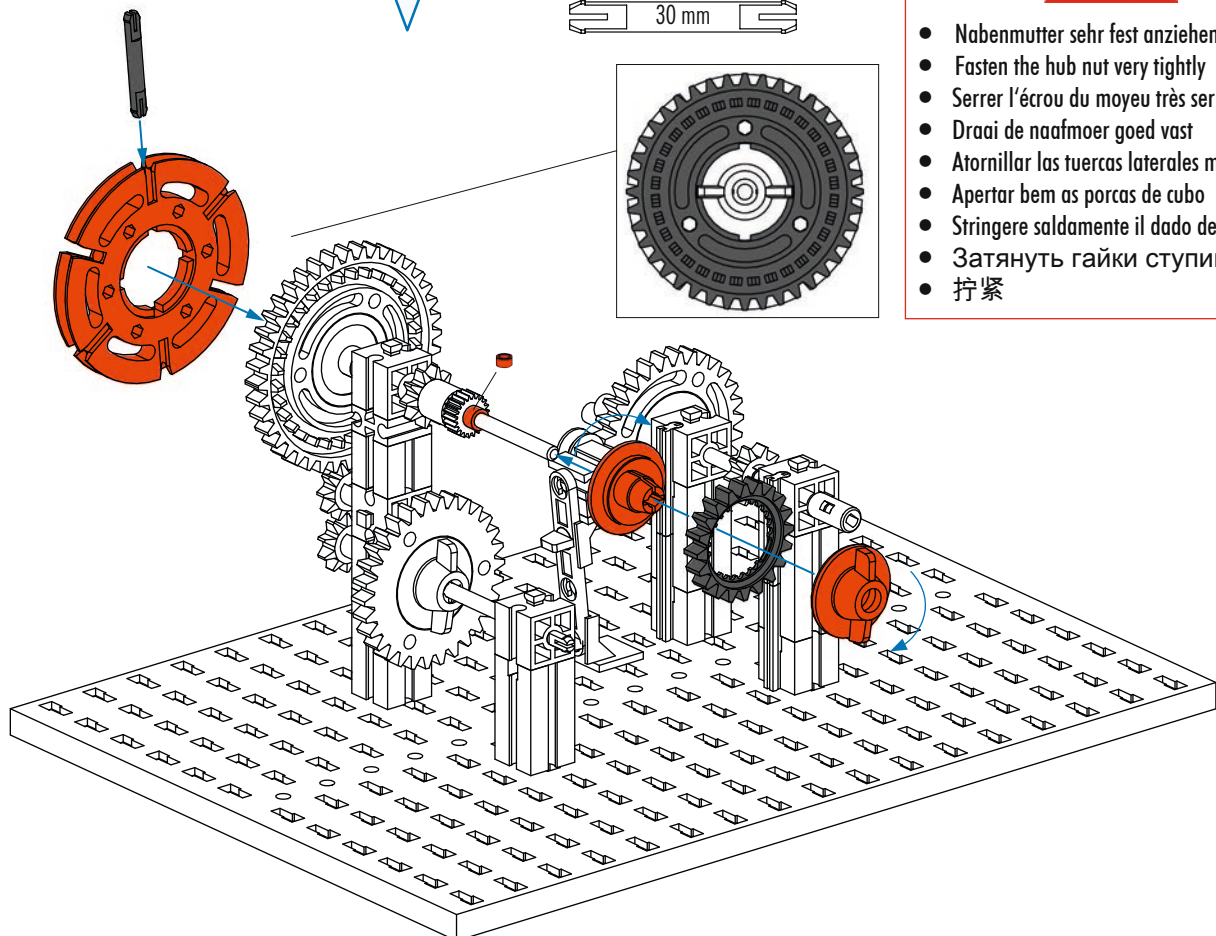
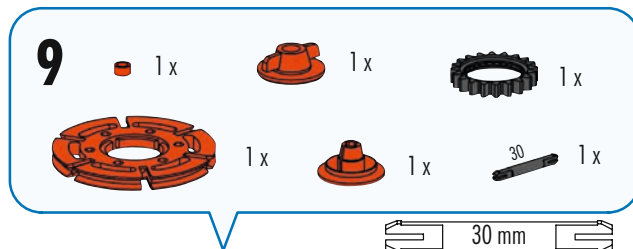
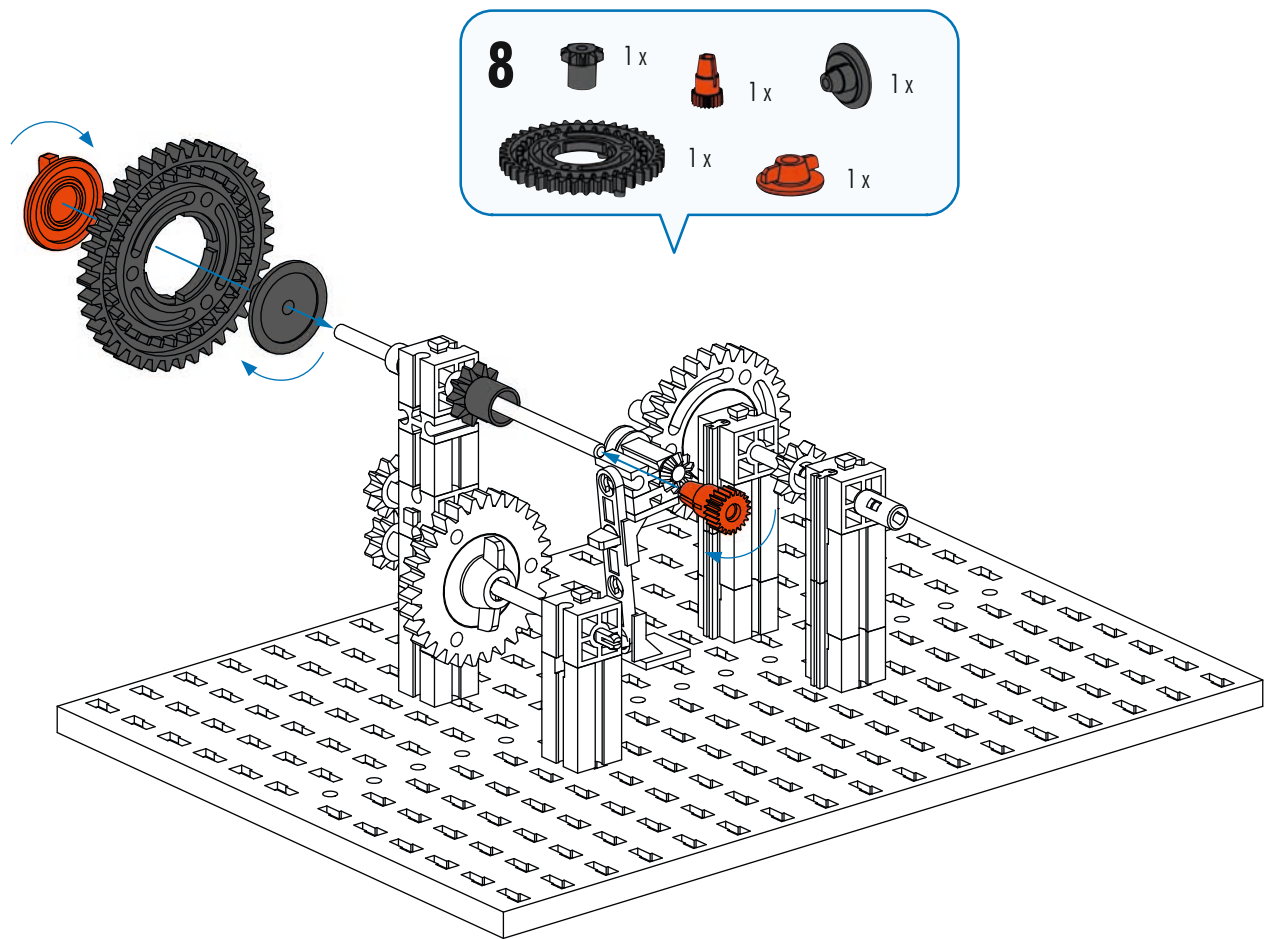


- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

7







- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertas
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

