

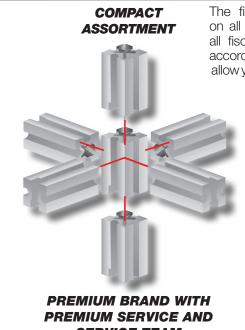


2021

fischertechnik 🗪 EUMATIC

The fun and creative way to explore technology

YOUR ADVANTAGE



The fischertechnik basic building block allows attachment on all six sides. This "many-sided" block forms the basis for all fischertechnik construction sets, which are put together according to age and capabilities of the children. These sets allow you to experience the real technology and learn it by playing.

> **CHILDREN LEARN BASIC UNDERSTANDING OF TECHNOLOGY BY** PLAYING



USE OF FISCHERTECHNIK AT .MULTIPLIER' SCHOOL

ALL CONSTRUCTION SETS CAN BE COMBINED WITH ONE ANOTHER

SERVICE TEAM

ECOLOGICAL AND SOCIAL STANDARDS

As a member of the Fair Toys Organisation (FTO), fischertechnik is working to improve the ecological and social standards for toy production.



EDUCATIONAL TOYS



fischertechnik is an educational toy 'Made in Germany' and produced at the plant in Waldachtal in the "Black Forest". All construction sets can be ideally combined with one another. In addition to the assembly instructions, the PROFI and ROBOTICS construction sets include educational background information, tasks and solutions. The high acceptance by parents, teachers and engineers make fischertechnik a successful teaching material at schools and universities. Moreover teachers and psychologists from the TransferCenter for Pseudosciences and Education (ZNL) have recommended fischertechnik construction sets for the ,Play at School' campaign. Educational success guaranteed!



LEARNING ABOUT TECHNOLOGY BY PLAYING -WITH THE FISCHERTECHNIK ELEARNING PORTAL

The eLearning portal by fischertechnik let children learn online with fischertechnik. The www.fischertechnik-elearning.com website provides lots of instructional information about various construction set topics.

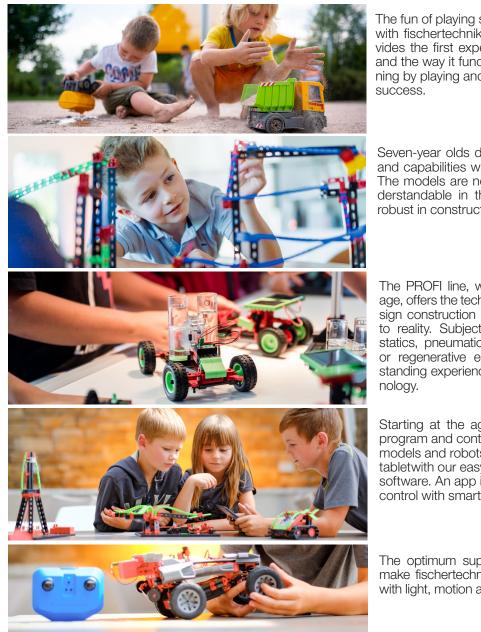
The didactic material, videos and animations optimally support the discovery and comprehension of exciting technology topics such as mechanics, physics, electronics, pneumatics, hydraulics and robotics. For the inventors and engineers of tomorrow!





FOUR LINES FOR ALL AGES

Entry into the four different product lines is possible at any time. All of this taken together forms a logical concept where one fits with the other. Building block for building block. It doesn't matter how demanding the models become because you can always return to the components from other fischertechnik sets. To help you with the construction and discovery at the fascinating fischertechnik world, there is a comprehensive and easy to understand set of assembly instructions.



The fun of playing starts at the age of three with fischertechnik. The JUNIOR line provides the first experience with technology and the way it functions. The motto is learning by playing and building with fast success.

from page 08

Seven-year olds develop their knowledge and capabilities with the ADVANCED line. The models are not only realistic and understandable in their function, but really robust in construction and for playing.

from page 11

The PROFI line, which starts at seven of age, offers the technicians of tomorrow design construction sets that are very close to reality. Subjects such as mechanics, statics, pneumatics, electrical technology or regenerative energies guarantee outstanding experiences in the world of technology.

from page 14

Starting at the age of five, children can program and control fischertechnik models and robots from the computer or tabletwith our easy-to-use graphic software. An app is even available for control with smartphone.

from page 22

The optimum supplement. Everything to make fischertechnik even more attractive with light, motion and more fun.

from page 27





RETRO MECHANICS

Have you always wanted to know how a shaft drive, a bevel gear, or planetary gear works? Do you want to learn how to build a stable bridge or a scissors lift? Then our Retro Mechanics is the building set for you! The set has a cool retro design, and demonstrates mechanical and structural principles in a fun way based on 30 models. This is the ultimate technology set for any budding technician or mechanical engineer!



> AVAILABLE from March 2021

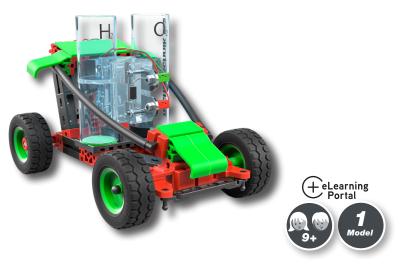
SOLAR POWER

Our Solar Power set demonstrates a key future energy source in a fun way. Electricity is generated using a solar module, helping to power the helicopter, aeroplane, windmill and carousel. Whether on land or in the air - this building set is the perfect choice to discover solar power in a fun way.

> AVAILABLE from March 2021

H₂ FUEL CELL CAR

How does a fuel cell work, and how can you use it to produce hydrogen? And how can hydrogen be used to drive a vehicle? The H₂ Fuel Cell Car building set brings this future technology into your home, answering these and other important questions! Young inventors can produce hydrogen, then use it to power a vehicle and discover the world. They can also build other interesting models in conjunction with the "Green Energy" building set.



+ eLearning Portal

> eLearning Portal

> AVAILABLE from March 2021



GREEN ENERGY

Climate and environmental protection are key values in today's world – that's why we are working to teach kids about this important issue through play. To learn about generating, storing and using electricity from natural sources, children can build exciting models that move using wind, water, or solar power and teach them about applied technology in a fun way. This helps stimulate their interest in these types of energy, which will become even more important in the future. The H₂ Fuel Cell Car is a great addition. This expansion set can be used to build additional models that run on a fuel cell.

> AVAILABLE from March 2021

STRONG PNEUMATICS

Even as early as the third century, people understood how practical and exciting pneumatics is! This building set teaches the fundamentals of pneumatics in a fun way, showing how components like compressors, pneumatic valves and cylinders, and an exhaust throttle valve work using realistic models, and demonstrating why this technology has been around for such a long time. It allows young inventors to enjoy exciting adventures at home with their tractor with tree grabber, front loader or double swather.





