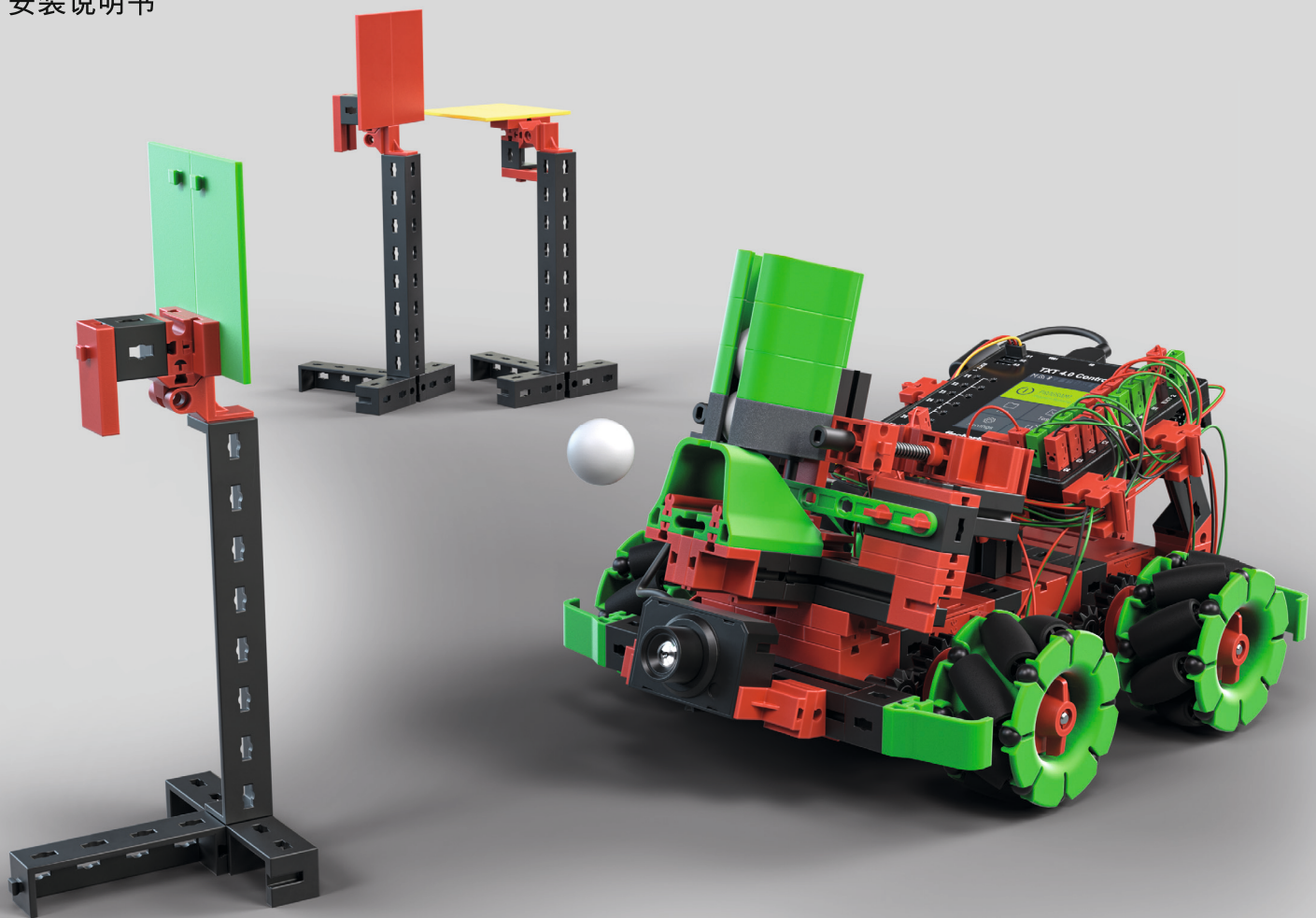


Robotics Add On: Omniwheels

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



**■ Software und didaktisches Begleitmaterial:**

Auf dem fischertechnik eLearning Portal finden Sie:

- Installationshinweise zur ROBOPRO Coding App (iOS, Android, Windows, MacOS, Linux)
- Informationen zum TXT 4.0 Controller
- didaktische Begleitmaterialien für den Einsatz im Unterricht

Link zum eLearning Portal: <https://www.fischertechnik.de/elearning-omniwheels>

■ Software and accompanying pedagogical materials:

On the fischertechnik eLearning Portal, you will find:

- Installation instructions for ROBOPRO Coding App (iOS, Android, Windows, MacOS, Linux)
- Information on the TXT 4.0 Controller
- Accompanying pedagogical materials for instructional use

Link to the eLearning Portal: <https://www.fischertechnik.de/elearning-omniwheels>

■ Logiciel et matériel didactique d'accompagnement:

Dans le portail d'E-apprentissage de fischertechnik, vous trouverez:

- Des consignes d'installation de l'application ROBOPRO Coding (iOS, Android, Windows, MacOS, Linux)
- Des informations sur le contrôleur TXT 4.0
- Du matériel didactique d'accompagnement pour une utilisation pendant les cours

Lien vers le Portail d'e-formation: <https://www.fischertechnik.de/elearning-omniwheels>

■ Software En didactisch begeleidingsmateriaal:

Op het fischertechnik eLearning-portaal vindt u:

- Installatieaanwijzingen voor ROBOPRO coding app (iOS, Android, Windows, MacOS, Linux)
- Informatie over TXT 4.0 controller
- didactisch begeleidingsmateriaal voor gebruik in het onderwijs

Link naar het eLearning-portaal: <https://www.fischertechnik.de/elearning-omniwheels>

■ Software y material didáctico:

En el portal eLearning de fischertechnik encontrará:

- Instrucciones de instalación para la aplicación de codificación ROBOPRO (iOS, Android, Windows, MacOS, Linux)
- Información sobre los controladores TXT 4.0
- Materiales didácticos para usarlos en las clases

Enlace al portal eLearning: <https://www.fischertechnik.de/elearning-omniwheels>

■ Software e material de acompanhamento didático:

No portal de eLearning da fischertechnik, você pode encontrar:

- Dicas de instalação para o ROBOPRO Coding App (iOS, Android, Windows, MacOS, Linux)
- Informações sobre o controlador TXT 4.0
- materiais de acompanhamento didático para a aplicação em exercícios

Link para o portal de eLearning: <https://www.fischertechnik.de/elearning-omniwheels>

■ Software e materiale didattico di accompagnamento:

Sul portale di eLearning di fischertechnik potete trovare:

- Istruzioni per l'installazione di ROBOPRO Coding App (iOS, Android, Windows, MacOS, Linux)
- Informazioni sul controller TXT 4.0
- materiale didattico di accompagnamento da usare in classe

Link al portale di eLearning: <https://www.fischertechnik.de/elearning-omniwheels>

■ Программное обеспечение и дидактические сопроводительные материалы:

На обучающем интернет-портале компании fischertechnik вы найдете:

- Инструкции по установке приложения для программирования ROBOPRO (iOS, Android, Windows, MacOS, Linux)
- Информацию о контроллере TXT 4.0
- Дидактические сопроводительные материалы для использования на занятиях

Ссылка на обучающий интернет-портал: <https://www.fischertechnik.de/elearning-omniwheels>

■ 软件和教学辅助材料：

在 fischertechnik eLearning 在线学习门户网站上您可以找到：

- ROBOPRO Coding App (iOS, Android, Windows, MacOS, Linux) 的安装提示
- 有关 TXT 4.0 控制器的信息
- 课堂用教学辅助材料

eLearning 在线学习门户网站的链接：<https://www.fischertechnik.de/elearning-omniwheels>

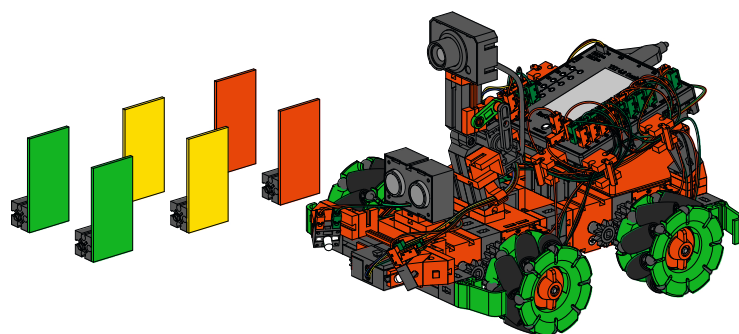
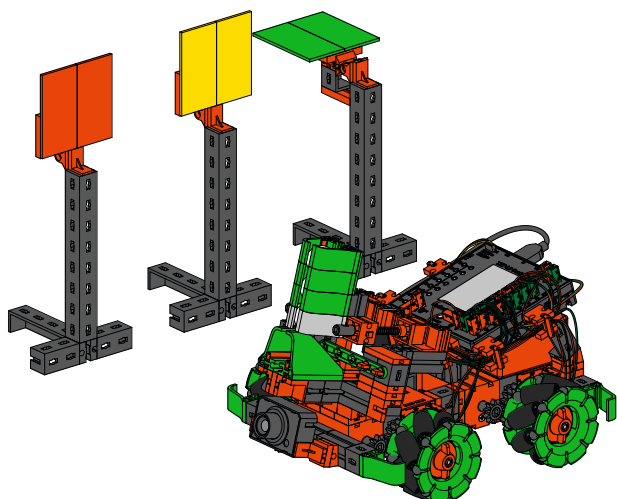
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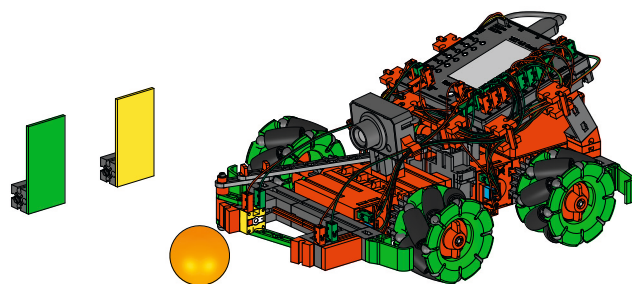
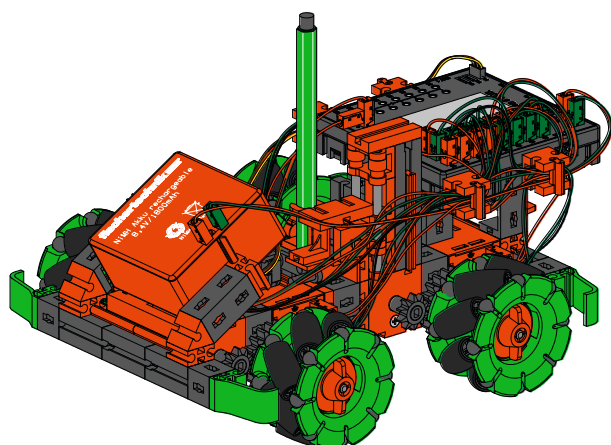
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Montagetipps / Tips for assembly / Tuyaux pour le montage / Montagetips / Consejos para el montaje / "Dicas" para montagem /
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Ballroboter / Ball robot / Robot à billes / Bal robot / Robot de bolas /
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Basismodell mit Sensoren / Basic model with sensors / Modèle de base avec capteurs /
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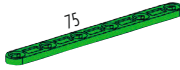





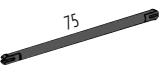













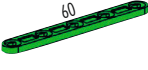



Malroboter / Painting robot / Robot peintre / Schilder robot / Robot de pintura /
Robô de Pintura / Pittura Robot / Робот для рисования /
绘画机器人 35

Fußballroboter / Football robot / Robot de football / Voetbal robot / Robot de fútbol /
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Einzelteilübersicht
Spare parts list
Liste des pièces détachées

Onderdelenoverzicht
Lista da piezas
Resumo de peça individual

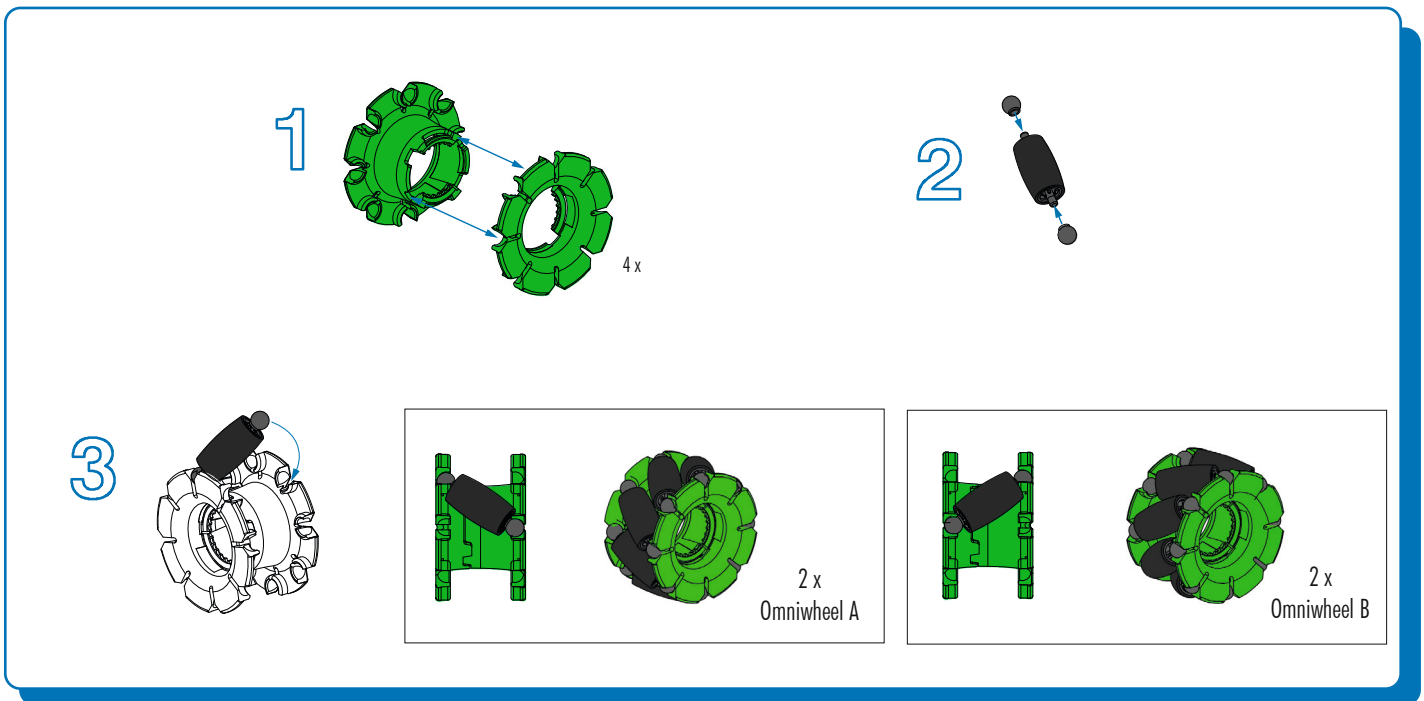
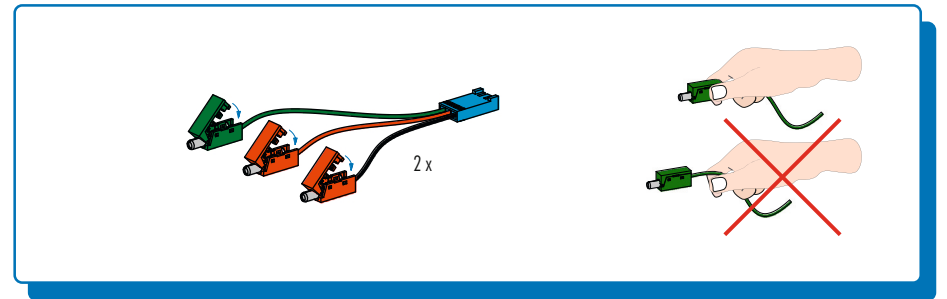
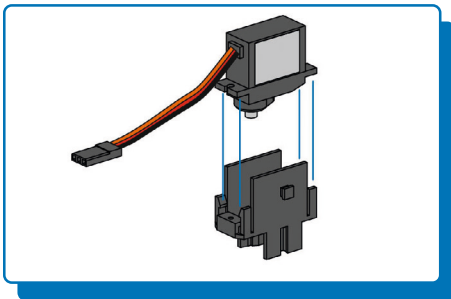
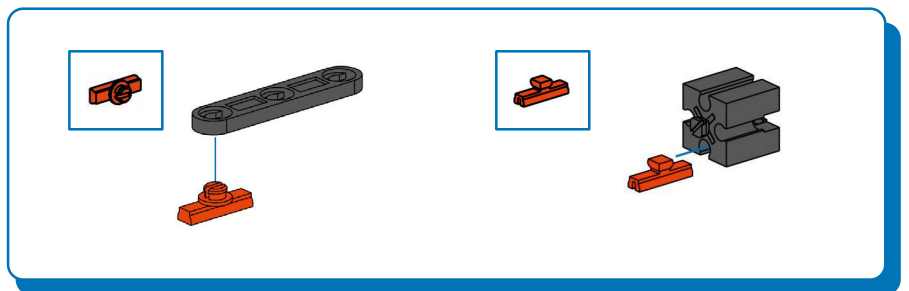
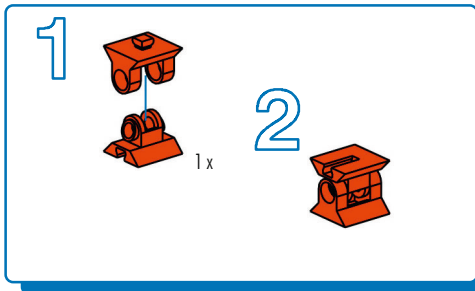
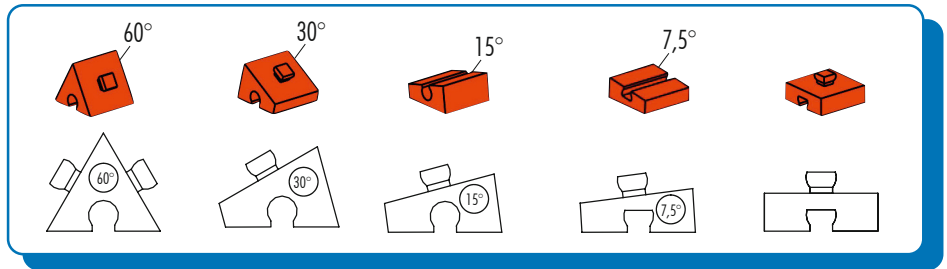
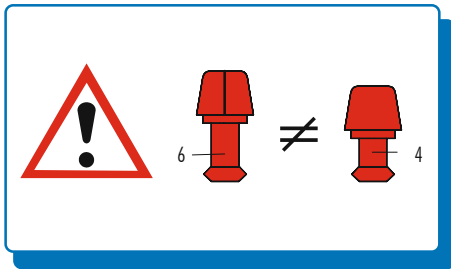
Singoli componenti
Перечень деталей
零件概览

	31 011 1 x		32 879 9 x		37 636 11 x		154 485 1 x
	31 021 2 x		32 881 4 x		37 679 17 x		156 502 1 x
	31 032 2 x		35 031 6 x		38 240 4 x		156 504 2 x
	31 058 6 x		35 049 3 x		38 249 2 x		163 198 1 x
	31 060 9 x		35 073 2 x		38 423 4 x		163 199 1 x
	31 061 5 x		35 087 1 x		38 428 4 x		163 200 10 x
	31 330 6 x		35 945 2 x		38 432 2 x		181 583 2 x
	31 426 1 x		36 293 3 x		38 546 1 x		181 584 4 x
	31 436 1 x		36 323 4 x		132 004 1 x		183 025 4 x
	31 597 4 x		36 912 1 x		132 290 1 x		183 026 4 x
	31 848 1 x		36 913 1 x		132 292 1 x		183 027 32 x
	31 981 5 x		36 920 8 x		132 875 2 x		183 028 64 x
	31 982 14 x		36 921 3 x		137 125 2 x		185 695 3 x
	31 983 5 x		36 922 4 x		146 529 1 x		185 795 4 x
	32 071 1 x		36 950 15 x		146 532 1 x		
	32 085 2 x		37 238 4 x		152 249 2 x		
	32 870 1 x		37 468 4 x		153 422 2 x		

Montagetipps
Tips for assembly
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"Dicas" para montagem

Consigli per il montaggio
Советы по сборке
装配建议



Sicherheitshinweise Safety Information Consignes de sécurité

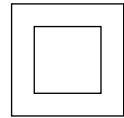
Veiligheidsrichtlijnen Indicaciones de seguridad Observações sobre segurança

Informazioni per la sicurezza Указания по технике безопасности 安全指南

- Das Produkt darf nur mit einer der folgenden fischertechnik Energiequellen benutzt werden: Power Set oder Art.-Nr.: 35537 Accu Pack 8,4V.
- The product may only be used with one of the following fischertechnik energy sources: Power Set or Art No.: 35537 Accu Pack 8.4V. You are not allowed to use 9V NiMH accu packs in this product.
- L'utilisation de ce produit n'est permis qu'avec l'une des sources d'énergie fischertechnik suivantes: Power Set ou Art. n° : 35537 pack d'accumulateurs 8,4 volts.
- Het product mag uitsluitend met een van de volgende fischertechnik energiebronnen worden gebruikt: art.nr.: Power Set of art.nr.: 35537 accupack 8,4V
- El producto se debe utilizar únicamente con una de las siguientes fuentes de energía:

- Power Set o Art. No. 35537 paquete acumulador de 8,4V.
- O produto somente pode ser utilizado com uma das seguintes fontes de energia da fischertechnik: Power Set ou art. n°: 35537 Bloco de bateria de 8,4V.
- Questo prodotto può essere utilizzato solo con le seguenti fonti di energia fischertechnik: Power Set oppure cod. prod.: 35537 confezione batterie da 8,4V.
- Изделие можно использовать только с одним из следующих источников электропитания от fischertechnik: блок питания (арт. 505283) или улятор 8,4В (арт. 35537)
- 该商品只允许使用如下的慧鱼 (fischertechnik) 电源: 货号: 135719, 9V DC 电池盒 货号: 35537, 8.4V 电池 (Accu Pack)

- Die Modelle dürfen nur an Geräte der Schutzklasse II angeschlossen werden, die mit dem entsprechenden Symbol gekennzeichnet sind.
- Ensure that the models are connected only to equipment rated in protection category II and marked with the appropriate symbol.
- Le raccordement des maquettes est uniquement permis à des appareils dotés de la catégorie de protection II qui portent le pictogramme respectif.
- De modellen mogen alleen op apparaten uit beschermingsklasse II worden aangesloten, die zijn voorzien van het bijbehorende symbool.
- Los modelos sólo pueden ser conectados a aparatos de clase de protección II que están identificados con el símbolo correspondiente.
- Os modelos somente devem ser conectados nos aparelhos da classe de proteção II, que são identificados com o símbolo correspondente.
- I modelli devono essere collegati solo ad apparecchi della classe di protezione II, contrassegnati con il relativo simbolo.
- Модели можно подключать только к приборам класса защиты II, обозначенным соответствующим знаком.
- 这些模型只允许连接到具有防护等级 II 的装置上, 这类装置被用相应的符号进行了标识。



- Nicht wiederaufladbare Batterien dürfen nicht geladen werden
- Aufladbare Batterien dürfen nur von Erwachsenen geladen werden
- Aufladbare Batterien sind aus dem Batteriehalter herauszunehmen, bevor sie geladen werden.
- Batterien müssen mit der richtigen Polarität eingelegt werden.
- Leere Batterien müssen aus dem Produkt herausgenommen werden
- Die Anschlussklemmen dürfen nicht kurzgeschlossen werden.
- Verbrauchte Batterien dem Sondermüll zuführen.
- Drähte nicht in Steckdose einführen!
- Ladegerät regelmäßig auf Schäden überprüfen.
- Bei einem Schaden darf das Ladegerät bis zur vollständigen Reparatur nicht mehr verwendet werden.

- Niet-oplaadbare batterijen mogen niet worden opgeladen.
- Opladbare batterijen mogen uitsluitend door volwassenen worden opgeladen.
- Opladbare batterijen moeten uit de batterijhouder worden verwijderd, voordat deze worden opgeladen.
- De batterijen moeten met de juiste polariteit worden geplaatst.
- Lege batterijen moeten uit het product worden verwijderd.
- De aansluitklemmen mogen niet worden kortgesloten.
- Afleveren gebruikte batterijen bij het klein chemisch afval (KCA).
- Geen draden in de contactdoos steken!
- Laadtoestel regelmatig controleren op schade.
- Bij schade mag het laadtoestel niet meer gebruikt worden tot het volledig hersteld is.

- Le batterie non ricaricabili non devono essere ricaricate
- Le batterie ricaricabili devono essere ricaricate da persone adulte
- Le batterie ricaricabili si devono estrarre dal supporto prima di ricaricarle.
- Le batterie si devono inserire rispettando la polarità.
- Togliere le batterie dal prodotto quando sono scariche
- I morsetti di allacciamento non devono essere cortocircuitati.
- Smaltire le batterie usate negli appositi contenitori per la raccolta differenziata.
- Non inserire i fili nella presa elettrica.
- Controllare periodicamente se il caricabatterie presenta dei danni.
- In caso di danni, il caricabatterie non deve più essere utilizzato fino alla riparazione.

- Do not attempt to charge NON-rechargeable batteries.
- Rechargeable batteries are only to be charged by adults.
- Take rechargeable batteries out of the battery tray before charging them.
- Insert batteries with the correct polarity.
- Remove dead batteries from the product.
- Do not short circuit the connecting terminals!
- Discard spent dry cells at special waste disposal centre.
- Do not insert the wires into an outlet!
- Regularly inspect battery charger for damage.
- If the battery charger has been damaged, it should not be used further until fully repaired.

- Las pilas no recargables no pueden ser cargadas
- Las pilas recargables sólo pueden ser cargadas por un adulto
- Las pilas recargables deben ser extraídas del compartimento de pilas antes de que sean cargadas.
- Las pilas deben ser colocadas con la polaridad correcta.
- Las pilas descargadas deben ser extraídas del producto
- Los bornes de conexión no pueden ser puestos en cortocircuito.
- Retirar las baterías viejas, desechándolas en un depósito de basuras especiales.
- No introducir hilos en la toma de corriente!
- Comprobar con regularidad si el cargador presenta daños.
- En caso de presentar daños, el cargador no debe volver a ser utilizado hasta que esté completamente reparado.

- Не пытайтесь заряжать неперезаряжаемые батарейки.
- Зарядку перезаряжаемых аккумуляторов разрешается выполнять только взрослым.
- Перед зарядкой перезаряжаемых аккумуляторов извлеките их из аккумуляторного отсека.
- При установке аккумуляторов на место соблюдайте полярность.
- Разряженные батарейки необходимо извлечь из игрушки.
- Не замыкайте коротко соединительные клеммы.
- Использованные батареи утилизировать как спецотходы.
- Не вставляйте в розетку провода!
- Регулярно проверяйте зарядное устройство на отсутствие повреждений.
- При наличии повреждений использовать зарядное устройство до выполнения его полного ремонта не разрешается.

- Il est interdit de recharger des piles qui ne sont pas des accumulateurs.
- Le chargement des accumulateurs doit toujours se faire par des adultes.
- Retirer les accumulateurs du support de pile avant de les recharger.
- Veiller à la polarité correcte lors de la mise en place des piles.
- Retirer impérativement les piles ou accumulateurs vides du produit.
- Il est interdit de court-circuiter les bornes de raccordement.
- Jeter les piles usagées dans un conteneur spécial réservé à cet effet.
- Ne pas introduire les fils dans une prise!
- Contrôlez régulièrement le chargeur en vue d'éventuelles détériorations.
- En cas de détérioration, il est interdit d'utiliser le chargeur jusqu'à ce qu'il ait été intégralement réparé.

- Pilhas não recarregáveis não devem ser novamente carregadas.
- Pilhas recarregáveis somente devem ser recarregadas por adultos.
- Pilhas recarregáveis devem ser retiradas do compartimento de pilhas antes de serem carregadas.
- As pilhas devem ser colocadas com a polaridade correta.
- As pilhas descarregadas devem ser retiradas do produto.
- Os terminais de conexão não devem ser curto-circuitados.
- Eliminar as baterias esgotadas como desperdício perigoso
- Nunca introduzir fios na tomada!
- Verificar regularmente se o carregador apresenta danos.
- Em caso de dano, o carregador não deverá ser utilizado enquanto não estiver plenamente consertado.

