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**ROBOTICS**

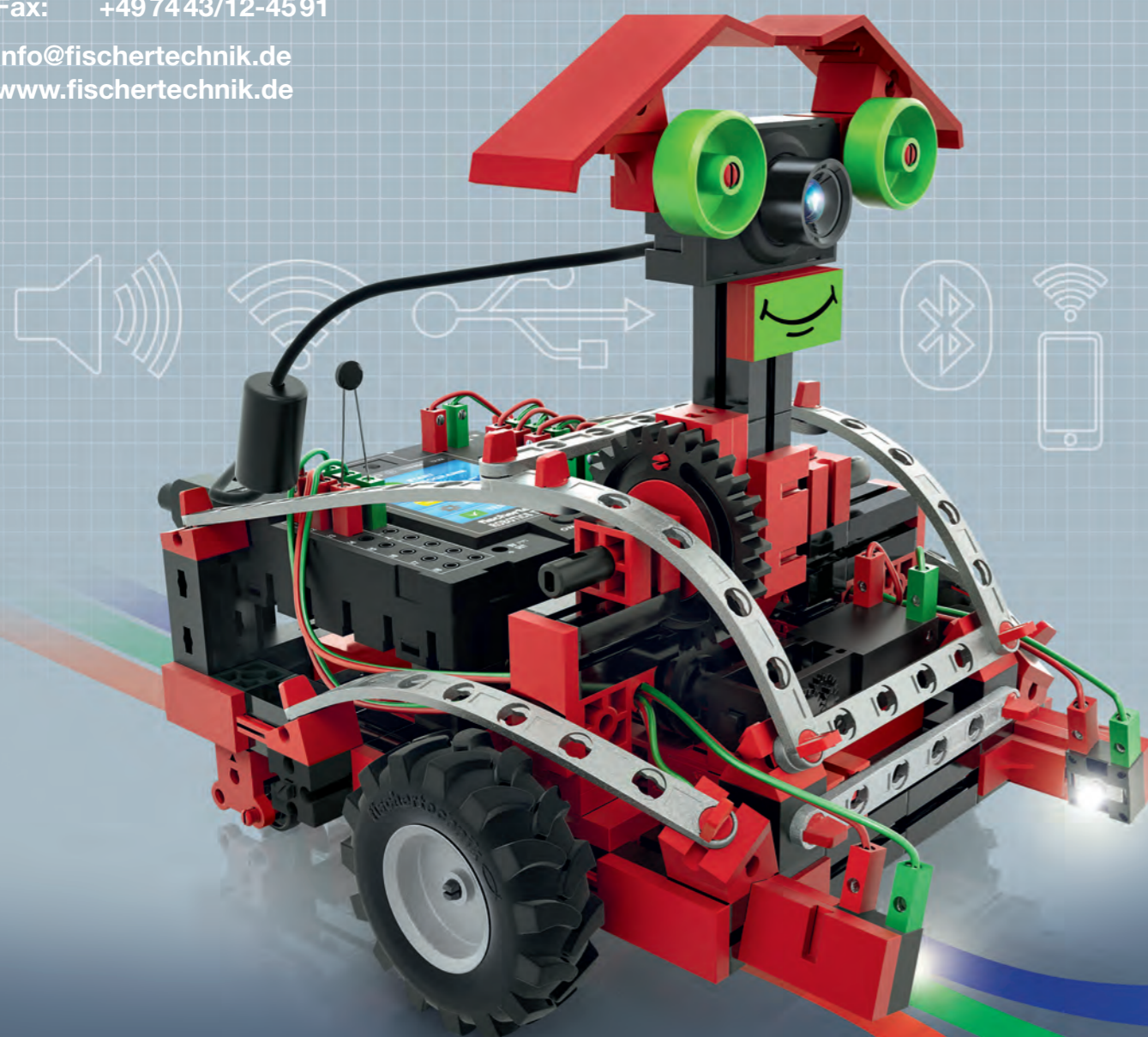
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**ROBOTICS**