> AVAILABLE from March 2021



FUNNY REACTIONS

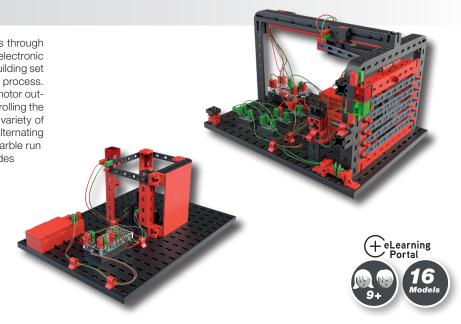
Just a little push is all it takes to start an exciting, action-packed chain reaction! The building instructions include three great models, but there's no limit to the creative fun they deliver! Create great stories and exciting courses. Maybe you already have something fun at home to add to your next chain reaction?



> AVAILABLE from July 2021

E-TRONIC

The E-Tronic set allows you to discover the world of electronics through play! Kids can build simple circuits, series and parallel circuits, electronic switches with transistors, capacitors, resistors and LEDs. This building set teaches basic principles of electronics through a step-by-step process. The E-tronics module, a controller with 16 set programs, has 2 motor outputs, 3 analogue inputs for sensors and a potentiometer for controlling the speed of a motor. This building set can be used to construct a variety of exciting models, from simple components to complex ones like alternating flashing lights. You can build a garage door, for example, or a marble run with exciting pedagogical materials on electronics.



> AVAILABLE from July 2021

EARLY CODING

Writing your own program and bringing a robot to life is unbelievably fascinating and exciting. This technology is essential in today's world. Our fischertechnik Early Coding building set is the right choice to teach even the youngest developers about this exciting, important topic. They can get started in the world of IT and robotics in a fun, inspiring way using the finished components. The two motors and sensors are fully integrated into a block. That means all users need to do is switch them on, connect via Bluetooth using a mobile device, and get started! The simple graphic programming environment with pre-designed examples is built to be ageappropriate – the perfect way to get started with the world of robotics! Students can also easily create their own programs using the software.







ROBOTICS SMARTTECH

fischertechnik Smarttech works with our TXT Controller and ROBO Pro software to bring nine exciting models to life. From simple beginner models to a variety of driving robots to a funny dancing robot, there is something for everyone. One highlight of this building set are the omniwheels, which are operated by four motors and allow the robot to move in any direction. The track sensor, distance sensor, gesture sensor and push button make it possible to construct and program a variety of exciting driving robots just waiting for developers and inventors to send them on a new adventure.



> AVAILABLE from July 2021

ROBOTICS HIGHTECH

Program like a professional with fischertechnik Robotics Hightech! 9 exciting models are just waiting to be built and programmed. The beginner models offer an easy to understand glimpse of the world of robotics and programming. More advanced students can get started with the high-end models, like the painting robot or ball robot. One highlight of this building set are the omniwheels, which are operated by four encoder motors and allow the robot to move in any direction. Our camera with image processing is also included, and allows the football robot, for example, to identify a ball - he shoots, he scores! The new fischertechnik TXT 4.0 Controller works with new ROBO Pro Coding programming software to offer a variety of new features. In addition to graphic programming in the Blockly library, it now also allows for programming using Python. The software is not dependent on any specific operating system, and can be used on mobile devices. The building set includes a servo motor, an infrared track sensor and an ultrasound distance sensor as well.





> AVAILABLE from July 2021

JUNIOR



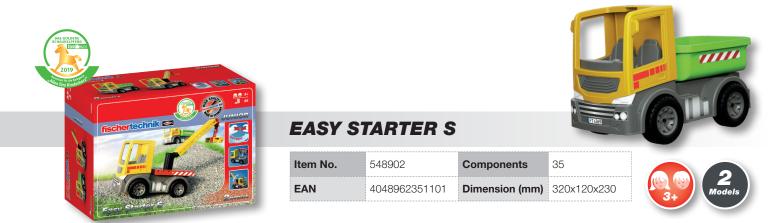


EASY STARTER TRUCKS

Item No.	554194	Components	24
EAN	4048962390483	Dimension (mm)	320x120x230



There is always a lot going on at the construction site. They are excavating, concreting and working hard. Of course, this requires special equipment. The Easy Starter Trucks are perfectly suited: The construction site truck is built especially robust and the construction pit is excavated in no time! The excavator boom is easily controlled with a hand mechanism. In order to take building material to the site, the truck can be modified into a transport vehicle in just a few moves. Due to the large building components and the simple rotation mechanism, the construction kit can be used by children as young as 3 years. The simple, age-appropriate instructions are also included. Fischertechnik components promote eye-hand coordination as well as motoric skills.



These beginner building sets can be used to create two different truck models. Both a trough and a fischertechnik building panel with crane can be attached to the yellow driver's cab. This lets builders create a mobile crane or construction site vehicle in a flash with the help of the instructions. In addition, little builders can also get creative and design their own attachments. The system not only brings tons of fun to your child's room, but also promotes fine motor skills and hand-eye coordination.

JUNIOR





EASY STARTER FIRE TRUCKS

Item No.	554193	Components	45	
EAN	4048962390476	Dimension (mm)	465x120x320	



Nee naw, nee naw - fire engines are always a big attraction for children! With the Easy Starter Fire Trucks, children can dive into the world of emergency vehicles and fire fighting operations as early as from the age of 3. The cool trucks not only convince with their design suitable for children, but also the flexible system. A total of 4 different models can be constructed on the foundation of the base vehicle. With the assistance of simple rotation mechanisms, for example, a fire engine with a telescopic turnable ladder and a water tank can be constructed on the double-axis trailer. We are now perfectly equipped to handle a smoldering fire on the third floor. If the vehicle is to be modified, it is also possible to equip the truck chassis and the trailer with a water tank, a turnable ladder and a winch - an extremely flexible system which guarantees long-lasting and diversified fun. While the children are engrossed in their games, the motoric skills are trained and the eye-hand coordination honed due to the fischertechnik construction system.





With the big beginner construction set for the Junior Line, builders ages 3 and up can construct lots of different truck models. The vehicles: dump truck, tanker truck, truck with trailer, tow truck with winch and creative design options impress with easy to build models and playing fun. Thanks to the fischertechnik system, young designers ages 3 and up can experience the world of fischertechnik. The simple connection system guarantees fast building success and offers lots of fun for little builders. Thanks to the large construction elements and child-friendly building instructions, kids can start building with fischertechnik systems from age 3. The system not only brings tons of fun to your child's room, but also promotes fine motor skills.

JUNIOR



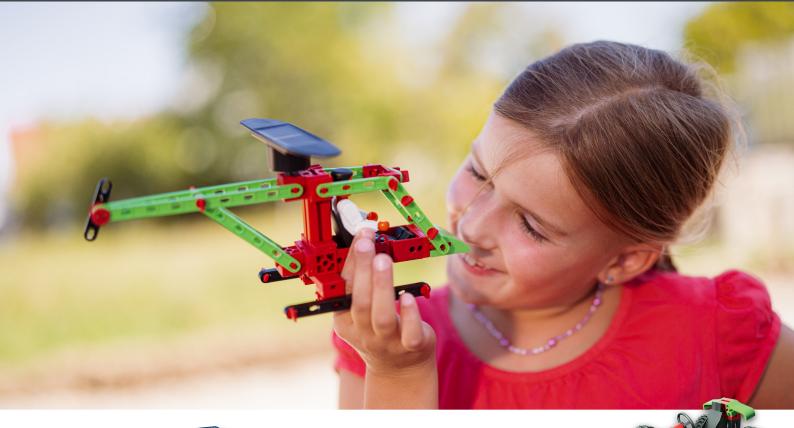
Starter set for young engineers from age 5. The large, easy-to-hold parts and assembly instructions written specifically for young children ensure quick construction success. Design work with this set develops important skills such as eye-hand coordination as well as gross and fine motor skills. 6 Models can be built: dump truck, helicopter, excavator, van ...