10



1x



1x



1x



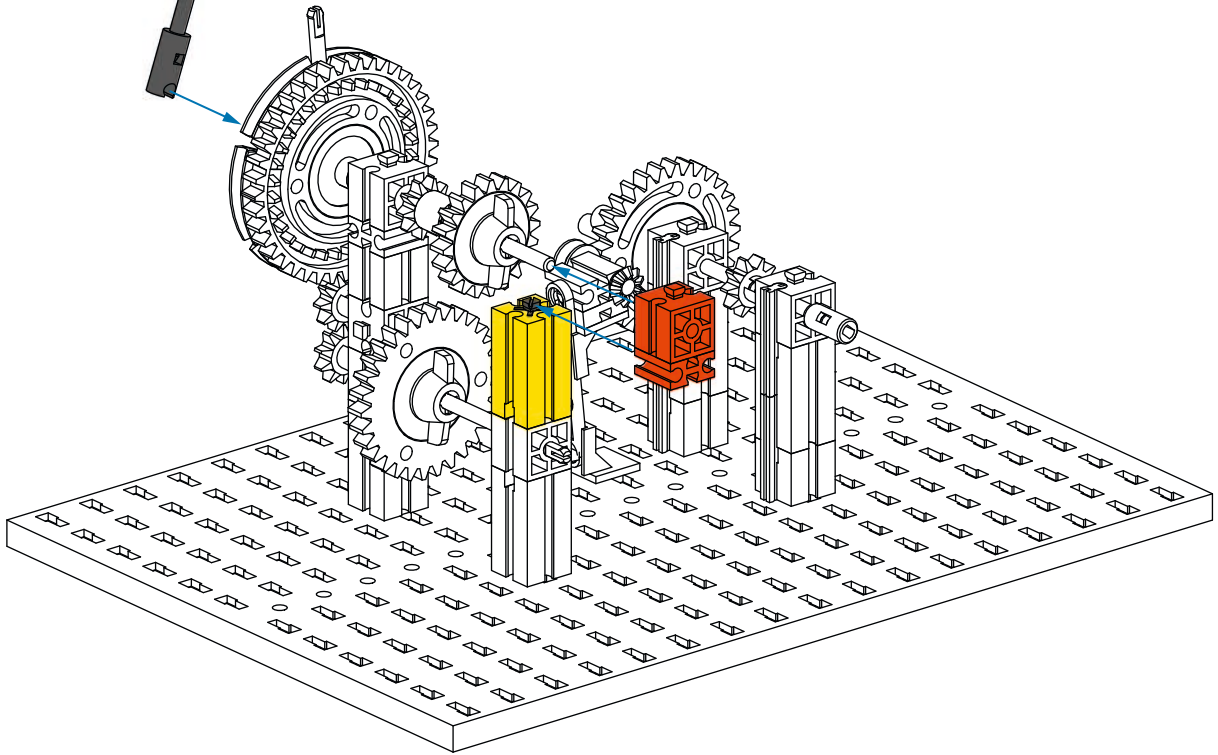
1x



60

1x

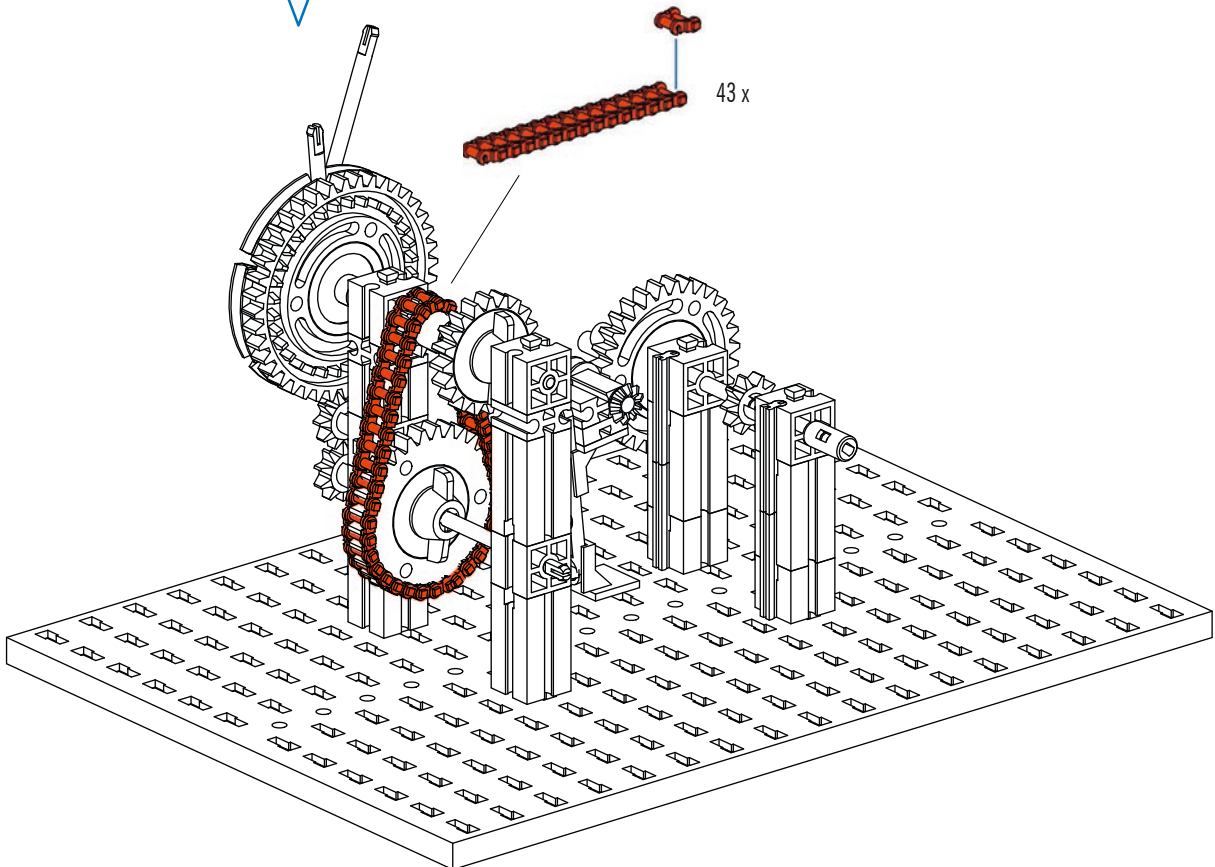
60 mm




11

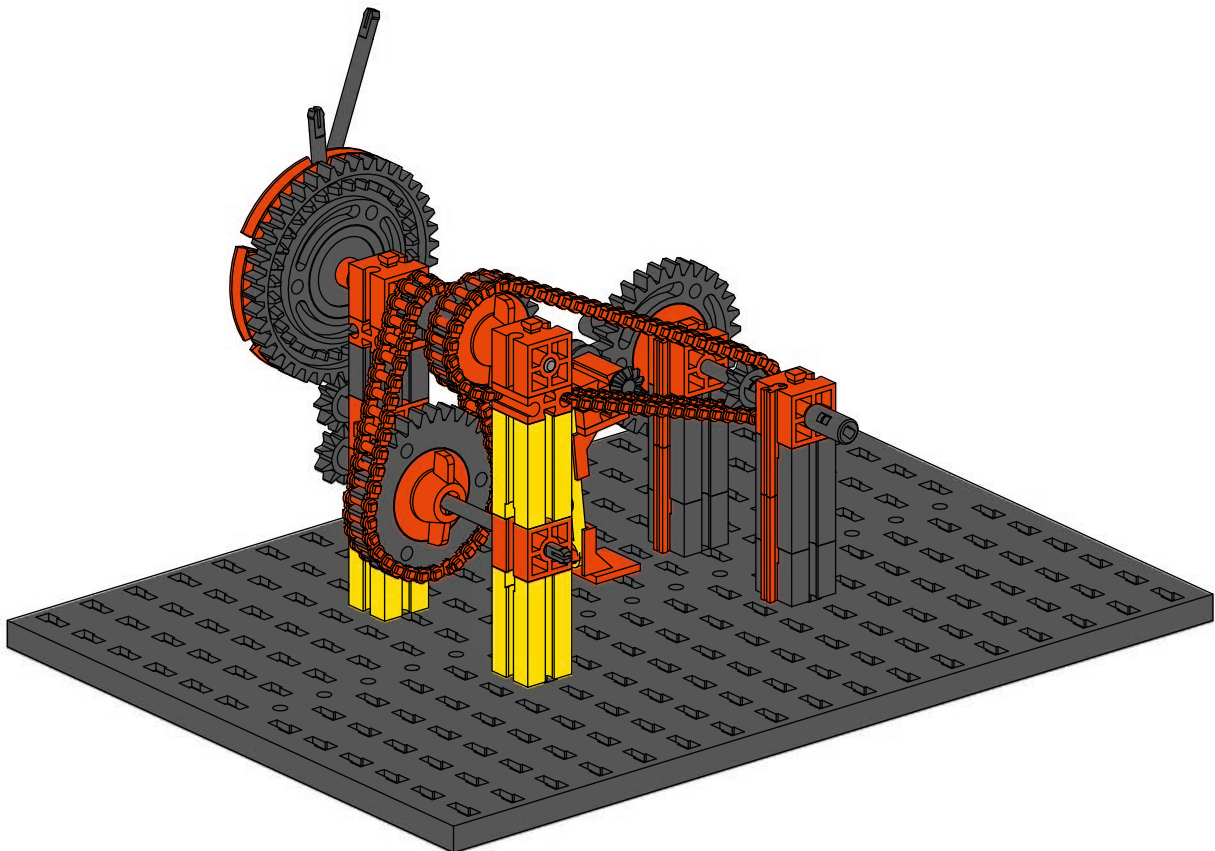
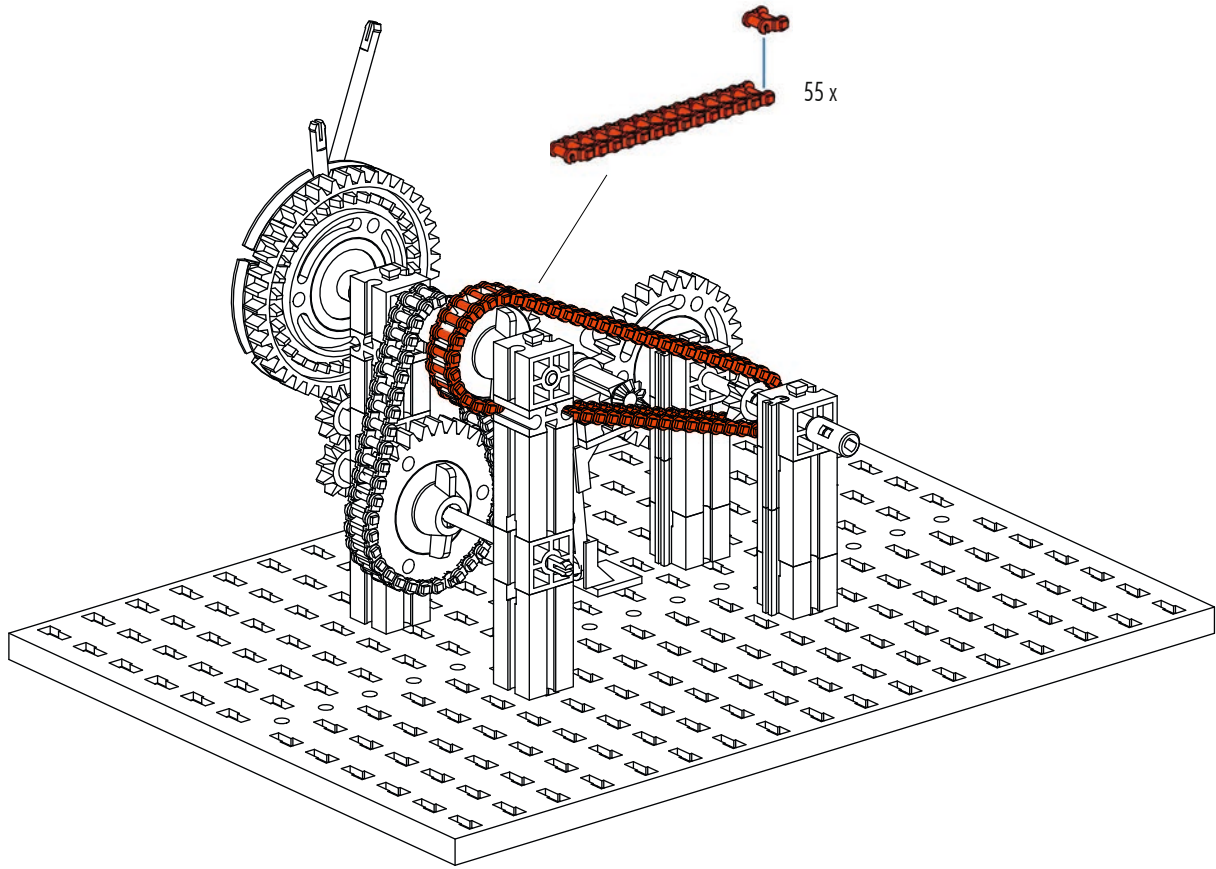


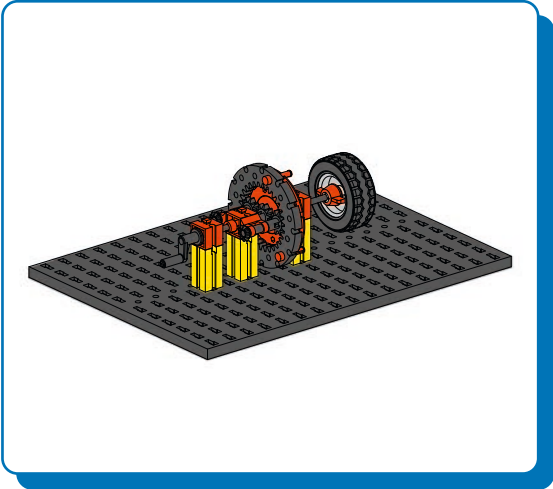
43 x



12

 55 x

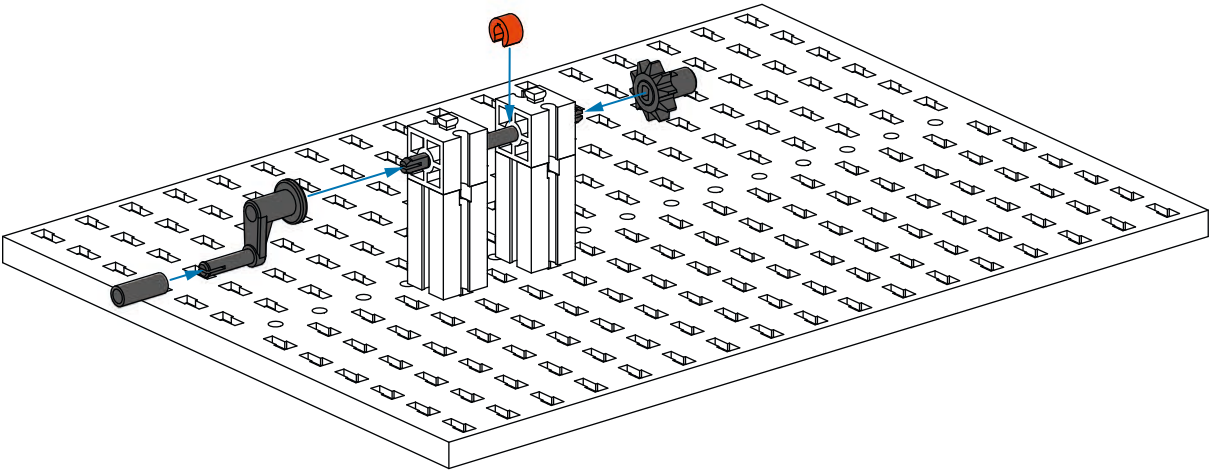
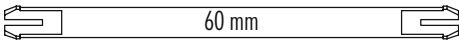
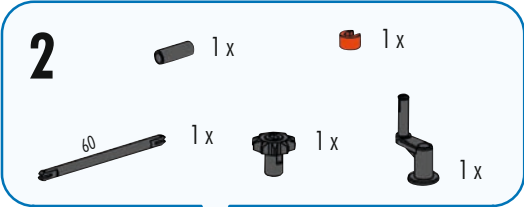
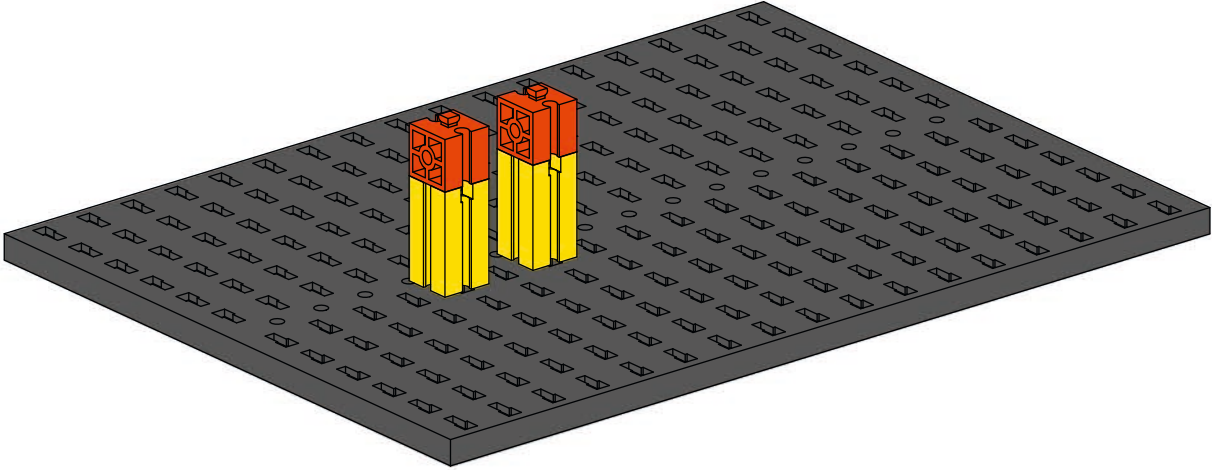
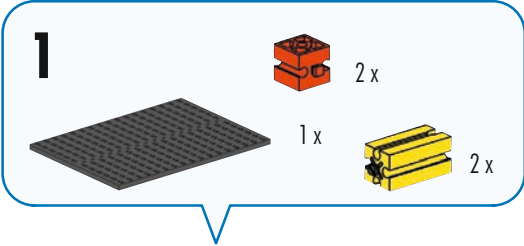