- 不得给非充电电池充电
- 只允许由成年人给充电电池充电
- 在充电前必须将充电电池从电池夹中取出。
- 必须按照正负极正确放入电池。
- 未充电的电池必须从模型中取出
- 接线柱不允许被短路。
- 用完了的电池应作为特种垃圾处理。
- 禁止将金属丝插入插座!
- 经常检查充电器是否有损坏情况。如果充电器有损, 直到完全修好为止不可以再使用。

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 scherpe randen of punten!
- Atención! ¡cuidado, no te hagas daño con los componentes con bordes afilados o puntiagudos!
- 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！

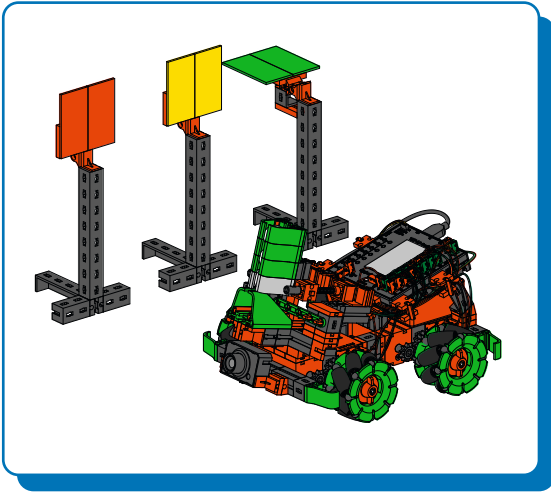
- Achtung: Erstickungsgefahr durch kleine Kugel und verschluckbare Kleinteile!
- Warning: risk of suffocation due to small balls and parts that can be swallowed!
- Attention : risque d'étouffement avec des petites billes et des petites pièces pouvant être avalées !
- Waarschuwing: verstikkingsgevaar door kleine kogeltjes en inslikbare kleine delen!
- Advertencia: riesgo de asfixia con las bolas y piezas pequeñas que pueden ingerirse!
- Advertência: perigo de asfixia devido a esferas pequenas e peças pequenas que podem ser engolidas!
- Avviso: pericolo di soffocamento a causa delle piccole sfere e dei piccoli pezzi ingoiabili!
- Внимание: Опасность удушения маленьким шариком и маленькими деталями!
- 警告：可能误吞的小球和小零件有造成窒息的危险！

- 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 limpiar y mantener en buen estado todas las diferentes piezas - especialmente las piezas móviles.
- Caso necessário, todas as peças individuais, especialmente peças móveis, tem que ser submetidas à manutenção e ser limpadas.
- 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



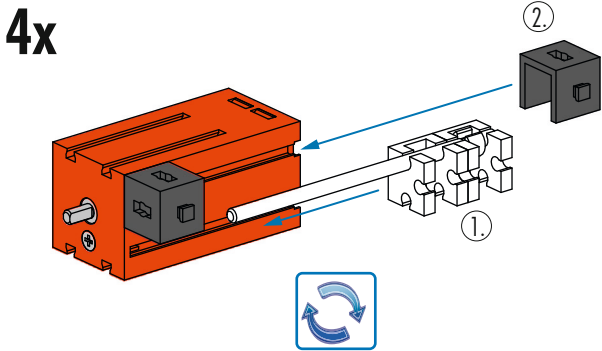
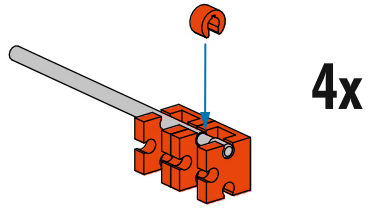
Ballroboter
Ball robot
Robot à billes

Bal robot
Robot de bolas
Robô de votação

Palla robot
Шариковый робот
弹球机器人

1

4 x 8 x 4 x



2

4 x 8 x

3

4 x 30 4 x

4x

4



4 x



4 x



4 x



4 x



12 x

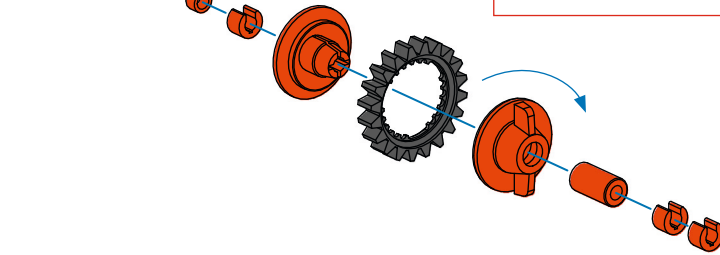
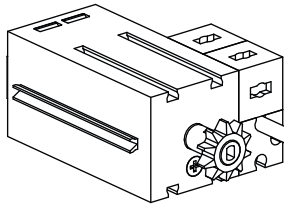


4 x



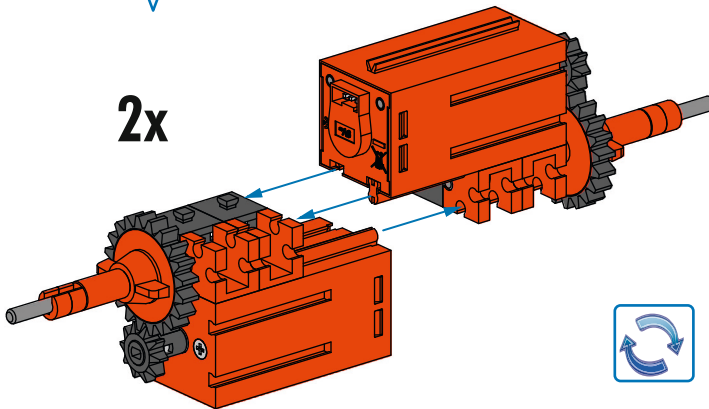
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

4x



5

2x



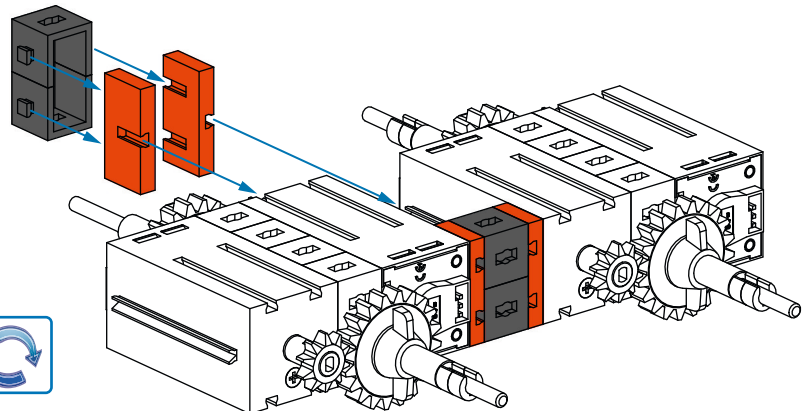
6



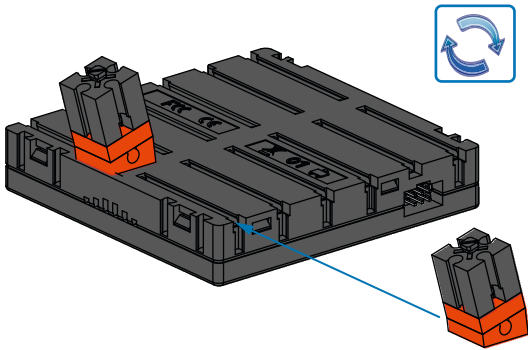
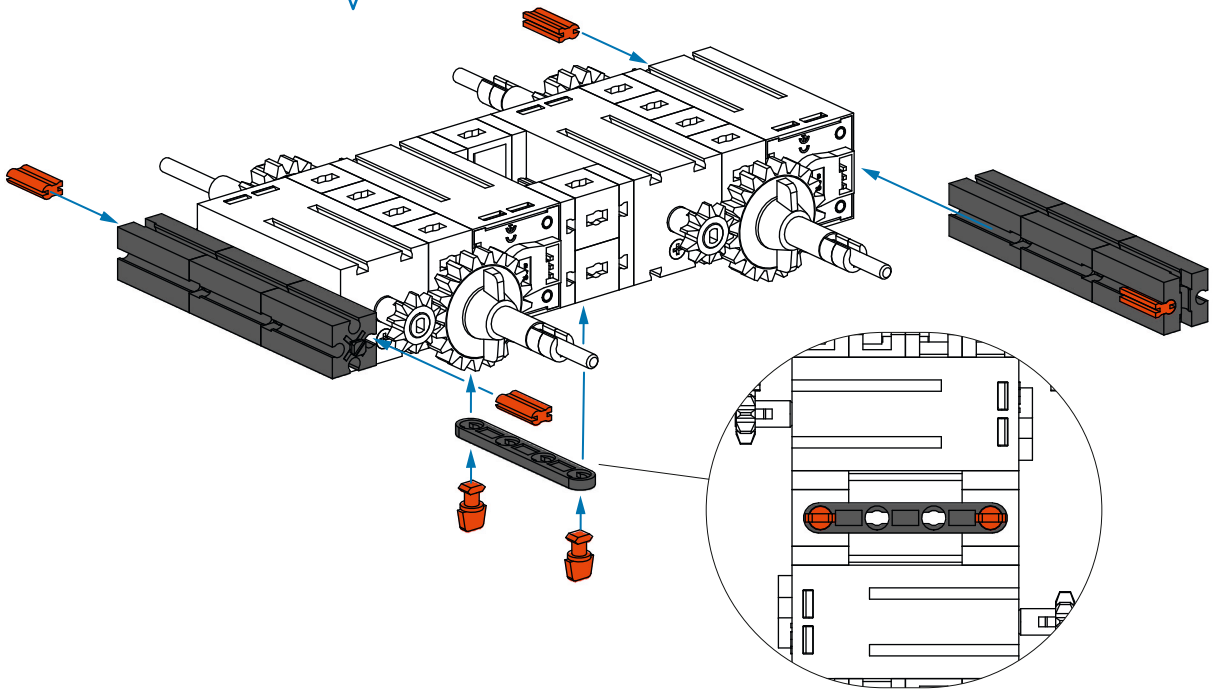
4 x



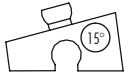
4 x





- 7**
- 6 x [Grey Technic Beam 3x7]
 - 4 x [Orange Technic Pin 15]
 - 2 x [Orange Technic Pin 4]
 - 1 x [Grey Technic Beam 1x45]



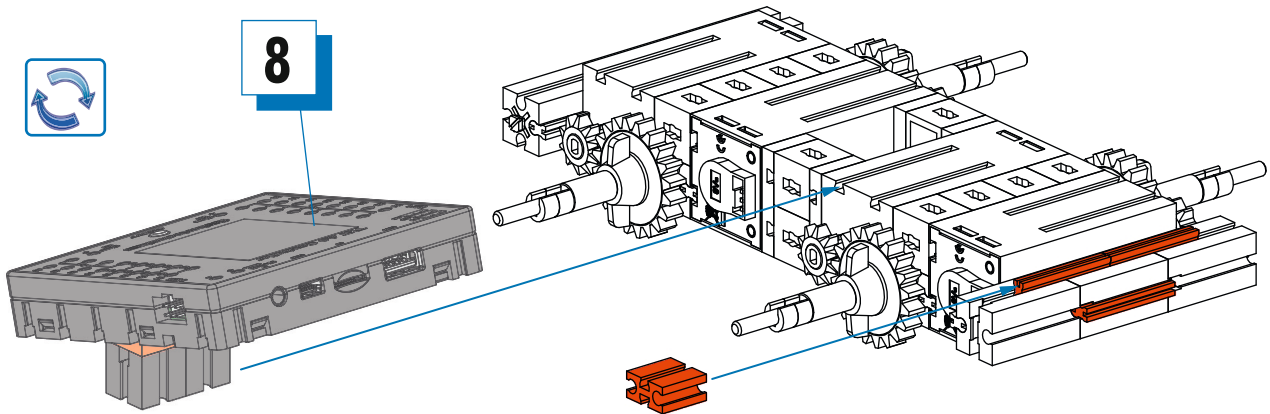
- 8**
- 1 x [Grey Motor]
 - 2 x [Grey Technic Beam 3x7]
 - 2 x [Orange Technic Pin 2]
 - 2 x [Orange Technic Pin 15]








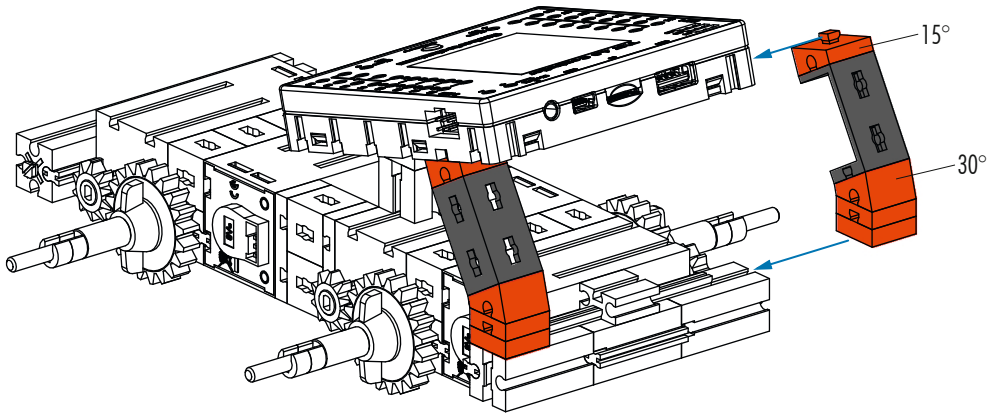
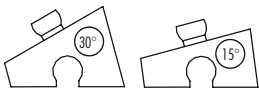
- 9**  1x  3x





8

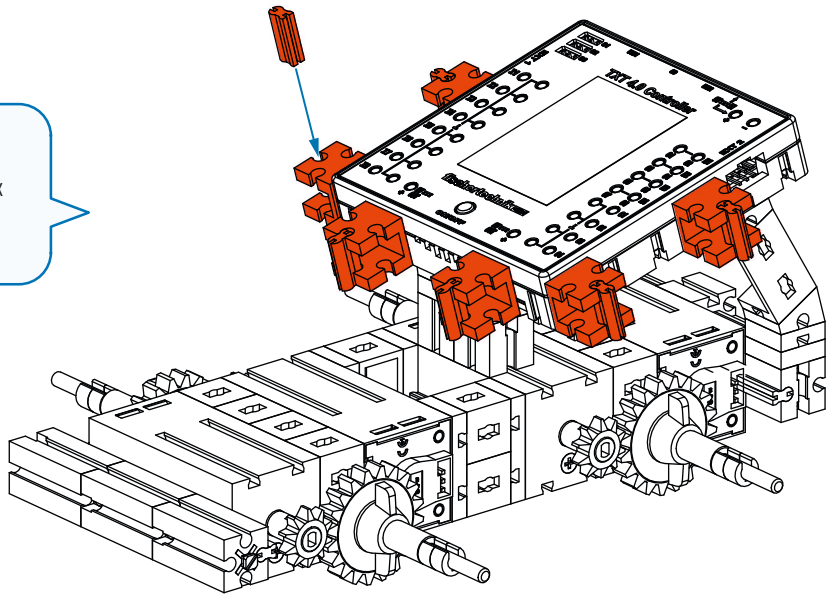


- 10**  2x  2x  2x  2x  2x

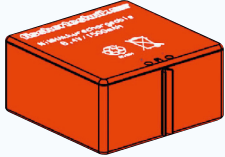







11

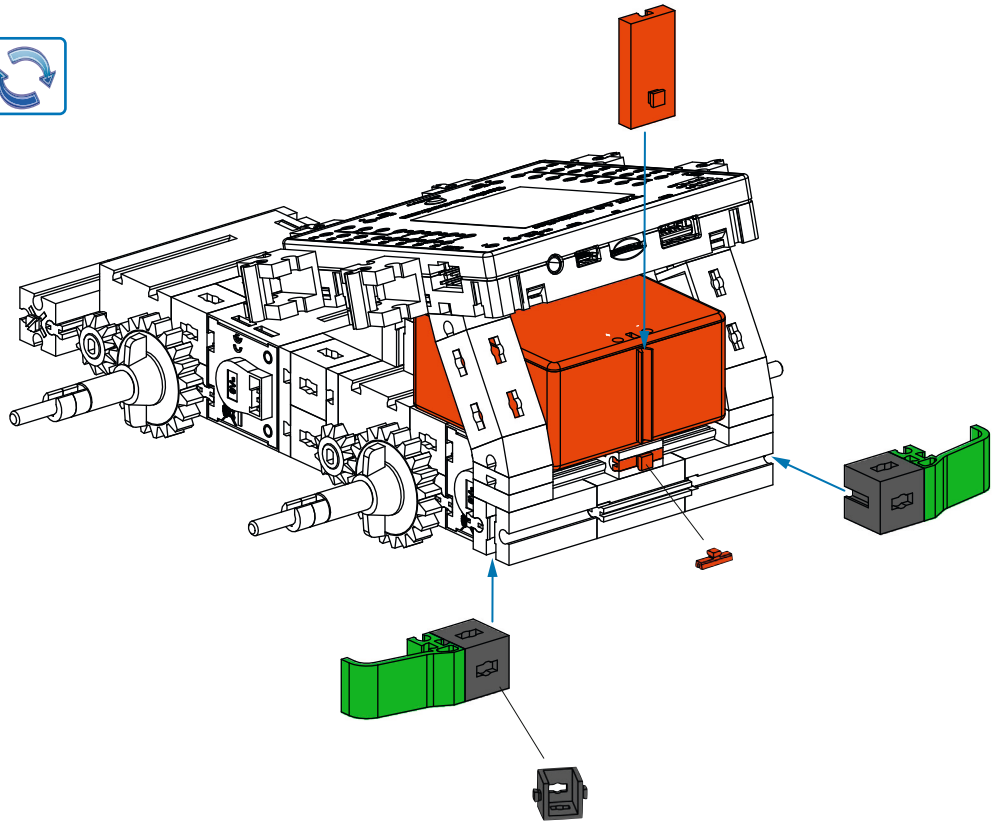
 6x
  6x



12

 1x
  1x
  1x
  1x

 1x
  2x



13

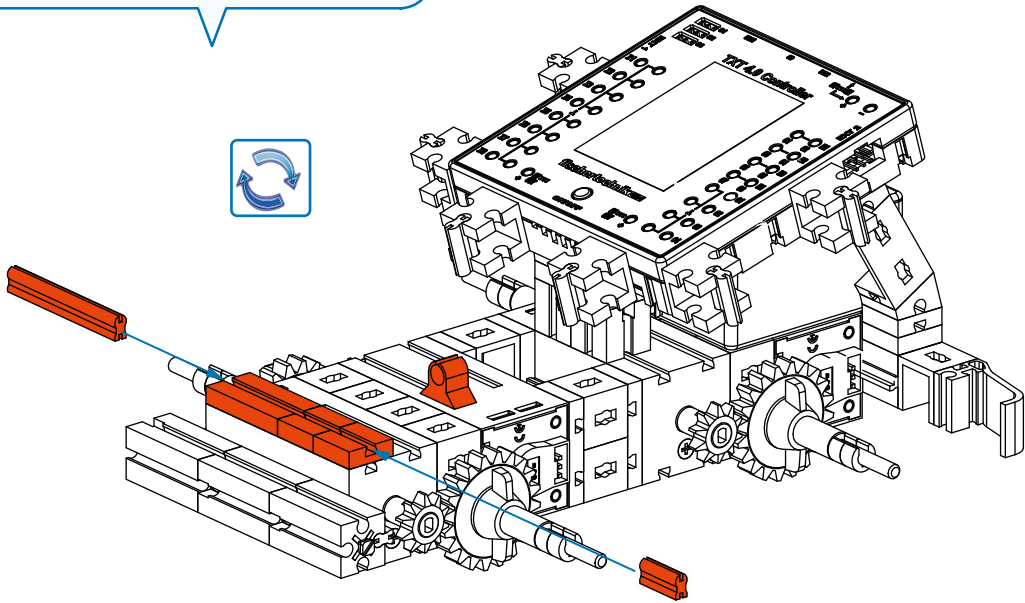
15 1x

1x

45 1x

1x

2x

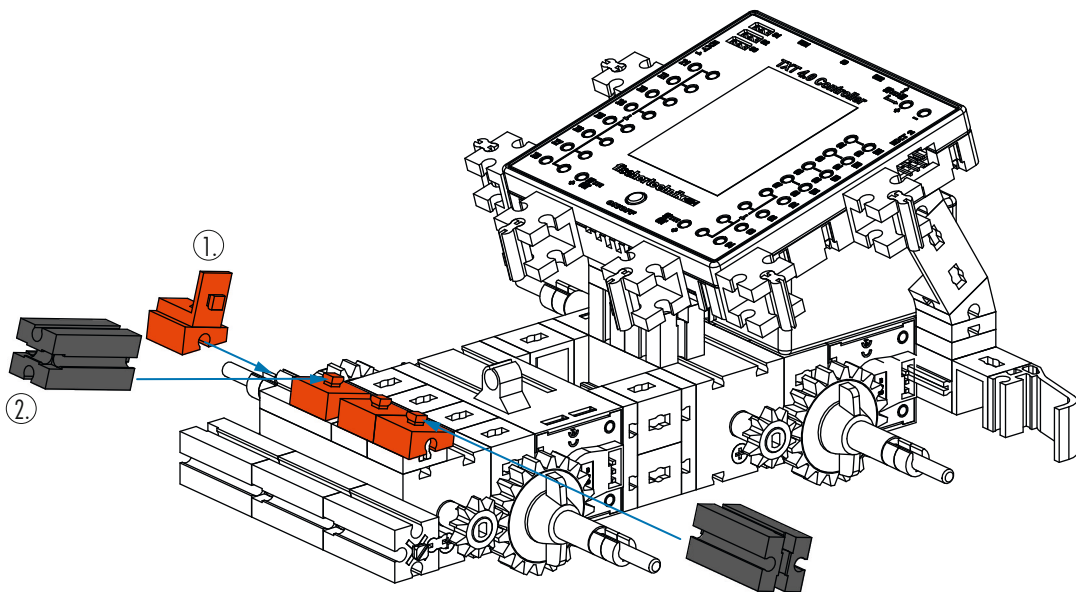
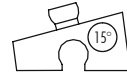


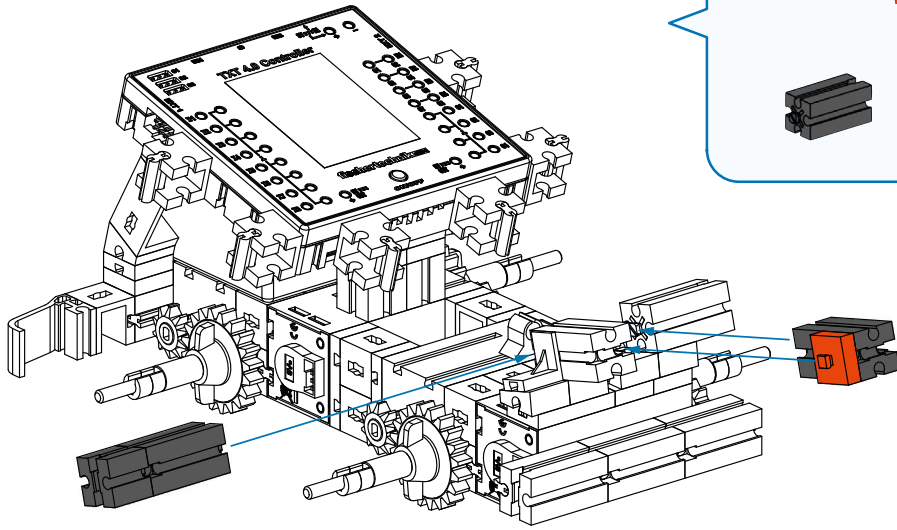
14

2x




1x

15° 4x






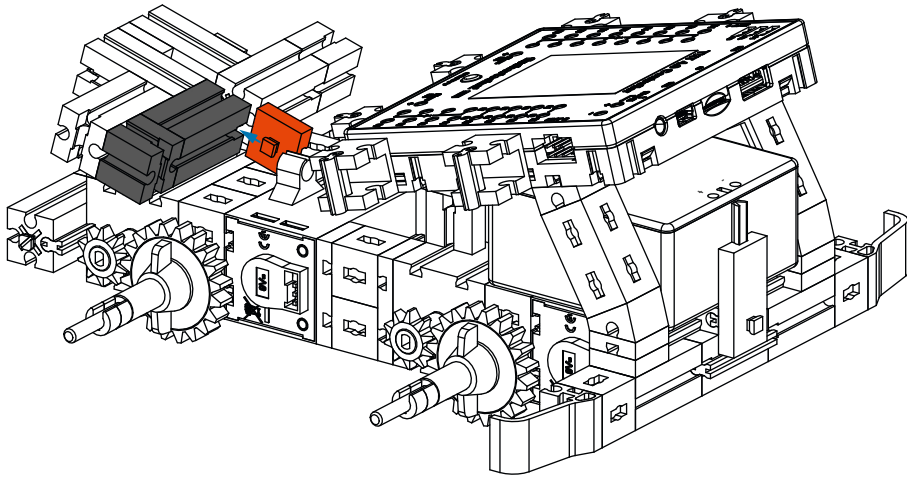


14

-  1x
-  2x
-  1x

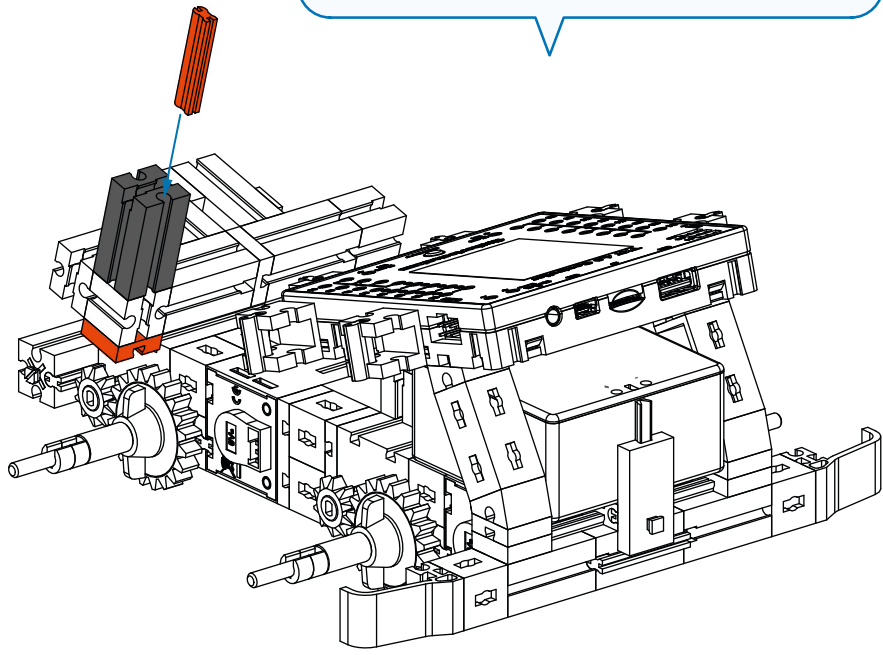
15

-  1x
-  1x
-  1x



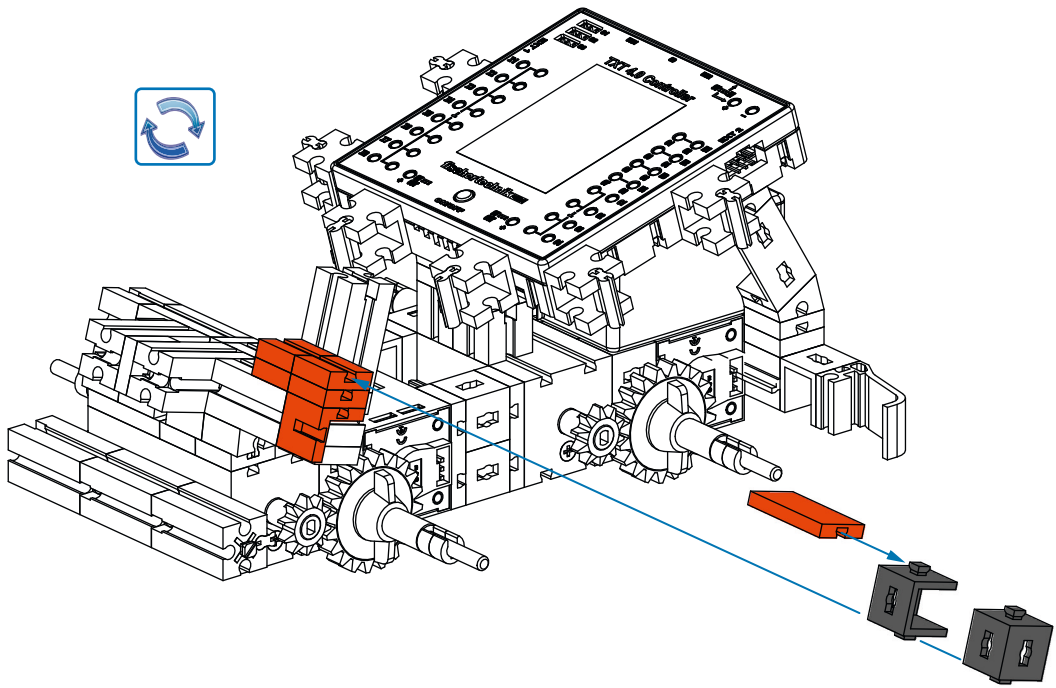
16

- 1x (Grey Technic Beam 1x3)
- 1x (Orange Technic Brick 1x2 with Hole)
- 1x (Orange Technic Pin Long)



17

- 4x (Orange Technic Brick 1x2 with Hole)
- 1x (Orange Technic Pin Long)
- 1x (Orange Technic L-Shape)
- 2x (Grey Technic Connector)