Lowboy truck with crane, airplane, tractor ... Many different models encourage building and play. The large, easy-to-hold parts and assembly instructions written specifically for young children ensure quick construction success. Design work with this set develops important skills such as eye-hand coordination as well as gross and fine motor skills. A number of models can be built at the same time. For children from age 5.

ADVANCED





RACERS

Item No.	540580	Components	50
EAN	4048962280005	Dimension (mm)	225x65x150

The speedy and attractively priced Racers with their functional steering bring guaranteed action to a child's bedroom. The design parts give you lots of options for customising the little speedsters. For children from age 7.

SOLAR				
Item No.	544616	Components	80	
EAN	4048962316223	Dimension (mm)	280x65x180	

With this construction set, children can receive their first experiences with renewable energy in a fun way. The solar rotor, a combination of solar panels and a motor, is the key component of the three models and uses the power of the sun to rotate the propeller. The model helicopter, air boat and fan use solar energy to move. The play figure included in the kit brings even more fun to the playroom.

fischertechnik	TRACT	ORS				
	Item No.	544617	Components	130		
ADVANCED Tractors	EAN	4048962316230	Dimension (mm)	1	(M) (W) (3 Models	

Three different tractor models can be built from over 130 components. The three farm vehicles bring plenty of family fun to the playroom and they all have realistic axle pivot steering. The play figure included increases the play value of this construction kit.

ADVANCED

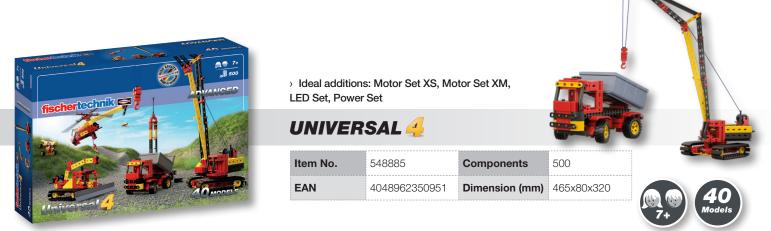


> Ideal additions: Motor Set XS, LED Set, Power Set

UNIVERSAL STARTER

Item No.	536618	Components	255	
EAN	4048962250251	Dimension (mm)	320x80x230	15

Models such as the crane with cable winch and worm gear, racing car with steering, teeter-totter with four-bar linkage teach children a basic understanding for technology. Other creative, mechanical models can be made from the gears, basic building blocks, static parts, wheels and many other parts. This construction set helps children to understand everyday technology by playing. For young designers from age 7.



With the Universal 4 building kit, builders can create a total of 40 models like vehicles with steering, bulldozers with crawler tracks, a construction crane, and much more. Several models can be built at the same time, which is a great feature. This allows kids to build toys of different types or from different play worlds, such as a cargo helicopter with a transmission mast, a construction site, playground, etc. These different topics and play worlds offer versatile building and playing fun in any child's room. Thanks to the large number of components, their creativity will know no bounds. In addition, many models can be expanded with Plus Sets. The comprehensive building instructions describe how to add motors, lights, etc.

ADVANCED







 Ideal additions: Funny Machines, LED Set, Creative Box Basic, Creative Box Mechanics, all construction sets in the Dynamic Line

FUNNY REACTIONS

Item No.	559890	Components	682
EAN	4048962424713	Dimension (mm)	465x80x320

Just a little push is all it takes to start an exciting, action-packed chain reaction! The building instructions include three great models, but there's no limit to the creative fun they deliver! Create great stories and exciting courses. Maybe you already have something fun at home to add to your next chain reaction?



> Incl. magnetic cannon

 Ideal additions: Funny Reactions, LED Set, Creative Box Basic, Creative Box Mechanics, all construction sets in the Dynamic Line

FUNNY MACHINES

Item No.	551588	Components	385
EAN	4048962354225	Dimension (mm)	465x80x320







- Incl. play figure, Bluetooth remote control, receiver, servo, XM motor, battery holder for 9V block
- (2x 9V block batteries necessary batteries not included) > Ideal additions: LED Set. Accu Set

BT RACING SET

Item No.	540584	Components	360
EAN	4048962280036	Dimension (mm)	465x80x390



The Bluetooth Racing Set is a complete set for building three innovative vehicles in the cool fischertechnik design. The set contains over 360 pieces for building a racetrack, a roadster or a wheelie vehicle, which travels on its back wheels. The suspension system on the vehicles makes them suitable for any terrain. The vehicles can be operated by remote control or by smartphone/tablet – with a range of up to 10 metres. The RPM of the gear motor and the servo steering angle can be freely adjusted from a distance.



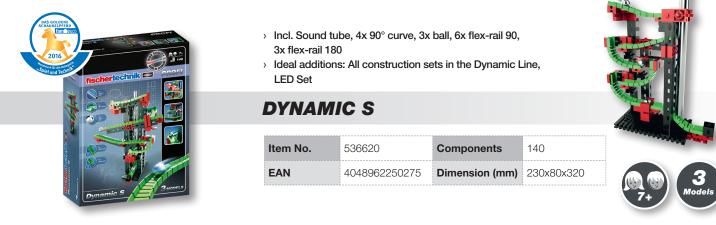


Templates for more games (free download)

Low-cost ball obstacle course by fischertechnik! The ball accelerates, picks up speed in the jump and flies through the fire ring - it's action time! 70 parts can be used stepby-step to make three exciting models: ball obstacle course, jump and dexterity game. Go to www.fischertechnik.de/Dynamic-XS to find templates for various games that can be downloaded free of charge: goal-shooting, balls and "fire ring". The construction set can be combined and augmented with other construction sets in the PROFI Dynamic Line. Get the balls moving!

> Incl. 90° curve, 2x ball, 6x flex-rail 90

DVNAMIC XS



Ball obstacle course and fischertechnik: two classic toy systems guarantee lots of fun! The ball starts in the obstacle course and accelerates until it reaches the cross-over, where it drops further before racing down two different tracks - to the left and to the right! In the title model, the ball flies through several 90° curves and over a teeter-totter before brushing against the sound tube - "BING"! The balls are collected at the end of the course and can be easily removed again. Three impressive obstacle courses can be made with the assembly instructions from more than 140 parts. Young engineers also have plenty of scope for making many other courses according to their own ideas. Three models: simple obstacle course, action obstacle course and obstacle course with twin tracks! Get completely immersed in the fascinating, creative world of the fischertechnik ball obstacle course for heaps of action!