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Germany

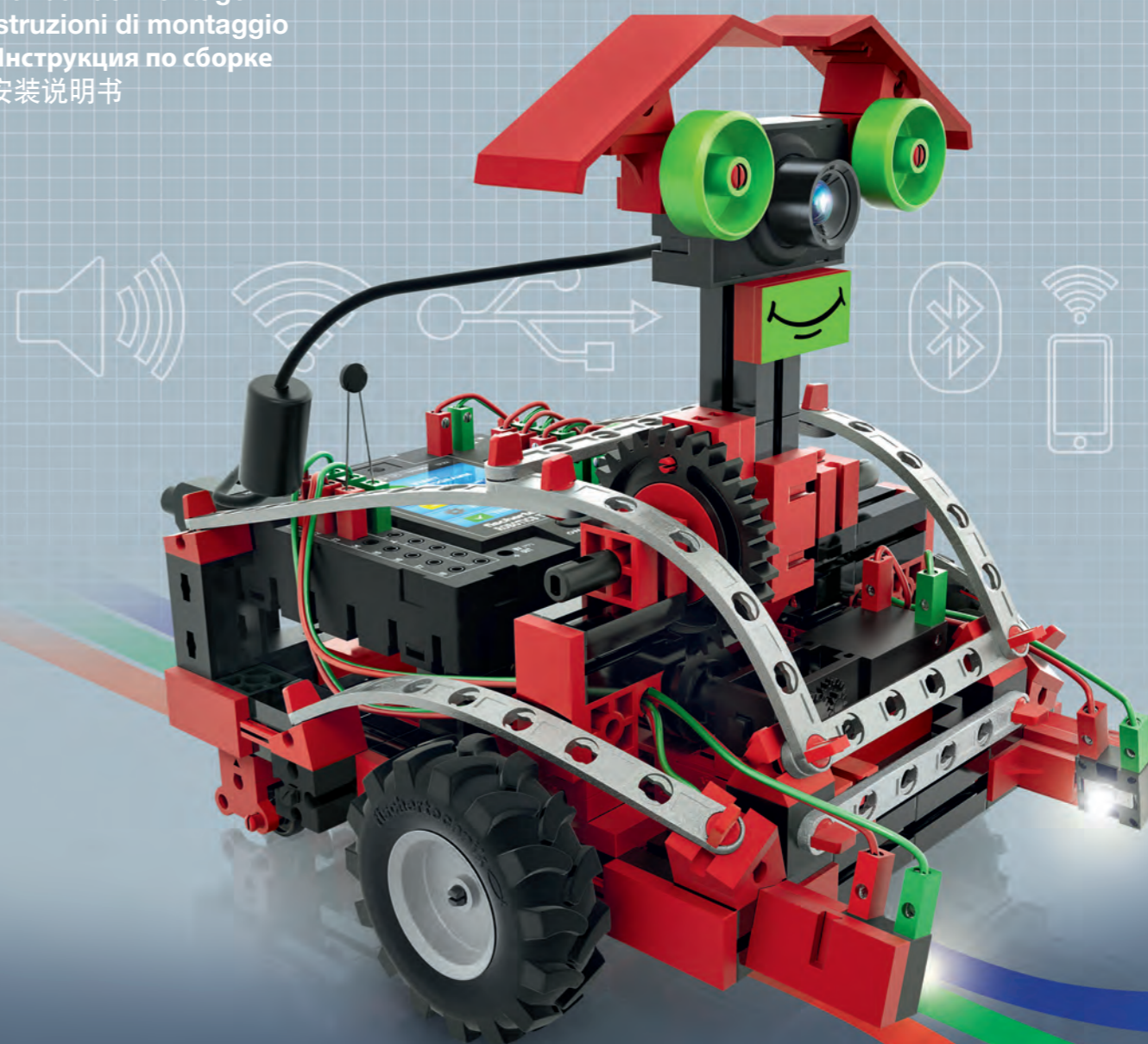
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Bauanleitung  
Assembly instruction  
Instructions de montage  
Bouwhandleiding  
Instrucciones de construcción  
Manual de montagem  
Istruzioni di montaggio  
Инструкция по сборке  
安装说明书



**Robotics Advanced  
TXT Discovery Set**

**14** MODELS  
MODELS

**Robotics Advanced  
TXT Discovery Set**

**14** MODELS  
MODELS

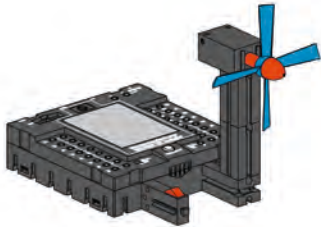
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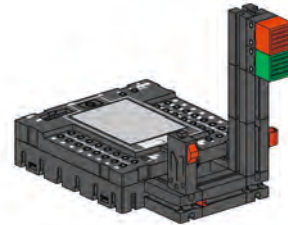
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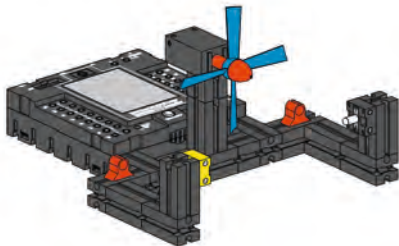
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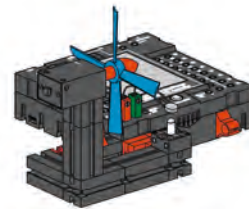
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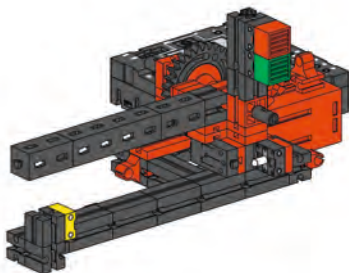
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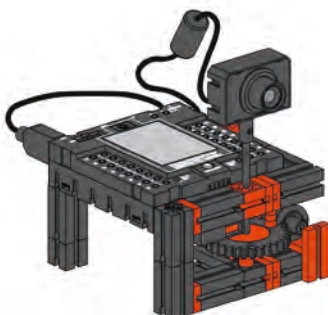
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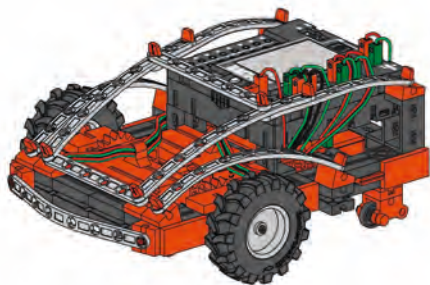