18

30 1x

1x

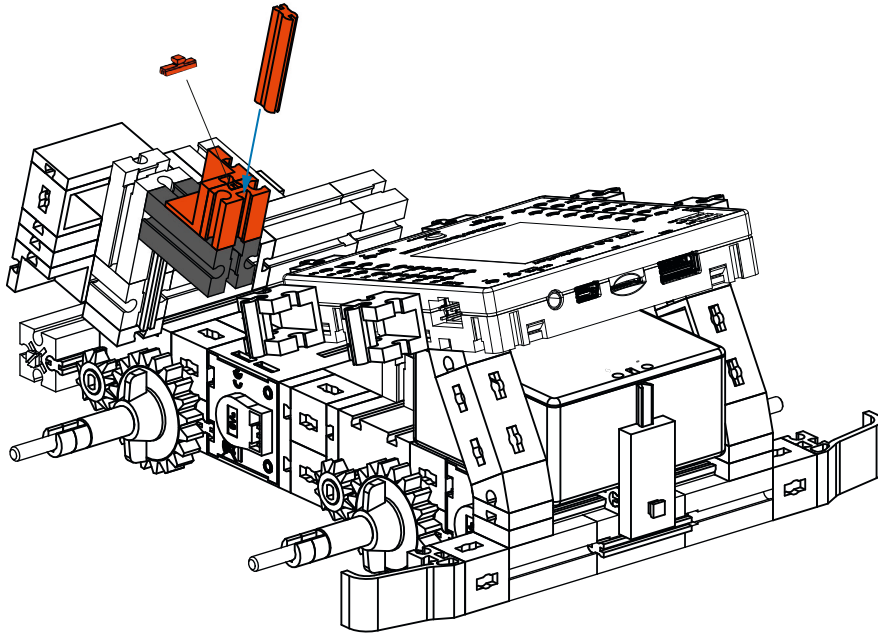
1x

1x

1x

1x

1x



19

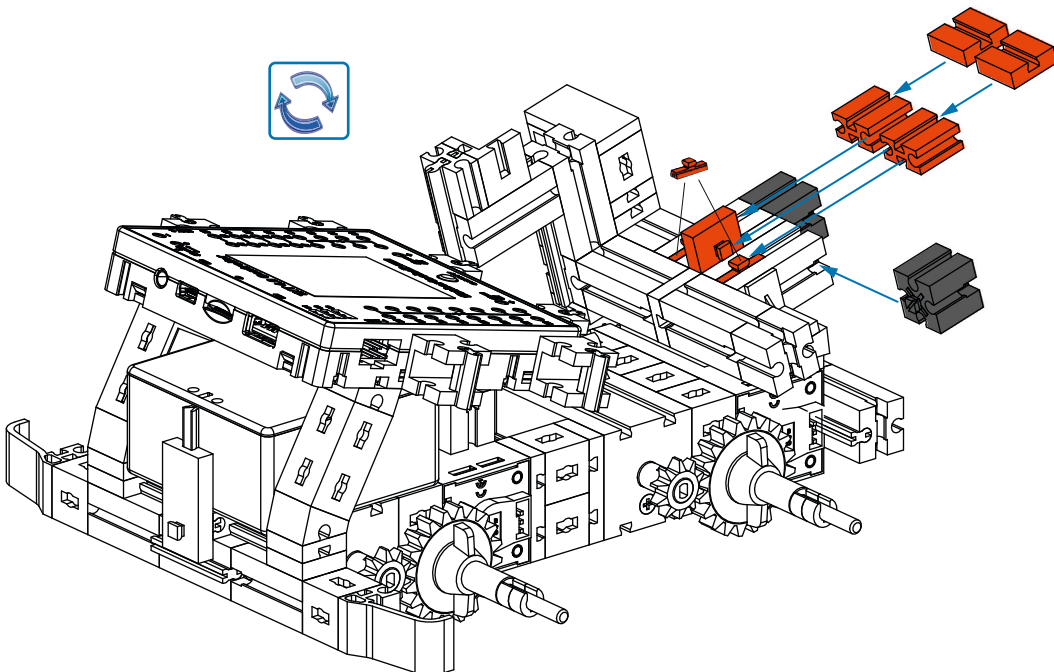
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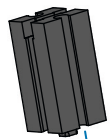
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


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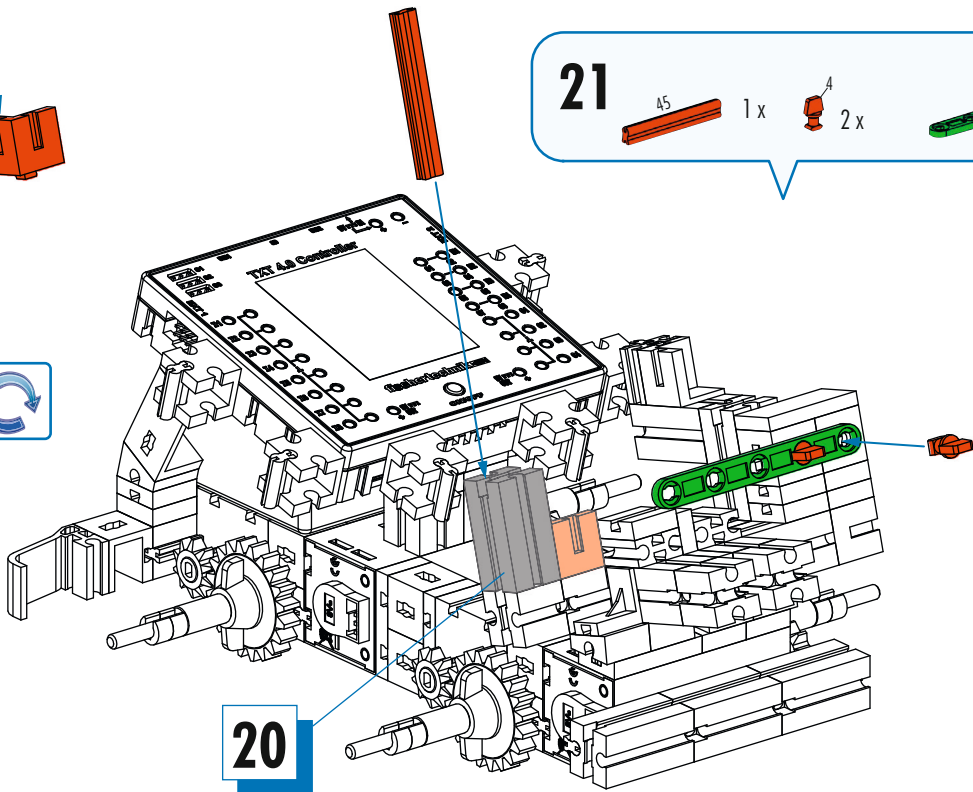
1x



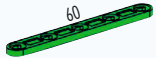
2x












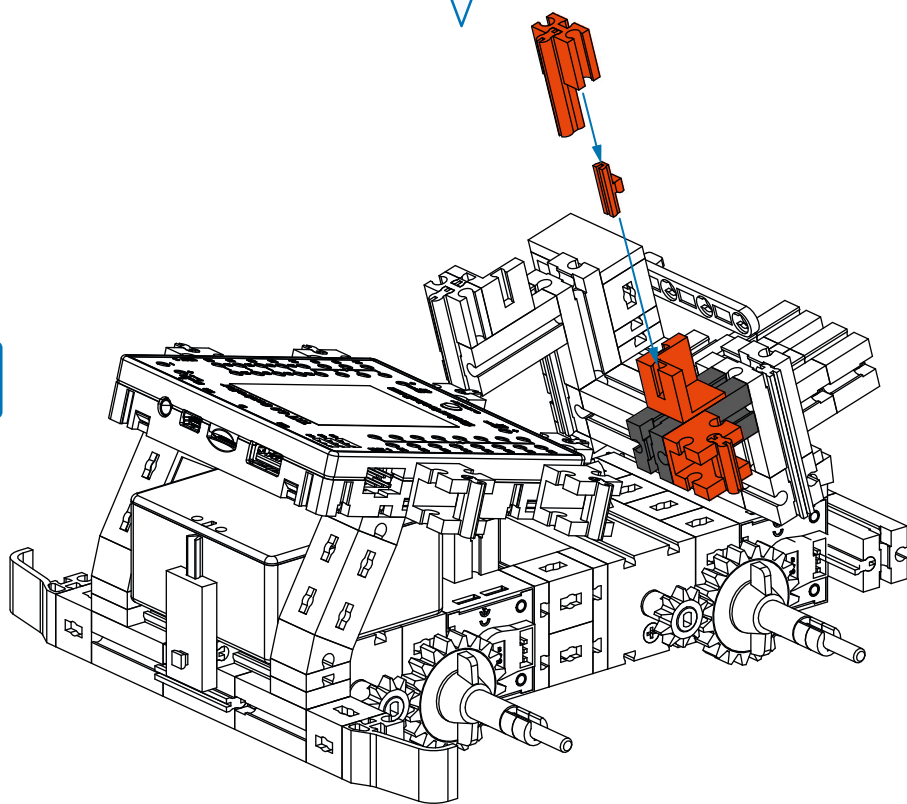
20  1x  1x  1x

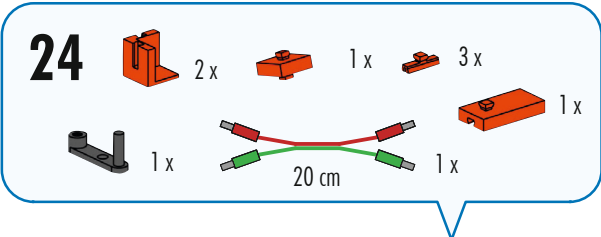
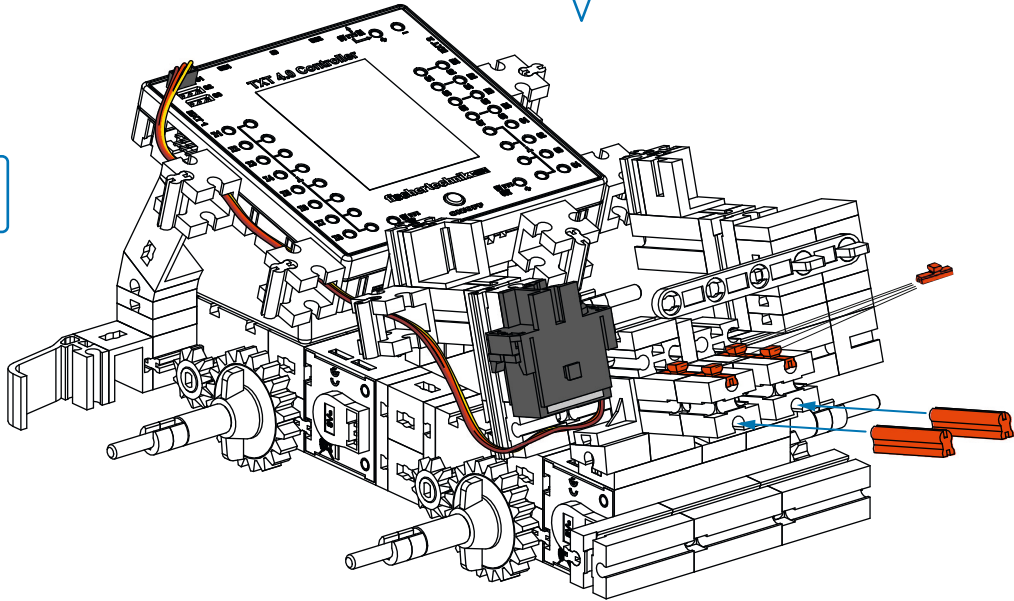
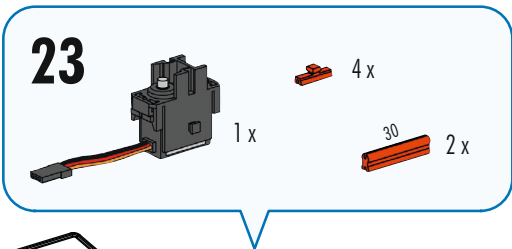


21  1x  2x  1x

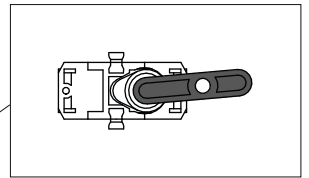
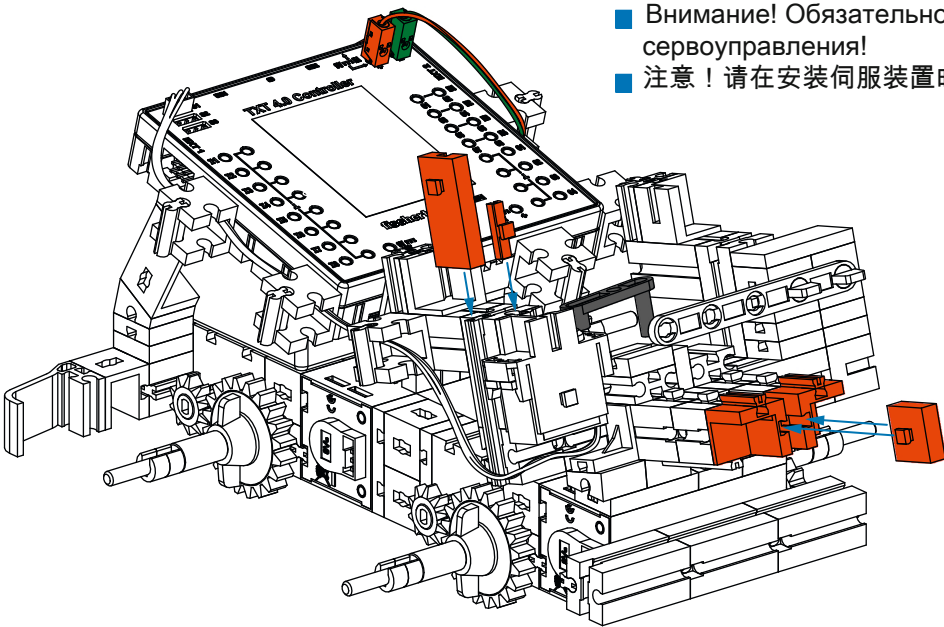
20

22  1x  1x  1x
 1x  1x  1x  1x









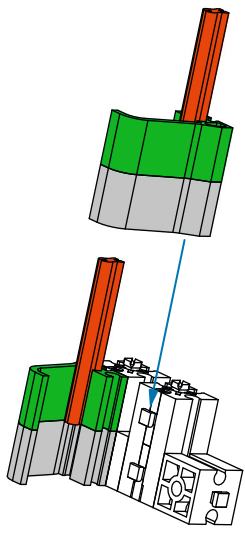
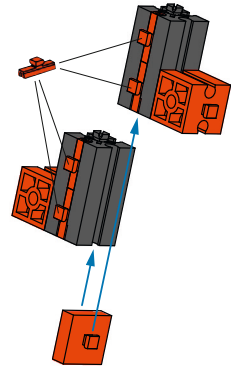
- Achtung! Reihenfolge beim Servoeinbau bitte unbedingt beachten!
- Caution, installation of the servo must be carried out in the order stated!
- Attention ! Veuillez respecter l'ordre indiqué impérativement lors du montage du servomécanisme !
- Attentie! De volgorde bij de inbouw van de servo absoluut in acht nemen!
- ¡Atención! ¡Al montar el servo observar imprescindiblemente el orden!
- Atençaõ! Observar obrigatoriamente a seqüência quando da montagem do servo!
- Attenzione! Si deve tassativamente rispettare la giusta sequenza nel montaggio del servo!
- Внимание! Обязательно соблюдайте последовательность сборки сервоуправления!
- 注意！请在安装伺服装置时务必注意顺序！






- TXT 4.0 Controller einschalten - Servo bewegt sich in Mittelstellung - Servohebel wie in Abbildung dargestellt einbauen
- Switch on TXT 4.0 Controller - Servo moves to centre position - Install servo arm as shown in illustration
- Allumez le contrôleur TXT 4.0 - Le servo se déplace en position centrale - Installez le bras du servo comme indiqué sur l'illustration
- Schakel de TXT 4.0 Controller in - De servo gaat naar de middenpositie - Installeer de servoarm zoals afgebeeld
- Encienda el controlador TXT 4.0 - El servo se mueve a la posición central - Instale el brazo del servo como se muestra en la ilustración
- Ligue o Controlador TXT 4.0 - O servo move-se para a posição central - Instale o servo braço como mostrado na ilustração
- Accendere il controller TXT 4.0 - Il servo si sposta in posizione centrale - Installare il braccio del servo come mostrato nell'illustrazione
- TXT 4.0 Controller Включить - Сервопривод перемещается в среднее положение - Установить рычаг сервопривода, как показано на рисунке
- TXT 4.0 Controller 开启 - 舵机移动到中间位置 - 按图示安装舵机杆

25

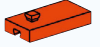



- 4 x 
- 2 x 
- 2 x 
- 1 x 

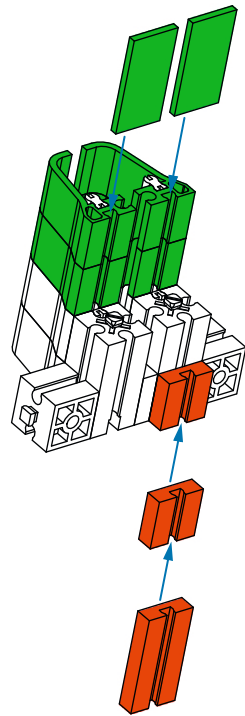


26

- 2 x 
- 2 x 
- 2 x 

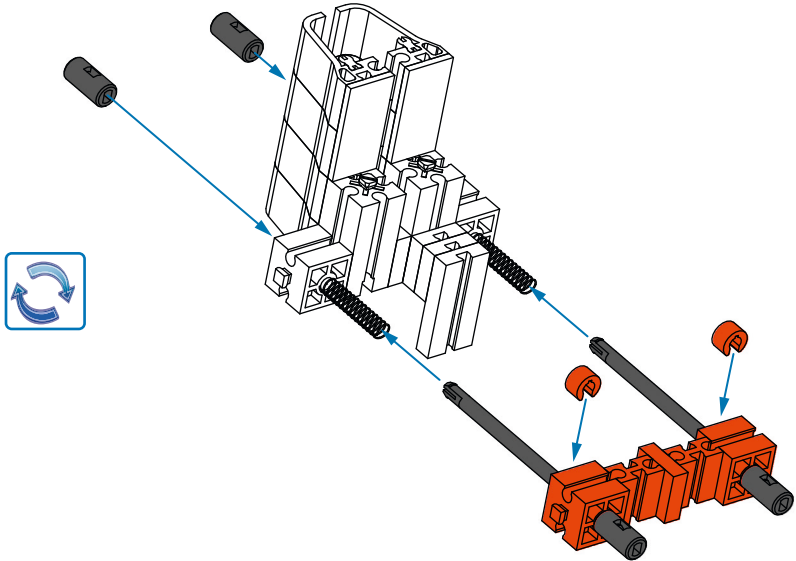
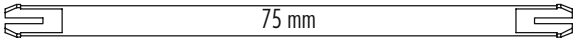
27

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



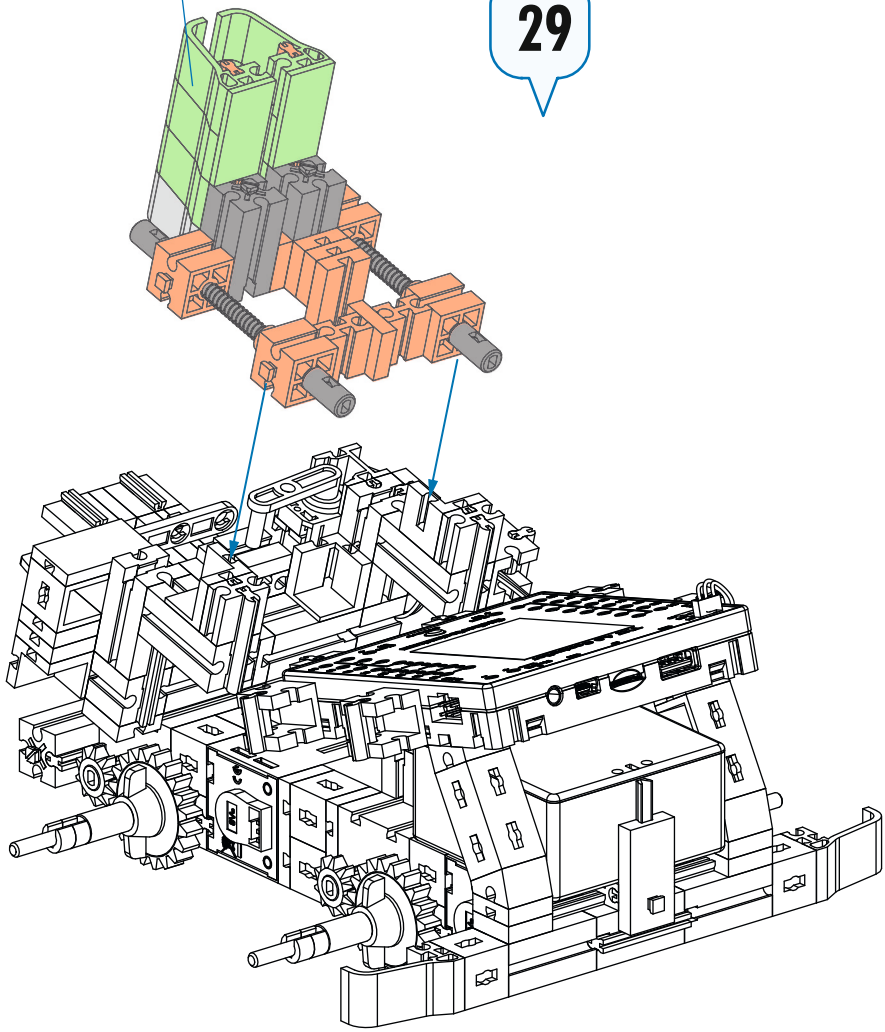
28

- 1 x [Orange 1x3 Technic Brick]
- 4 x [Grey Technic Pin]
- 2 x [Orange Technic Pin]
- 2 x [Grey Technic Pin]
- 2 x [Orange Technic Pin]
- 2 x [Orange Technic Pin]
- 2 x [Spring]



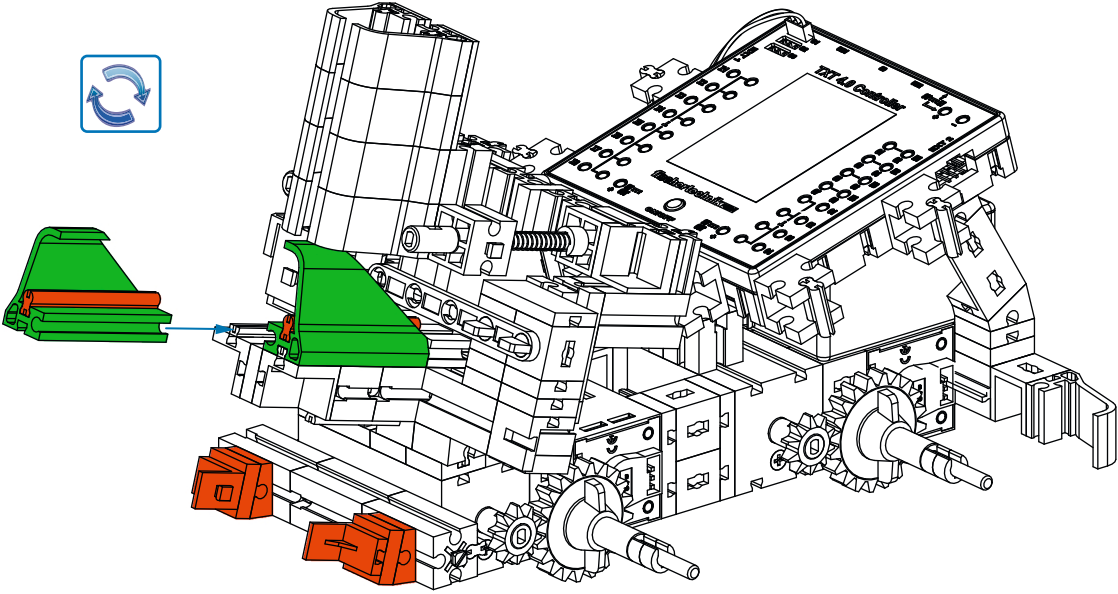
28

29



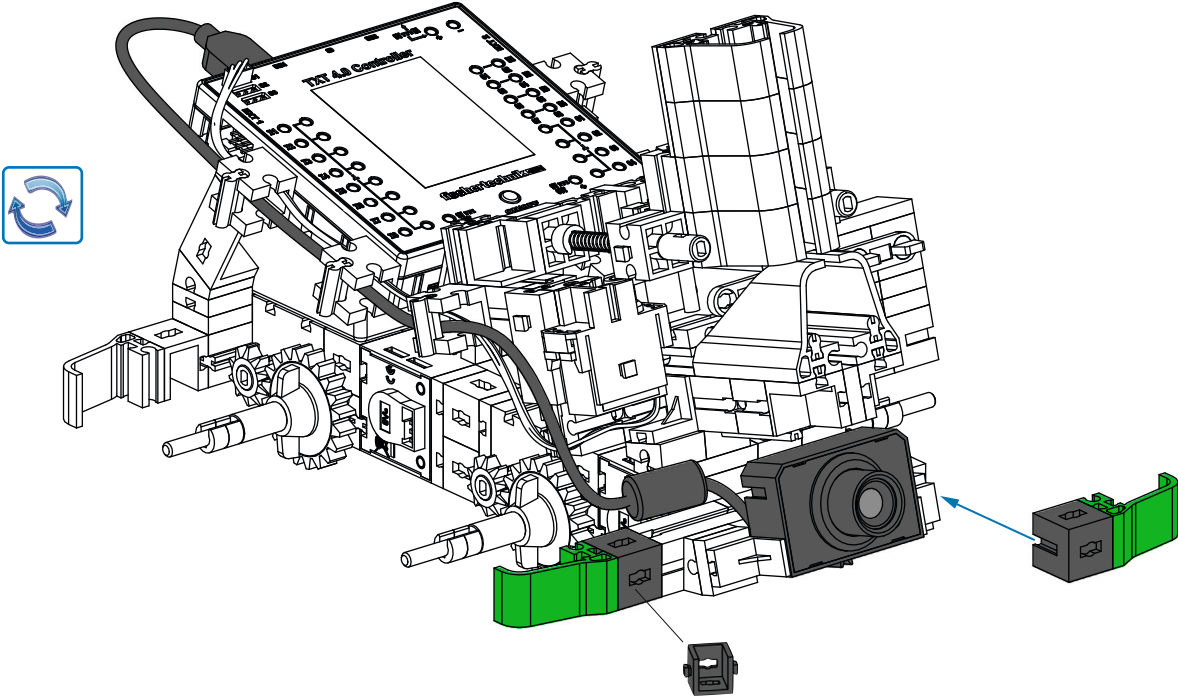
30

- 1x (Green L-shaped piece)
- 1x (Green L-shaped piece)
- 2x (Orange 15° angled piece)
- 2x (Orange 15° angled piece)
- 2x (Orange 45° angled piece)
- 2x (Orange L-shaped piece)



31

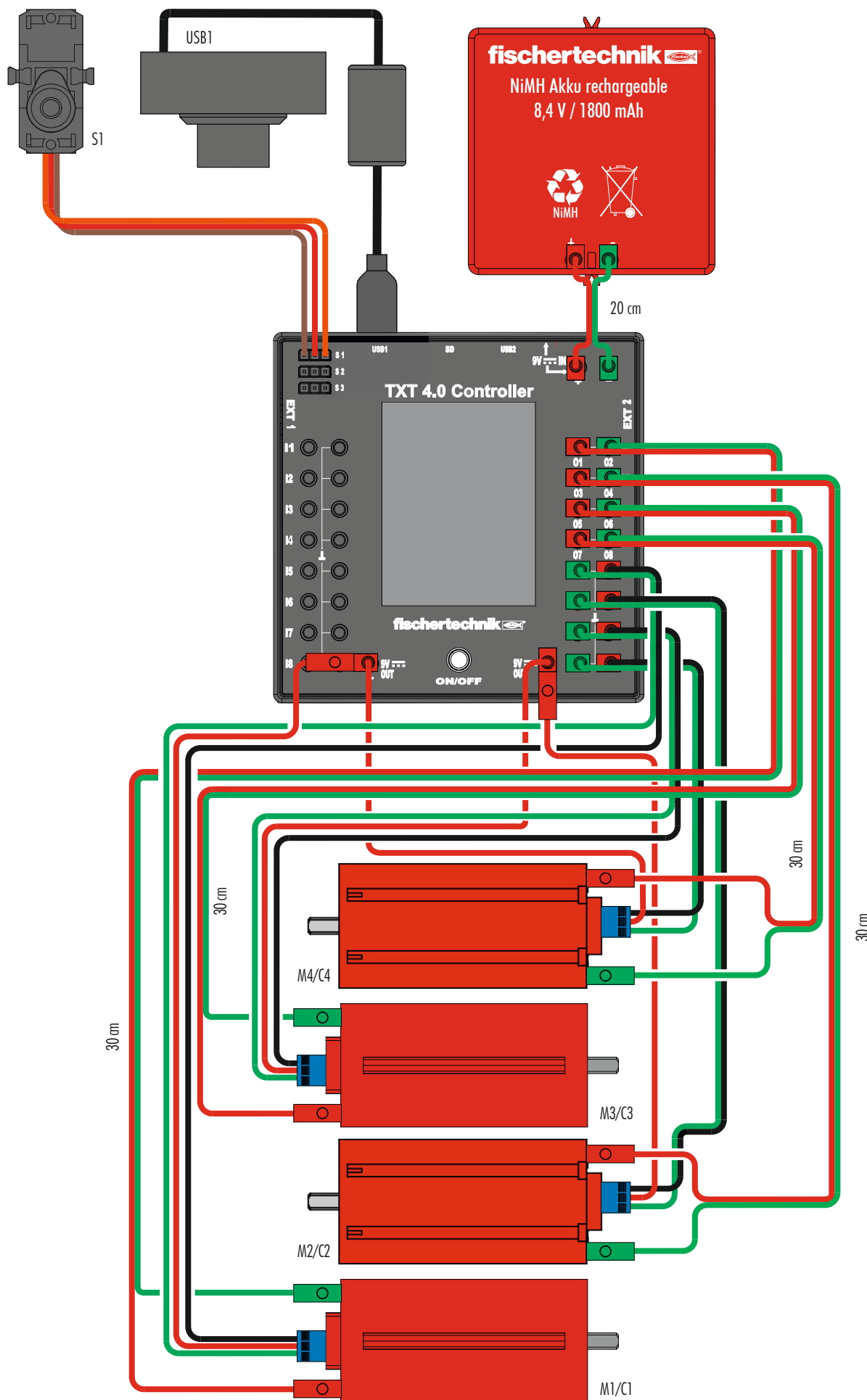
- 1x (Black camera module)
- 2x (Green L-shaped piece)
- 1x (Black connector)
- 1x (Black connector)