> Incl. 2x rotary funnel, launching pad cover, 180° curve, 5x ball, 2x flex-rail 90, flex-rail 180

Ideal additions: All construction sets in the Dynamic Line, Motor Set XS, LED Set

DYNAMIC XM

Item No.	544618	Components	280	
EAN	4048962316247	Dimension (mm)	320x80x230	

With this construction kit, pure marble run action is guaranteed. After being catapulted onto the launching pad via a mechanical clamping device, the marbles bounce off and land in the rotary funnel. To ensure that the marbles land safely in the collection tray, the launching pad can be adjusted around three axes. In total, three fun models can be constructed. For even more action, there are also free building instructions available on the fischertechnik homepage for the possible combination of this kit with the Dynamic L2 or Dynamic XXL.



DINAM				
Item No.	536619	Components	70	
EAN	4048962250268	Dimension (mm)	225x65x150	

> Ideal additions: All construction sets in the Dynamic Line, LED Set





- 8x ball, 4x flex-rail 90, 14x flex-rail 180
- Ideal additions: All construction sets in the Dynamic Line, Motor Set XS, I FD Set

DYNAMIC M

Item No.	533872	Components	550
EAN	4048962229707	Dimension (mm)	465x80x320



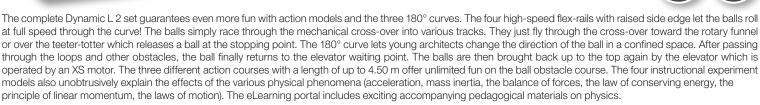
Action and sound parts open up many possibilities for even more exciting courses. While they race downwards, the steel balls let the sound tubes create melodic tones. The rotary funnel offers a completely new way of bringing the balls onto the next rail. The balls also shoot and fly down the obstacle course through narrow 90° curves and a cross-over. On arriving at the bottom, the manual chain lift brings the balls back up to the top again. The Dynamic M construction set is ideal for making four exciting obstacle courses.



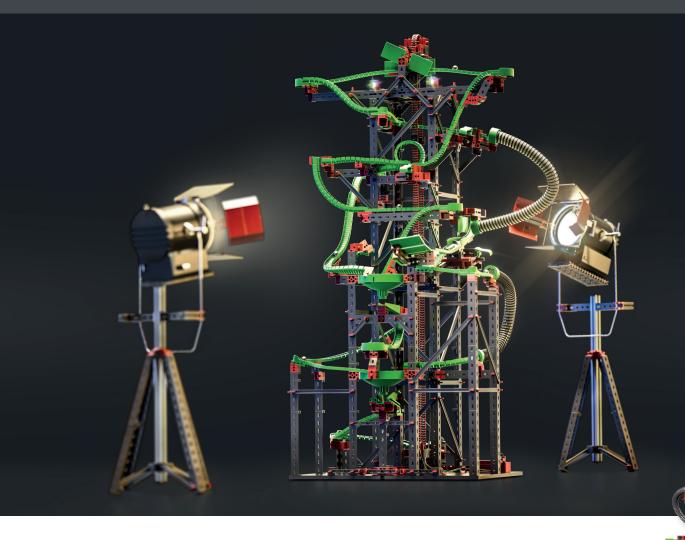
- > Incl. XS motor, 4x 90° curve, 3x 180° curve, 8x ball, 4x high-speed flex-rail, 8x flex-rail 90, 17x flex-rail 180, cross-over, rotary funnel, battery holder for 9V block (battery not included)
- > Ideal additions: All construction sets in the Dynamic Line, LED Set, Accu Set or Power Set



Item No.	536621	Components	780	(+
EAN	4048962250282	Dimension (mm)	465x80x390	



eLearning Portal





- Incl. XS motor, 2x rainbow LED, 2x flex-tube 360, 7x 90°curve, 5x 180°curve, 7x high-speed flex-rail, 8x flex-rail 90, 16x flex-rail 180, 8x ball, 2x cross-over, 2x rotary funnel, battery holder for 9V block (battery not included)
- Ideal additions: All construction sets in the Dynamic Line, Motor Set XS, Bluetooth Control Set, LED Set, Accu Set or Power Set

DYNAMIC XXL

Item No.	544619	Components	1360	+eLearnir Portal
EAN	4048962316254	Dimension (mm)	465x80x390	

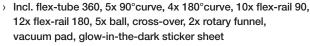
Even higher, even faster, and even more action: All this is guaranteed with the Dynamic XXL marble run. Nearly a metre tall, with a track length of up to 5.60 m, with many features, new pieces and track crossings, this marble run promises unlimited fun. The flex-tubes enable fast routes. The marbles whiz over a mechanical cross-over into different track circuits. Then, on their way down, they shoot through the loop, across the quarter pipe, through the jumping loop, towards more mischief. Even more interaction is possible, as the user can intervene in the marble's route. With a mechanical track crossing, the layout of the flex-rails can be shifted and the route can be determined at another crossing with a switch lever. Additionally, the marbles can be stopped or released at a stop point. Once they get to the bottom, the marbles are transported right back to the top via the motor-powered chain lift. Three different marble runs can be constructed, and offer various opportunities for modification. By expanding the marble run with the PLUS sets: Bluetooth Control Set and Motor Set XS (up to two) can control chicanes at, for example, the track crossings or the stop points via Bluetooth, by controller or with a smartphone / tablet.











> Ideal additions: Dynamic Trampoline, Motor Set XS, LED Set

HANGING ACTION TOWER

Item No.	554460	Components	775
EAN	4048962395044	Dimension (mm)	390x80x465



This marble run sets new benchmarks in all aspects: the Hanging Action Tower is the first hanging marble run in the world! Due to the clever attachment by way of a vacuum pad, the flexible marble run can be affixed at any horizontal edge (shelf, cupboard etc.). The lift in this long marble run is solved by an innovative belt system: our new fischertechnik Easy Elevator! Simple and quick to construct, perfectly suited for large altitude differences, efficient and with an elegant look! The cool look is complemented by a sticker sheet that glows in the dark! Lightning, arrows and much more can be stuck on. So the marble run in the darkened children's room becomes an absolute highlight! But, that's not all, is it? The drive is manual via a chain or additionally with a motor. The springmounted tension pulley on the lift ensures even tension of the belt and trouble-free operation. In addition, there is a marble collector, where the number of marbles can be set at random. A flex hose with rotatable ends ensures the simple and flexible installation into the model. The hanging marble run also holds several other refinements: a funnel catches flying marbles, a ramp provides proper lift - all in all a super entertaining track - and all that in a new, cooler colour, namely silver!



> Incl. 2x rotary funnel, launching pad cover, 90° curve, 5x ball, 2x flex-rail 90, flex-rail 180

DYNAMIC TRAMPOLINE

Item No.	544623	Components	145	
EAN	4048962316292	Dimension (mm)	180x65x280	



fischertechnik marble runs can be extended with a launching pad. The marble falls onto the launching pad and bounces into the rotary funnel. With this kit you can build an action-packed model, which can also be fitted perfectly onto other marble runs. For all fans of fischertechnik marble runs, there are free building instructions on the fischertechnik homepage that describe how the trampoline can be fitted onto the Dynamic M marble run. In addition, there are no limits to the creative ways in which the trampoline can be fitted onto any other fischertechnik marble run. Endless fun is guaranteed!



> Incl. 2x cross-over, 4x 90° curve, 2x magnet holder, 8x ball, 4x flex-rail 90, 10x flex-rail 180, various add-on elements (angular blocks, angular girders etc.)