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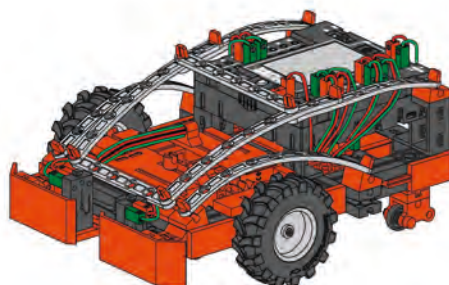
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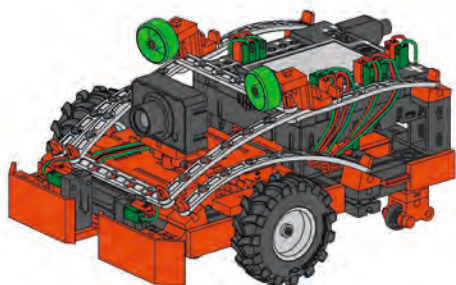
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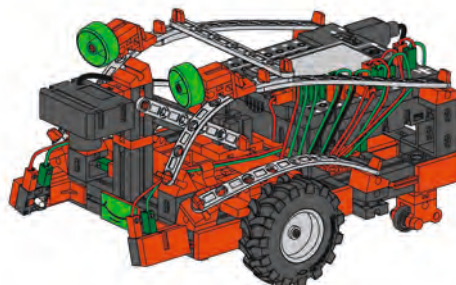
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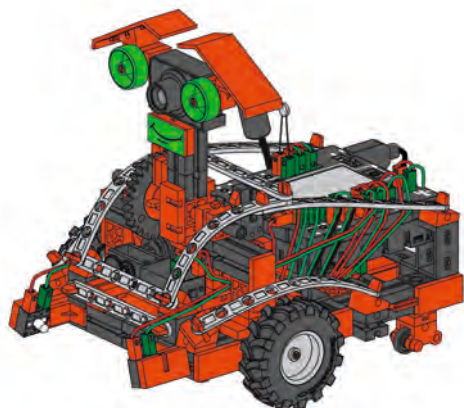
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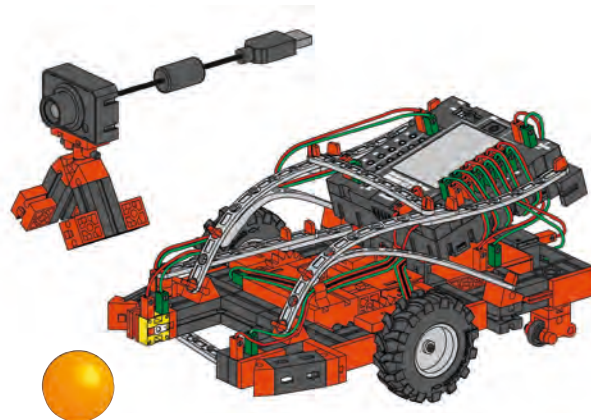
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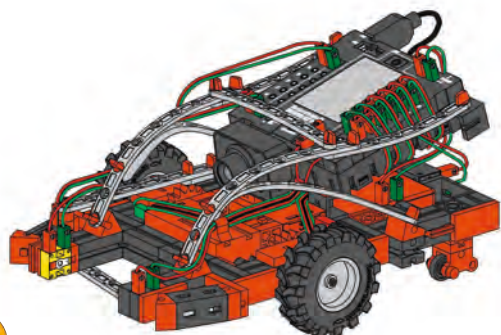
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









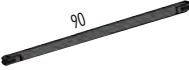




















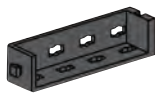






























Fußballroboter / Soccer robot / Robot footballeur / Voetbalrobot / Robot de fútbol / Robô jogador de futebol / Robot calcio / Робот-футболист / 球机器人 .....54




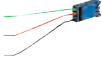



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**Lista da piezas**  
**Resumo de peça individual**