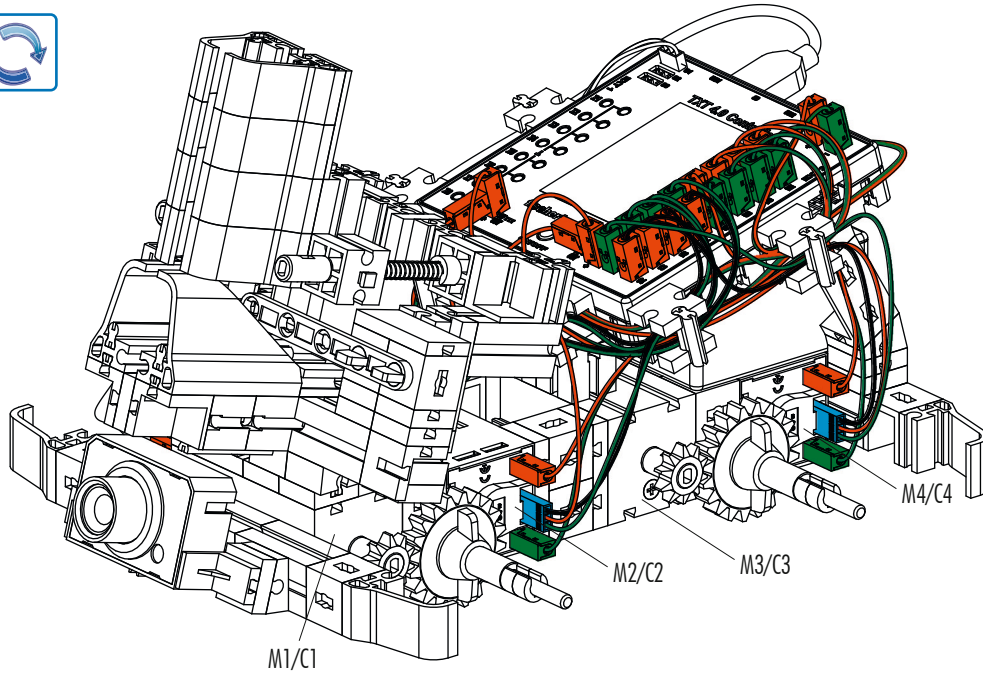
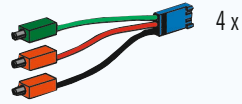
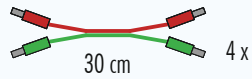
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

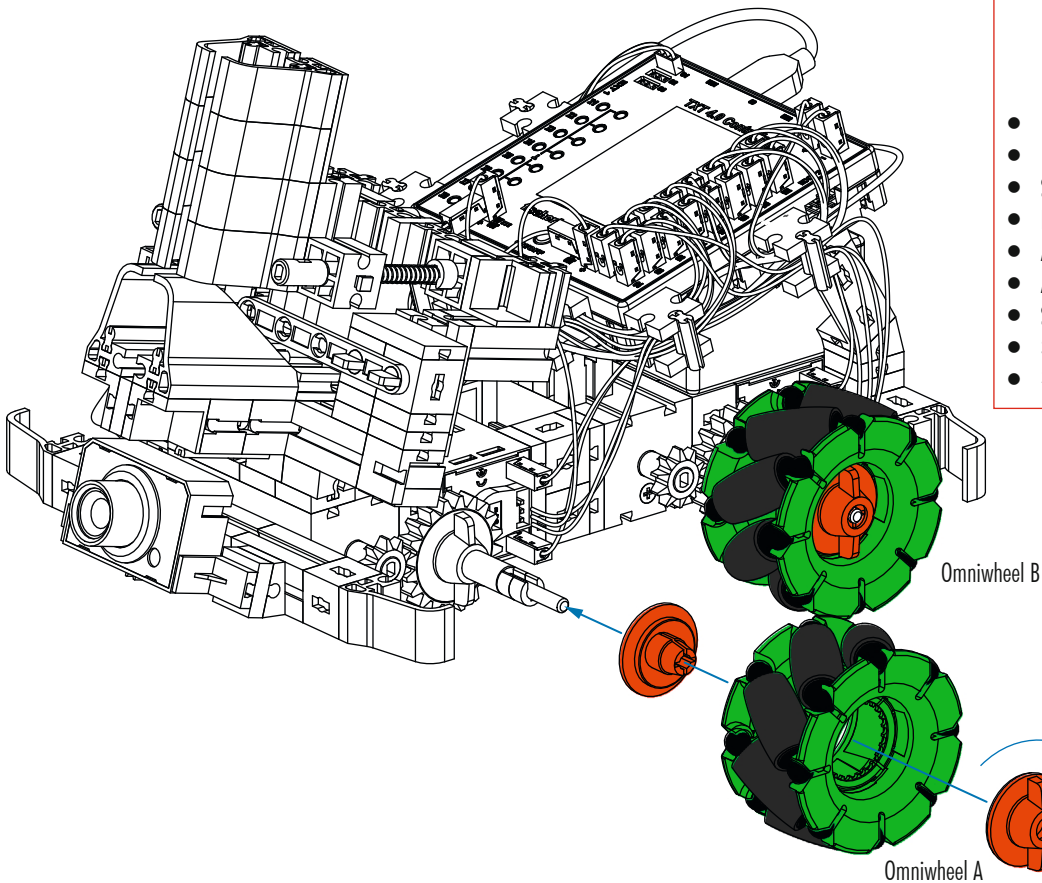
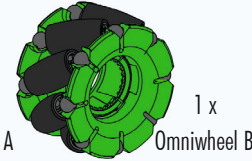
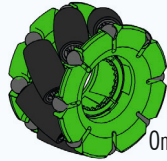
Schema elettrico
Схема подключения
电路图



32



33



- 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

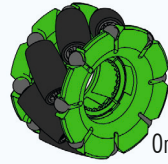


- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

34

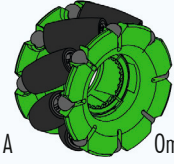


2 x



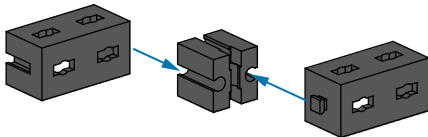
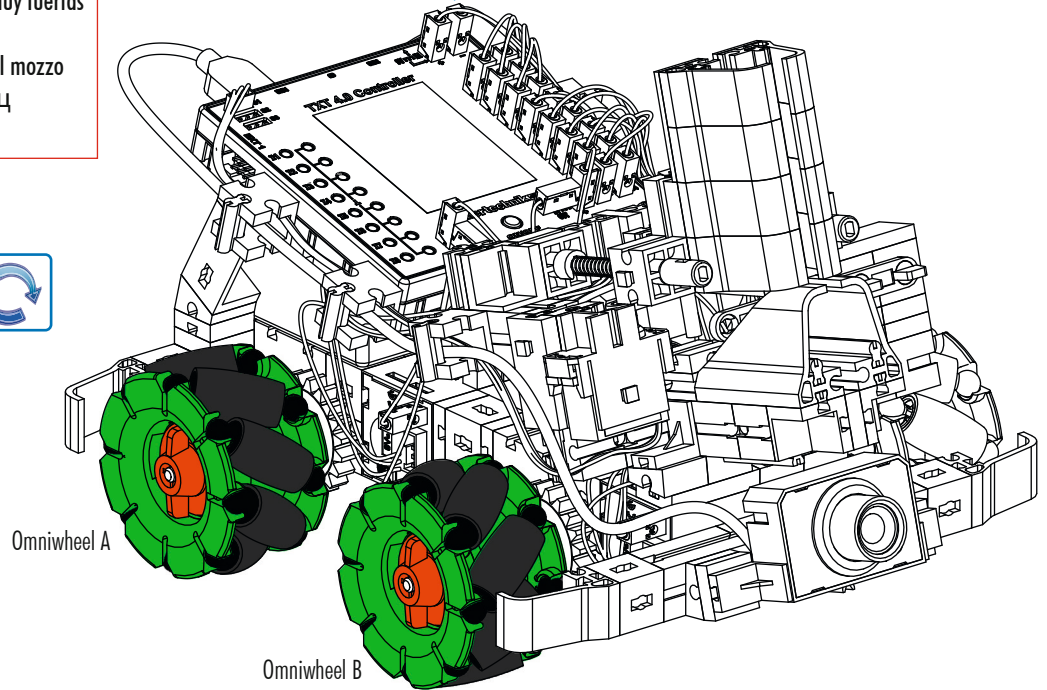
1 x

Omniwheel A



1 x

Omniwheel B



3 x

35

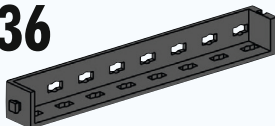


3 x

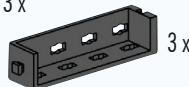


6 x

36

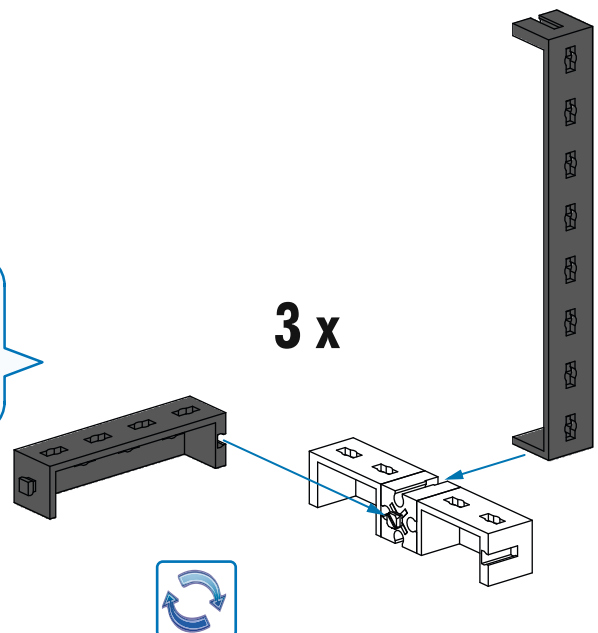


3 x



3 x

3 x



37

3x 3x 3x
3x 3x

3 x

3 x

38

3x 3x 3x


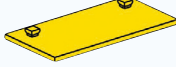

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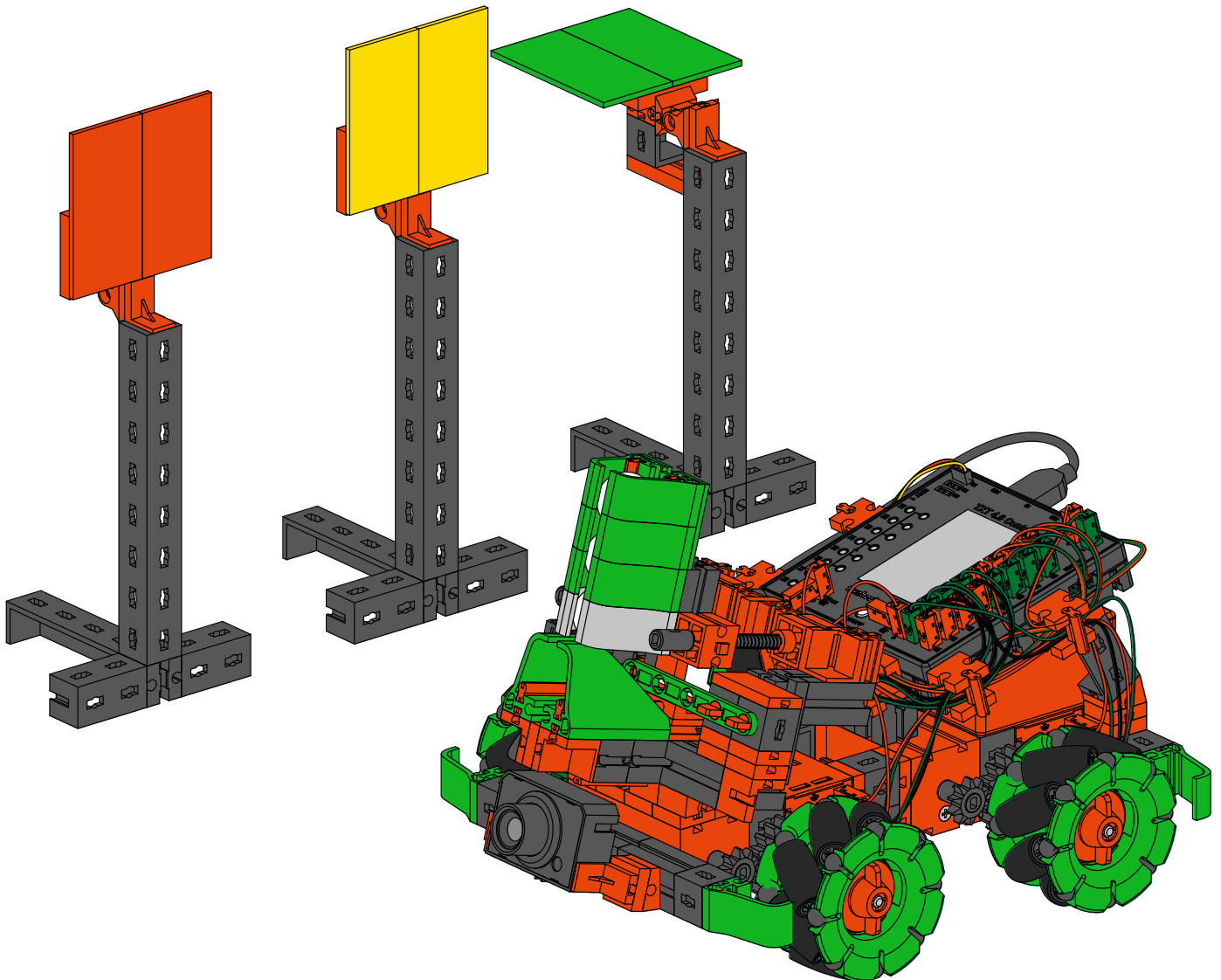
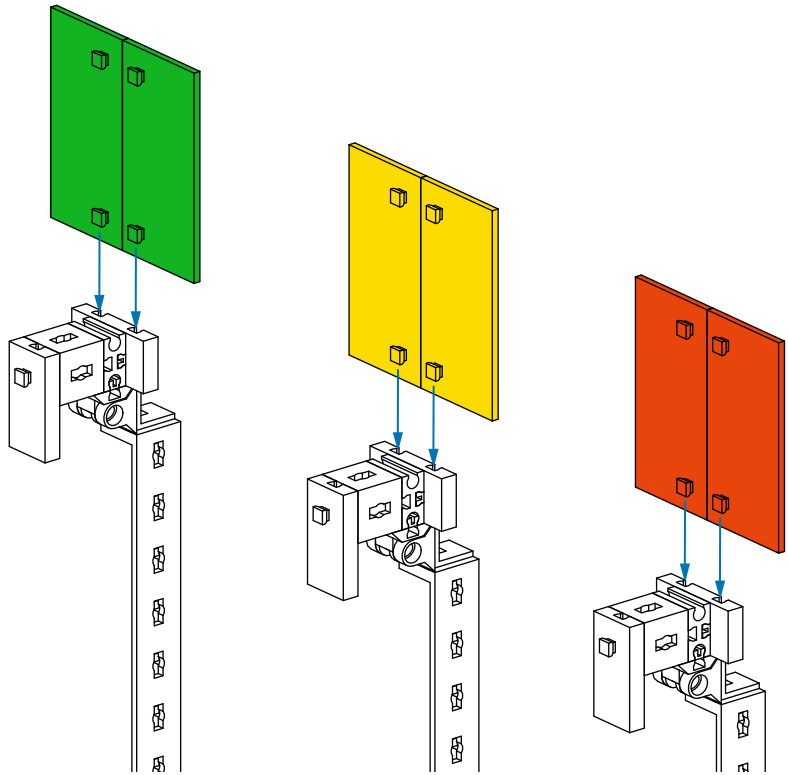
39

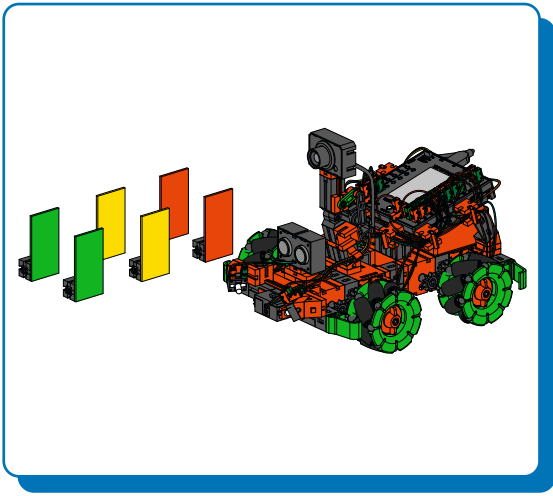
3x

3 x

40

- 2 x 
- 2 x 
- 2 x 





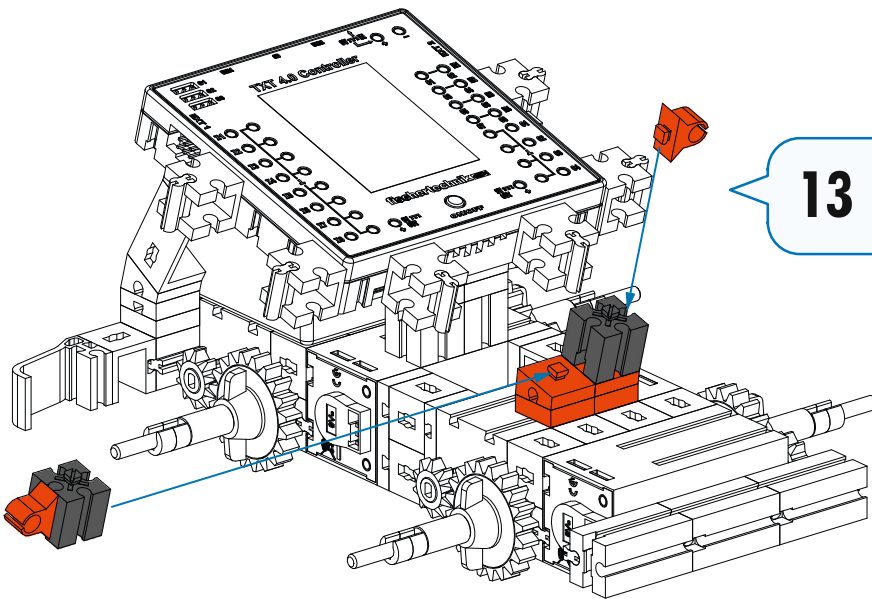
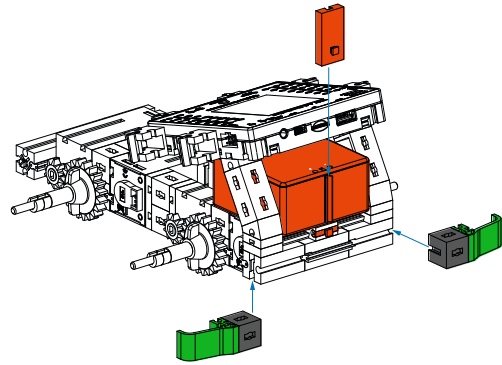
Basismodell mit Sensoren
 Basic model with sensors
 Modèle de base avec capteurs
 Basismodell met sensoren

Modelo básico con sensores
 Modelo básico com sensores
 Modello base con senso-

ri Базовая модель с датчиками
 带传感器的基本模型

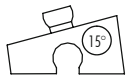
1-12

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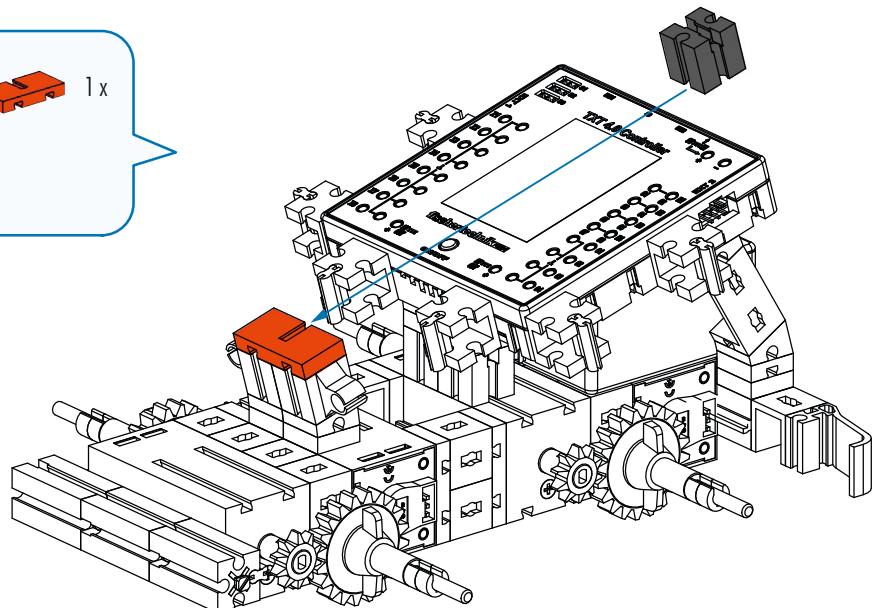
13

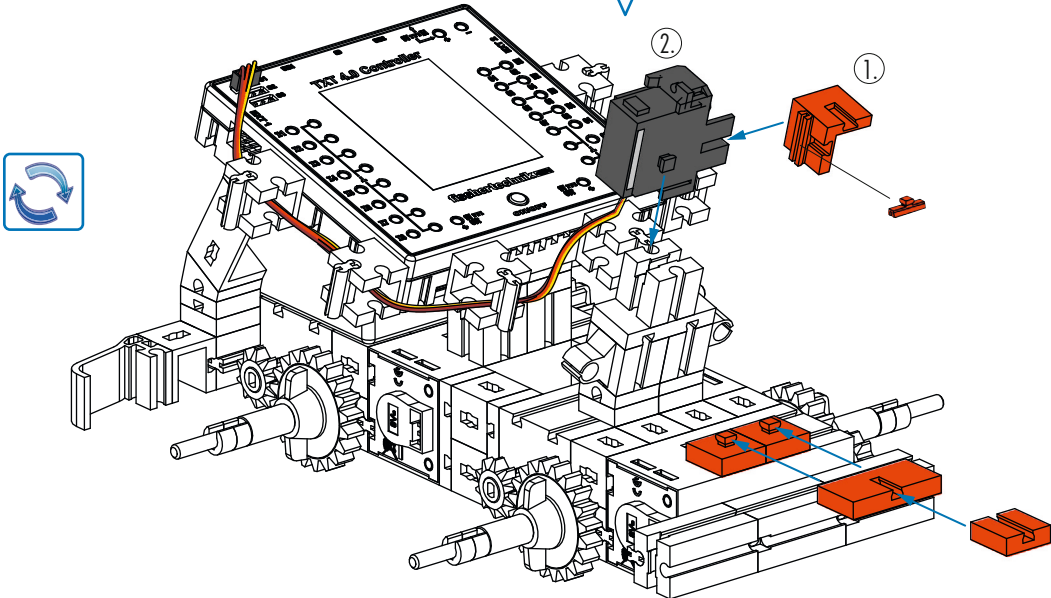
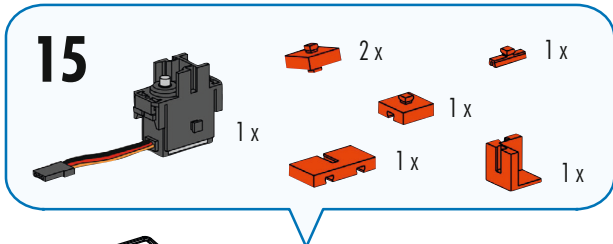
 2x  2x  2x  2x



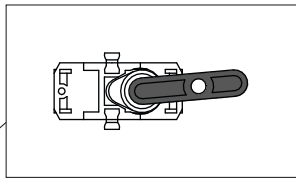
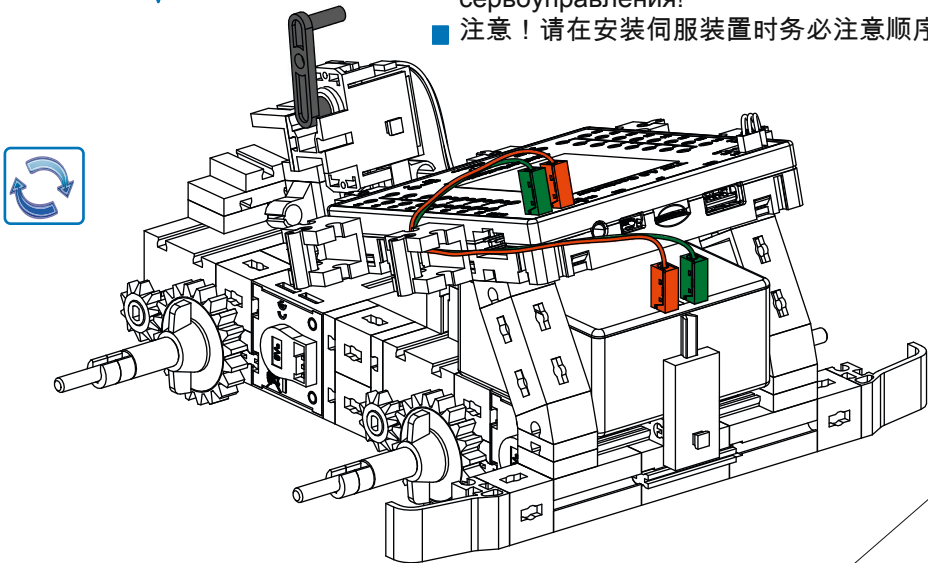
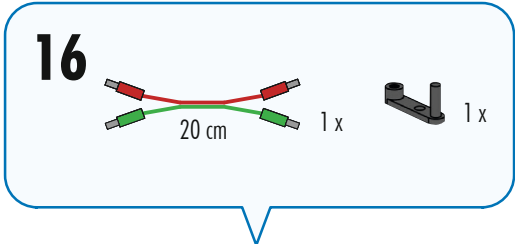
14

 1x
 1x





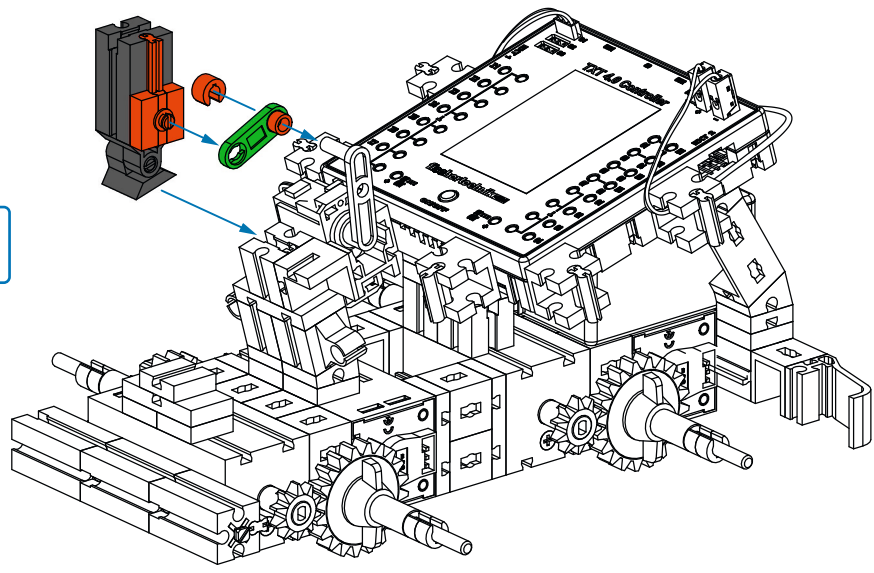
- Achtung! Reihenfolge beim Servoeinbau bitte unbedingt beachten!
- Caution, installation of the servo must be carried out in the order stated!
- Attention ! Veuillez respecter l'ordre indiqué impérativement lors du montage du servomécanisme !
- Attention! De volgorde bij de inbouw van de servo absoluut in acht nemen!
- ¡Atención! ¡Al montar el servo observar imprescindiblemente el orden!
- Atenção! Observar obrigatoriamente a sequência quando da montagem do servo!
- Attenzione! Si deve tassativamente rispettare la giusta sequenza nel montaggio del servo!
- Внимание! Обязательно соблюдайте последовательность сборки сервоуправления!
- 注意！请在安装伺服装置时务必注意顺序！



- TXT 4.0 Controller einschalten - Servo bewegt sich in Mittelstellung - Servohebel wie in Abbildung dargestellt einbauen
- Switch on TXT 4.0 Controller - Servo moves to centre position - Install servo arm as shown in illustration
- Allumez le contrôleur TXT 4.0 - Le servo se déplace en position centrale - Installez le bras du servo comme indiqué sur l'illustration
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- Ligue o Controlador TXT 4.0 - O servo move-se para a posição central - Instale o servo braço como mostrado na ilustração
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- TXT 4.0 Controller Включить - Сервопривод перемещается в среднее положение - Установить рычаг сервопривода, как показано на рисунке
- TXT 4.0 Controller 开启 - 舵机移动到中间位置 - 按图示安装舵机杆

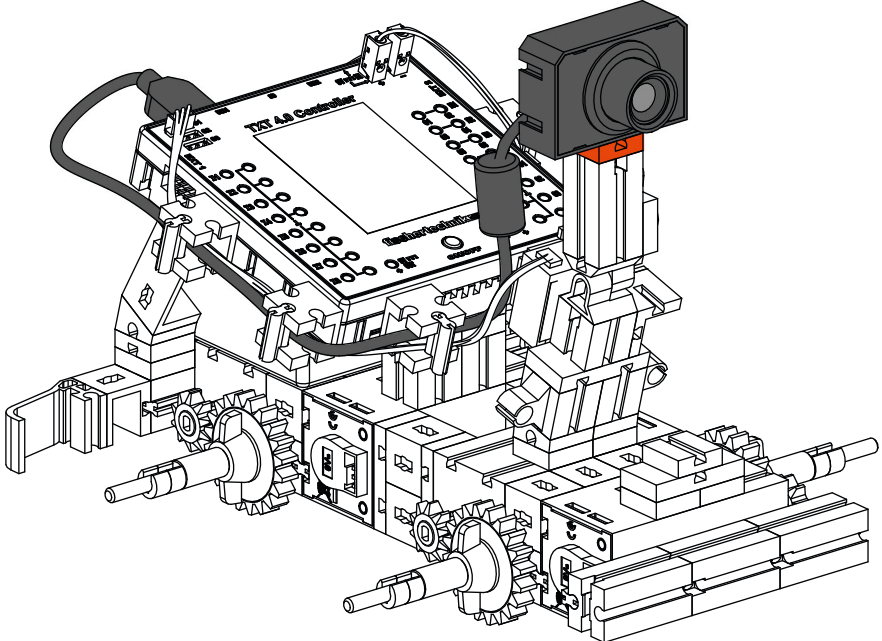
17

- 1x (orange 1x2 Technic brick)
- 1x (red 1x Technic pin)
- 1x (red 15 Technic axle)
- 1x (green 15 Technic axle)
- 1x (black 1x2 Technic axle)
- 1x (red 1x Technic pin)
- 1x (red 1x Technic pin)
- 1x (black 1x2 Technic axle)