Planetengetriebe mit festem Planetenträger  
 Planetary gear with fixed planet carrier  
 Engrenage planétaire avec portesatellites fixe

Planetaire tandwielkast met vaste planeetdrager  
 Engranaje planetario con portasatélites fijo  
 Equipamento planetário com suporte planetário fixo

Ingranaggio planetario con portapianeti fisso  
 Планетарный редуктор с фиксированным планетарным носителем  
 帶固定行星架的行星齒輪



3



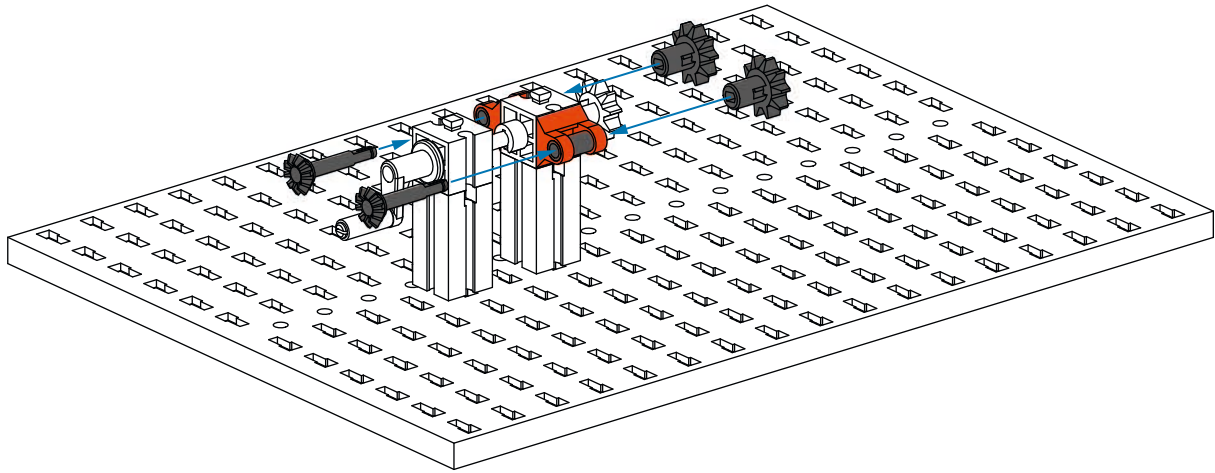
2 x



2 x



2 x



4



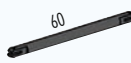
1 x



1 x



3 x



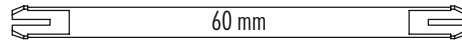
1 x



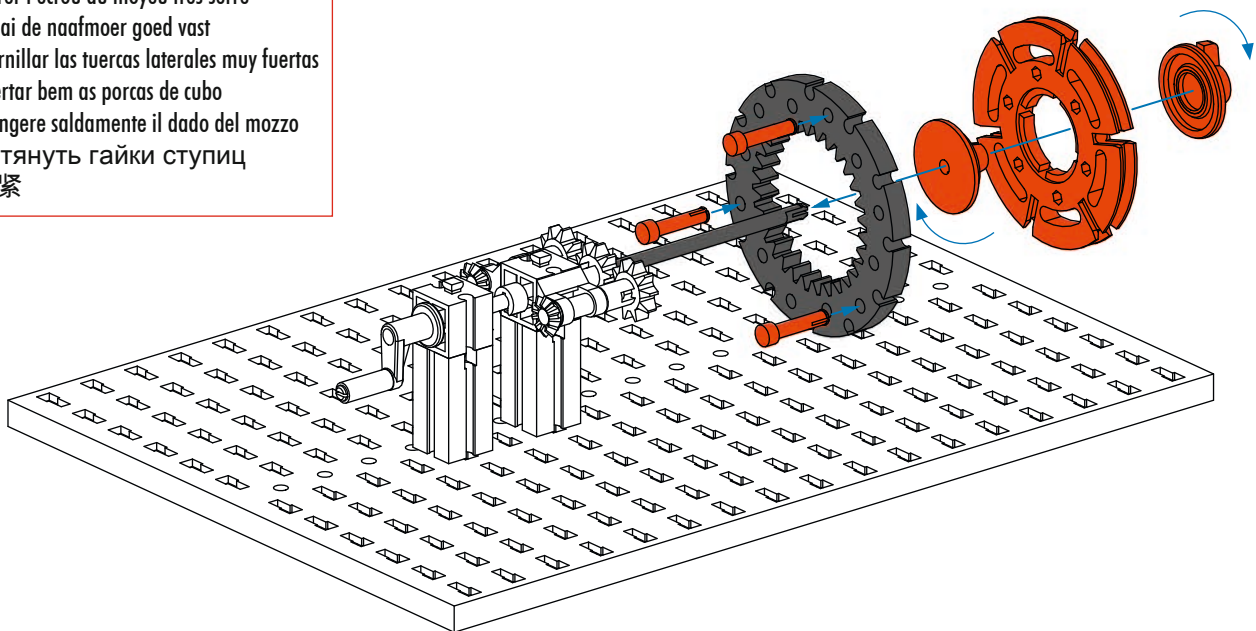
1 x







1 x

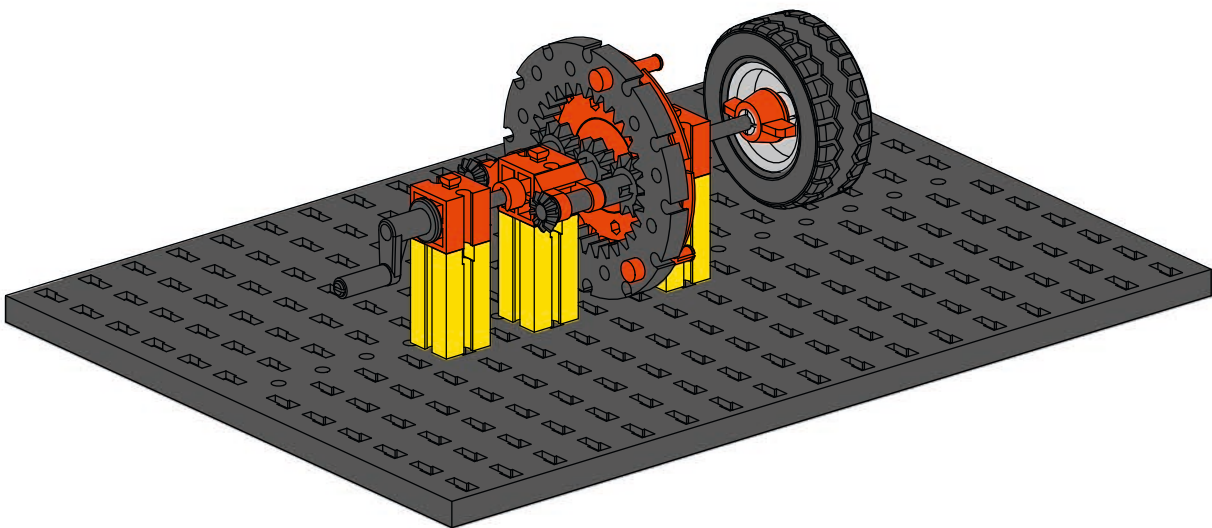
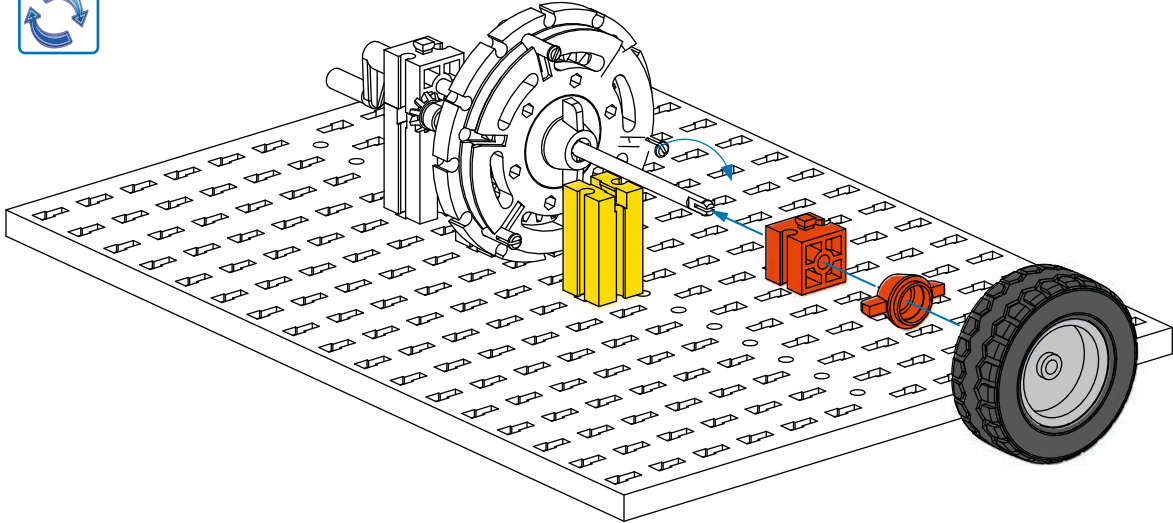


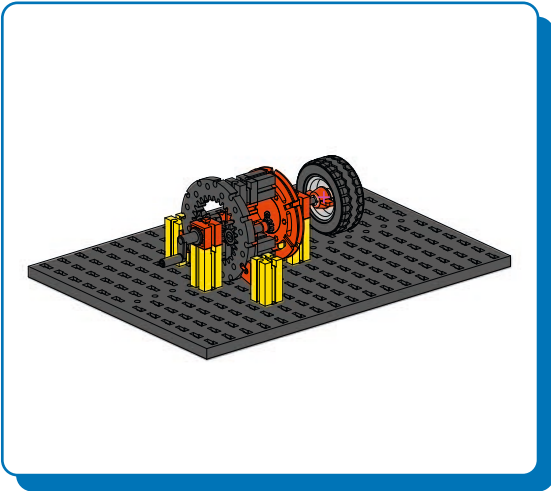
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧



**5**

- 1x 
- 1x 
- 1x 
- 1x 





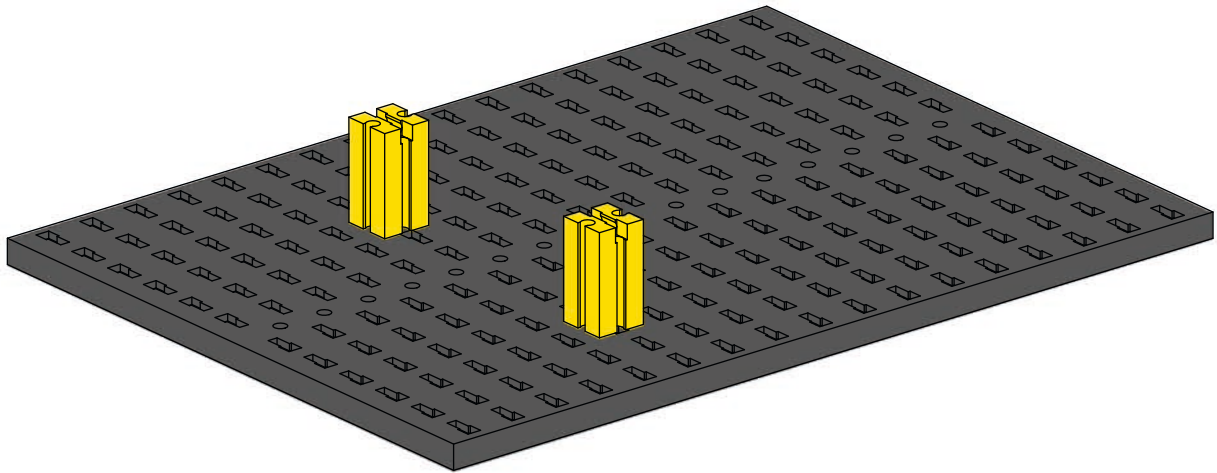
Planetengetriebe mit festem Hohlrad  
 Planetary gear with fixed ring gear  
 Engrenage planétaire avec couronne fixe