**Singoli componenti**  
**Перечень деталей**  
**零件概览**

 60°	31 010 2 x		31 848 2 x		35 050 2 x		36 324 4 x
 30°	31 011 8 x		31 918 1 x	 30	35 063 1 x		36 334 16 x
	31 058 1 x	 15°	31 981 4 x	 45	35 064 2 x		36 337 1 x
 15	31 060 1 x		31 982 23 x	 90	35 066 1 x		36 437 1 x
 30	31 061 6 x		31 983 1 x		35 072 1 x		36 532 1 x
	31 078 1 x		32 064 12 x		35 073 2 x		36 573 2 x
	31 082 1 x	 7,5°	32 071 1 x		35 079 1 x		36 586 2 x
	31 124 2 x		32 085 2 x		35 084 1 x		36 920 2 x
 45	31 330 6 x		32 321 2 x		35 088 1 x		36 921 1 x
	31 360 1 x		32 330 8 x		35 945 2 x		36 922 2 x
	31 426 2 x		32 870 1 x		35 969 4 x		36 950 4 x
	31 436 2 x		32 879 19 x		35 980 3 x		37 237 19 x
	31 597 4 x		32 881 9 x		36 134 1 x		37 468 5 x
	31 674 2 x		35 031 1 x		36 227 1 x		37 679 3 x
	31 690 2 x		35 033 2 x		36 264 1 x		37 681 1 x
	31 771 1 x		35 049 2 x	 A	36 323 30 x		37 783 2 x

	37 875 1 x
	38 216 1 x
	38 241 1 x
	38 246 2 x
	38 413 1 x
	38 423 4 x
	38 428 8 x

	116 913 2 x
	121 661 2 x
	134 867 1 x
	137 125 2 x
	137 096 1 x
	137 677 2 x
	152 522 1 x

	153 367 5 x
	153 422 2 x
	153 513 1 x
	153 668 2 x
	153 669 3 x
	153 670 1 x
	154 452 2 x


	154 454 1 x
	154 485 1 x
	162 134 2 x
	181 583 19 x
	181 584 21 x


# Montagetipps Tips for assembly Tuyaux pour le montage



# Montagetips Consejos para el montaje "Dicás" para montagem

# Consigli per il montaggio Советы по сборке 装配建议

<p>Kabel und Stecker Plugs and cables Fiches et des câbles</p> <p><b>1</b></p> <p>6 x 20 cm 2 x 30 cm</p>	<p>Stekkers en cables Enchufes en cables Cabos e contatos</p>	<p>Cavi e connettori Провода и штекеры 电缆和插头</p>	<p><b>2</b></p> <p>0 3cm</p> <p>3cm 3cm</p>	<p><b>3</b></p>	<p><b>4</b></p> <p>6 x 20 cm 2 x 30 cm</p> <p>NTC 1,5 kΩ</p> <p>2 x</p>
---	---	--	---	-----------------	---

<p>Fototransistor Phototransistor Phototransistor Fototransistor Fototransistores Fototransistor Fototransistor Фототранзистор 光电晶体管</p> <p> 1 x 9V ...</p>	<p>Achtung: Beim Anschluß auf richtige Polung achten. Rot = + Caution: Make sure the terminals are connected correctly. Red = + Attention: lors du raccordement, veiller à ce que la polarisation soit exacte, rouge = + Pas op: let bij het aansluiten op de juiste polariteit, rood = + Atención: al conectar, procurar que los polos estén correctamente colocados, roja = + Atenção: Por ocasião da conexão atentar para a polaridade correta. Vermelho = + Attenzione: nel collegamento osservare la corretta polarità. Rosso = + Внимание: при подключении соблюдать полярность. Красный = + 注意: 连接时应注意极性正确。红色 = +</p>
---	--

<p>LED LED DEL LED LED LED LED LED Светодиод LED</p> <p> 2 x 9 V ... / 0,01 A</p>	<p>Achtung: Beim Anschluß auf richtige Polung achten. Caution: Make sure the terminals are connected correctly. Attention: lors du raccordement, veiller à ce que la polarisation soit exacte. Pas op: let bij het aansluiten op de juiste polariteit. Atención: al conectar, procurar que los polos estén correctamente colocados. Atenção: Por ocasião da conexão atentar para a polaridade correta. Attenzione: nel collegamento osservare la corretta polarità. Внимание: при подключении соблюдать полярность. 注意: 连接时应注意极性正确。</p>
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<p>Linsenlampe Lens tip lamp Ampoule lentille Lenslampje Lampada lenticolare Lâmpada de formato lenticular Lampada lenticolare Лампа с линзой 透镜灯</p> <p> 1 x</p> <p> 9V ... / 0,15 A</p>	
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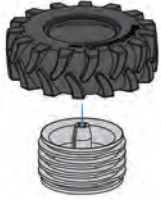
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**Montagetips**  
**Consejos para el montaje**  
**"Dicas" para montagem**

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

- Bei der Reifenmontage Profielfrichtung links und rechts beachten!
- When mounting the tyres, please pay attention to the direction of the tread, left and right.
- Pour le montage des pneus, faire attention à la direction gauche et droite du profil.
- Let bij de bandenmontage op de profielrichting links en rechts.
- Al montar los neumáticos, tener en cuenta la dirección del perfil izquierdo y derecho.