18

- 1x (black camera module)
- 1x (orange 1x2 Technic brick)



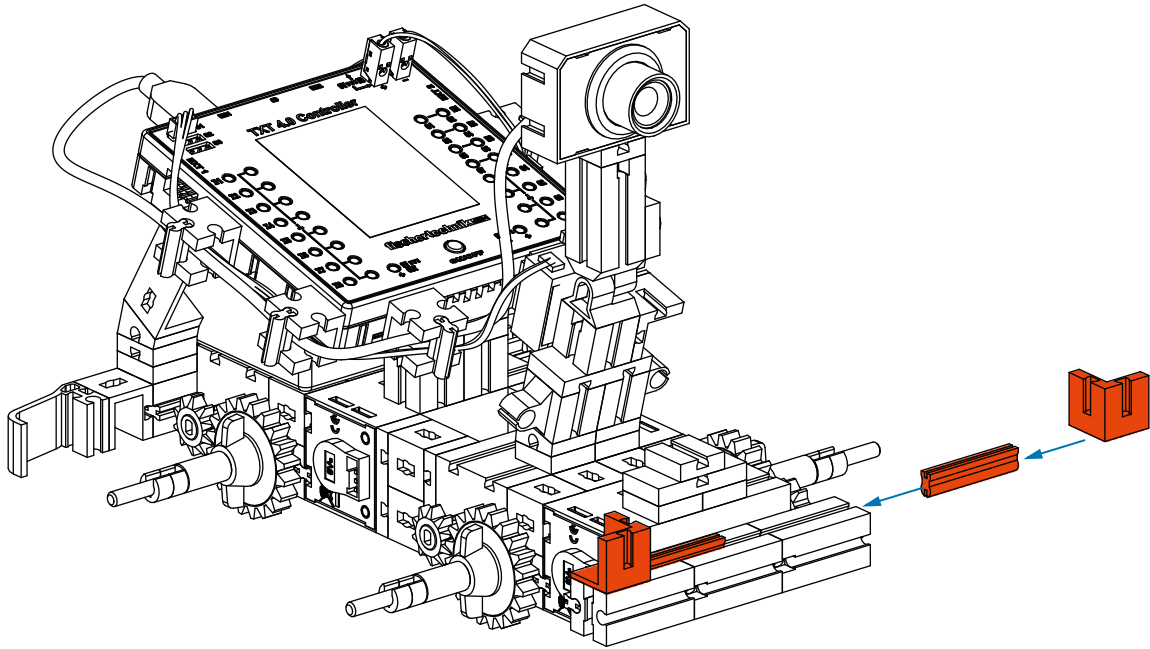
19



2 x



2 x



20



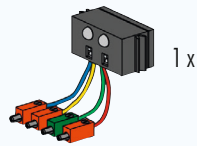
1 x



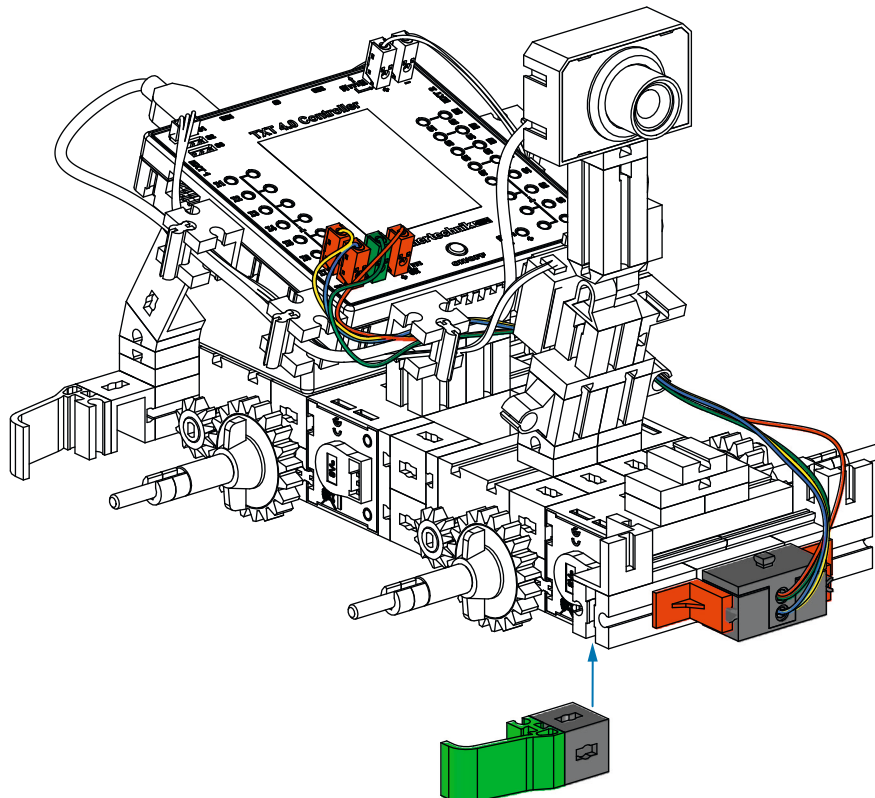
1 x



2 x

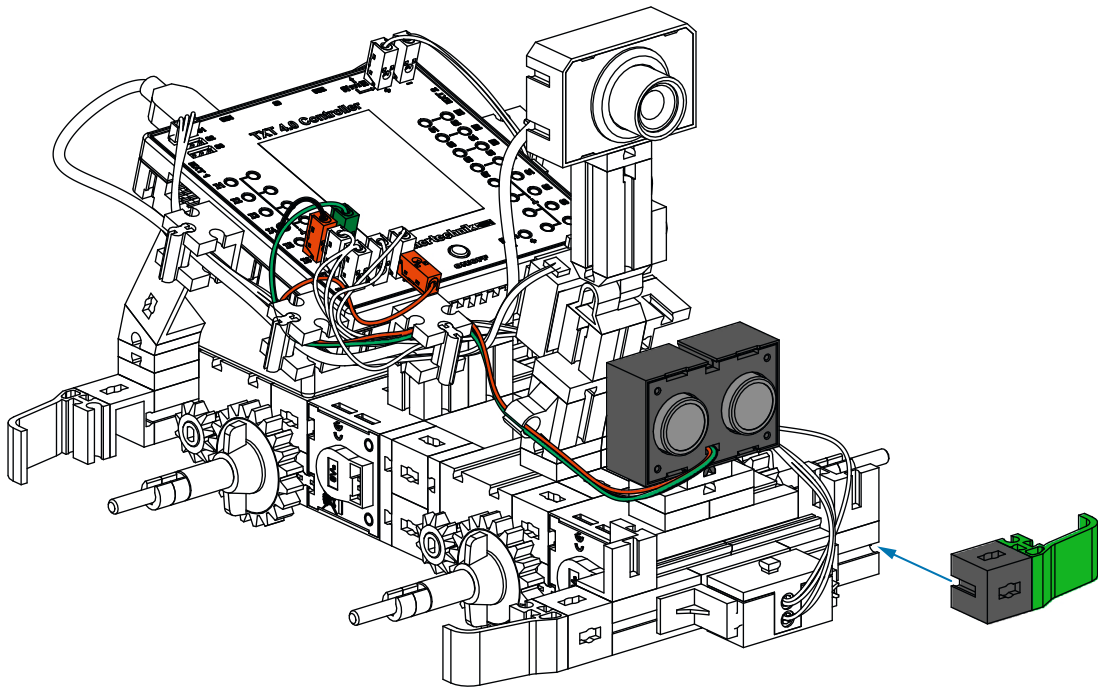


1 x



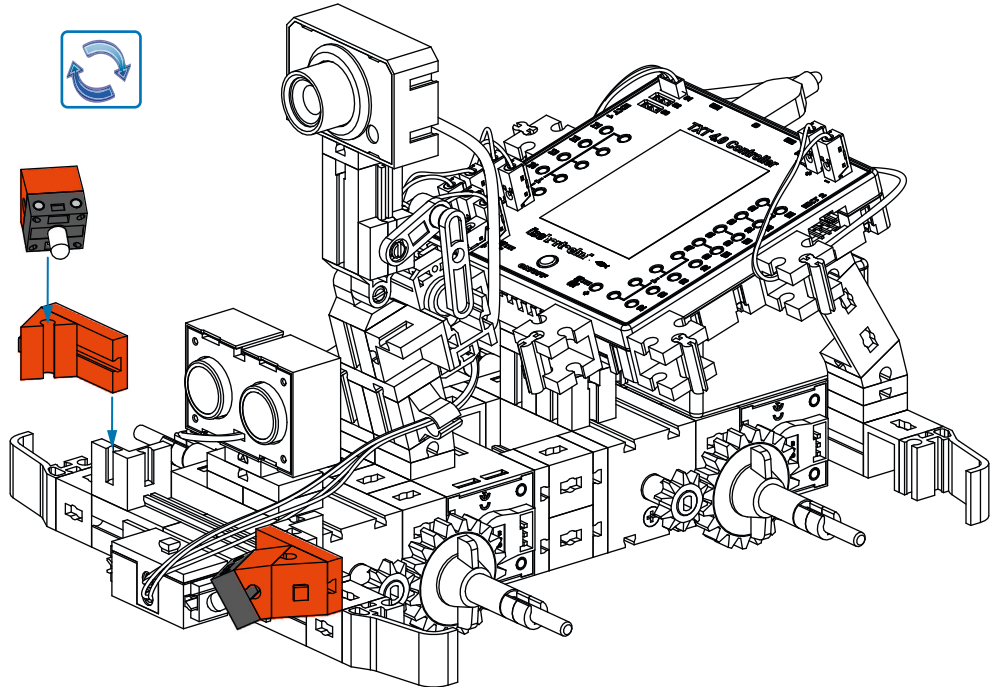
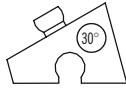
21

- 1 x [Black connector]
- 1 x [Green connector]
- 1 x [Black connector with wires]



22

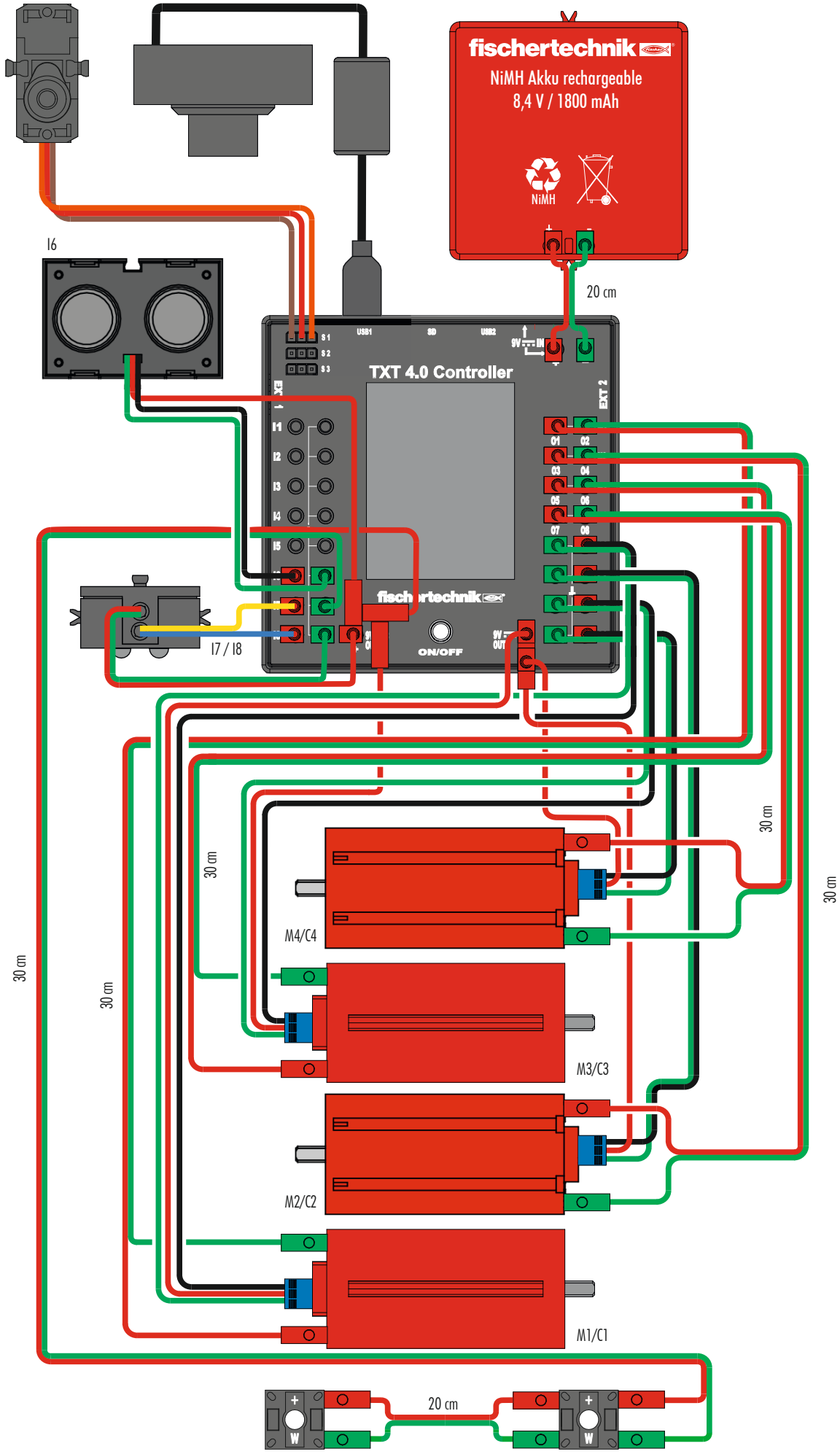
- 2 x [Black pin labeled 'W']
- 2 x [Orange 30° wedge]
- 2 x [Orange 60° wedge]
- 2 x [Orange 30° wedge]



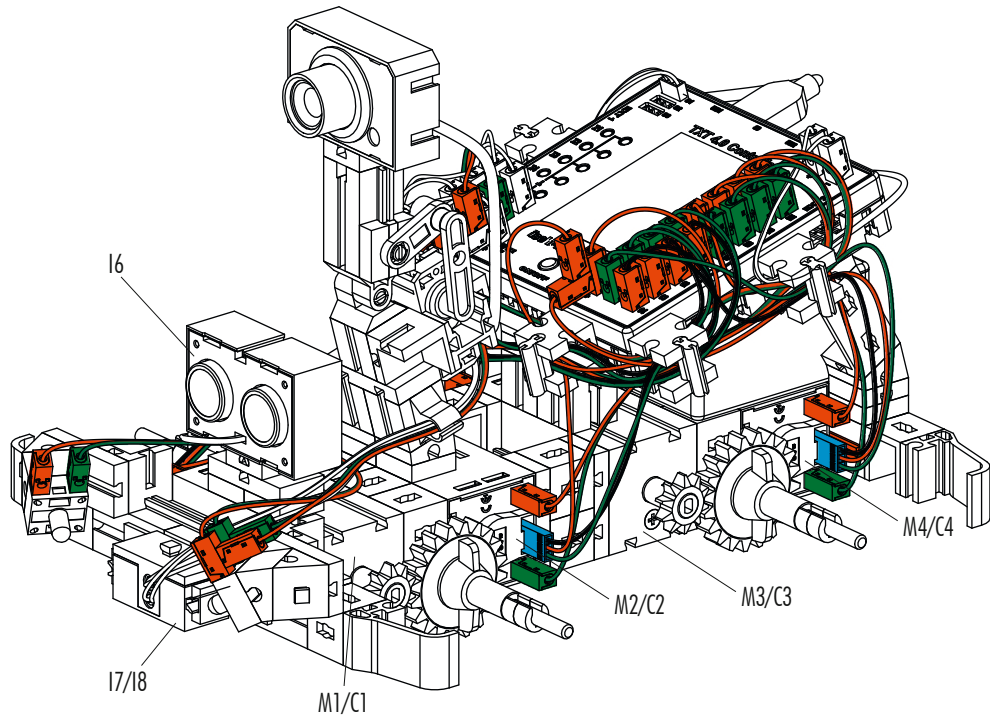
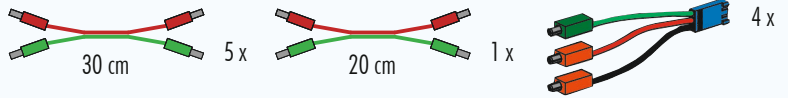
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

Schema elettrico
Схема подключения
电路图

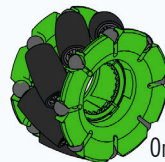


23

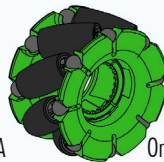


24

2 x

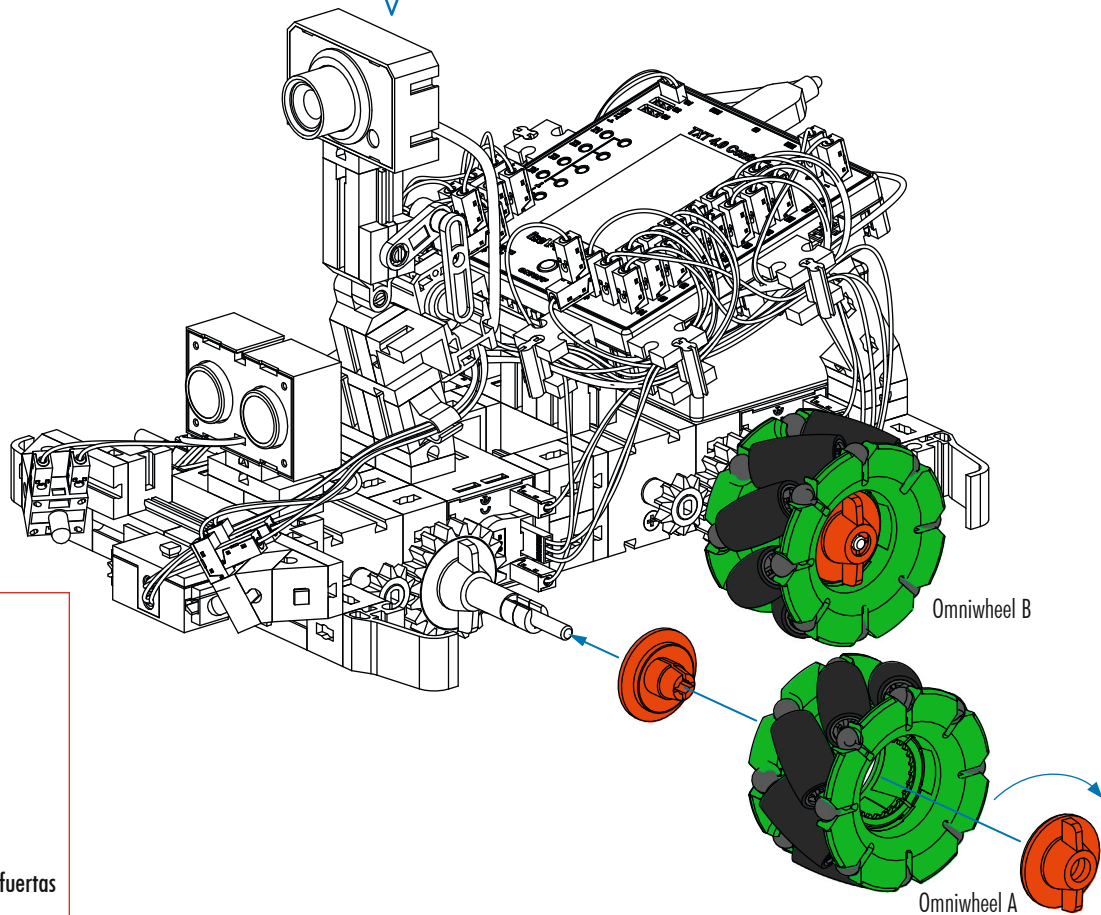


1 x



1 x

2 x



Omnivheel B

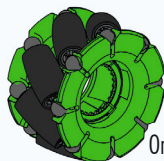
Omnivheel A



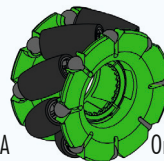
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

25

2 x

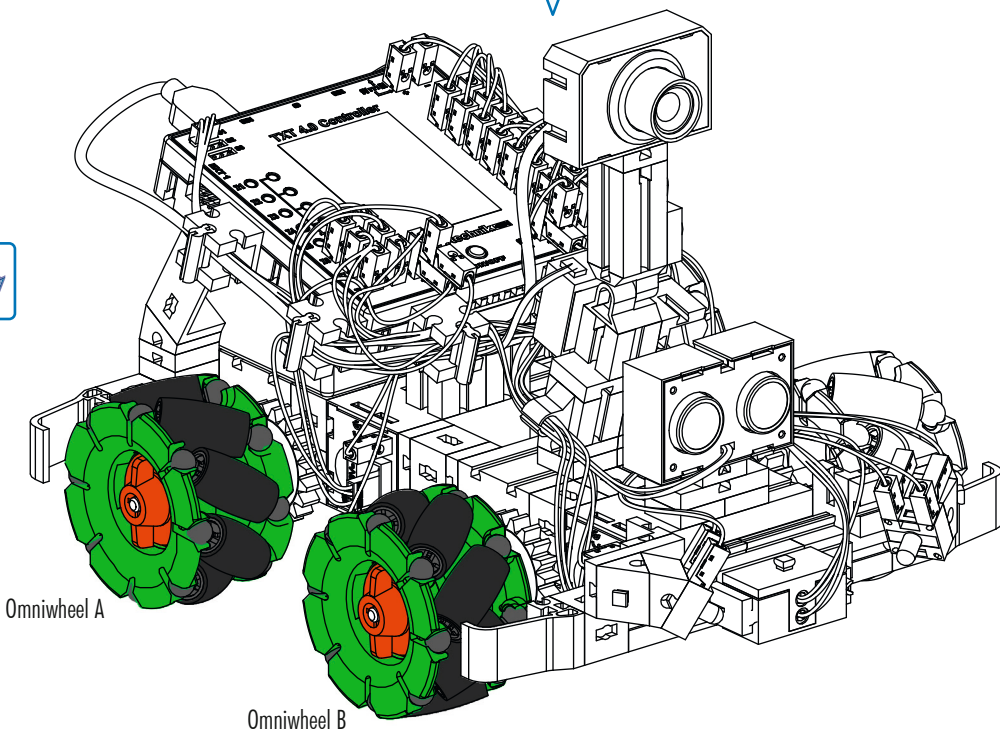


1 x



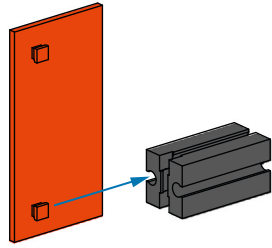
1 x

2 x

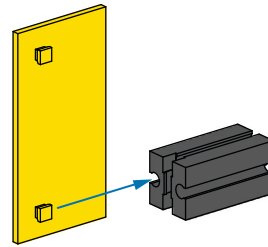
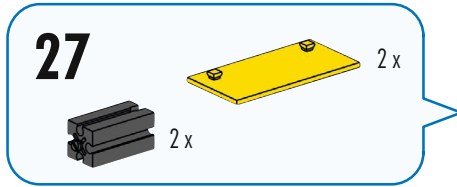
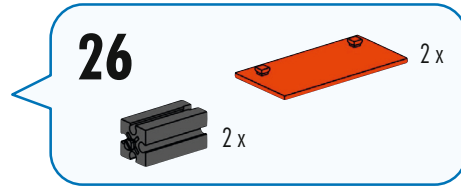


Omnivheel A

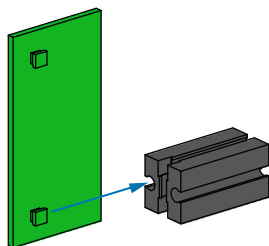
Omnivheel B



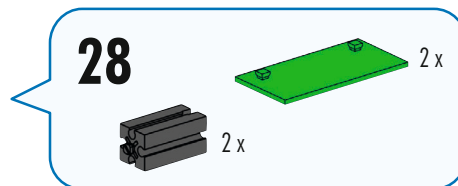
2 x

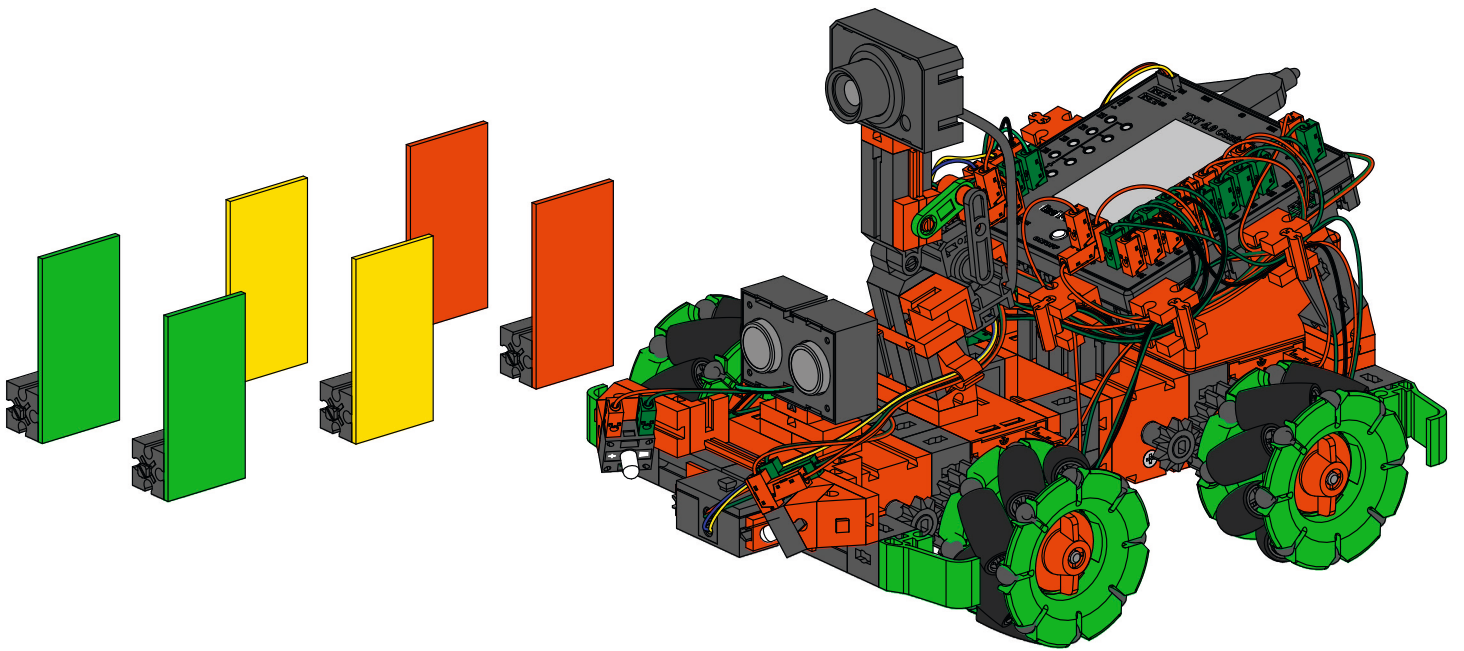


2 x



2 x

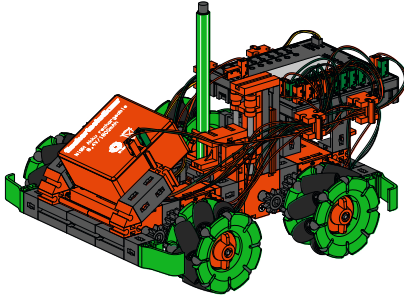




Malroboter
Painting robot
Robot peintre

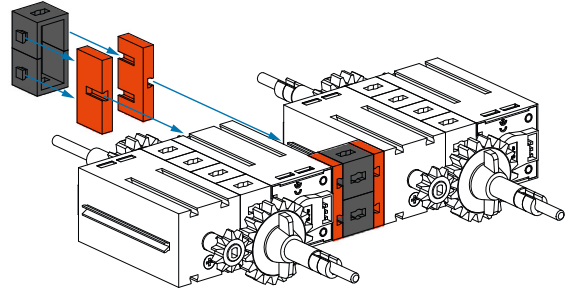
Schilder robot
Robot de pintura
Robô de Pintura