Planetaire tandwieloverbrenging met vast ringwiel  
 Engranaje planetario con corona dentada fija  
 Engrenagem planetária com engrenagem de anel fixo

Ingranaggio planetario con corona fissa  
 Планетарный редуктор с фиксированным кольцом  
 行星齿轮与固定环齿轮

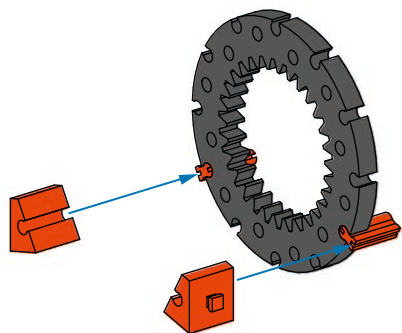
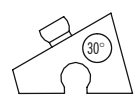
**1**

1 x 2 x

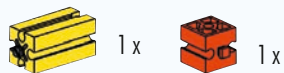


**2**

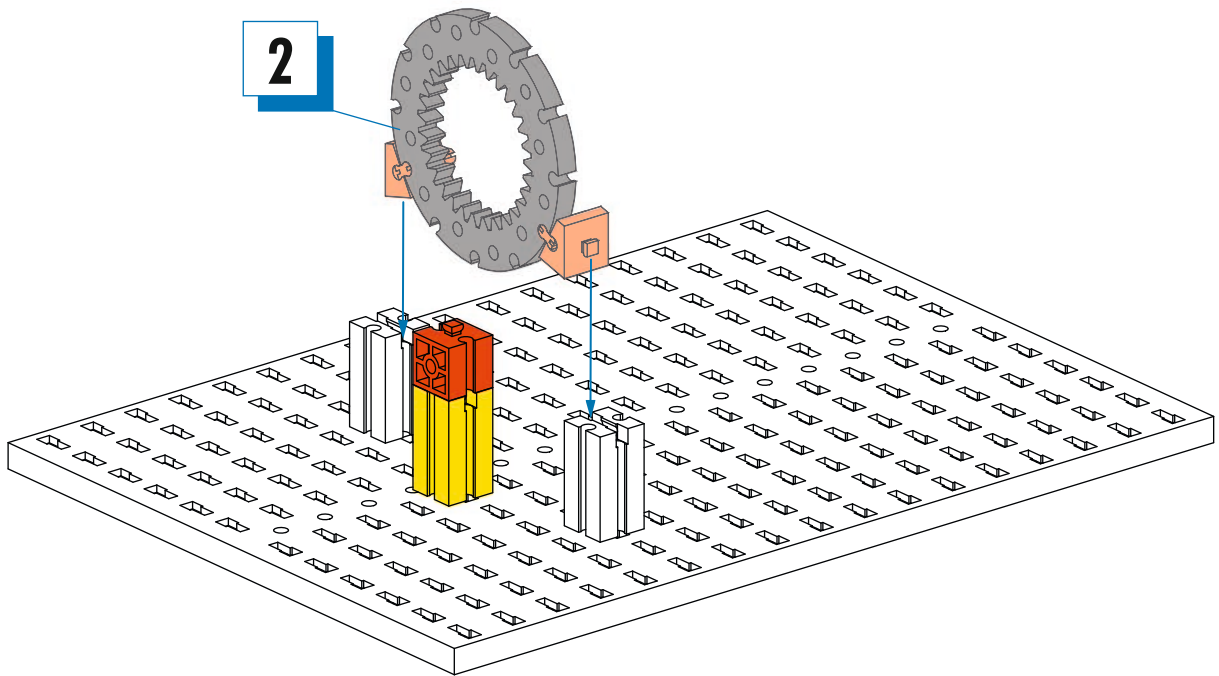
1 x 15 2 x 30° 2 x



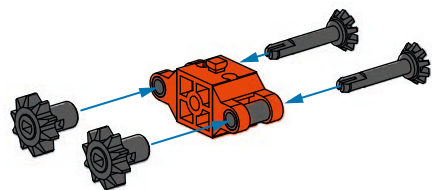
3



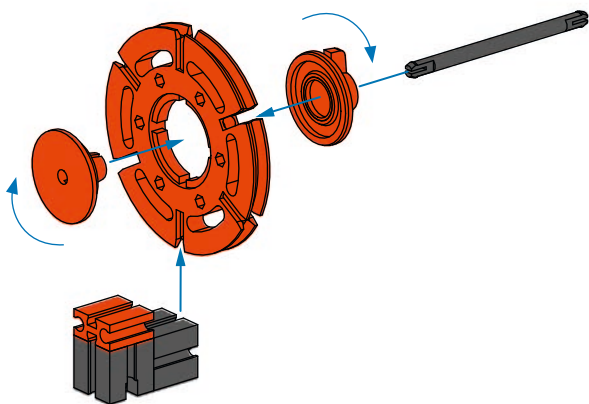
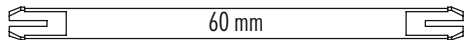
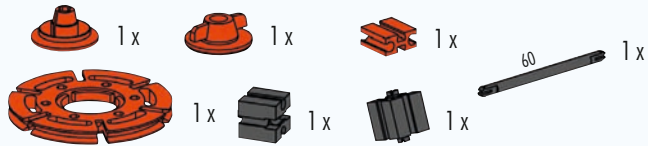
2



4

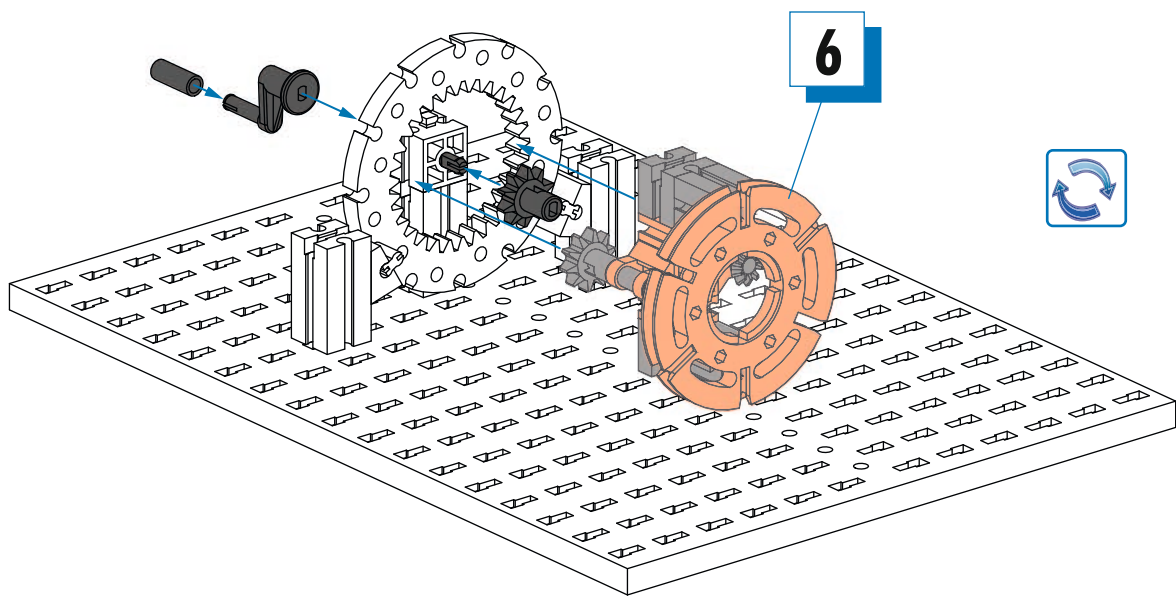
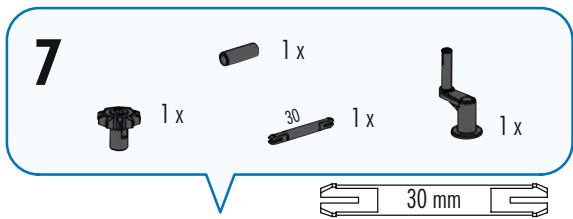
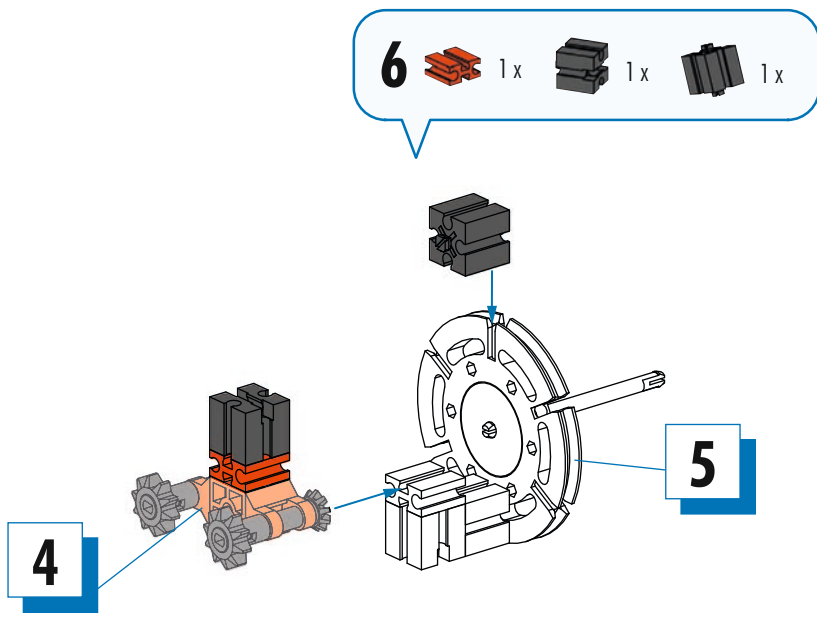


5







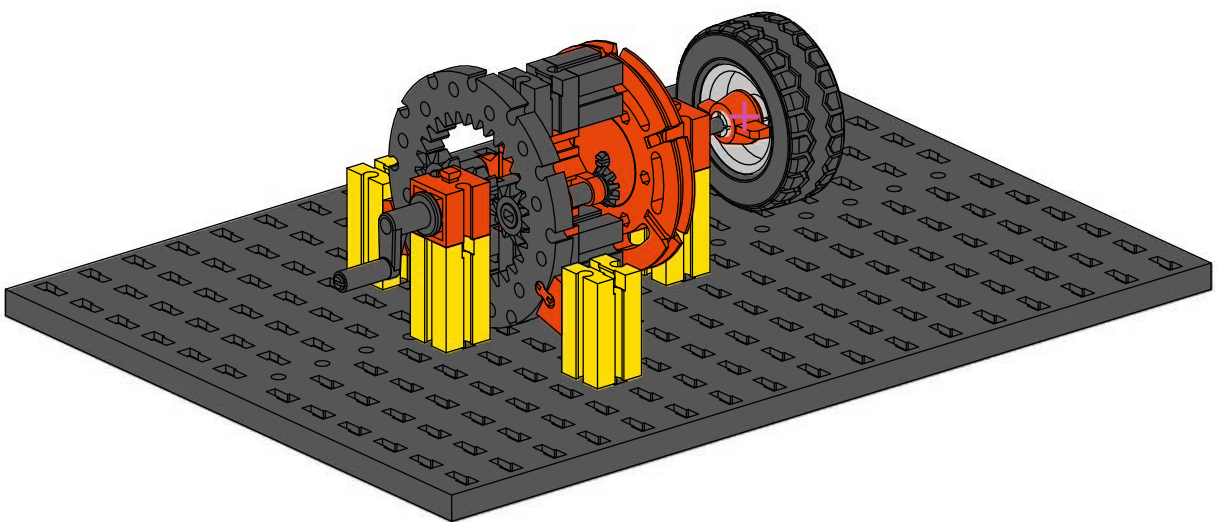
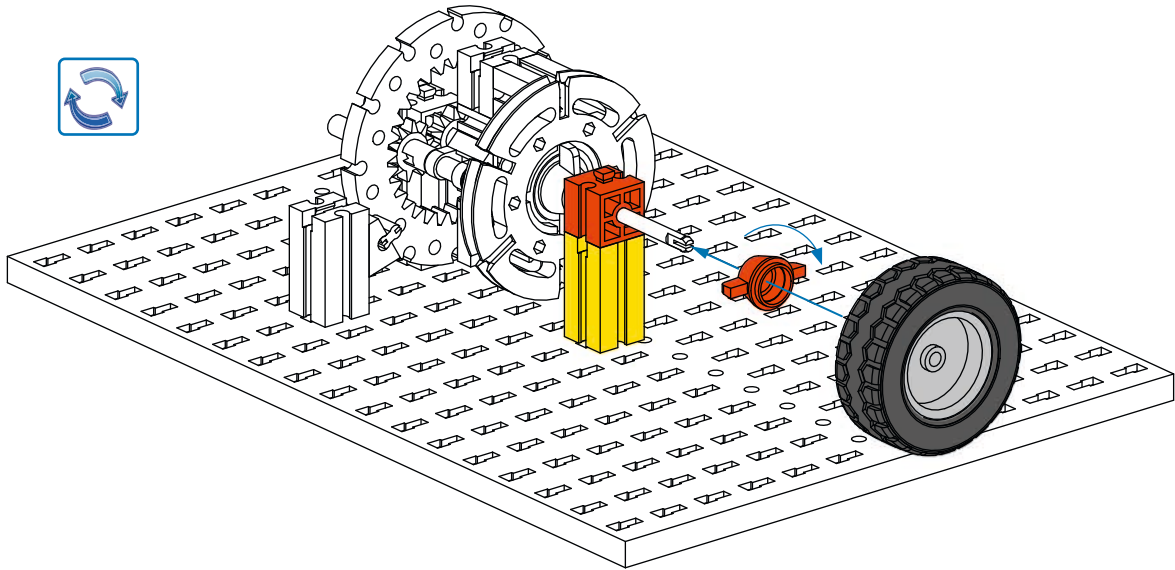
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧





**9**

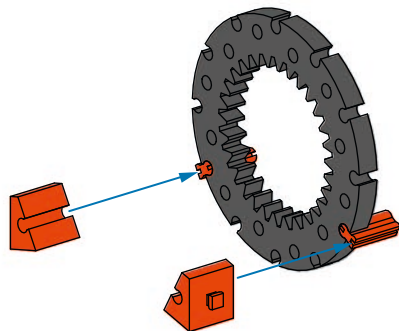
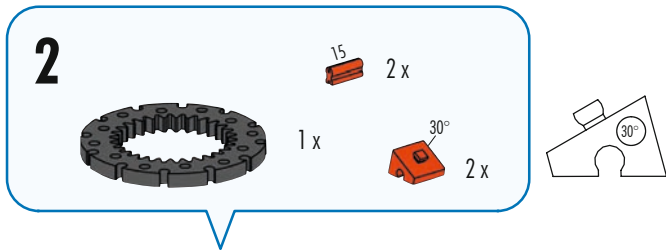
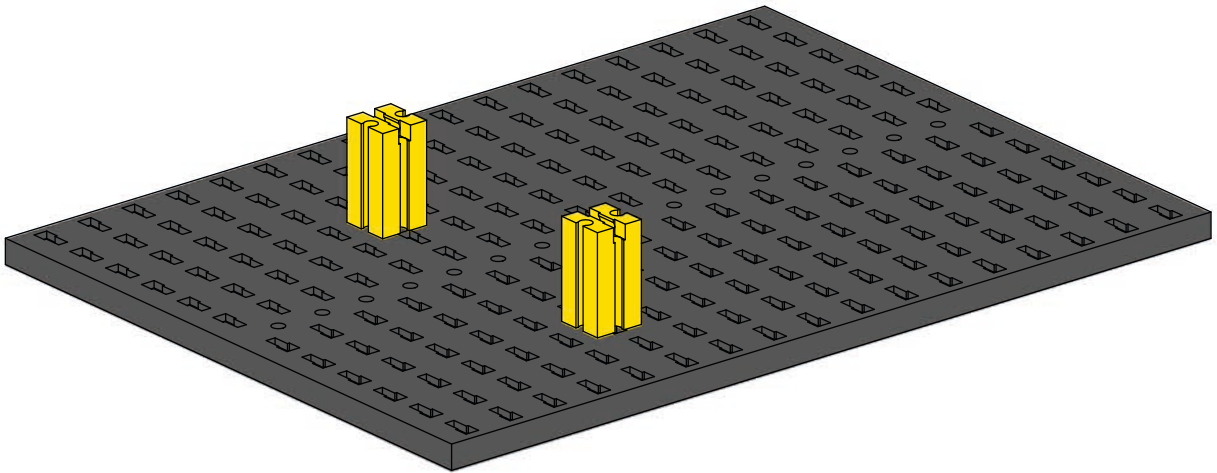
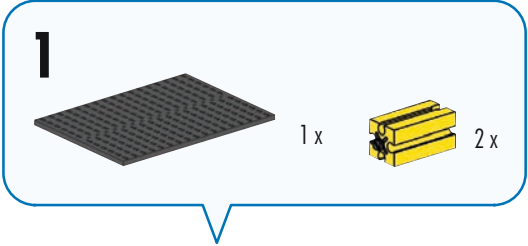
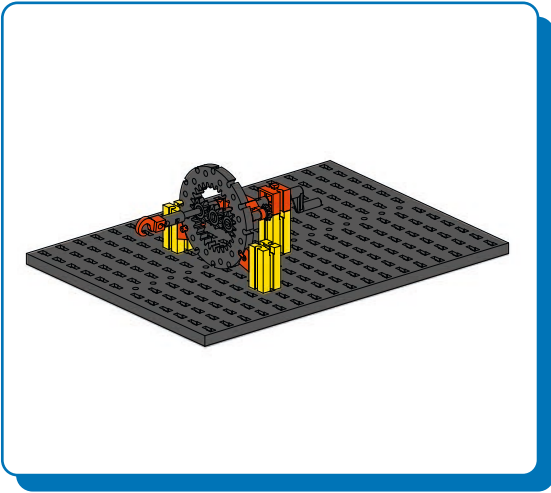
1x  1x  1x  1x  1x



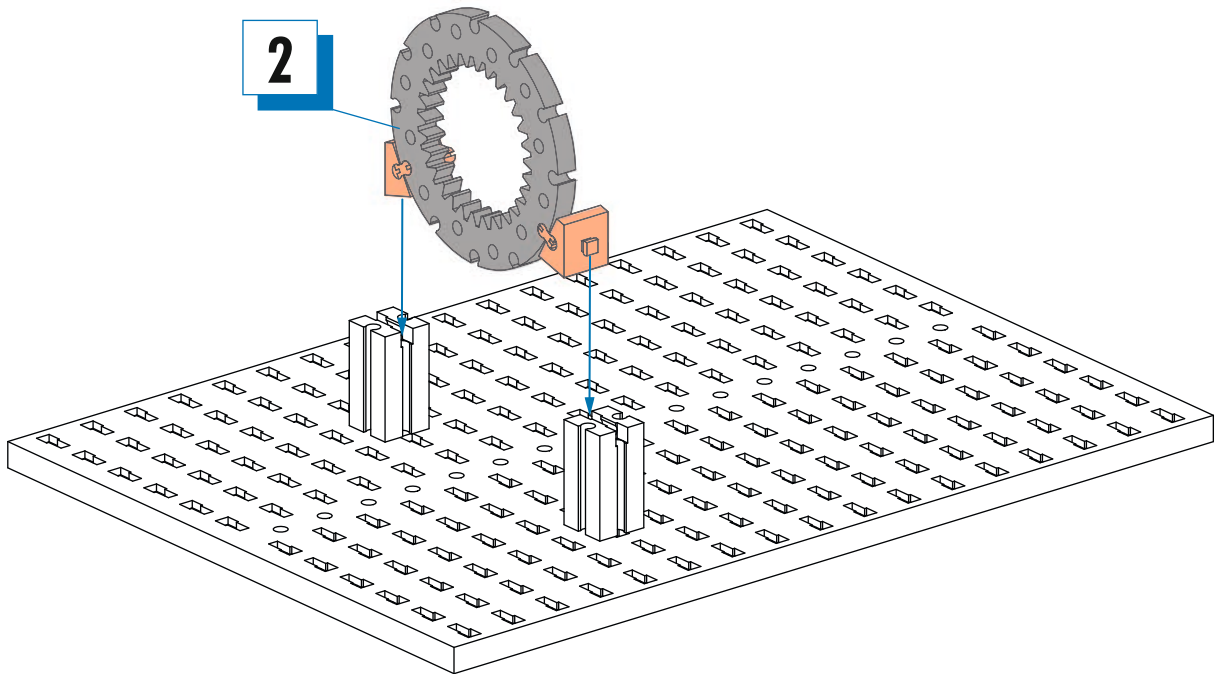
Planetengetriebe - Rührwerk  
Planetary gear - agitator  
Engrenage planétaire - Agitateur

Planetaire versnelling - Roerwerk  
Engranaje planetario - Agitador  
Equipamento planetário - Agitador

Ingranaggio planetario - Agitatore  
Планетарный редуктор -  
Мешалка  
行星齿轮 - 搅拌器

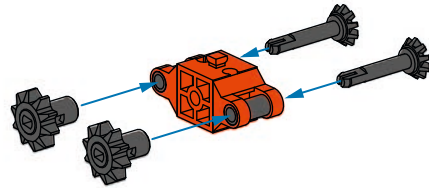


3

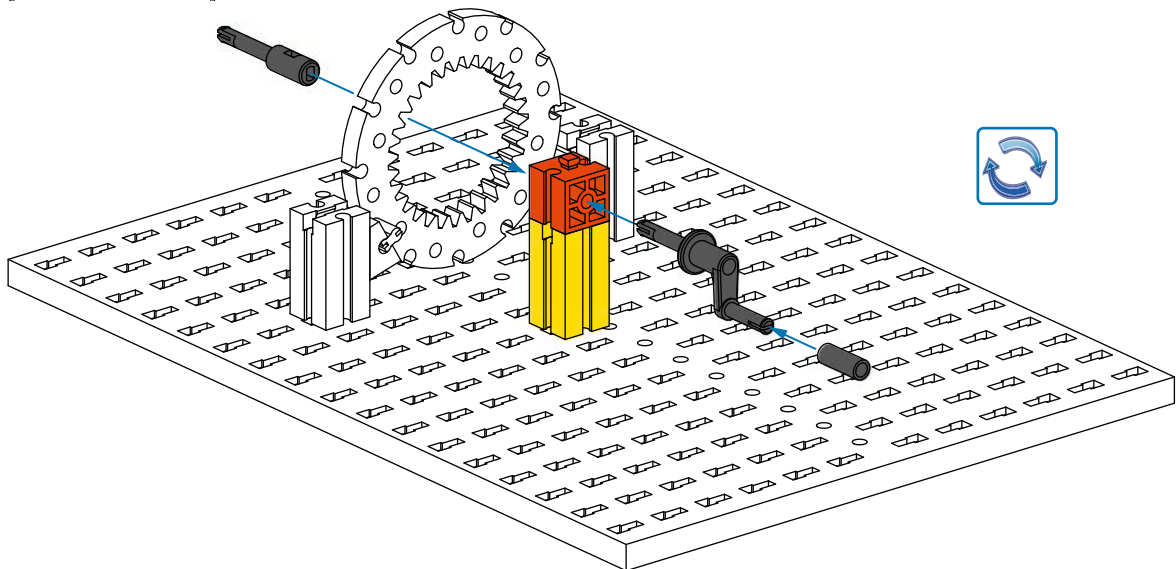
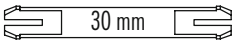
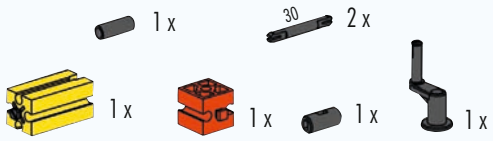