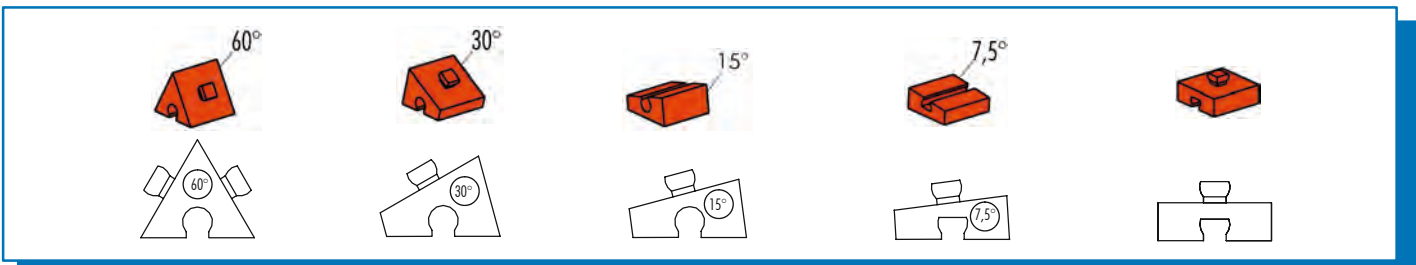
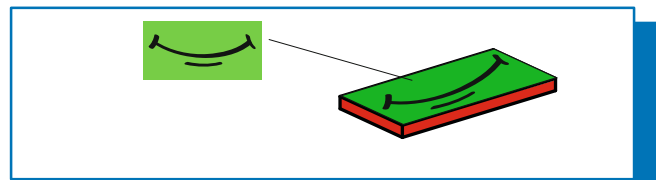
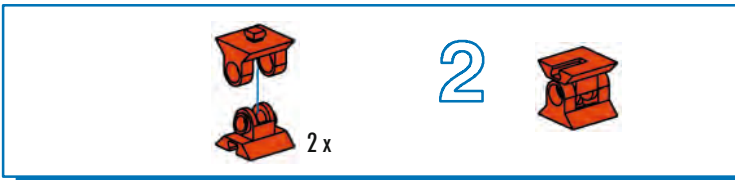
- Ao proceder a montagem de pneus, levar em conta a direcção de perfil à esquerda e à direita.
- Al momento del montaggio delle gomme si deve osservare la direzione del profilo (a sinistra e destra)!
- При монтаже шин обратите внимание на правое и левое направление протектора!
- 装配轮胎时应注意左右轮胎沟纹的方向！



links  
 left  
 gauche  
 links  
 izquierda  
 à esquerda  
 sinistra  
 левое  
 左



rechts  
 right  
 droite  
 rechts  
 derecha  
 à direita  
 destra  
 правое  
 右



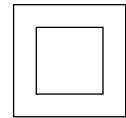
## Sicherheitshinweise Safety Information Consignes de sécurité

## Veiligheidsrichtlijnen Indicaciones de seguridad Observações sobre segurança

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

- Das Spielzeug darf nur mit einer der folgenden fischertechnik Energiequellen benutzt werden: Power Set oder Art.-Nr.: 35537 Accu Pack 8,4V.
- The toy 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 jouet 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 speelgoed mag uitsluitend met een van de volgende fischertechnik energiebronnen worden gebruikt: art.nr.: Power Set of art.nr.: 35537 accupack 8,4V
- El juguete se debe utilizar únicamente con una de las siguientes fuentes de energía: Power Set o Art. No. 35537 paquete acumulador de 8,4V.
- O brinquedo somente pode ser utilizado com uma das seguintes fontes de energia da fischertechnik: Power Set ou art. nº: 35537 Bloco de bateria de 8,4V.
- Questo giocattolo può essere utilizzato solo con le seguenti fonti di energia fischertechnik: Power Set oppure cod. prod.: 35537 confezione batterie da 8,4V.
- Игрушку можно использовать только с одним из следующих источников энергии от fischertechnik: Power Set или арт. №: 35537 Accu Pack 8,4В
- 该玩具只允许使用如下的慧鱼 (fischertechnik) 能量源 : Power Set , 或者商品号 : 35537 , 8.4V 电池套件 (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 symbol.
- 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。



### Elektromagnetische Störungen

Sollte der Controller durch externe elektromagnetische Einflüsse gestört werden, kann er nach Ende der Störung bestimmungsgemäß weiter benutzt werden. Eventuell muss die Stromversorgung kurz unterbrochen und der Controller neu gestartet werden.