Components

Dimension (mm)

180

DYNAMIC TUNING SET

4048962229714

533873



The Dynamic Tuning Set is ideal for making all fischertechnik obstacle courses even bigger and faster with additional obstacle course parts and add-on elements. Many special parts such as 90° curves, cross-overs, catch funnels, short and long flex-rails promise even more excitement. The Dynamic Tuning Set gives free rein to the imagination of young obstacle course engineers.

Item No.

EAN



NEW



Incl. fuel cell with power pack 3V.../1A, fuel cell motor
 Ideal addition: Green Energy

H₂ FUEL CELL CAR

Item No.	559880	Components	117	+eLearning Portal
EAN	4048962424614	Dimension (mm)	320x80x230	



How does a fuel cell work, and how can you use it to produce hydrogen? And how can hydrogen be used to drive a vehicle? The fischertechnik H₂ Fuel Cell Car building set brings this future technology into your home, answering these and other important questions! Young inventors can produce hydrogen, then use it to power a vehicle and discover the world. They can also build other interesting models in conjunction with the "Green Energy" building set.



> Incl. solar mo	odule 1V, solar moto	or		
SOLAR	POWER			4
Item No.	559882	Components	167	+eLearning Portal
EAN	4048962424638	Dimension (mm)	320x80x230	
				Models

Our Solar Power set demonstrates a key future energy source in a fun way. Electricity is generated using a solar module, helping to power the helicopter, aeroplane, windmill and carousel. Whether on land or in the air - this building set is the perfect choice to discover solar power in a fun way. The eLearning portal includes exciting accompanying pedagogical materials on solar energy.







Incl. 2x solar module 1V, solar motor,
 Gold Cap power storage device, LED

GREEN ENERGY

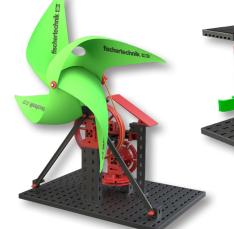
Item No.	559879	Components	343	Por
EAN	4048962424607	Dimension (mm)	465x80x320	9+



*Two more models with H_2 Fuel Cell Car buildable



Climate and environmental protection are key values in today's world – that's why we are working to teach kids about this important issue through play. To learn about generating, storing and using electricity from natural sources, children can build exciting models that move using wind, water, or solar power and teach them about applied technology in a fun way. This helps stimulate their interest in these types of energy, which will become even more important in the future. The H_2 Fuel Cell Car is a great addition. This expansion set can be used to build additional models that run on a fuel cell.









 Incl. compressor, 3x double acting cylinder, 3x exhaust throttle, 3x manual valve, battery holder for 9V block (battery not included)
 Ideal additions: Accu Set

STRONG PNEUMATICS

Item No.	559876	Components	660	eLearning Portal
EAN	4048962424577	Dimension (mm)	465x80x320	6

Even as early as the third century, people understood how practical and exciting pneumatics is! This building set teaches the fundamentals of pneumatics in a fun way, showing how components like compressors, pneumatic valves and cylinders, and an exhaust throttle valve work using realistic models, and demonstrating why this technology has been around for such a long time. It allows young inventors to enjoy exciting adventures at home with their tractor with tree grabber, front loader or double swather.



 Incl. 2x pneumatic cylinder, pump cylinder, 2x hand valve, compressed air reservoir

PNEUM	ATIC POW	ER		0
Item No.	533874	Components	200	+eLearn Porta
EAN	4048962229721	Dimension (mm)	320x80x230	

The Pneumatic Power takes a learning-by-playing approach to the principles of pneumatics, with realistic models to show how pneumatic valves and cylinders work. The air is pumped manually into an air chamber. Pressing the hand valves conveys the compressed air through the hoses into the pneumatic cylinder. An excavator and four other models can be constructed. The eLearning portal includes exciting accompanying pedagogical materials on pneumatic.





- > Incl. E-Tronics modul with 16 fixed programs, 2x push button, reed contact, XS motor, 2x transistor, 2x resistor, 2x capacitor, 2x LED, battery holder for 9V block (battery not included)
- > Ideal addition: Accu Set or Power Set

E-TRONIC

Item No.	559883	Components	340
EAN	4048962424645	Dimension (mm)	465x80x320

The E-Tronic set allows you to discover the world of electronics through play! Kids can build simple circuits, series and parallel circuits, electronic switches with transistors, capacitors, resistors and LEDs. This building set teaches basic principles of electronics through a step-by-step process. The E-Tronics module, a controller with 16 set programs, has 2 motor outputs, 3 analogue inputs for sensors and a potentiometer for controlling the speed of a motor. This building set can be used to construct a variety of exciting models, from simple components to complex ones like alternating flashing lights. You can build a garage door, for example, or a marble run with exciting electronic components. The eLearning portal includes exciting accompanying pedagogical materials on electronics.

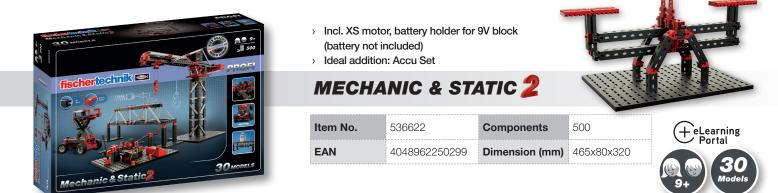




ler tracks	3			
DRA	ULIC			
				eLearnin Portal
No.	548888	Components	500	Portal
	4048962350968	Dimension (mm)	465x80x320	

The Hydraulic building kit helps kids learn the basic features of hydraulic systems through play. The fischertechnik hydraulic system is operated with water, demonstrating how force can be transmitted via liquid media. The system works on a very simple principle: a control cylinder is operated by hand, pressing the water into the drive cylinder through hoses. This extends the working cylinder, moving the digger arm or the shovel on the powerful crawler excavator. Builders can control a total of three different excavator movements hydraulically. Five different models can be built with the Hydraulic building kit, meaning this new construction kit offers extensive building and playing fun. Combined with additional pedagogical materials on the eLearning Portal, this construction kit truly lets students "Learn about technology through play".

Item I EAN



The definitive technical construction set for all future engineers and technicians: How does a shaft drive or manual transmission work? What is a planetary gear? How do you design a stable bridge? The answers to these and other elementary questions from the subject areas of mechanics and statistics are found in this construction set with 30 different models. Discover the principles of technology by playing! The eLearning portal includes exciting accompanying pedagogical materials on mechanic and static.