Pittura Robot
Робот для рисования
绘画机器人





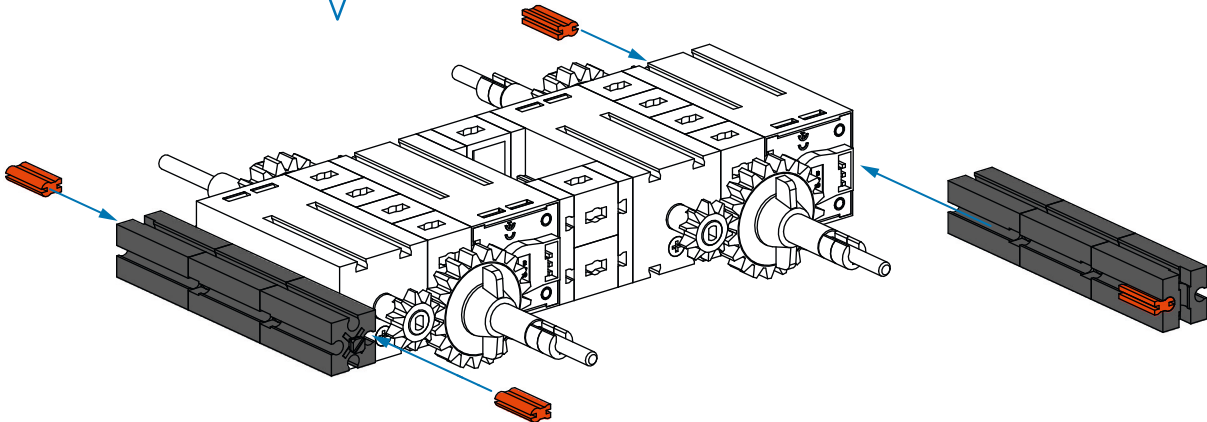
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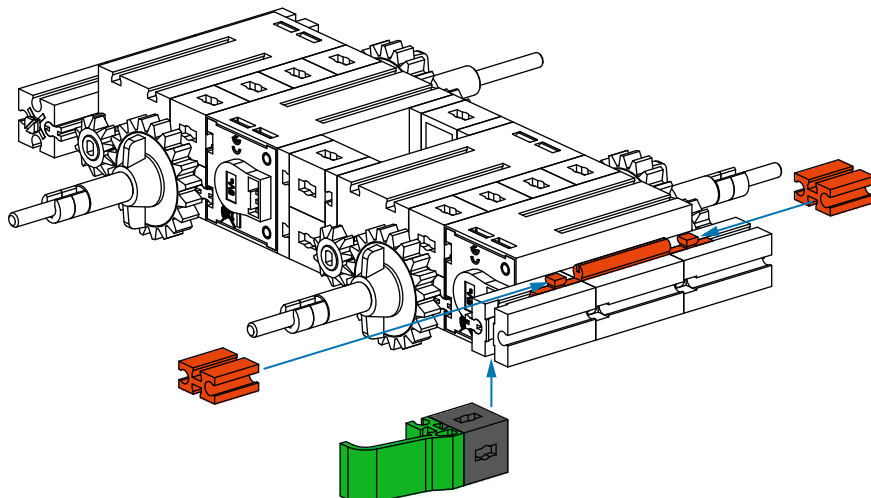
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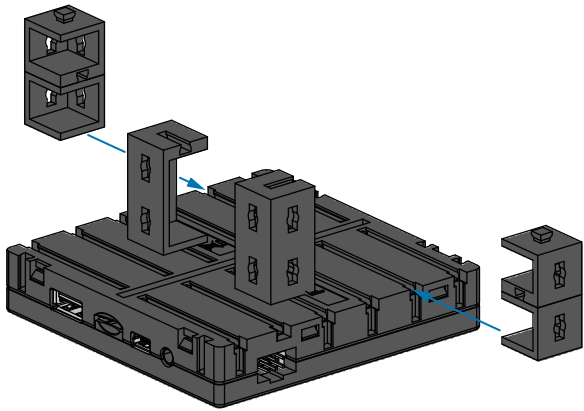
 6 x  4 x





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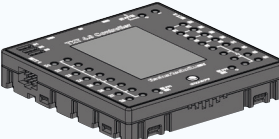
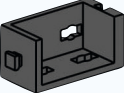
 1 x  2 x
 1 x  30 1 x  2 x








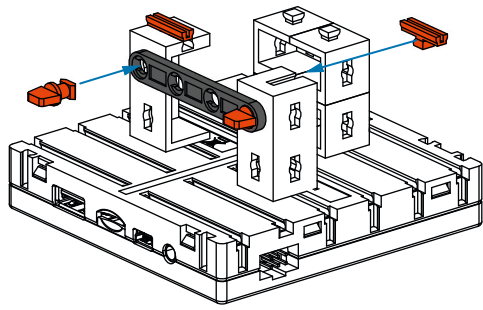
9

2 x  2 x 



1 x  2 x 

10

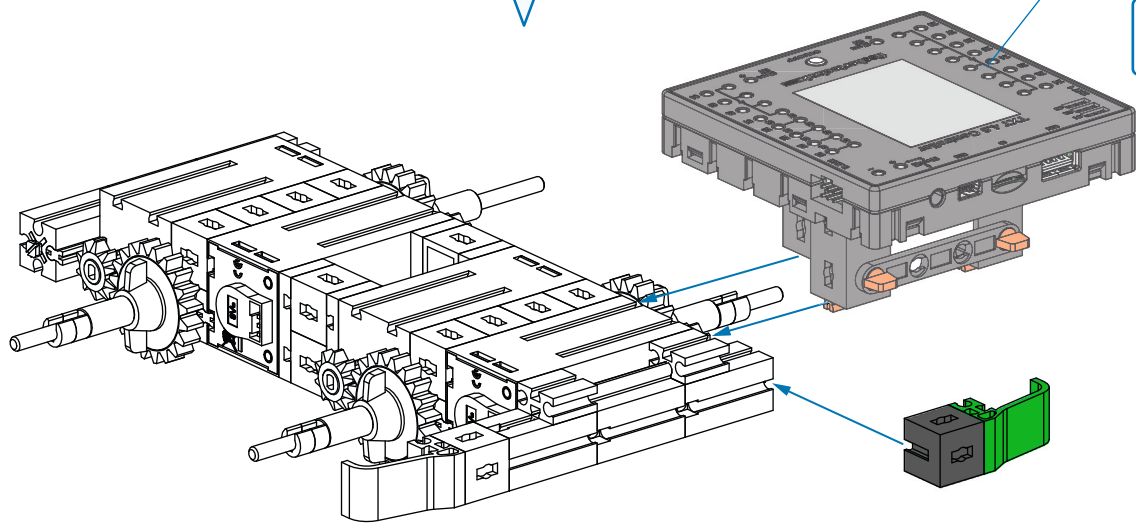
2 x  1 x  2 x 



11

1 x  1 x 

10



12



1 x



4 x

45



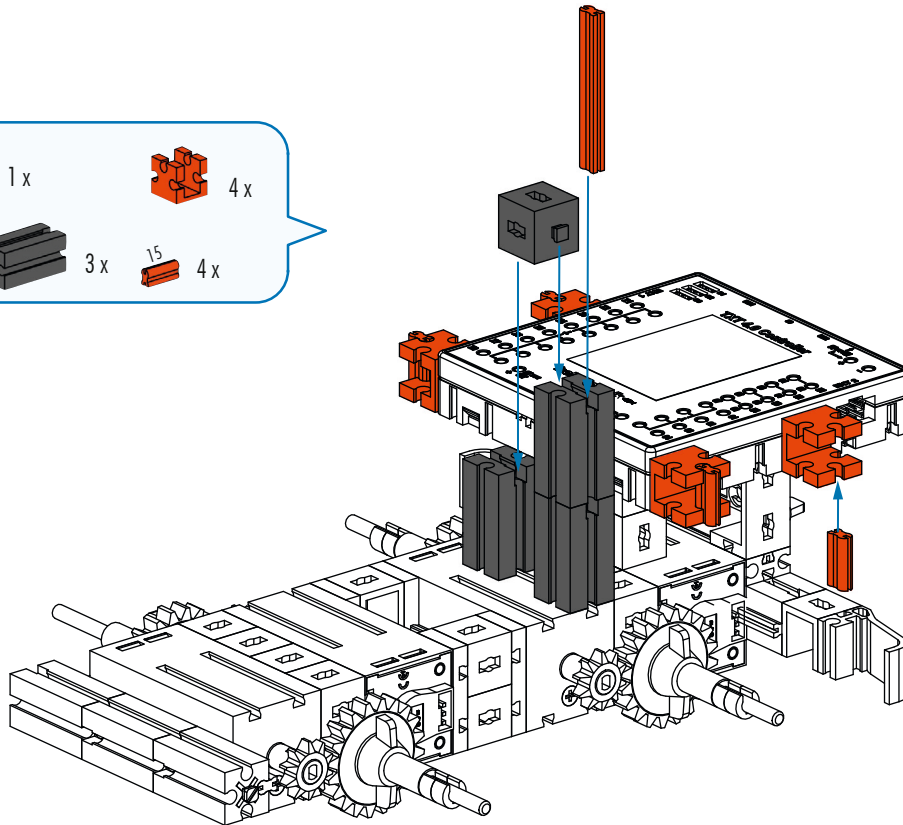
1 x



3 x



4 x



13



1 x



2 x



2 x



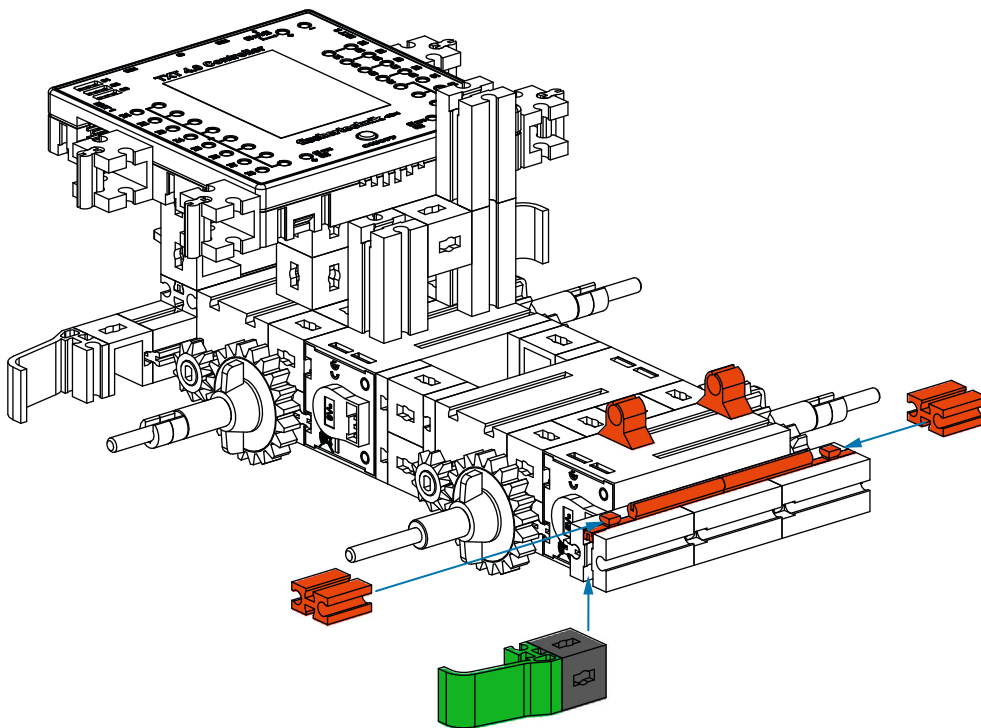
1 x



2 x

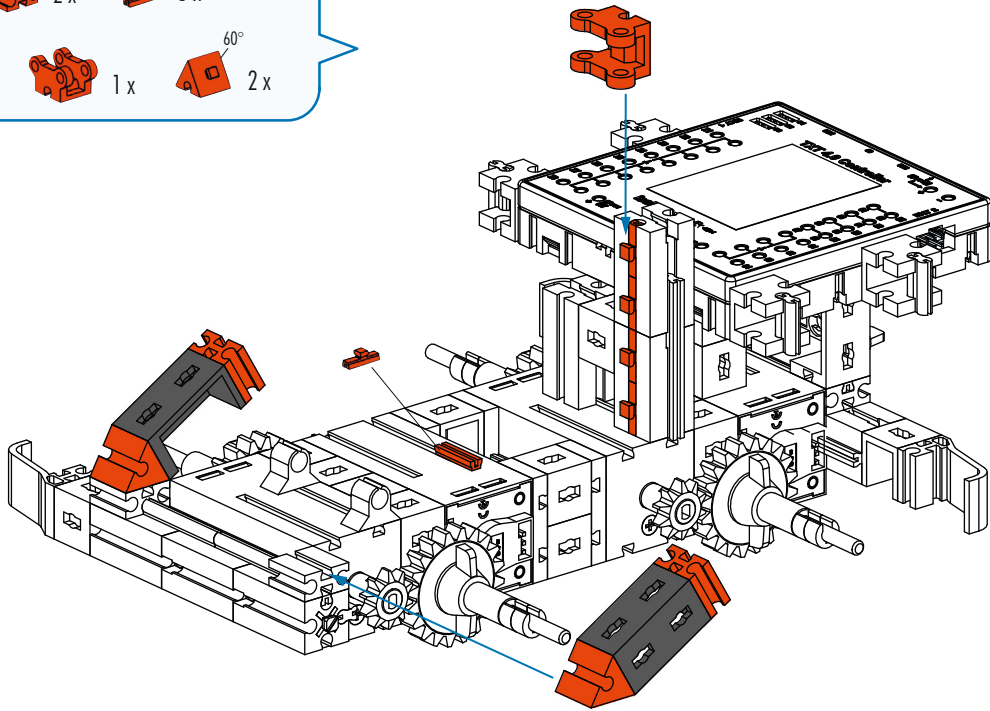


2 x



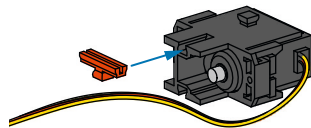
14

- 2x
- 5x
- 2x
- 1x
- 2x



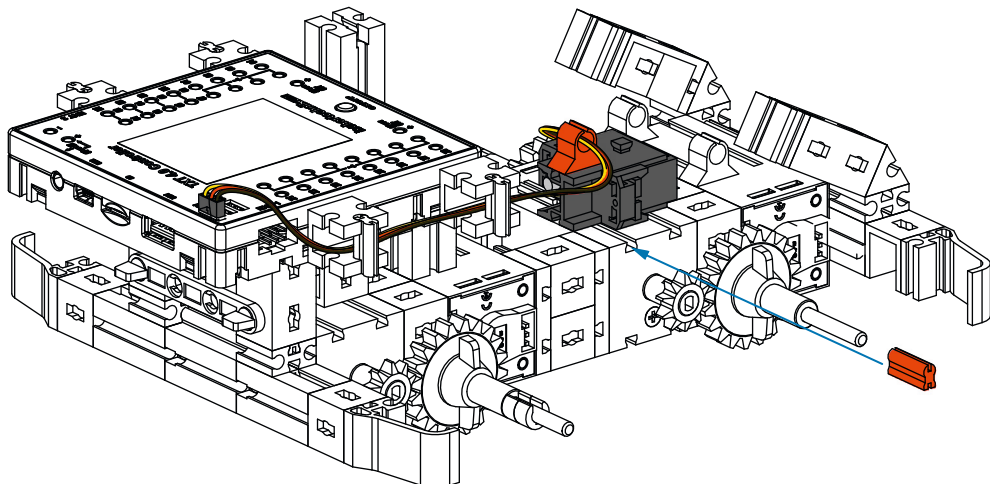
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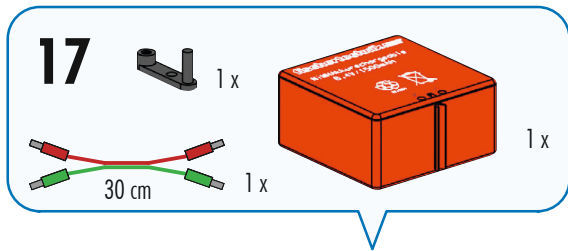
- 1x
- 1x



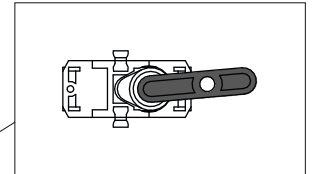
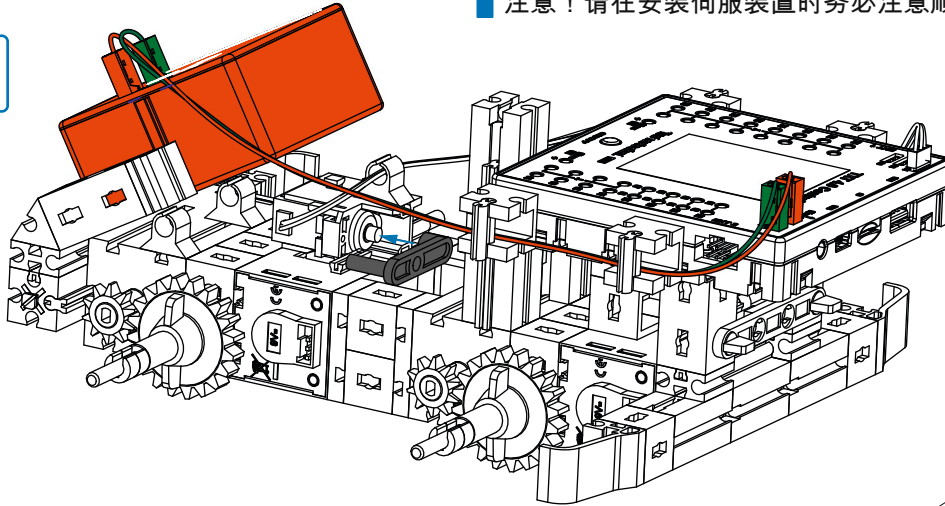
16

- 1x
- 1x

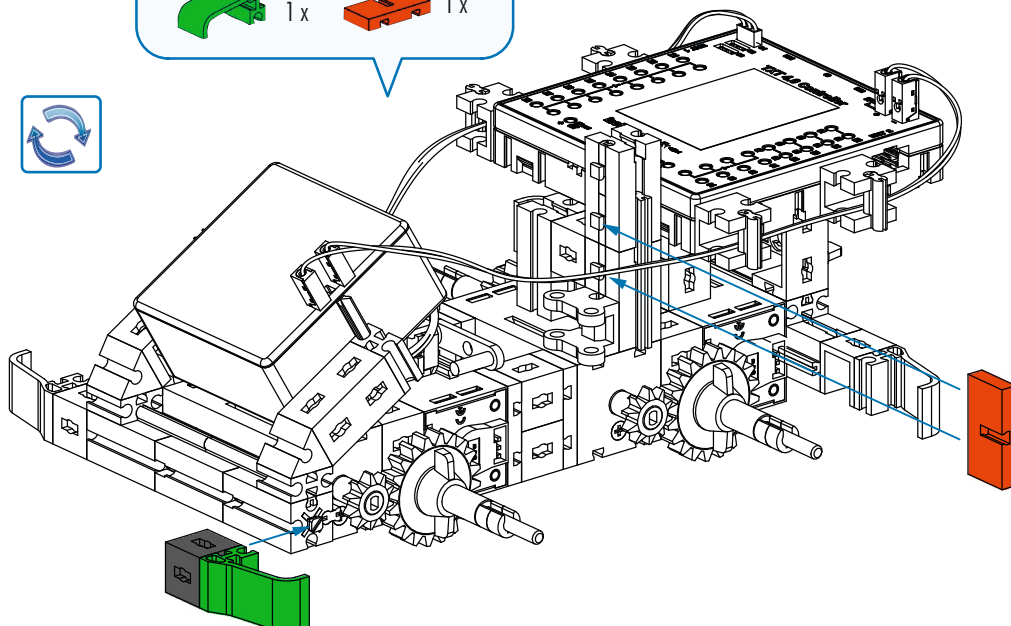
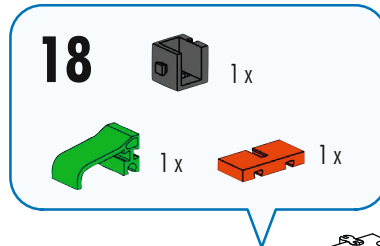







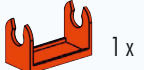
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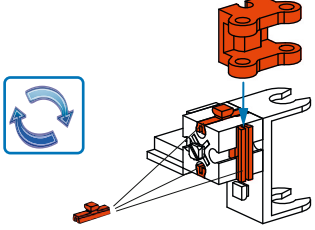
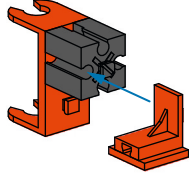


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19


 1x
  1x
 1x
  1x

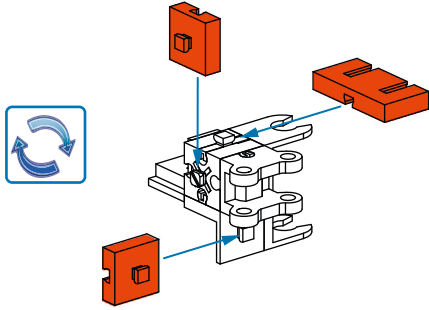
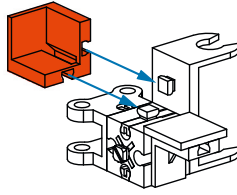


20



 3x
  1x

21





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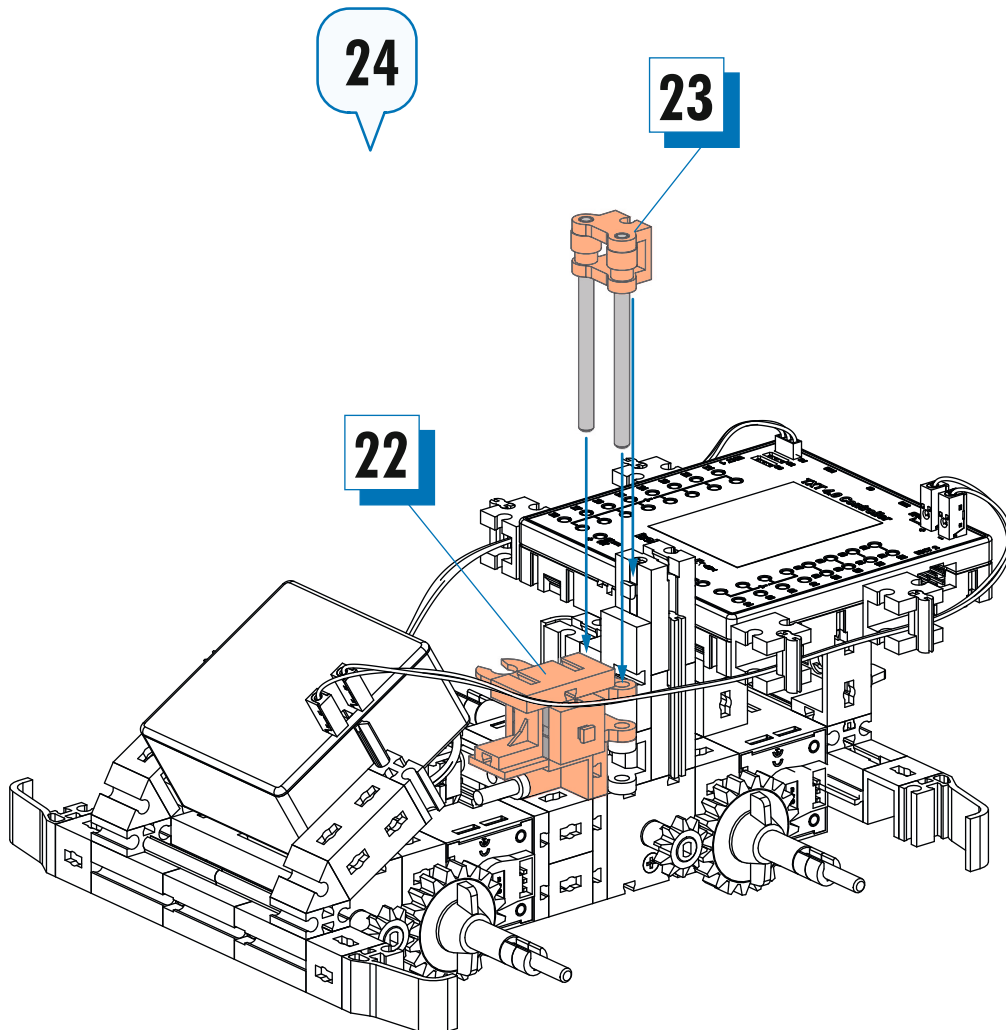
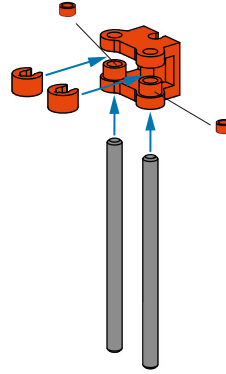
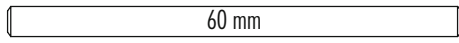


22

 1x
  2x

23

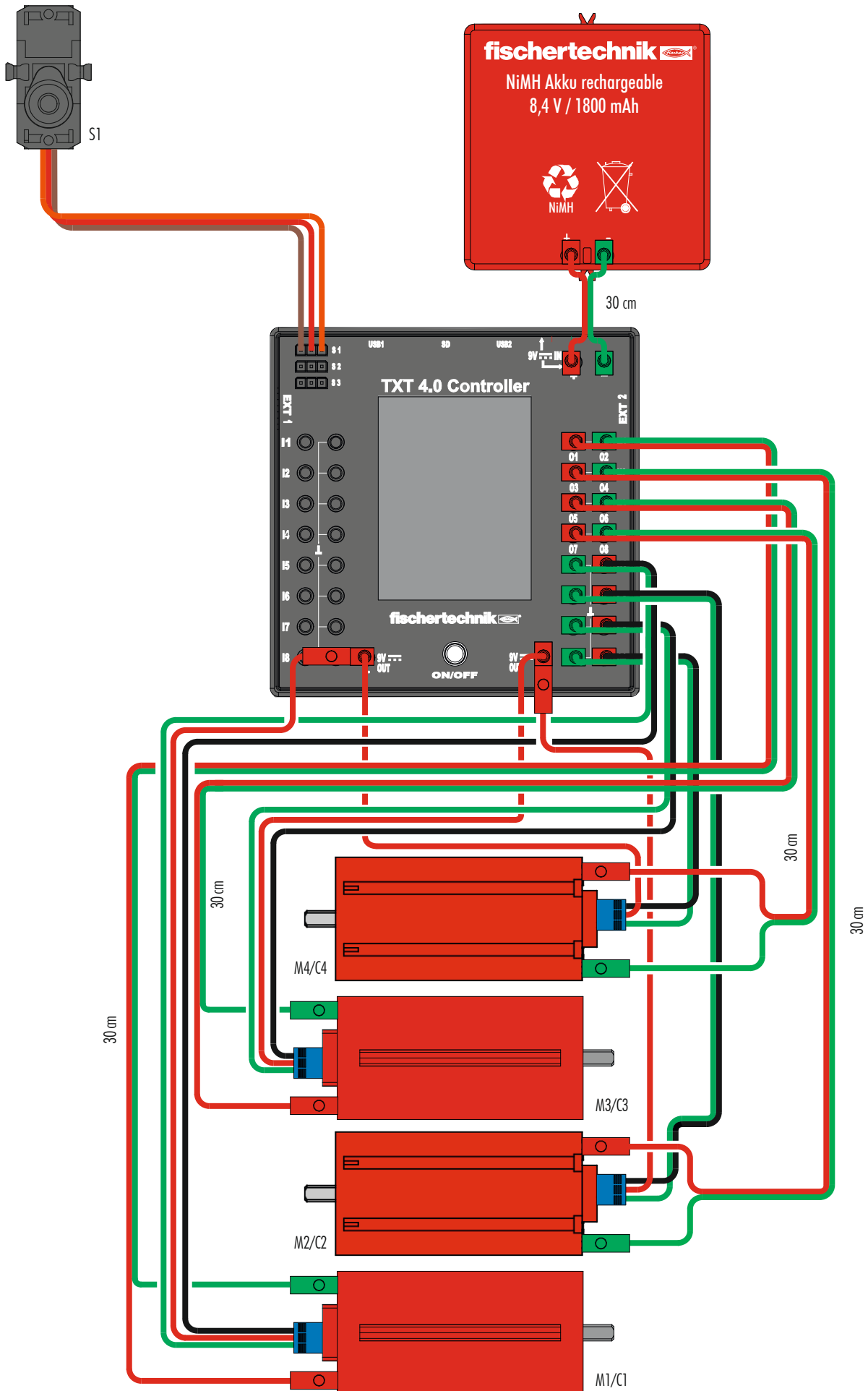
- 2 x 
- 2 x 
- 2 x 
- 1 x 



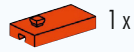
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