### Electromagnetic Interference

If the Controller is affected by external electromagnetic influences, it can still be used for the purpose intended after the end of the interference. It is possible that the power supply will have to be interrupted for a short time and the Controller restarted.

### Interférences électromagnétiques

L'emploi conforme à l'usage prévu du Controller perturbé par des interférences électromagnétiques externes est possible après l'élimination de l'origine de la perturbation. Il se pourrait cependant qu'il soit requis d'interrompre l'alimentation en courant brièvement et de redémarrer le Controller.

### Elektromagnetische storingen

Als de Controller door externe elektromagnetische invloeden wordt gestoord, kan deze na het verdwijnen van de storing volgens voorschrift verder worden gebruikt. Eventueel moet de voedingsspanning kort worden onderbroken en de Controller opnieuw worden gestart.

### Interferencias electromagnéticas

En caso que el Controller sea interferido por influencias electromagnéticas externas, tras finalizar la interferencia puede continuar siendo utilizado para los fines previstos. Eventualmente se debe interrumpir brevemente la alimentación de corriente y el Controller ser reiniciado.

### Perturbações eletromagnéticas

Se o Controller for perturbado devido a influências externas eletromagnéticas, ele pode continuar a ser utilizado para o fim especificado depois do final da perturbação. Eventualmente, a alimentação de corrente deve ser interrompida brevemente e o Controller iniciado novamente.

### Disturbi elettromagnetici

Se il Controller viene disturbato da influenze elettromagnetiche esterne, al termine del disturbo si può continuare a utilizzarlo senza problemi. Eventualmente si deve interrompere brevemente l'alimentazione elettrica e riavviare il Controller.

### Электромагнитные помехи

Если внешние электромагнитные воздействия создают помехи для работы контроллера, то после окончания действия этих помех он может работать по назначению дальше. Возможно потребуются на короткое время прервать подачу электропитания и перезапустить контроллер.

### 电磁干扰

如果该控制器受到外部电磁影响的干扰，则可在干扰结束后按照规定继续使用。也有可能必须短时切断电源，然后重新启动控制器。



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

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



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- 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 Spielzeug 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.
- Alle elektrischen Bauteile (Motoren, Lampen) dürfen ausschließlich an Stromversorgungen von Fischertechnik angeschlossen werden.

- 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 toy.
- 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.
- No electrical components (motors, lamps) are to be connected to any other power supply than that provided by Fischertechnik.

- 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 jouet.
- 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
- Tous les composants électriques (moteurs, lampes) ne doivent être branchés aux alimentations électriques uniquement que par la société Fischertechnik.

- Niet-oplaadbare batterijen mogen niet worden opgeladen.
- Oplaadbare batterijen mogen uitsluitend door volwassenen worden opgeladen.
- Oplaadbare 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 speelgoed 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.
- Alle elektrische componenten (motoren, lampen) mogen uitsluitend op stroomvoorzieningen van Fischertechnik worden aangesloten.

- 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 juguete
- 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.
- Todos los componentes eléctricos (motores, luces) deben conectarse a la alimentación de corriente de la técnica Fischer exclusivamente.

- 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 brinquedo.
- 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.
- Todas as peças componentes elétricas (motores, lâmpadas) só podem ser exclusivamente conectadas em abastecimentos de corrente da Fischertechnik.

- 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 giocattolo 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.
- Tutti i componenti elettrici (motori, lampadine) devono essere collegati esclusivamente ad alimentatori Fischertechnik.

- Не пытайтесь заряжать перезаряжаемые 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 накоротко 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.
- Все электрические детали (электромоторы, лампочки.) можно подключать только к источникам электропитания от Fischertechnik.

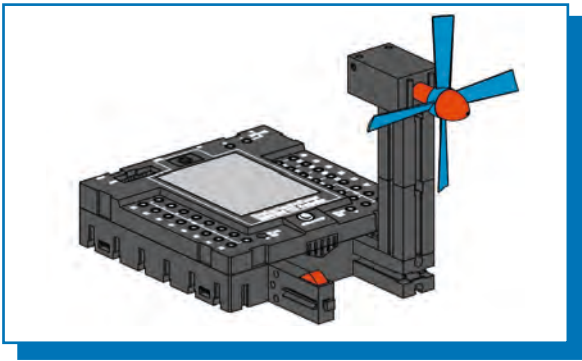
- 不得给非充电电池充电
- 只允许由成年人给充电电池充电
- 在充电前必须将充电电池从电池夹中取出。
- 必须按照正负极正确放入电池。
- 必须从玩具中取出没有电的电池
- 接线柱不允许被短路。
- 用完了的电池应作为特种垃圾处理。
- 禁止将金属丝插入插座！
- 经常检查充电器是否有损坏情况。如果充电器有损，直到完全修好为止不可以再使用。
- 只允许将所有电气部件（传感器，电机，灯泡）与慧鱼技术产品的电源装置相连接

- 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 spher 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！

- 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.