- ROBO Pro Light
 - + eLearning Portal

Software available free of charge > for mobile devices: Andorid / iOS



BT Smart Boginnor Sot 12 mont		
The complete beginner set for children of 8 years and over. Over 380 pieces for children to combine with buttons) and actuators (XS motors, LED light barriers) to create 12 easy-to-follow models including a l crossing, conveyor belt with stamping machine and mobile caterpillar machine. The BT Smart Controlle and 2 outputs for motors and lamps features a USB port and a Bluetooth 4.0 LE port. The ROBO Pro L download) makes it possible to program the models quickly, easily and in a way that is easy to follow. In to program the models using a tablet (Android and iOS) via the ROBO Pro Smart app. The eLearnin accompanying pedagogical materials on robotics.	hand dryer, carouse er with 4 inputs for so ight software (availe addition, it is also po	el, level ensors able for ossible



> Incl. Early Coding Chassis consists of 2x motor, 2x push button and infrared sensor, parcours, compartment for 3x AAA batteries (batteries not included)

EARLY CODING

Item No.	559889	Components	55
EAN	4048962424706	Dimension (mm)	320x80x230

Writing your own program and bringing a robot to life is unbelievably fascinating and exciting. This technology is essential in today's world. Our fischertechnik Early Coding building set is the right choice to teach even the youngest developers about this exciting, important topic. They can get started in the world of IT and robotics in a fun, inspiring way using the finished components. The two motors and sensors are fully integrated into a block. That means all users need to do is switch them on, connect via Bluetooth using a mobile device, and get started! The simple graphic programming environment with pre-designed examples

is built to be age-appropriate and is available for download free of charge - the perfect way to get started with the world of robotics! Students can also easily create their own programs using the software.





fischertechnik Smarttech works with our TXT Controller and ROBO Pro software to bring nine exciting models to life. From simple beginner models to a variety of driving robots to a funny dancing robot, there is something for everyone. One highlight of this building set are the omniwheels, which are operated by four motors and allow the robot to move in any direction. The track sensor, distance sensor, gesture sensor and push button make it possible to construct and program a variety of exciting driving robots just waiting for developers and inventors to send them on a new adventure.

TXT Controller:

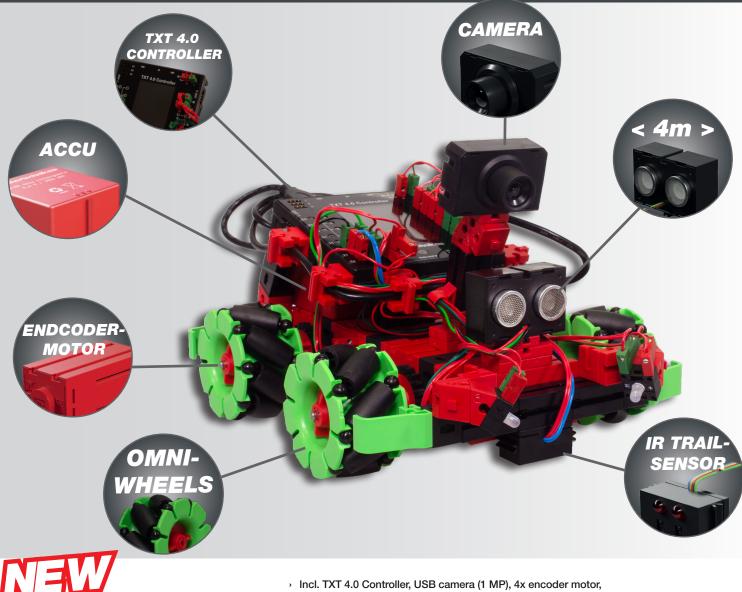
Color 2.4" touch display, combined Bluetooth / WiFi wireless module, 2x USB interfaces (1x host, 1x client), integrated speaker, 4 motor outputs, 8 digital/analog inputs for sensors and 4 fast counter inputs, Linux operating system, 256 MB RAM, 128MB Flash

Software ROBO Pro:

The graphical program interface for Windows 10 allows for clear and easy to understand programming of models. Beginners can take advantage of complete program modules and example programs. Accompanying pedagogical information in the eLearning portal supports users in design and programming, and makes it easier to get started in robotics.









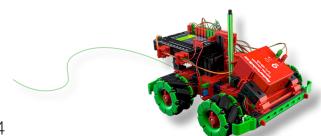
- servo motor, ultrasonic distance sensor, push button, 2x LED, IR trail sensor
- Incl. USB connection cable >
- Incl. charger and rechargeable battery pack

ROBOTICS HIGHTECH

Item No.	559895	Components	580	+eLearning Portal
EAN	4048962424768	Dimension (mm)	465x80x320	

Program like a professional with fischertechnik Robotics Hightech! 9 exciting models are just waiting to be built and programmed. The beginner models offer an easy to understand glimpse of the world of robotics and programming. More advanced students can get started with the high-end models, like the painting- or ball robot. One highlight of this building set are the omniwheels, which are operated by four encoder motors and allow the robot to move in any direction. Our camera with image processing is also included, and allows

the football robot, for example, to identify a ball - he shoots, he scores! The new fischertechnik TXT 4.0 Controller works with new ROBO Pro Coding programming software to offer a variety of new features. In addition to graphic programming in the Blockly library, it now also allows for programming using Python. The software is not dependent on any specific operating system, and can be used on mobile devices. The building set includes a servo motor, an infrared track sensor and an ultrasound distance sensor as well. The eLearning portal includes exciting accompanying pedagogical materials on robotics.





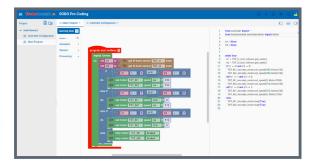
TXT 4.0 CONTROLLER

The TXT 4.0 Controller delivers a wide range of new features with 512 MB RAM of storage space and 4 GB eMMC, three servo outputs and a capacitive touch display that supports gestures. The improved WiFi and Bluetooth module offers a wireless interface that works for many different applications. Another interface is the USB host port, which can be used to connect the fischertechnik USB camera or USB sticks, for example. Up to eight additional controllers can be connected to one controller as extensions. Thanks to the narrow housing, the controller integrates perfectly into the models. Firmware updates are downloaded automatically via the cloud to ensure the models always stay up to date, while retaining custom programs. The ROBO Pro Coding software can be used for graphic programming, as well as text-based programming via Python. It is not dependent on any operating system, and can also be used on mobile devices. Other features of the controller include:

- › Processor: Arm® dual Cortex®-A7 650 MHz + Cortex®-M4
- Memory capacity: 512 MB DDR3 RAM, 4 GB eMMC
- Memory expansion: Micro SD card slot
- Color touch display: 2.4", 320x240 pixels, capacitive (allows swipe gestures)
- Flat shape dimensions: 90x90x17.5 mm
- » 8 universal inputs: Digital/analog 0-9VDC, analog 0-5 kΩ
- 4 high speed counter inputs: Digital, frequency to 1kHz
- > 4 motor outputs 9V/250mA (max. 1 A): Infinitely adjustable speed, short circuit resistant, alternative 8 individual outputs, e.g. for LEDs
- 3 5V servo outputs (max, 2A) short circuit resistant
- Combined Bluetooth / WiFi wireless module: Bluetooth 5.0 (BR, LE & EDR), WiFi dual band 2.4 GHz and 5 GHz 802.11 a/b/g/n
- > USB 2.0 client: Mini USB port for connecting to the PC

- USB host interface: USB-A port, e.g. for fischertechnik USB camera or USB sticks
- Camera interface: via USB host, Linux camera driver integrated into the operating system
- 2x 6 pin headers: to expand the inputs and outputs (up to 9 TXT 4.0 controllers connectable) and I²C interface
- Integrated speaker for playing sounds (WAV files)
- Linux-based open source operating system, firmware update via cloud, USB stick or micro SD card
- Programming with ROBO Pro Coding (graphic and Python), C/C++ compiler (not included)
- Additional programming options via REST interface
- › Available output voltages 9V, 5V and 3.3V
- > Power supply: 3.45 mm 9V DC port or 2.5 mm fischertechnik port

ROBO PRO CODING SOFTWARE



The ROBO Pro Coding software has a multi-lingual programming environment that allows for graphic programming as well as textbased programming via Python. The software runs on computers with Windows, Linux or MacOS, as well as on mobile devices with Android or iOS. Users can choose from the different learning levels of beginner, advanced, and expert to work on their own level of difficulty. Example programs are available. Self-created programs can be stored locally on the device as well as online in the cloud. This allows for users to create different versions of programs they have made, and exchange them in the cloud memory. The interface test can be used to quickly test actuators and sensors.