2

4



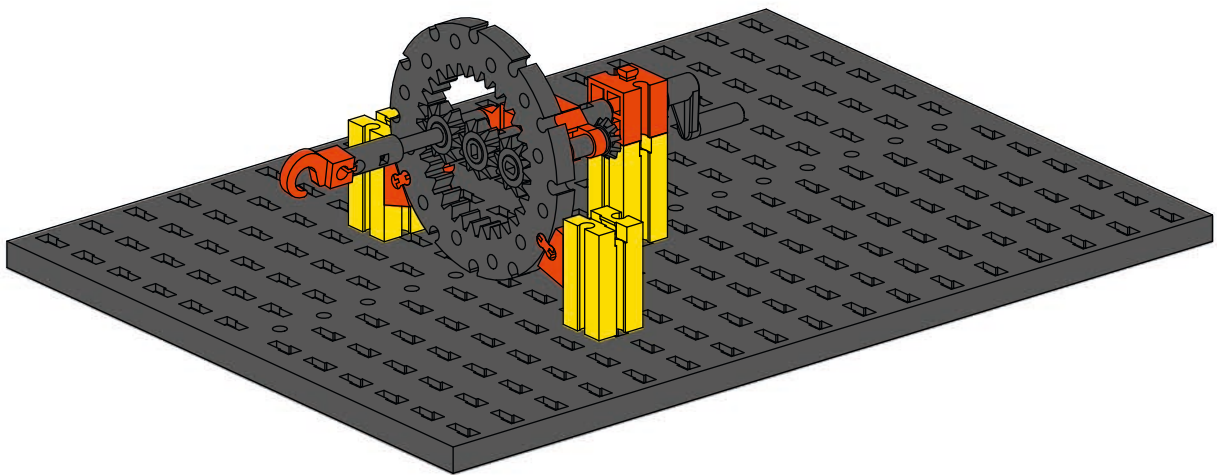
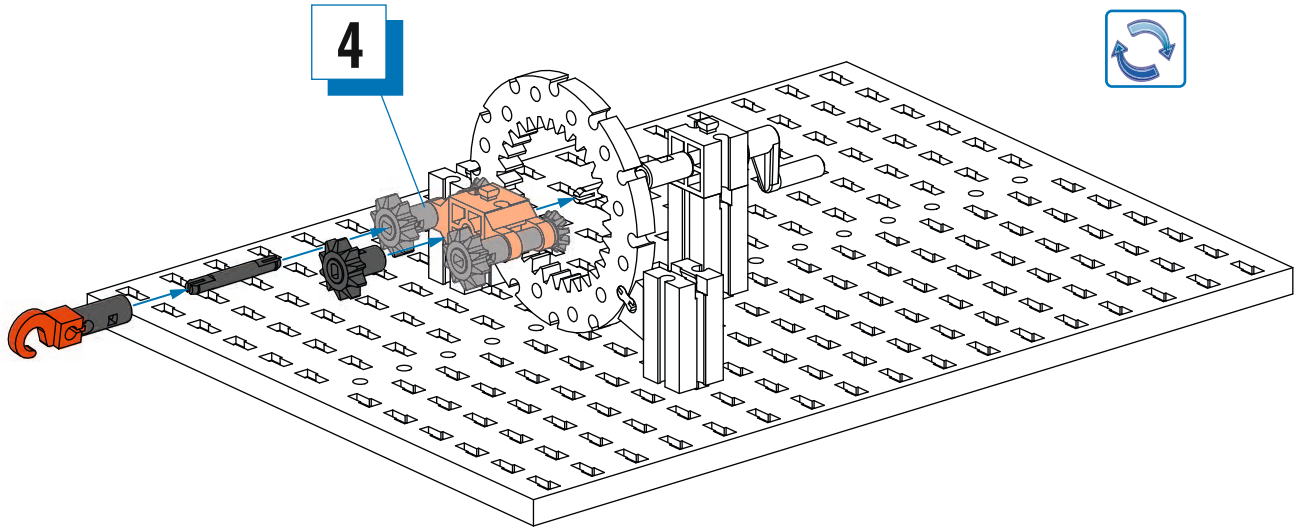
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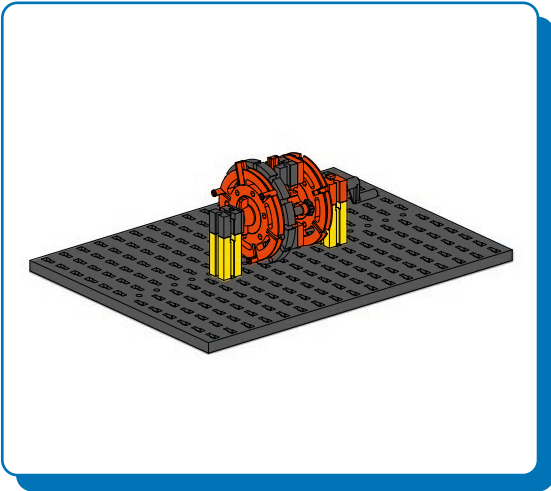


**6**

30 1x    1x    1x    1x

30 mm

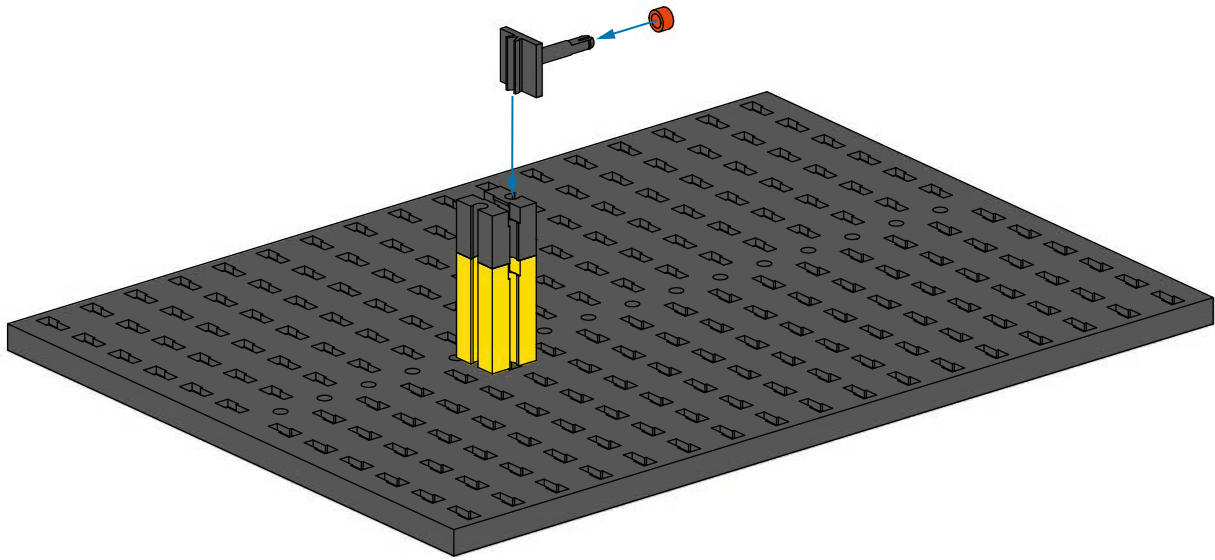
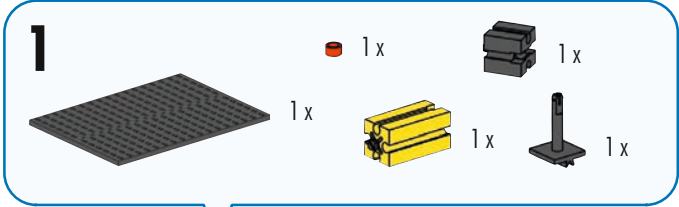




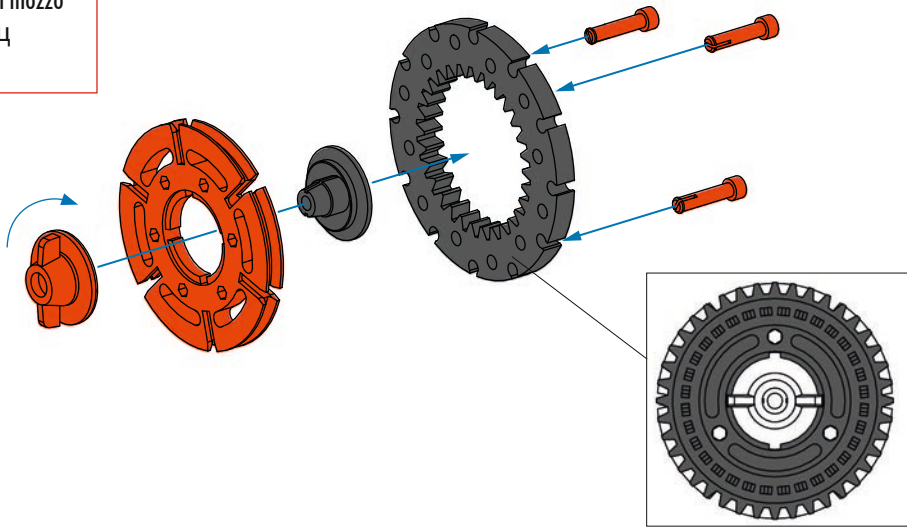
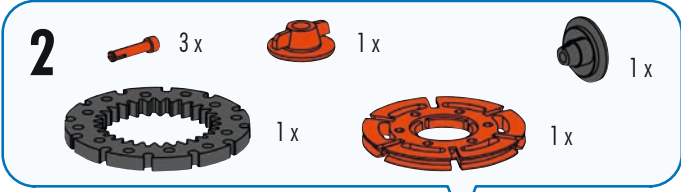
Planetengetriebe mit festem Sonnenrad  
 Planetary gear with fixed sun gear  
 Engrenage planétaire avec pignon solaire fixe

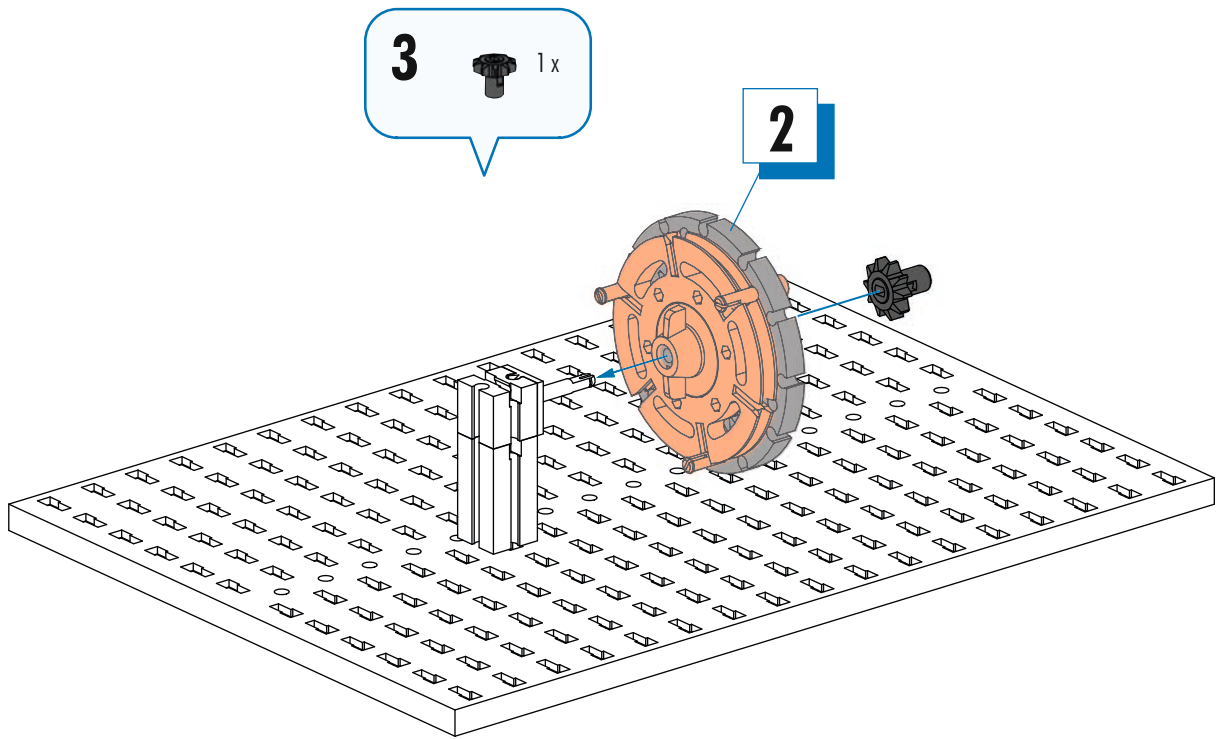
Planetaire tandwieloverbrenging met vast zonnentandwiel  
 Engranaje planetario con engranaje solar fijo  
 Equipamento planetário com equipamento solar fixo

Ingranaggio planetario con ingranaggio solare fisso  
 Планетарный редуктор с фиксированным солнцезащитным механизмом  
 帶固定太陽齒輪的行星齒輪



- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

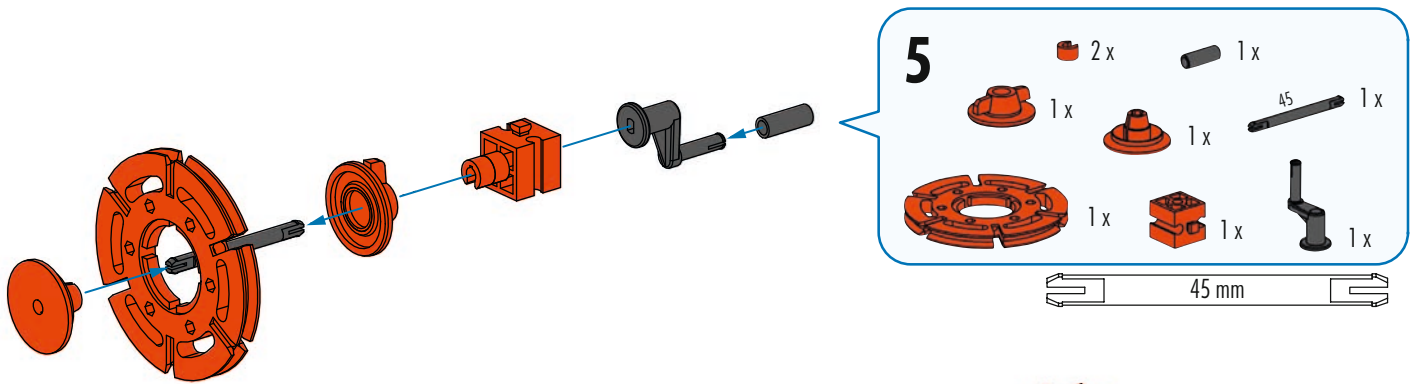
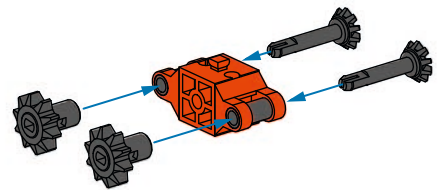




**3** 1x

**2**

**4** 1x 2x 2x 2x



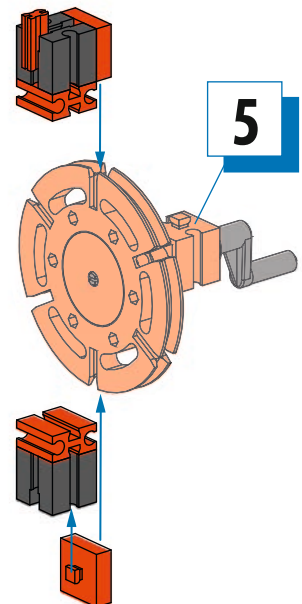
**5** 2x 1x 1x 45 1x 1x 1x

45 mm

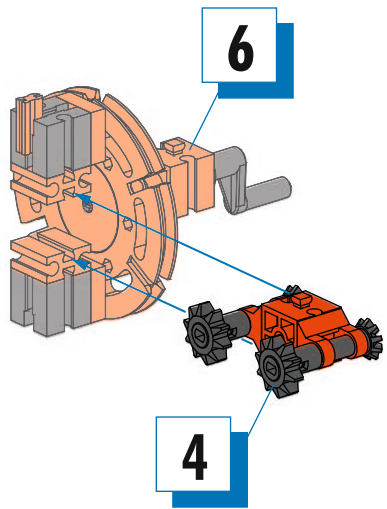


- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

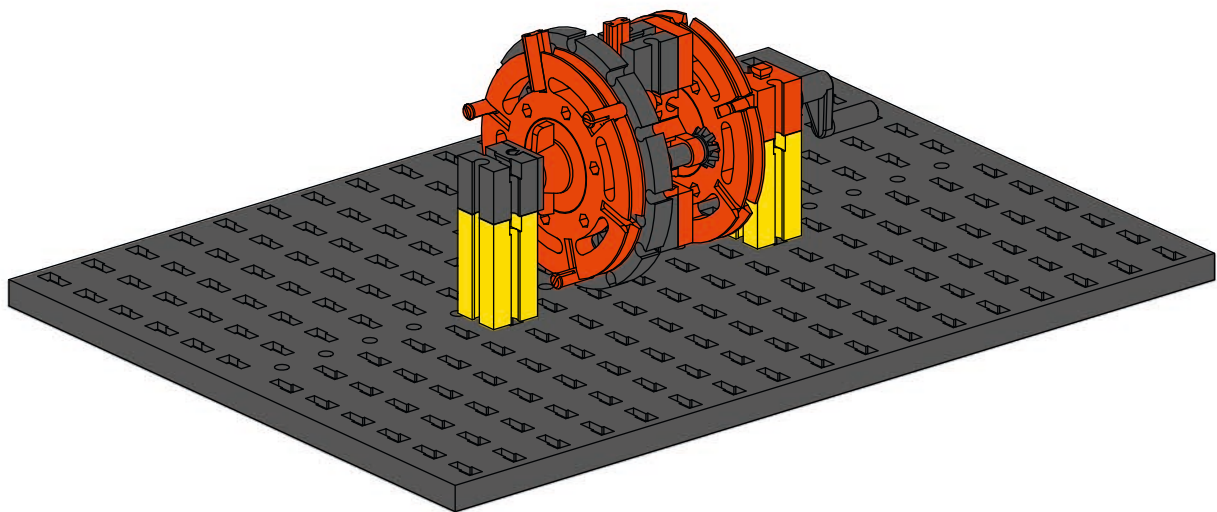
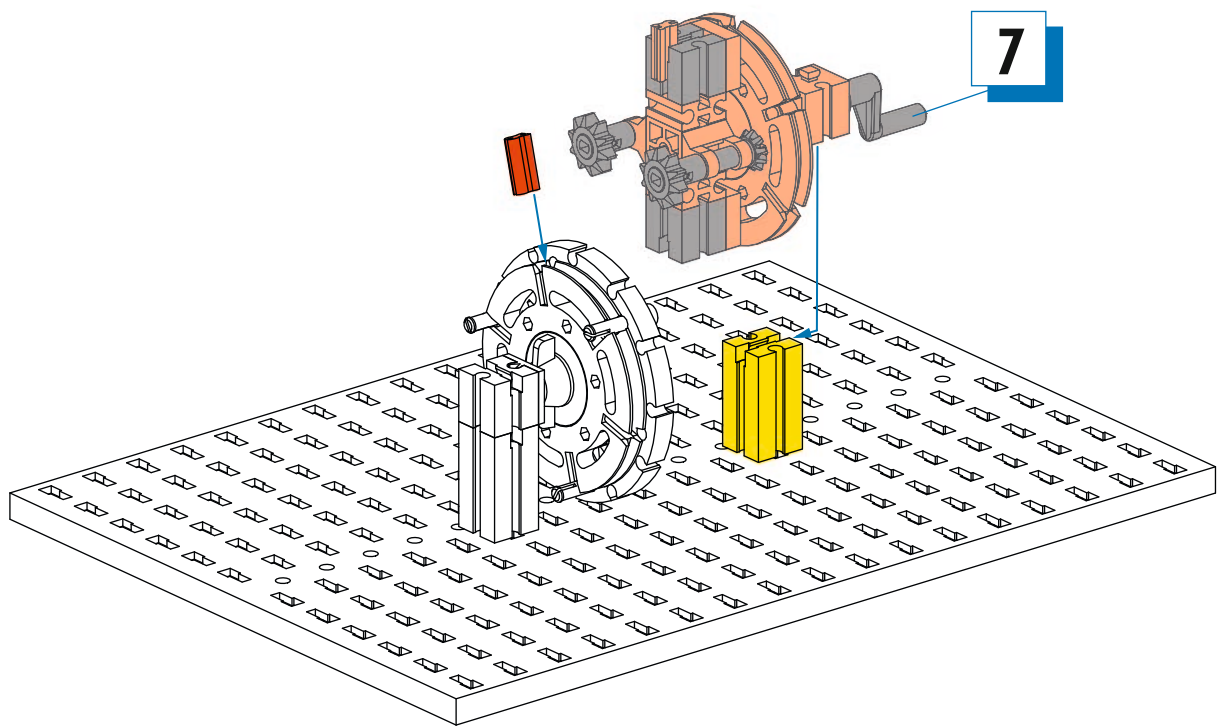
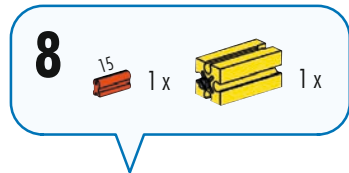
**6** 1x 2x 2x 2x



**5**



7

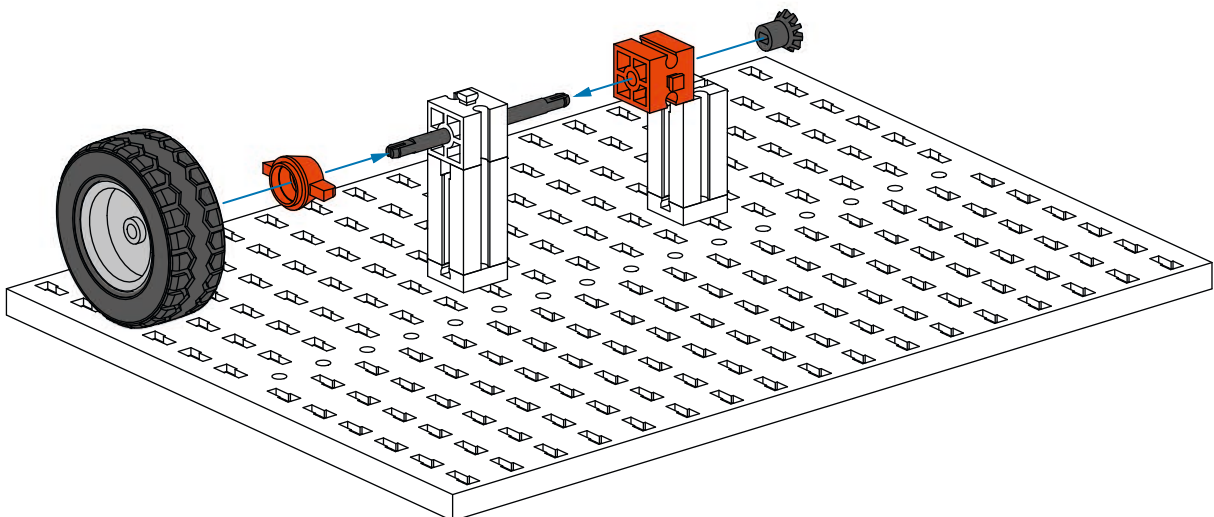
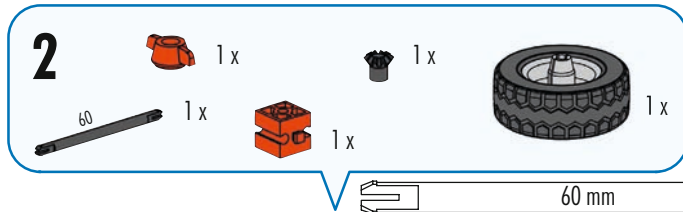
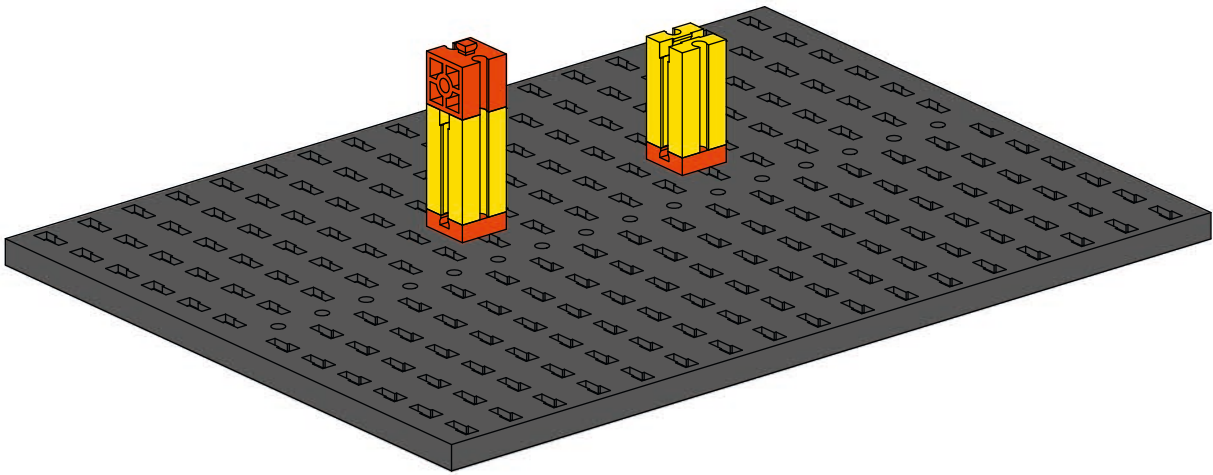
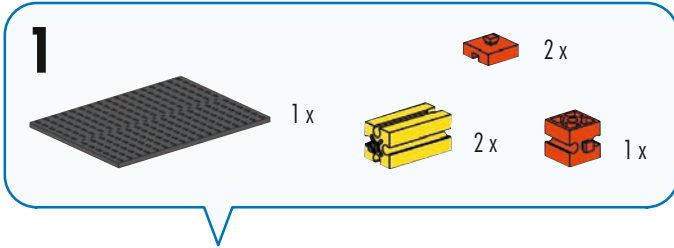
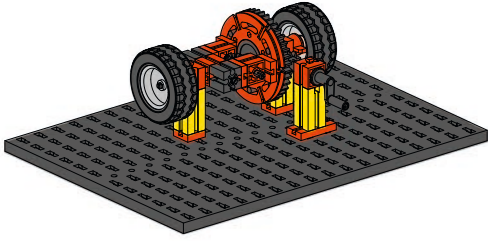