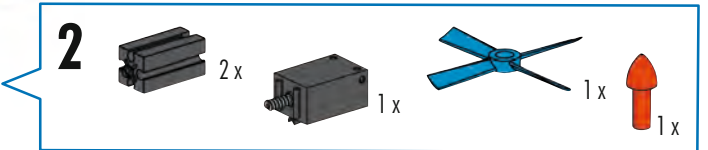
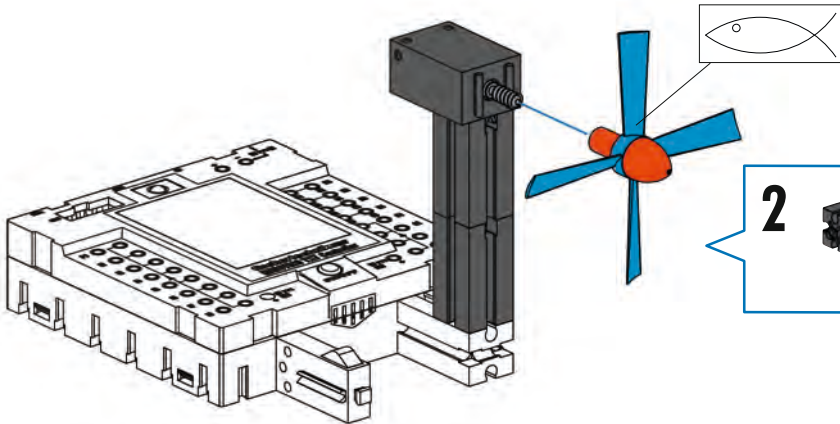
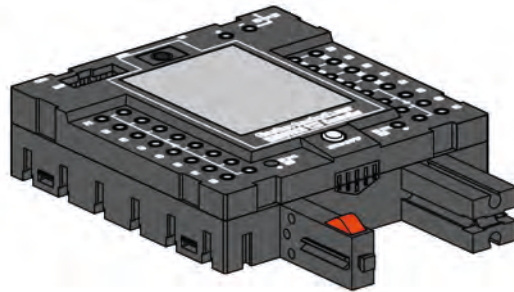
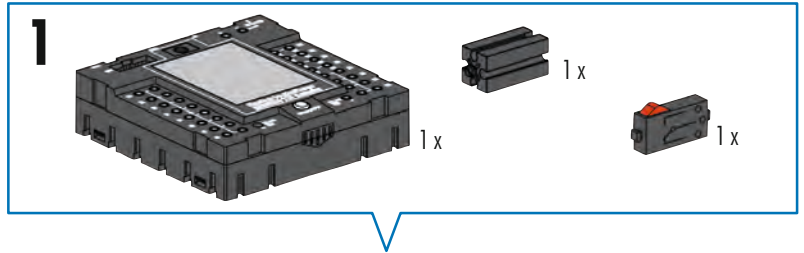
- Caso necessário, todas as peças individuais, especialmente peças móveis, tem que ser submetidas à manutenção e ser limpadas.
- Se necessario, tutti i singoli componenti, soprattutto le parti mobili, si devono eventualmente sottoporre a manutenzione e pulizia.
- Все детали, особенно подвижные, требуют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



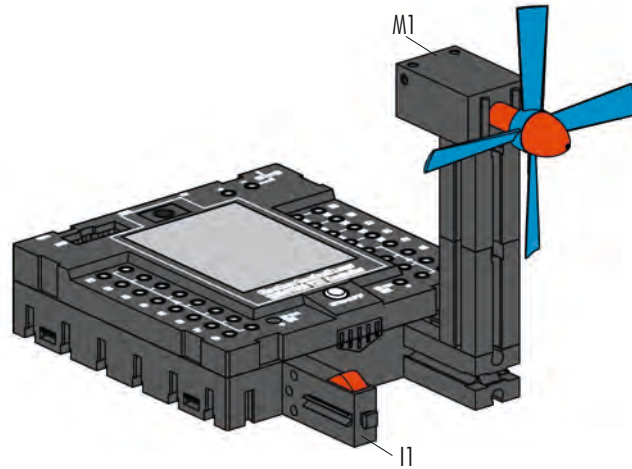
Ventilator  
Ventilating fan  
Ventilateur