Software available free of charge

for mobile devices: Andorid / iOS
 for PC: Windows / macOS / Linux





NEW



> Incl. mini motor, historical grey components,

battery holder for 9V block (battery not included) > Ideal addition: Accu Set

RETRO MECHANICS

			,
Item No.	559885	Components	500
EAN	4048962424669	Dimension (mm)	465x80x320



Have you always wanted to know how a shaft drive, a bevel gear, or planetary gear works? Do you want to learn how to build a stable bridge or a scissors lift? Then our Retro Mechanics is the building set for you! The set has a cool retro design, and demonstrates mechanical and structural principles in a fun way based on 30 models. This is the ultimate technology set for any budding technician or mechanical engineer!





PLUS



If one wanted to give in to one's creativity and fantasy, the fischertechnik Creative Box Basic is just perfect: equipped with numerous basic building blocks, corner blocks and building plates, static elements and other "basics", this set provides the perfect base to create great and creative things! In the process, it doesn't matter whether an entirely new model is being created or an existing model is expanded according to individual desires. The instructions provide information on the basic functionalities of the enclosed building blocks. A further highlight of the Creative Box Basic is the storage box with 8 compartments, which ensures flexible separation. The numerous building components can be ideally sorted, providing an overview at all times. The large fischertechnik base plate upon which the own model can be built serves as the lid.



Technically interested children appreciate the Creative Box Mechanics: Full of gear wheels, pinions, axles, worms and other drive components, the Creative Box Mechanics is ideally suited to bring movement into almost any mechanism. Due to the opulent selection and number of components, the creativity and the implementation of plans are limitless. It permits the construction of a worm drive, winches with pulleys, chain transmissions and much more. The set is supplied with two stackable plastic tubs with flexible separators. The base building plate upon which the individual models can be constructed, serves as the lid.



- > Incl. 2x Rainbow LED, 2x white LED,
- battery holder for 9V block (battery not included)
 > Ideal addition: Accu Set or Power Set



Item No.	533877	Components	40
EAN	4048962229752	Dimension (mm)	225x65x150

The LED Set is just the right solution for more light! The construction sets can now be upgraded even further with more luster and additional light effects. The set contains two Rainbow LED's that flash in different colors and frequencies, together with two white LED's and a battery holder.





 Additionally required: Transmitter: 9V alkaline battery (battery not included); receiver: Accu Set

BLUETOOTH CONTROL SET

Item No.	540585	Components	Controller, receiver, servo
EAN	4048962280043	Dimension (mm)	225x65x150

The Bluetooth Control Set makes it possible to control fischertechnik models remotely using the included remote control or a smartphone or tablet. Bluetooth low energy technology offers a long range of up to 10 meters. Control up to three motors and one servo motor. Steering angle and speed control are infinitely variable. Remote control can be operated with up to two receivers, allowing for numerous applications. Thanks to the applied Bluetooth technology, several Bluetooth Control Sets can be used in the same room without interfering with each other.



					sischertechnik
1	BOX 10	00			
	Item No.	30383	Components	/	
	EAN	4006209303832	Dimension (mm)	390x95x270	

Practical storage box with eight sorting boxes and 32 sorting partitions. The cover also serves as the big building board 390 x 270 mm.



ACCU S	ET			100
Item No.	34969	Components	Charger + battery pack in one	
EAN	4006209349694	Dimension (mm)	225x65x150	

A Charger, which is controlled by a microcontroller and provides reliable protection against overcharging. Very short charging time, max. two hours, powerful NiMH rechargeable battery pack with fuse for protection against a short circuit, 8.4 V, 1800 mAh.



- > Power Pack Performance Data: Voltage 9V-.../2,5 A
- > Power Controller Performance Data: Regulated output 1A max., additional output with 9V-.../1 A max. (not regulated), both outputs short circuit-proof with overload protection

POWER SET

Item No.	505283	Components	Power unit + control unit in one
EAN	4048962069440	Dimension (mm)	225x65x150

Power pack and infinite Power Controller. The power supply from the electrical socket for all fischertechnik models.



 Performance data: Voltage 9V..., max. output 1.0 W at 6000 RPM

MOTOR SET XS

Item No.	505281 Compon		45
EAN	4048962069426	Dimension (mm)	225x65x150

Thanks to the compact measurements, this motor can be installed almost anyplace. In addition to the building blocks, gearbox parts and toothed gears, the set also contains a safety battery holder with integrated pole-reversing switch for 9V block (battery not included).

- > Performance data: Voltage 9V...,
- max. output 3.0 W about 340 RPM
- > Additionally required: Accu Set or Power Set







High performance geared motor in compact plastic casing with numerous possibilities for attachments. With many toothed gears, axles and gearbox parts.



SALES PROMOTION



»PROFI« poster, DIN A1 Item No. 39125



»ROBOTICS« poster, DIN A1 Item No. 39126



Decorative cube, 25x25x25 cm Item No. 142202



Consumer brochure Item No. 44465



Brochure stand Item No. 120949



Item No. 500887



Shopping bag, 46x59 cm Item No. 43355



Stand Dynamic/BT Racing Set Item No. 544938

Give-Away Item No. 546459





Stand Funny Machines/Junior Item No. 553683



Top sign 125x30 cm - Item No. 39917 100x30 cm - Item No. 47227



Digital photo frame (on request)



30

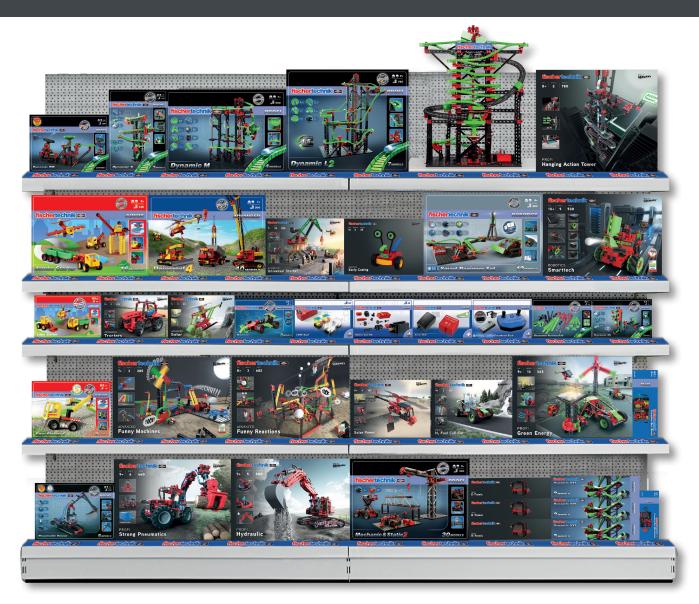


Illustration shows assortment 2021. Subject to change.