Schema elettrico
Схема подключения
电路图



25

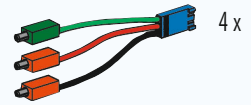


1 x

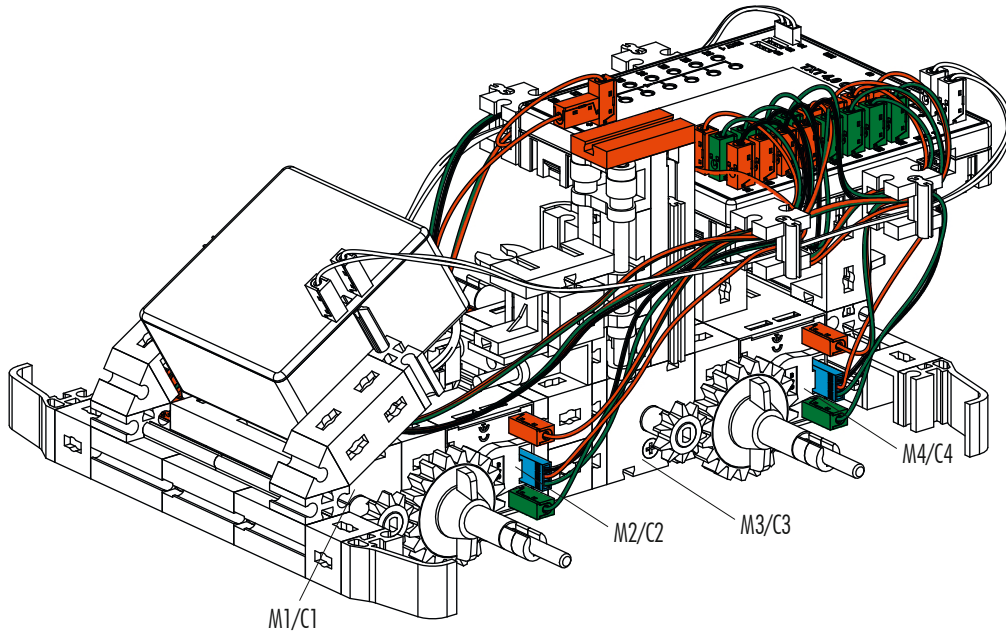


30 cm

4 x



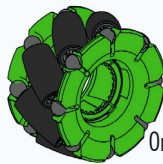
4 x



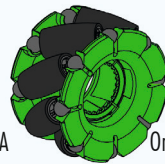
26



2 x



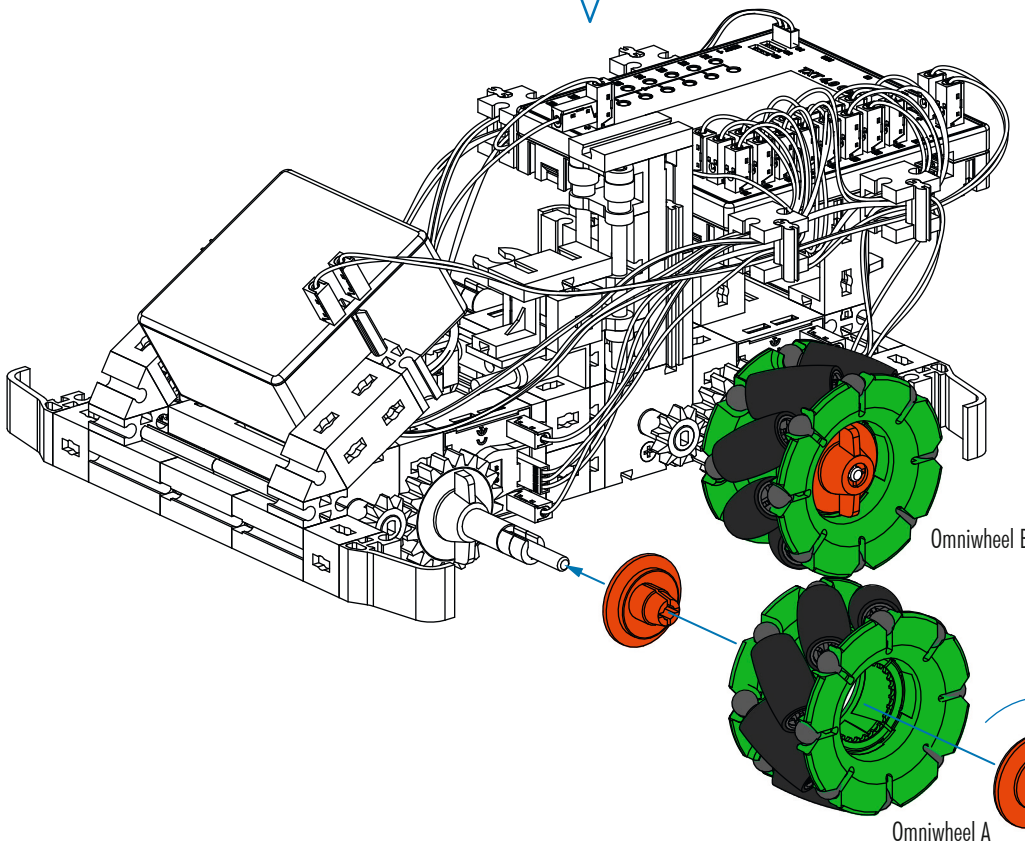
1 x
Omniwheel A



1 x
Omniwheel B

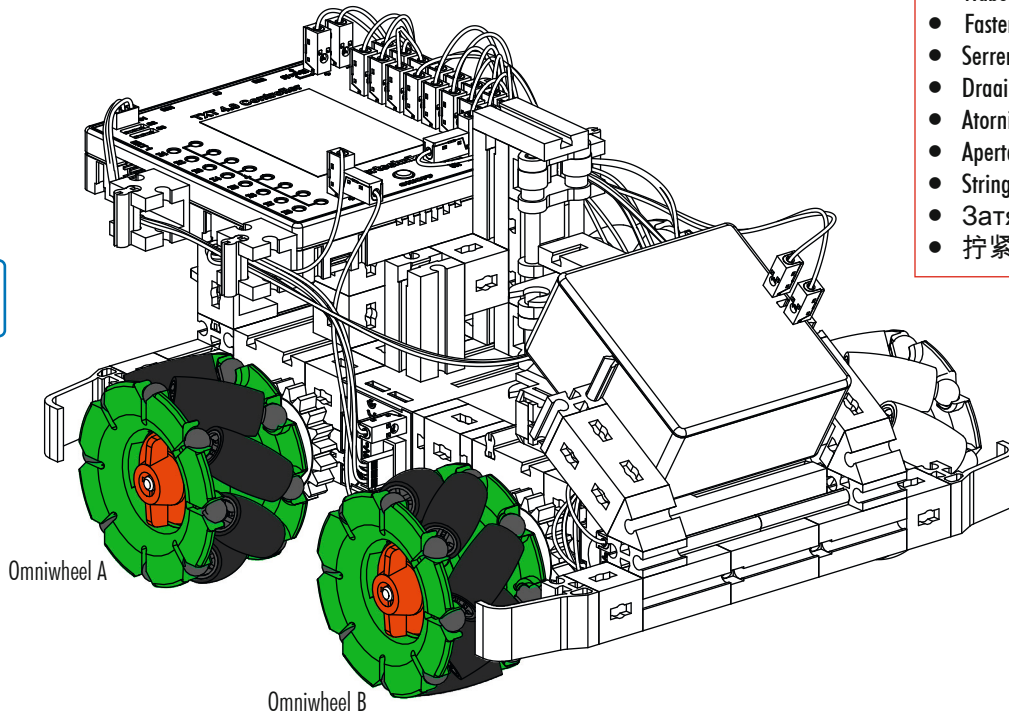
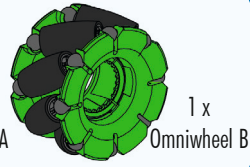
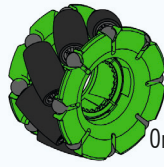


2 x



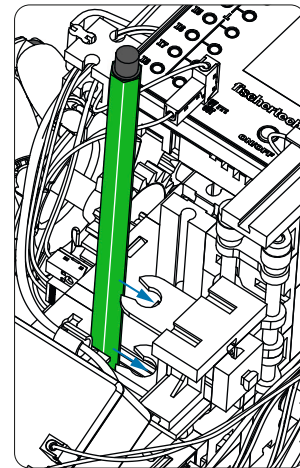
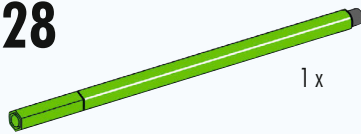
- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

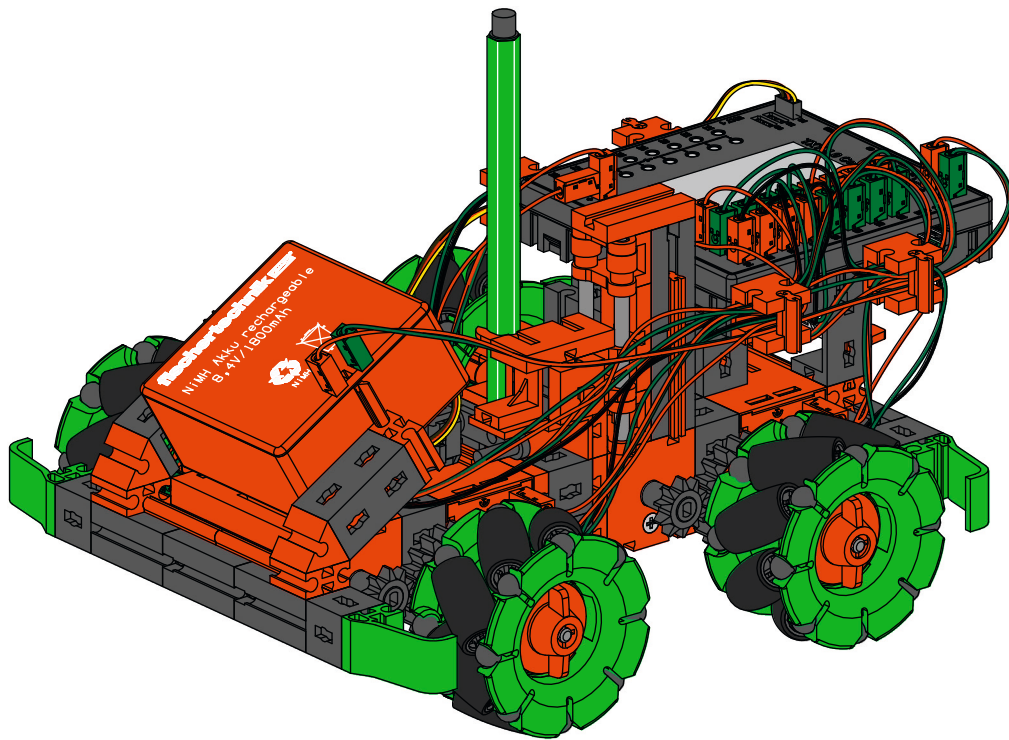
27

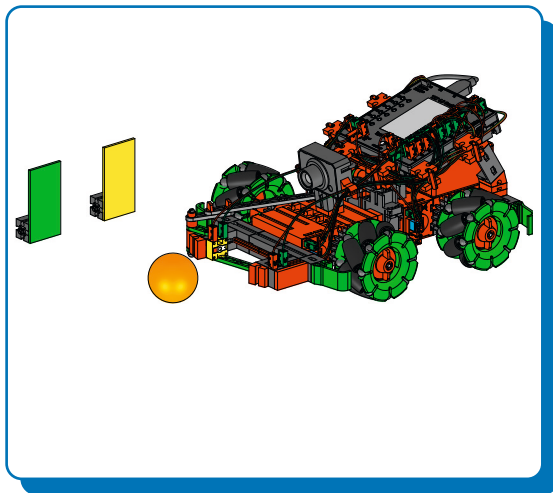


- Nabenmutter sehr fest anziehen
- Fasten the hub nut very tightly
- Serrer l'écrou du moyeu très serré
- Draai de naafmoer goed vast
- Atornillar las tuercas laterales muy fuertes
- Apertar bem as porcas de cubo
- Stringere saldamente il dado del mozzo
- Затянуть гайки ступиц
- 拧紧

28







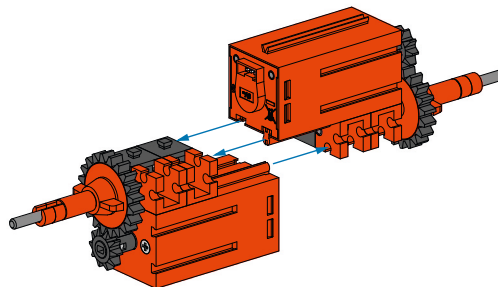
Fußballroboter
Football robot
Robot de football

Voetbal robot
Robot de fútbol
Robô de futebol





Calcio Robot
Футбольный робот
足球机器人

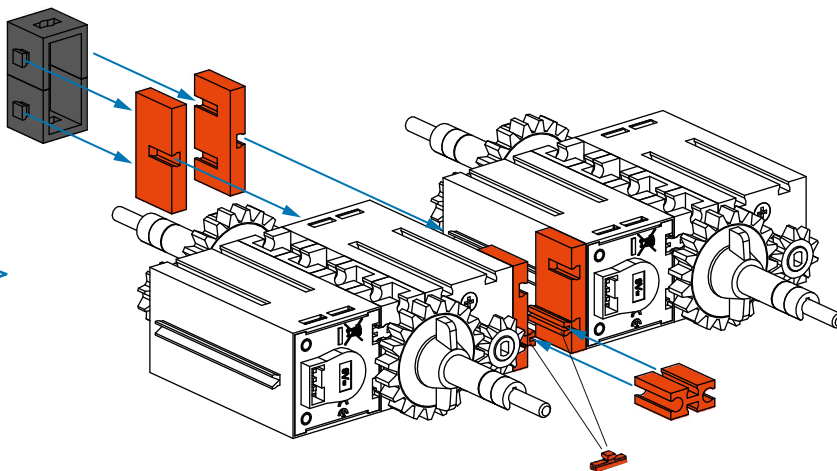
1-5

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



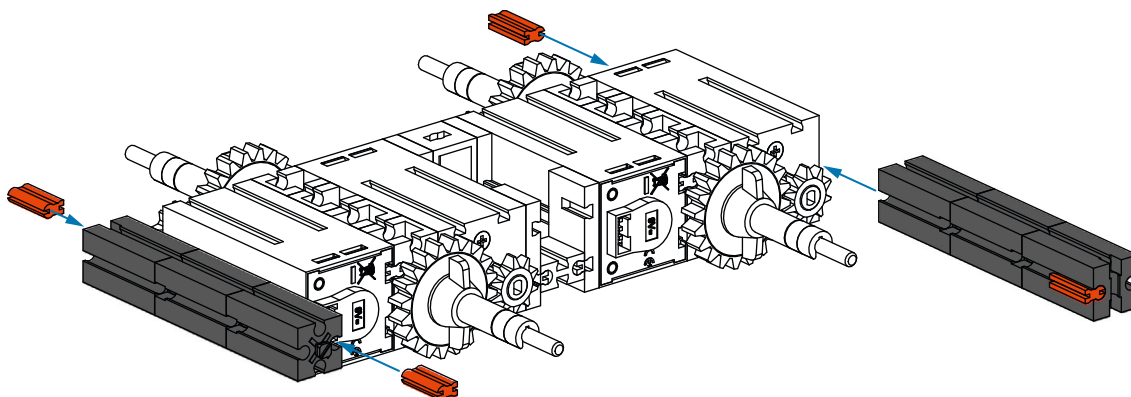
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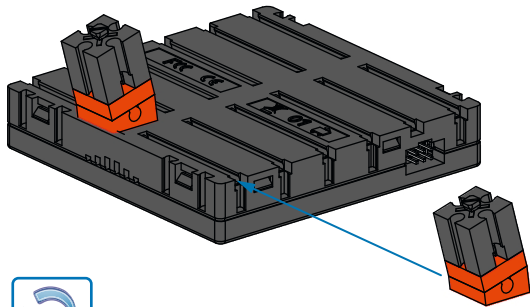
-  2 x
-  1 x
-  4 x
-  2 x



7

-  6 x
-  4 x





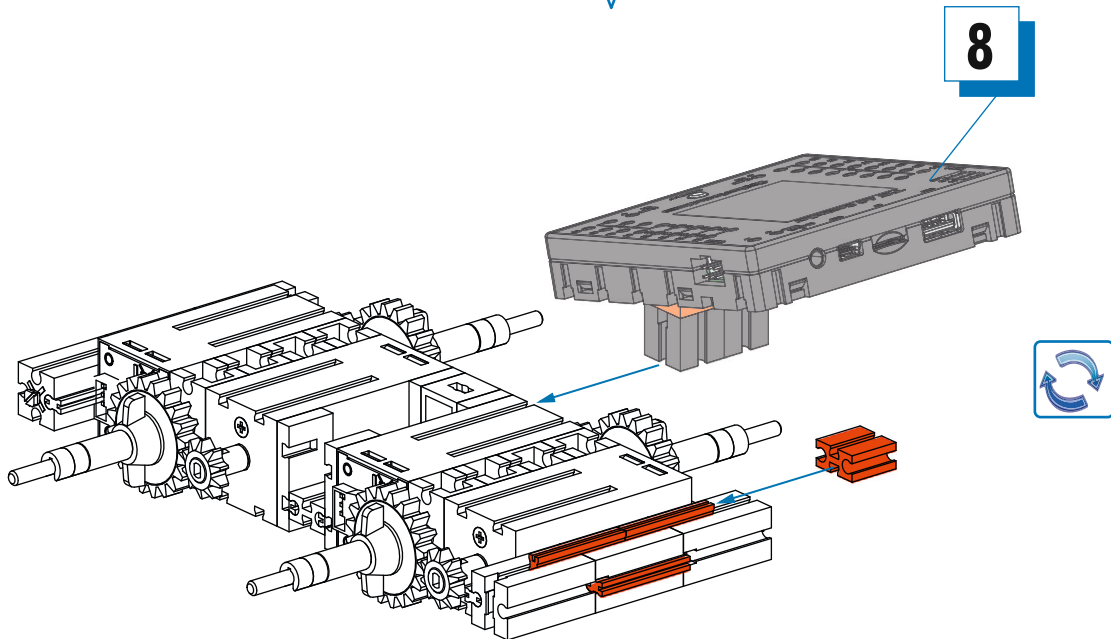
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




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

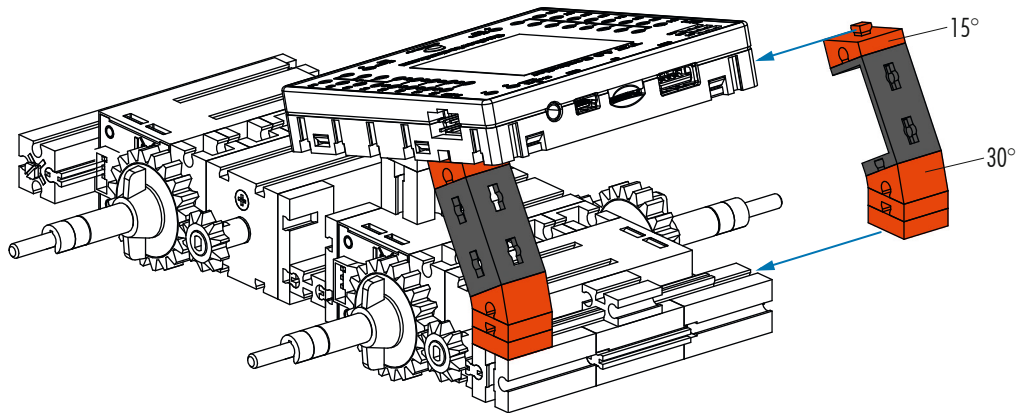
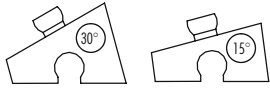




9

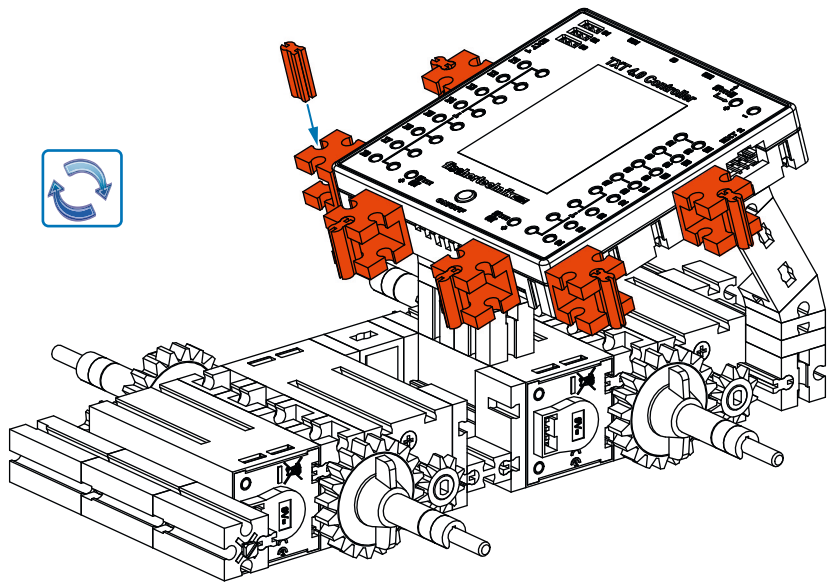
- 3 x
- 1 x



10  2x  2x  2x  2x  2x

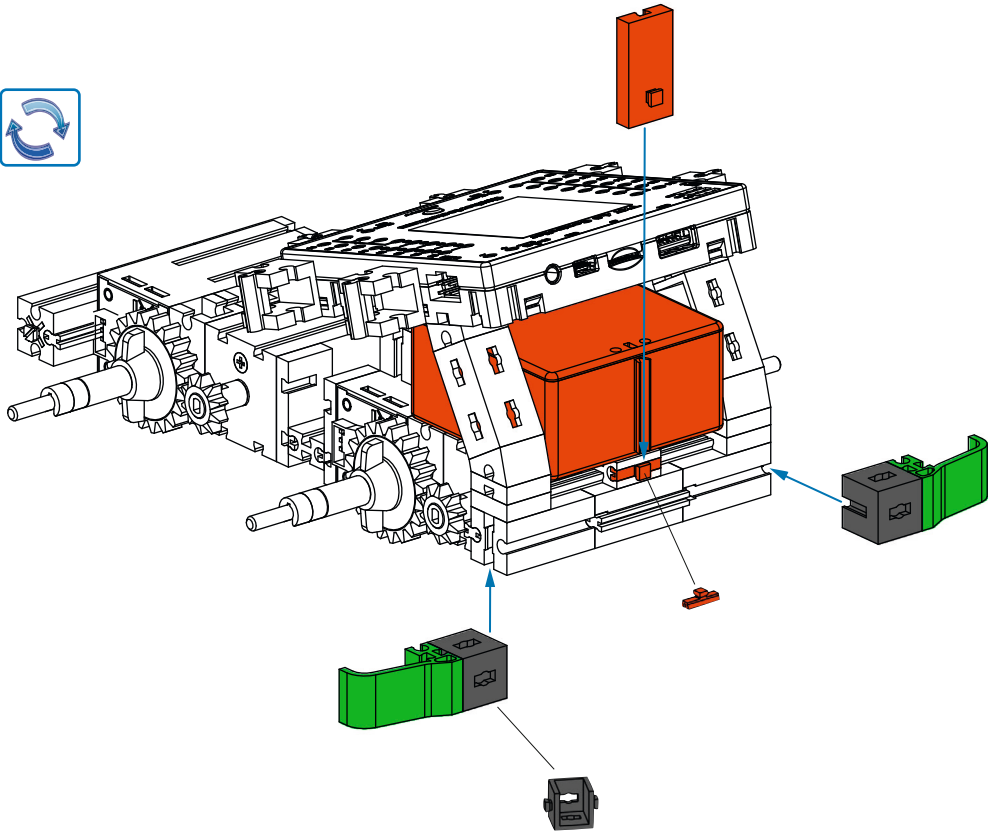


11  6x  6x



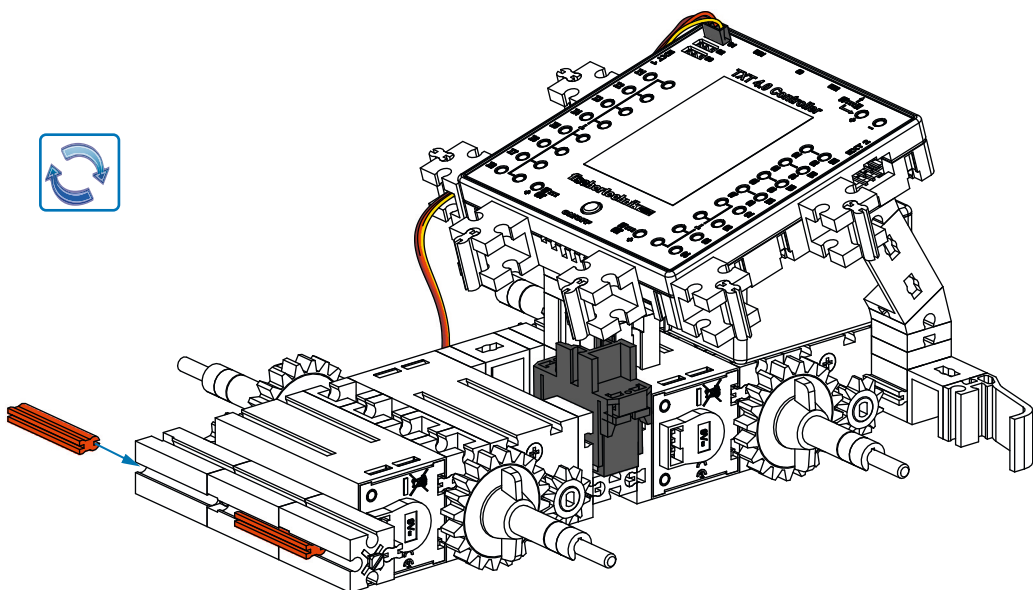
12

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



13

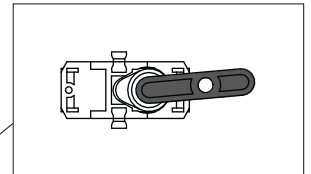
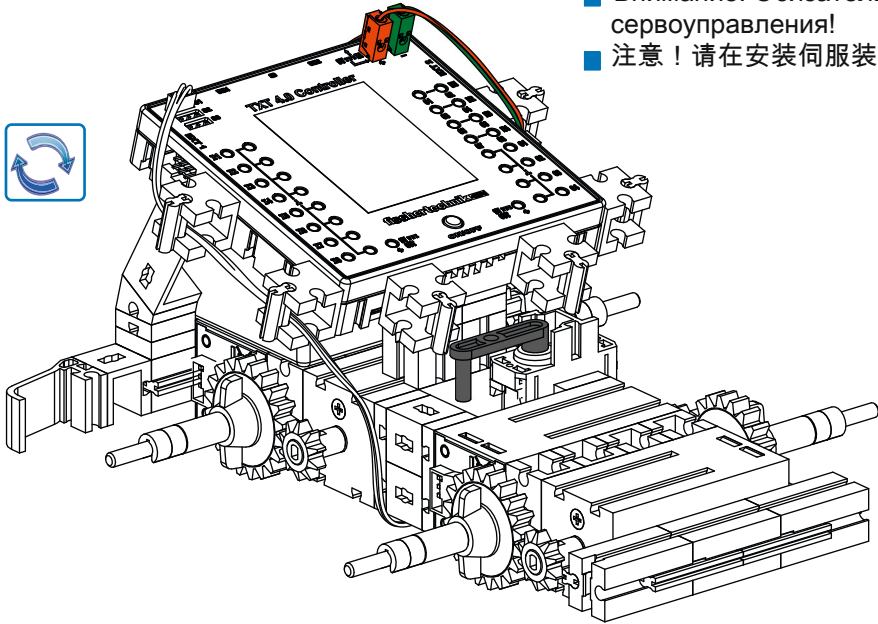
1x 2x 30



14

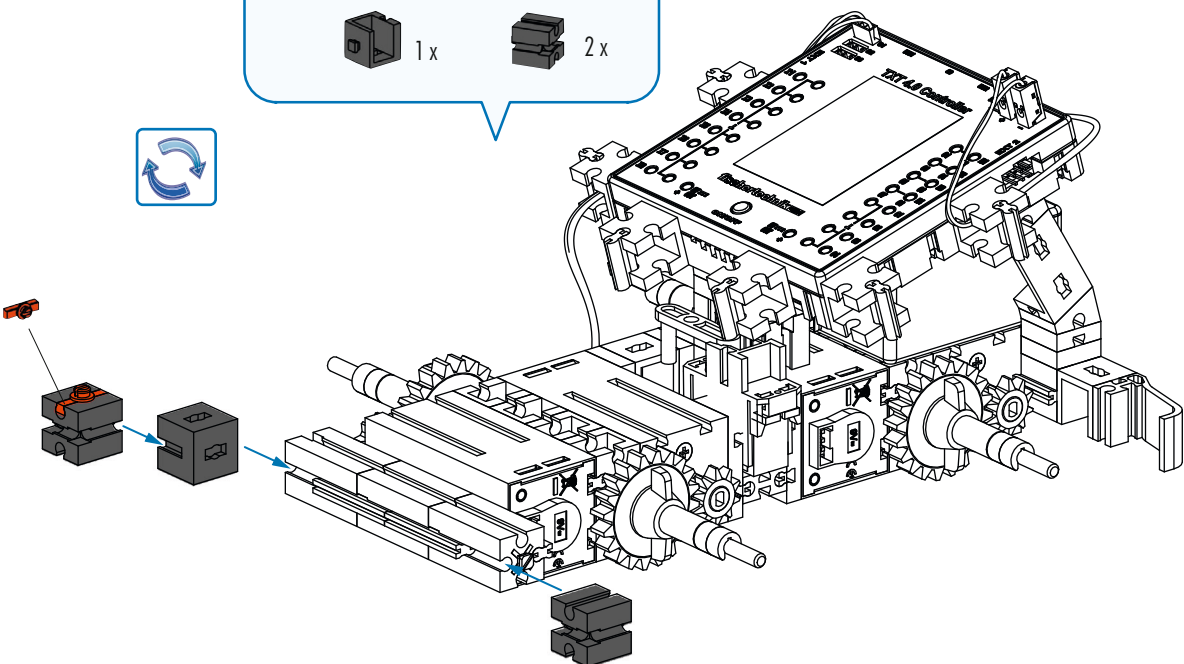
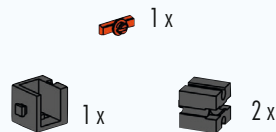


- Achtung! Reihenfolge beim Servoeinbau bitte unbedingt beachten!
- Caution, installation of the servo must be carried out in the order stated!
- Attention ! Veuillez respecter l'ordre indiqué impérativement lors du montage du servomécanisme !
- Attentie! De volgorde bij de inbouw van de servo absoluut in acht nemen!
- ¡Atención! ¡Al montar el servo observar imprescindiblemente el orden!
- Atenção! Observar obrigatoriamente a seqüência quando da montagem do servo!
- Attenzione! Si deve tassativamente rispettare la giusta sequenza nel montaggio del servo!
- Внимание! Обязательно соблюдайте последовательность сборки сервоуправления!
- 注意！请在安装伺服装置时务必注意顺序！