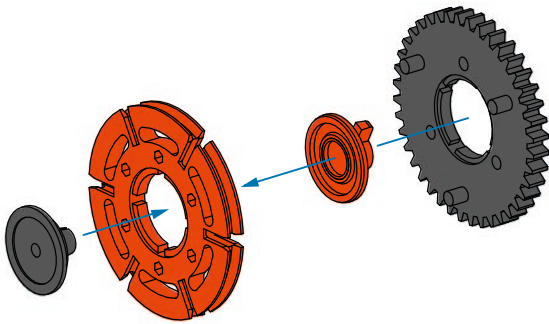
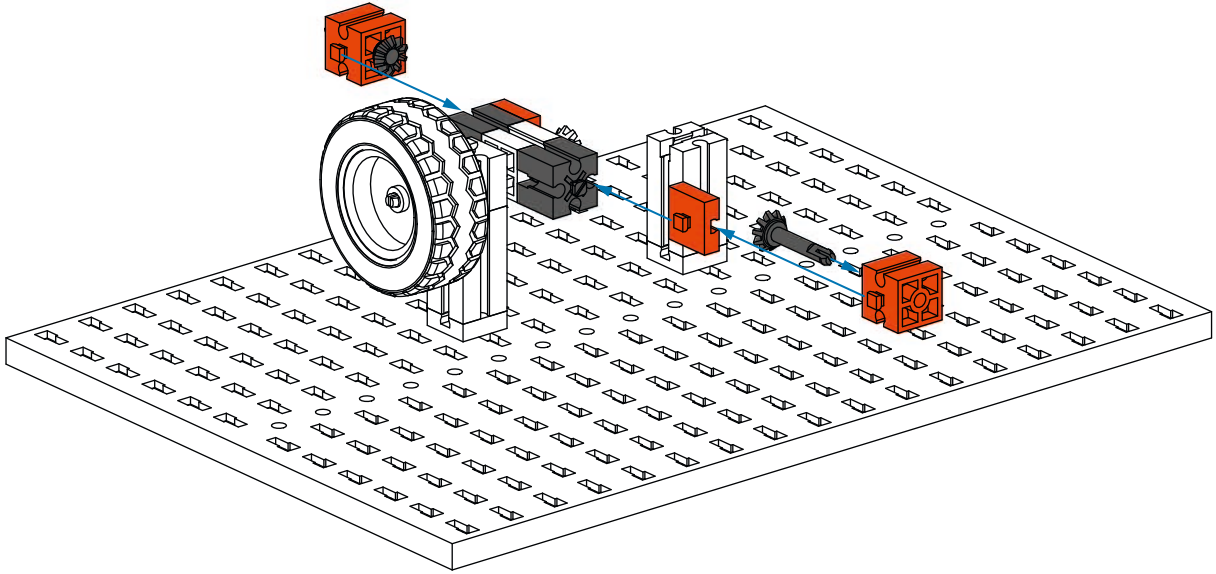
Differenzialgetriebe  
Differential gear  
Différentiel

Differentieel  
Engranaje diferencial  
Engrenagem diferencial

Ingranaggio differenziale  
Дифференциальная  
передача  
差速器



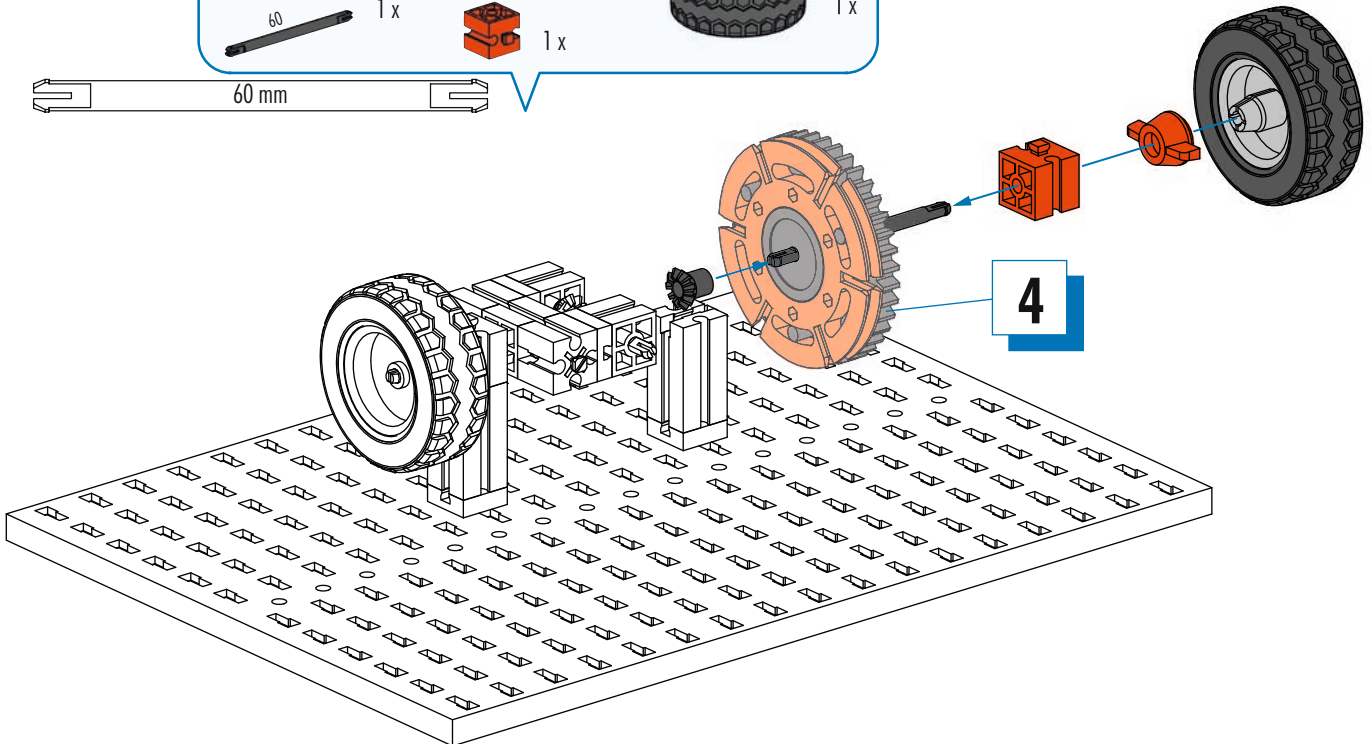
- 3**
- Orange 1x2 Technic Brick with Hole: 2x
  - Black 1x2 Technic Brick with Hole: 2x
  - Orange 1x2 Technic Brick with Hole and Pin: 2x
  - Black Pin: 2x



- 4**
- Orange 1x2 Technic Brick with Hole: 1x
  - Grey Bush: 1x
  - Orange Gear Ring: 1x
  - Black Gear: 1x

- 5**
- Orange 1x2 Technic Brick with Hole: 1x
  - Black Pin: 1x
  - Black Pin (60 mm): 1x
  - Orange 1x2 Technic Brick with Hole and Pin: 1x
  - Black Tire: 1x

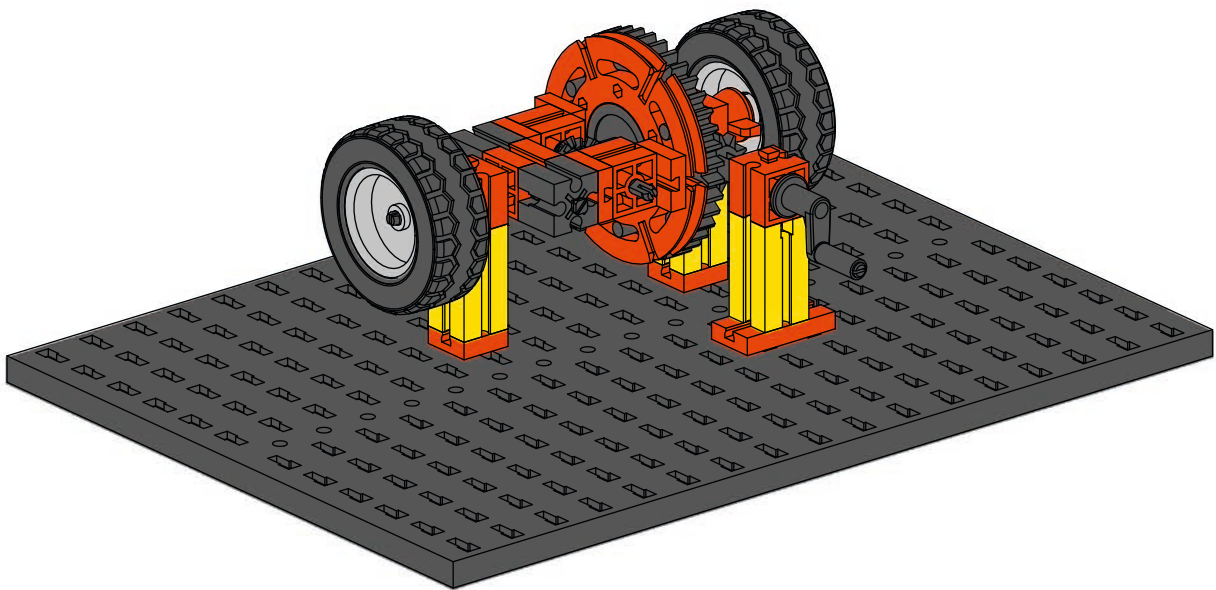
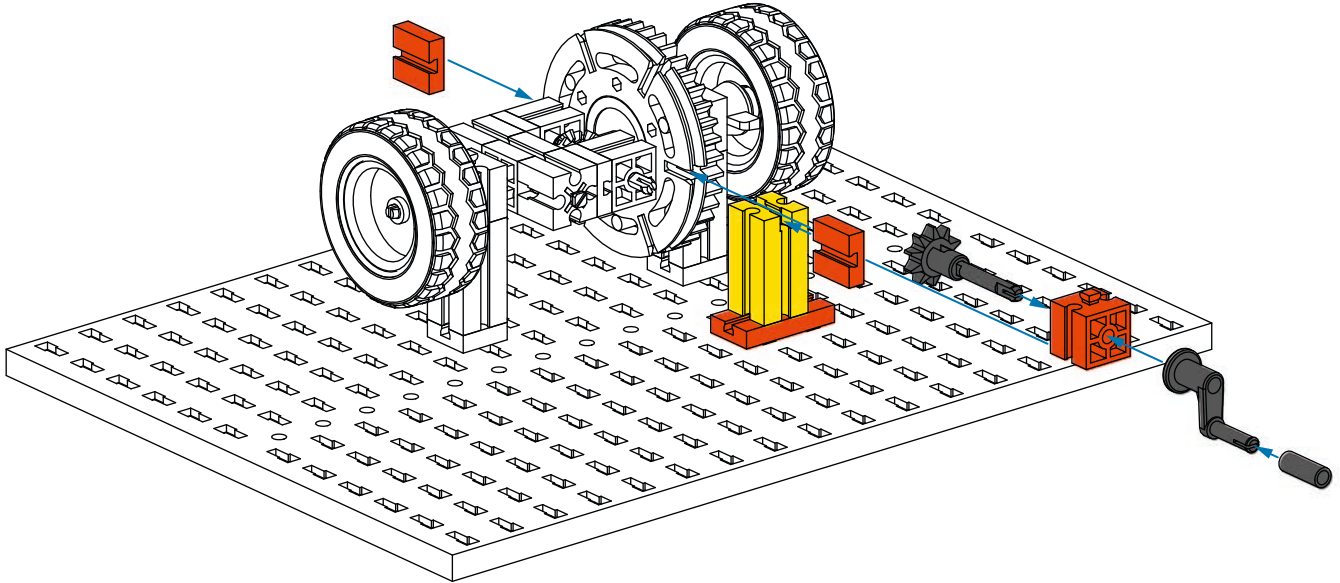
60 mm



**6**

- 2 x
- 1 x
- 1 x
- 1 x
- 1 x
- 1 x
- 1 x
- 1 x
- 1 x

30 mm



# STEM Gear Tech

fischertechnik GmbH  
Klaus-Fischer-Str. 1  
72178 Waldachtal  
Germany  
Phone: +49 74 43/12-43 69  
Fax: +49 74 43/12-45 91  
info@fischertechnik.de  
www.fischertechnik.de



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**S T E M** M A T H E M A T I K  
I N F O R M A T I K  
N A T U R W I S S E N S C H A F T  
T E C H N I K

 SCIENCE  TECHNOLOGY  ENGINEERING  MATHEMATICS

## 17 Models