DECO MODELS



Deco model Dynamic Item No. 547094



Deco model Dynamic XS+S Item No. 539689 More deco models on request.



Deco model Shaking man Item No. 560899



SCHOOL + TEACHING



Assembly instructions

> Activity booklet

> Ready-made lesson plans

> Experiments



SIMULATION

Discover, understand, design, build, learn: That's what drives us – A whole life long. At fischertechnik, we also call it "Learning about technology through play". For over 55 years, we have been creating components, construction kits and building systems for children and students of all ages. Our products awaken different interests, promote skills, and inspire lifelong learning for every age level and school type. Teachers at schools, universities, and colleges all of the world understand that fischertechnik products motivate children and students to explore. Our building kits found their way into state and non-governmental teaching facilities through the toy market early on. Systems by fischertechnik Education continue to build on this history of success. Their success continues to grow with new topics and ideas relevant to the curriculum.

fischertechnik systems combine the worlds of traditional and digital technology, an especially important consideration for the future. This is important in mechanics and robotics, for instance – today, you can't have one without the other.



fischertechnik and simulation – an optimal combination many engineers and experts have already put their trust in! With fischertechnik, experts can recreate complex processes realistically. fischertechnik products are already used in a variety of industrial applications through ready-made compact training models. They are designed to reproduce and simulate actual processes.

fischertechnik training models are ideal for educational, simulation and demonstration purposes. Users can simulate and try out many processes important to the smart factory – then demonstrate them in a clear and easy to understand way.

The fischertechnik training factory and all other training models are delivered fully constructed and can be operated using 24V industrial standard voltage. These models focus on simulation and demonstration, presenting digital networked applications in a real production environment.



fischertechnik 📼

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www.fischertechnik.de

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FAN CLUB

More than 30.000 fans are members at no cost in the fischertechnik Fan Club. Every fan regularly receives current information, the biannual Fan Club NEWS and has his personal member identification.

fischertechnik opens the doors once a year on Fan Club Day. The fans receive the exclusive opportunity to take a peek behind the curtains of the traditional brand.









fischer TiP 100

After the make-it-yourself fun is finished, any remaining TiPs are

restanti TiP vengono riposti puliti e in modo sicuro nel secchio. Contenuto: TiP colorati, spugna, manuale fai-da-te

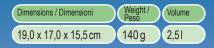
Dimensions / Dimensioni	Weight / Peso	Volume
14,0 x 13,0 x 13,0 cm	80 g	1,01



After the make-it-yourself fun is finished, any remaining TiPs and the tools are placed back in the bucket

Dopo il fai-da-te, i restanti TiP ed utensili vengono riposti puliti e in modo

Contenuto: TiP colorati, spugna, utensile da taglio, manuale fai-da-te





fischer TiP 600 Art. No.: 533782

EAN: 4048964000830

The practical and attractive bucket contains colorful TiPs, sponge, cutting tool and instructions.

Contents: multicolored TiPs, sponge, cutting tool, instructions

Il pratico ed elegante secchio contiene TiP colorati, una spugna, un utensile da taglio e le istruzioni per il bricolage. Contenuto: TiP colorati, spugna,

utensile da taglio, manuale fai-da-te



Volume 240 g 5.01



fischer TiP 1200 Art. No.: 533784

EAN: 4048964000847

After finishing the make-it-yourself fun, any remaining Tips, tools and other utensils are placed back in the bucket secure and clean! Contents: multicolored TiPs, sponge, cutting

tool. instructions

Dopo il bricolage i restanti TiP, gli utensili e gli altri attrezzi vengono riposti puliti e in modo sicuro nel secchio.

Contenuto: TiP colorati, spugna, utensile da taglio, manuale fai-da-te

Dimensions / Dimensioni

28,5 x 27,0 x 26,5 cm



fischer TiP Alpaca

Art. No.: 548968 EAN: 4048962353532

Take the Alpaca Bucket on an exciting journey to the steppes of South America, and discovery the world of this fluffy and trendy animal. Alpacas come in a wide range of colours, so your creativity in designing and creating these animals will know no bounds. Contents: multicolored TiPs, sponge, cutting tool, instructions

Parti per un affascinante viaggio nelle steppe dell'America meridionale e immergiti nel mondo di questo soffice animale con il secchio alpaca. L'alpaca ha i colori più svariati: pertanto, alla creatività non sono posti limiti di nessun genere nel bricolage e nella creazione degli animali.

Contenuto: TiP colorati, spugna, utensile da taglio, manuale fai-da-te

Volume

6.01

21,0 x 20,0 x 20,5 cm 256 g



fischer TiP Unicorn 600

Art. No.: 540824 EAN: 4048962281569

With the Unicorn Bucket, you can make the unicorn of your dreams - your imagination in this fairy tale world knows no limits. You can bring the much-loved mythical creature to life with the easyto-understand instructions. Contents: multicolored TiPs, sponge,

cutting tool, instructions Con l'Unicorn Bucket puoi creare l'unicorno dei tuoi sogni - la tua immaginazione in questo mondo fiabesco non conosce limiti. Puoi dare vita a questa creatura mitica e

molto amata con le istruzioni di facile comprensione. Contenuto: TiP colorati, spugna, utensile

da taglio, manuale fai-da-te

Weight / Volume 21,0 x 20,0 x 20,5 cm 240 g 6.01



Dimensions / Dimensioni

Weight /

Niente male!



Sales promotion ... / Promozione vendite ...



Give Away Polybag Sacchetto di TiP in omaggio Art. No.: 523802



TiP Brochures TiP-dépliant Art. No.: 40992



TiP Bag TiP-shopper Art. No.: 43355



Learning by Playing ... Imparare giocando ..





Creative activity with fischer TiP promotes the child's sense of three-dimensional space as well as their creativity and motor functions.

Nelle realizzazioni creative con fischer TiP vengono sviluppate, oltre alla creatività, anche il movimento e la capacità di immaginazione tridimensionale.

What's Special?

fischer TiPs are made of potato starch colored with food dyes.

The advantages of potato starch are clear:

- Sticks without glue, therefore safe and harmless
- Outstanding adhesive characteristics
- Brilliant, powerful, lustrous colors
- Renewable raw material and therefore environmentally friendly and sustainable
- 100% bio-degradable!
- Neutral odour
- High quality "Made in Germany"

Il particolare:

fischer TiP consiste in fecola di patate e contiene coloranti alimentari.

I vantaggi della fecola di patate sono evidenti:

- incolla senza colla, basta solo l'acqua quindi è sicura e non problematica
- eccellente potere aderente
- colori brillanti e molto luminosi
- materia prima rinnovabile e quindi ecologica e sostenibile
- biodegradabile al 100%!
- inodore
- qualità "Made in Germany"



+6 TOOLS +6 UTENSILI



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You Tube

steriale sinter

cal plastic