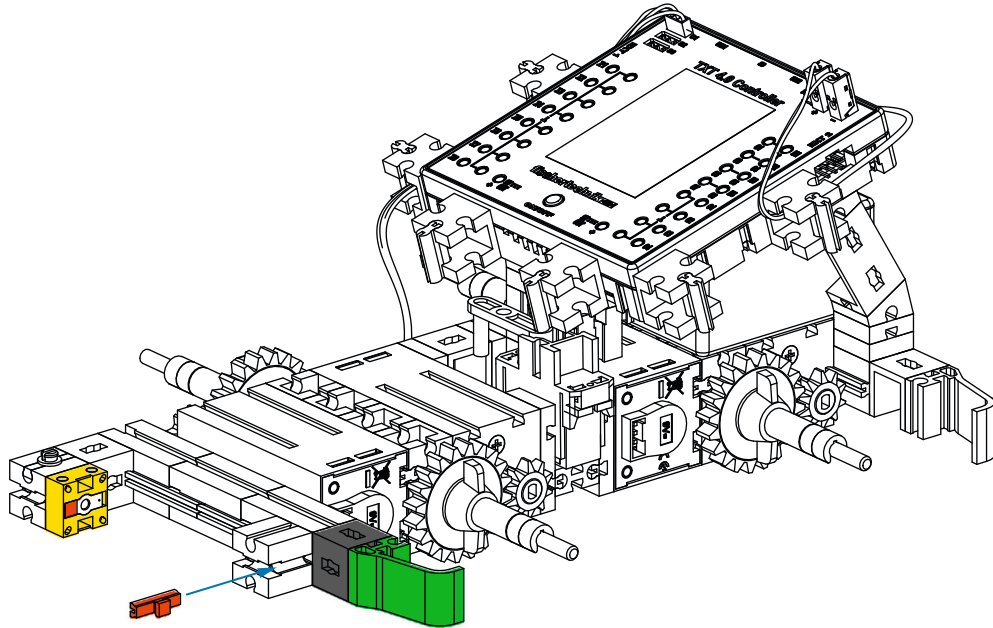
- TXT 4.0 Controller einschalten - Servo bewegt sich in Mittelstellung - Servohebel wie in Abbildung dargestellt einbauen
- Switch on TXT 4.0 Controller - Servo moves to centre position - Install servo arm as shown in illustration
- Allumez le contrôleur TXT 4.0 - Le servo se déplace en position centrale - Installez le bras du servo comme indiqué sur l'illustration
- Schakel de TXT 4.0 Controller in - De servo gaat naar de middenpositie - Installeer de servoarm zoals afgebeeld
- Encienda el controlador TXT 4.0 - El servo se mueve a la posición central - Instale el brazo del servo como se muestra en la ilustración
- Ligue o Controlador TXT 4.0 - O servo move-se para a posição central - Instale o servo braço como mostrado na ilustração
- Accendere il controller TXT 4.0 - Il servo si sposta in posizione centrale - Installare il braccio del servo come mostrato nell'illustrazione
- TXT 4.0 Controller Включить - Сервопривод перемещается в среднее положение - Установить рычаг сервопривода, как показано на рисунке
- TXT 4.0 Controller 开启 - 舵机移动到中间位置 - 按图示安装舵机杆

15



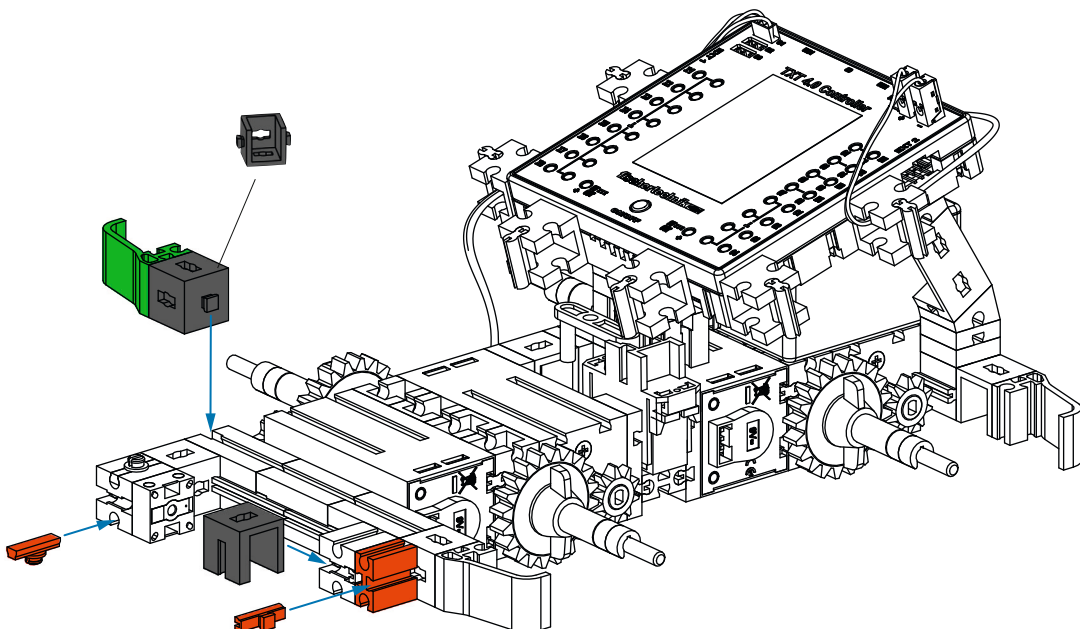
16

- 1x Yellow 1x3 Technic Brick
- 1x Red 1x2 Technic Pin
- 1x Black 1x2 Technic Connector
- 1x Green 1x2 Technic Connector



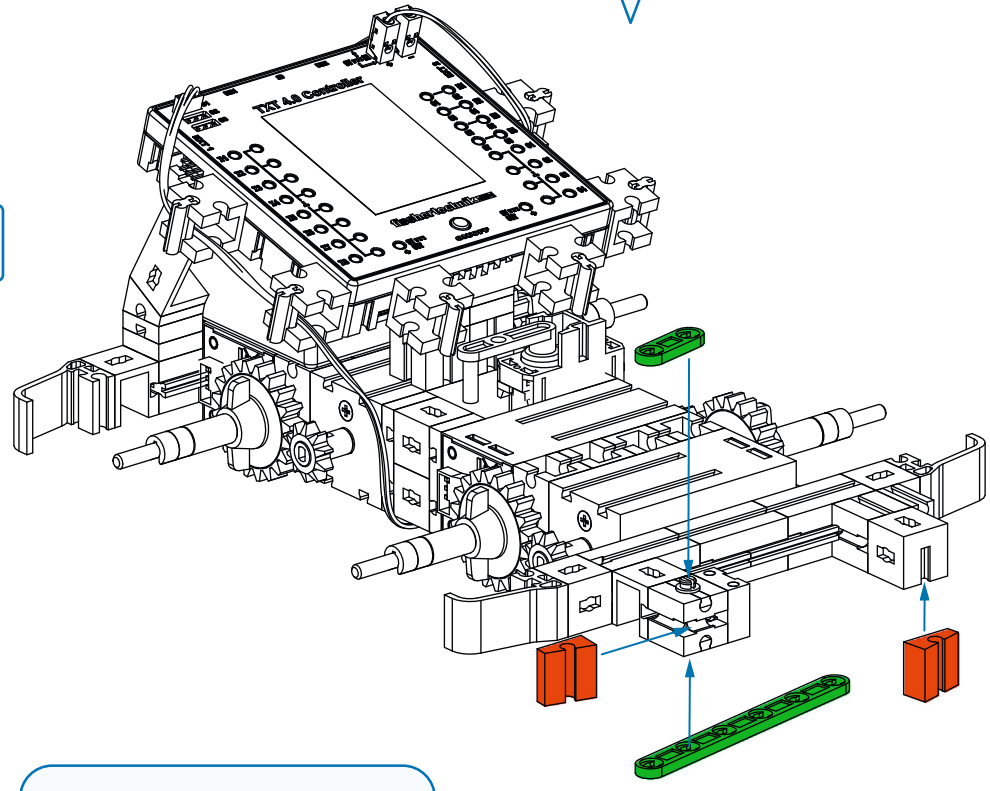
17

- 1x Red 1x2 Technic Pin
- 1x Red 1x2 Technic Pin
- 1x Black 1x2 Technic Connector
- 1x Black 1x2 Technic Connector
- 1x Green 1x2 Technic Connector
- 1x Red 1x2 Technic Pin



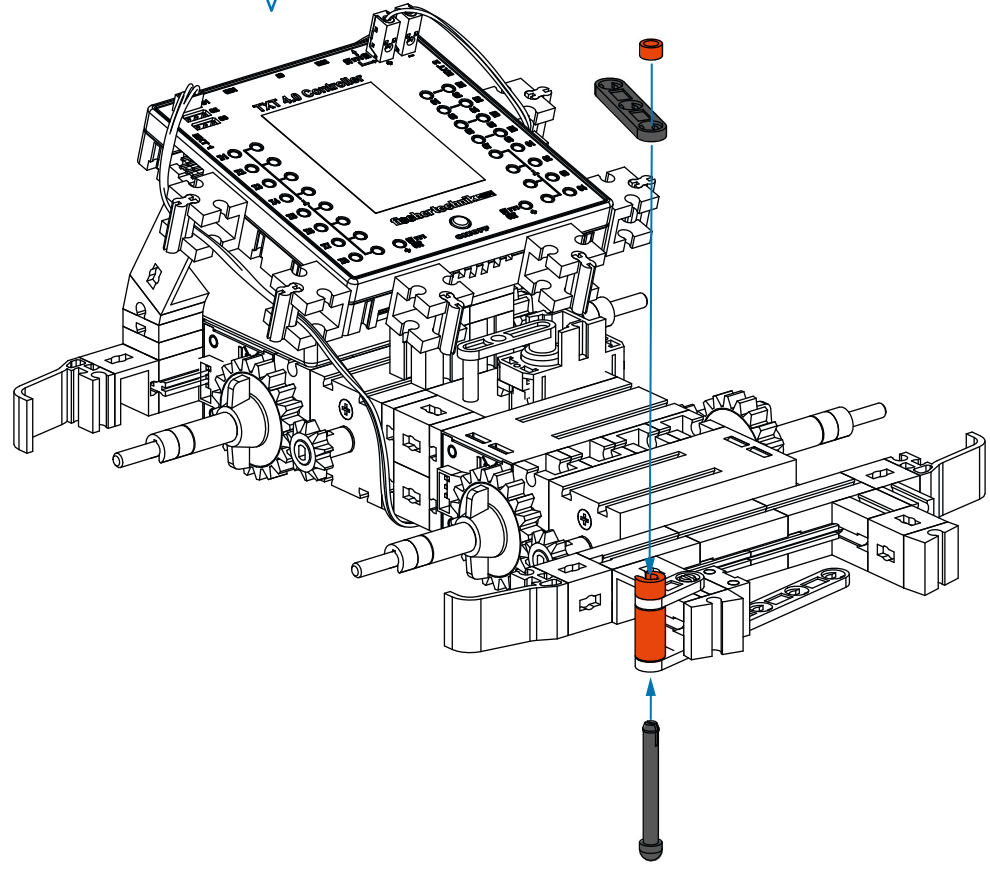
18

- 15° 2x
- 75 1x
- 15 1x







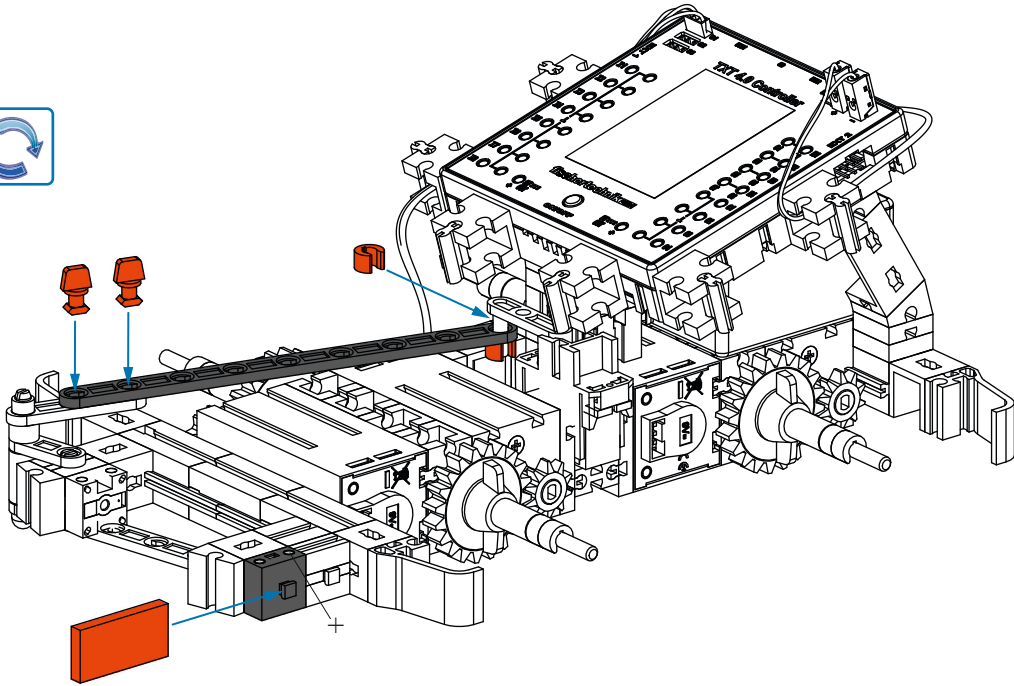
19

- 1x
- 1x
- 1x
- 1x
- 30 1x


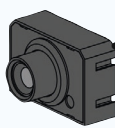




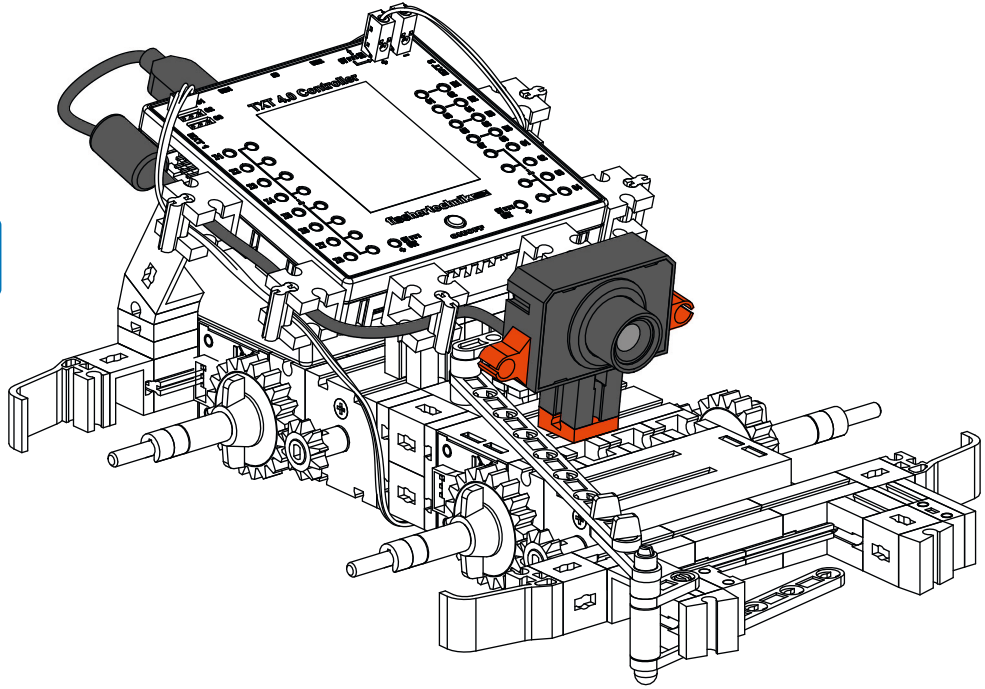
20

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



21

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

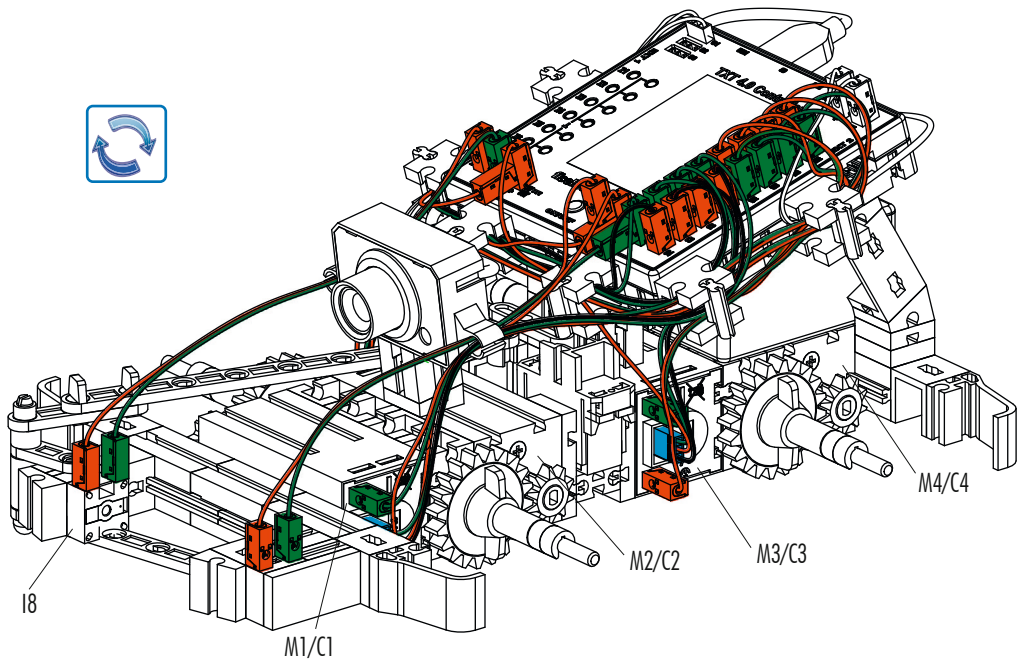


22

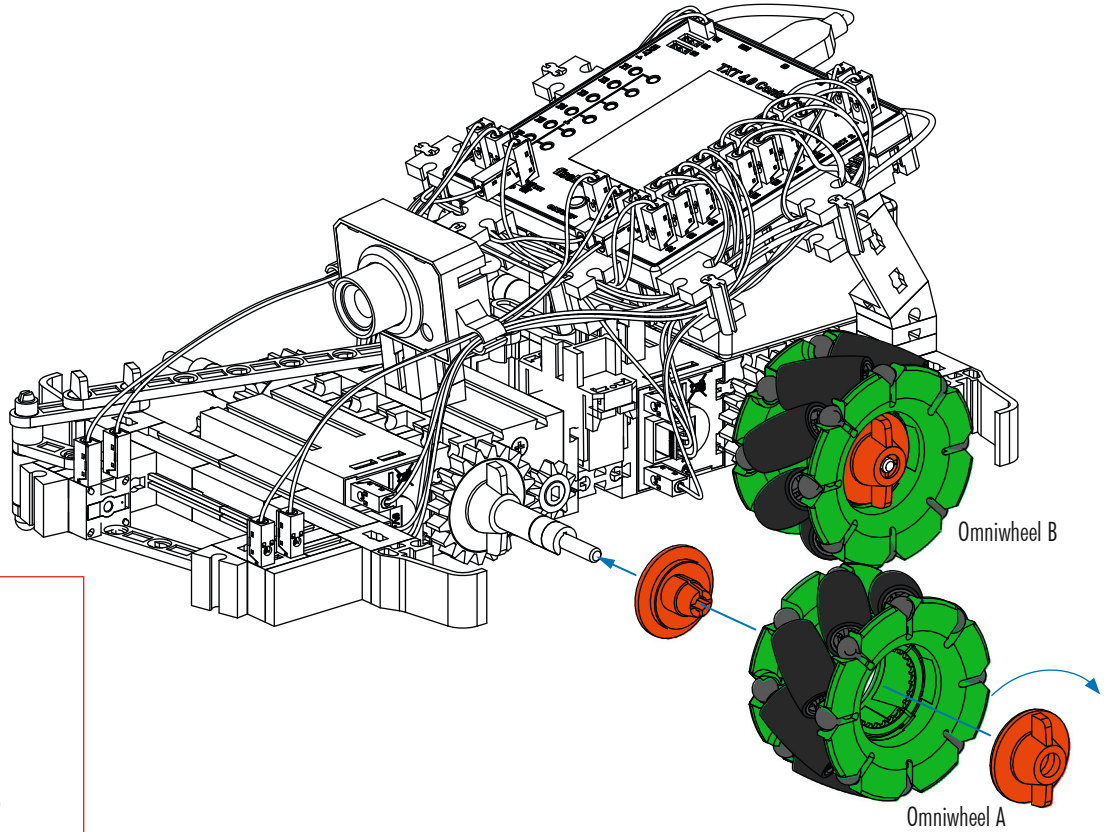
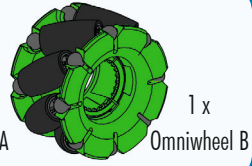
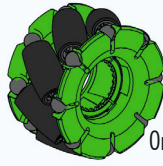
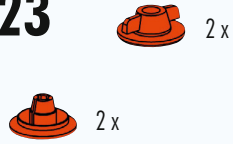
30 cm 4 x

20 cm 2 x

4 x

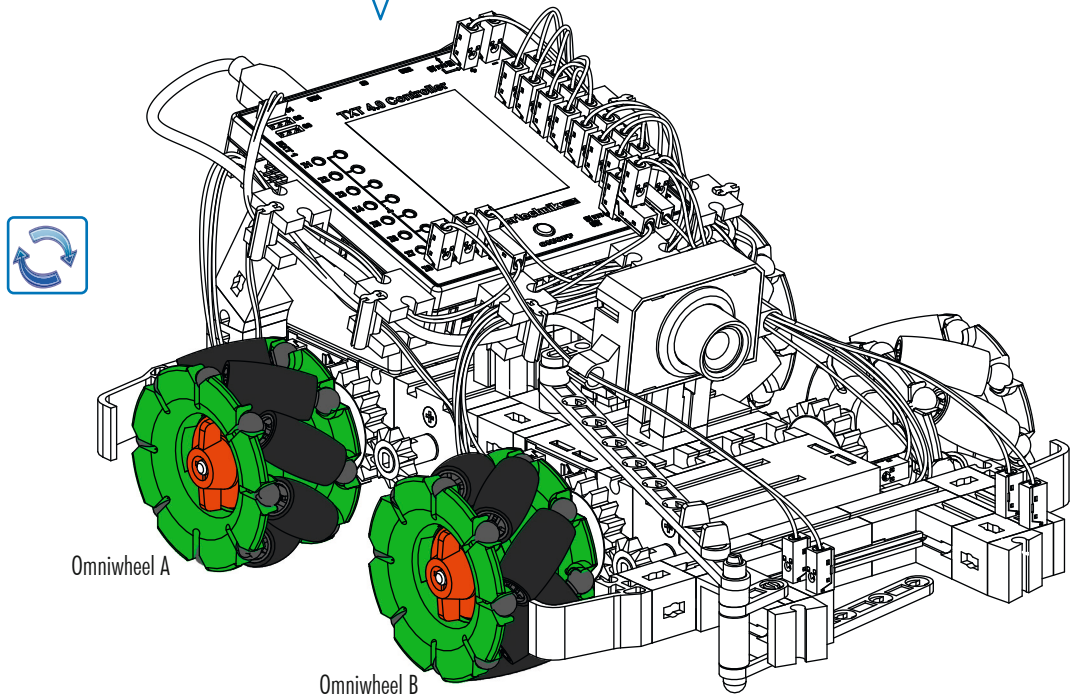
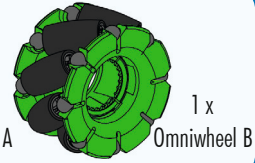
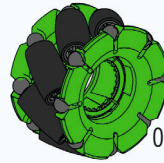
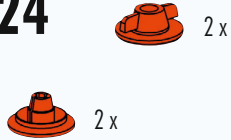


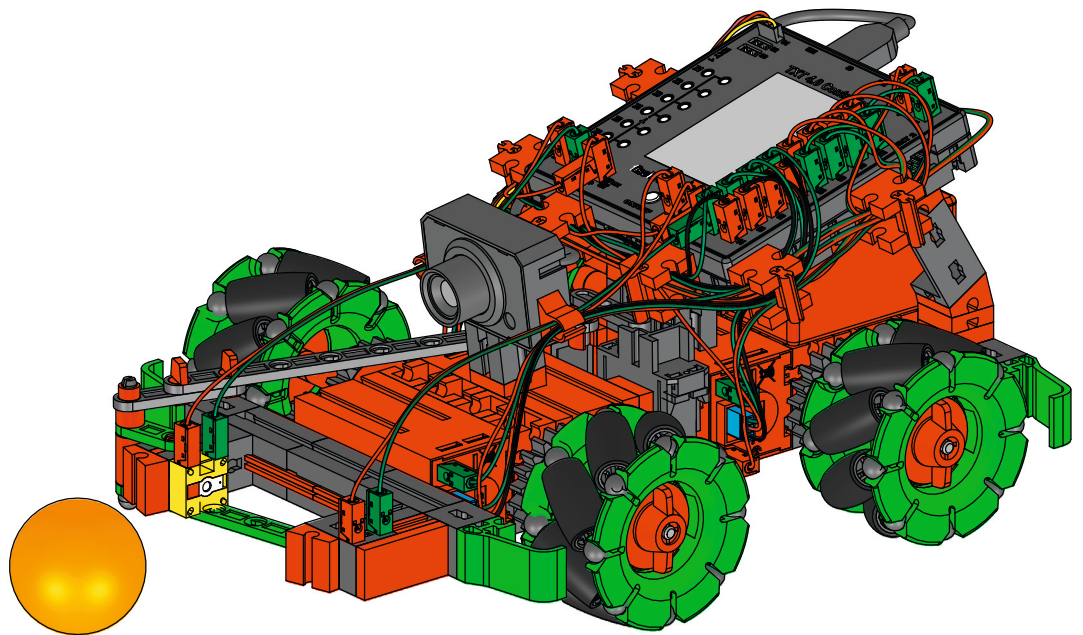
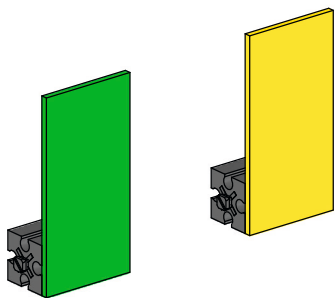
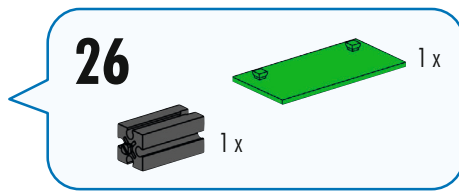
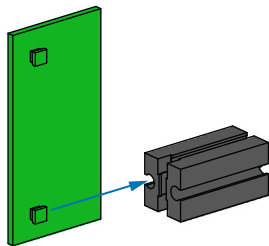
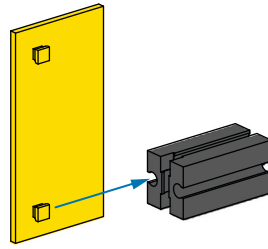
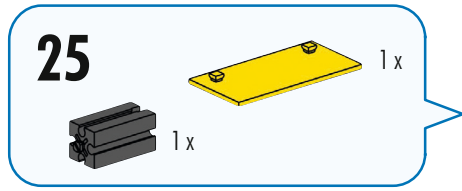
23



- 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
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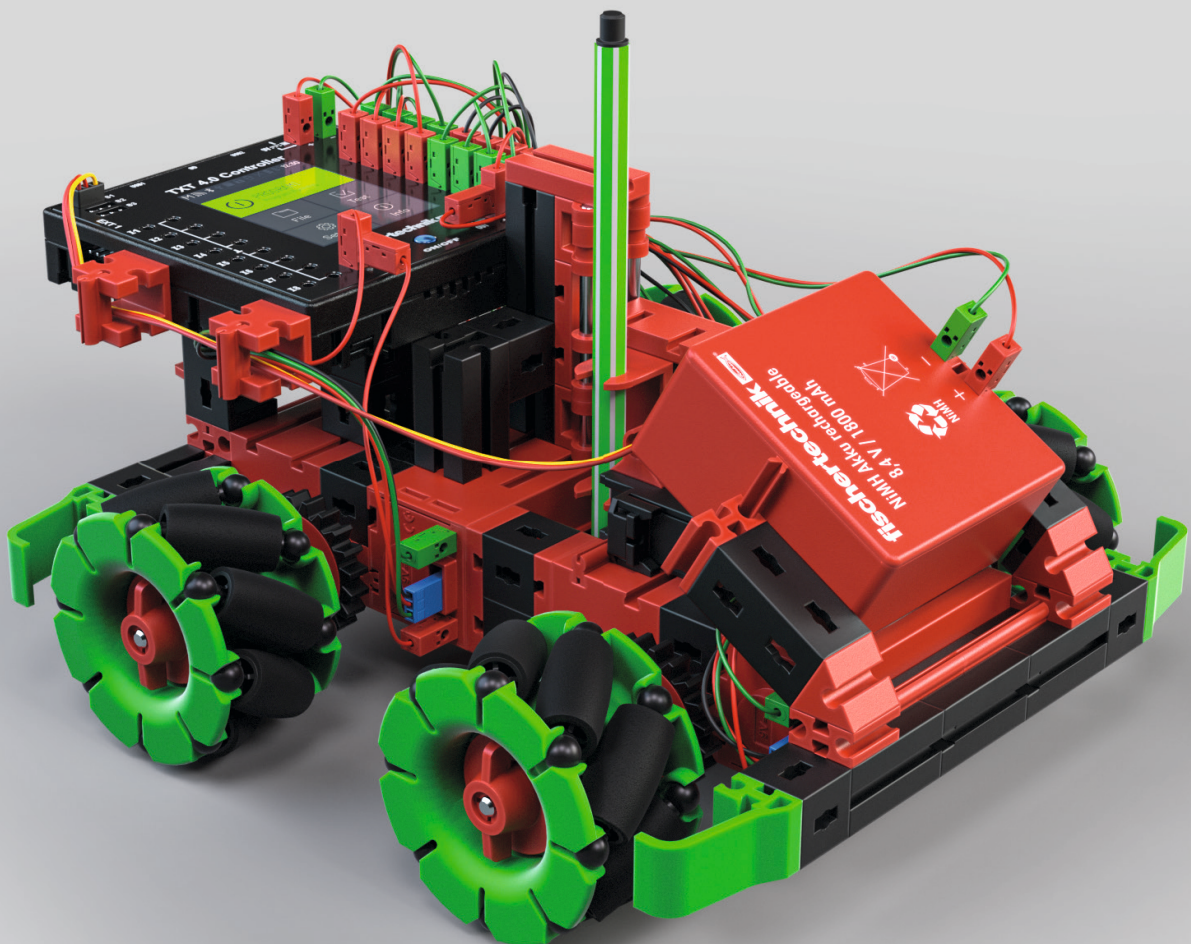
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Robotics Add On: Omniwheels

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