Ventilator  
Ventilador  
Ventilador

Ventilatore  
вентилятор  
风扇



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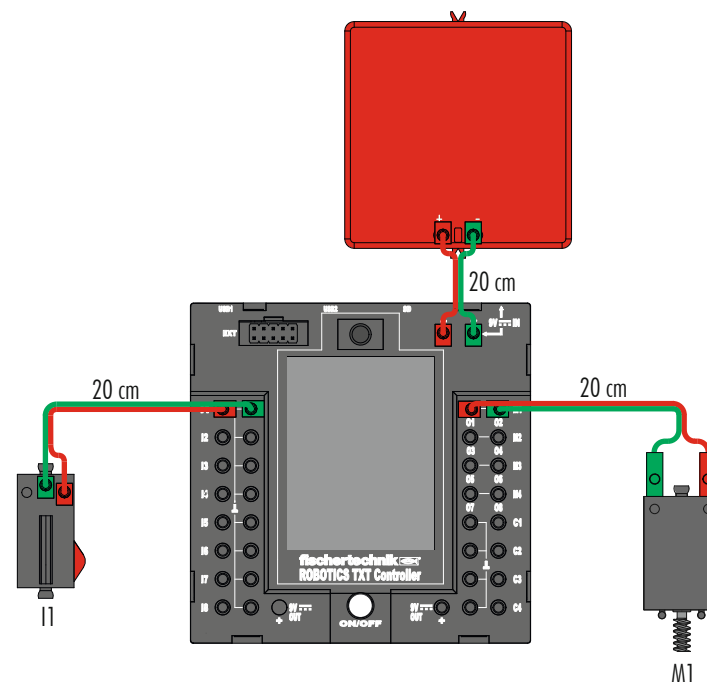


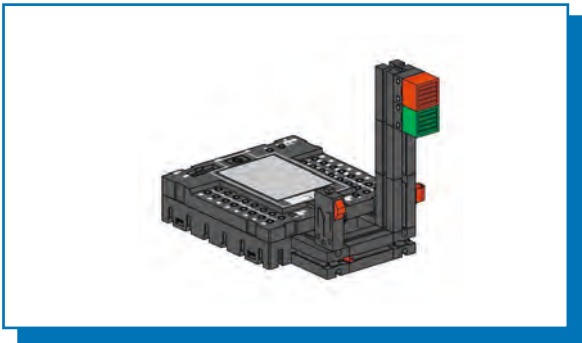
**Schaltplan**  
**Circuit diagram**  
**Plan électrique**

**Schakelschema**  
**Diagrama de circuitos**  
**Plano elétrico de ligação**

**Schema elettrico**  
**Схема подключения**  
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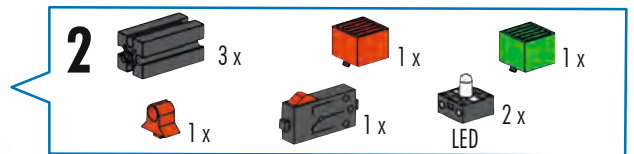
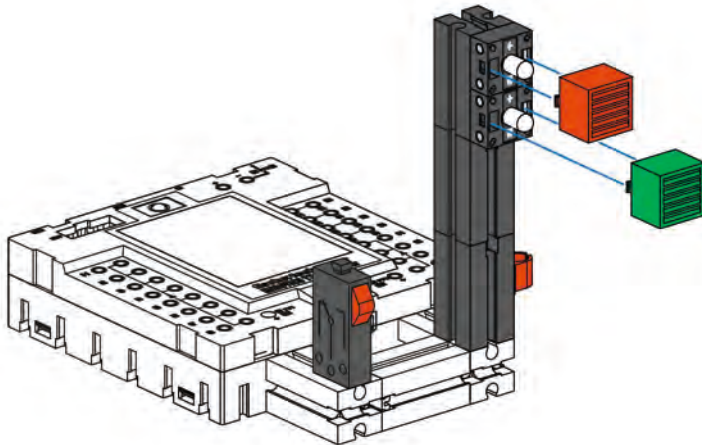
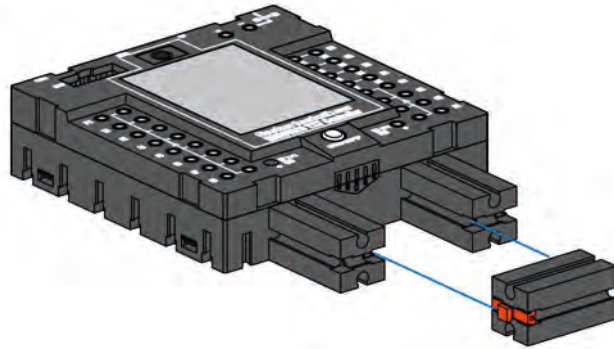
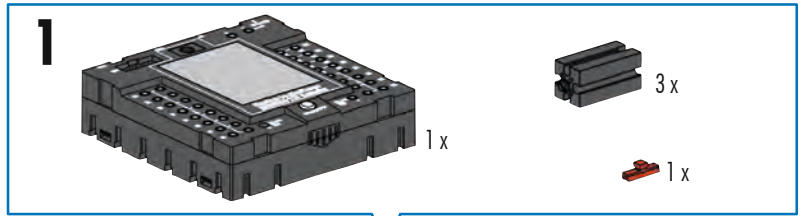




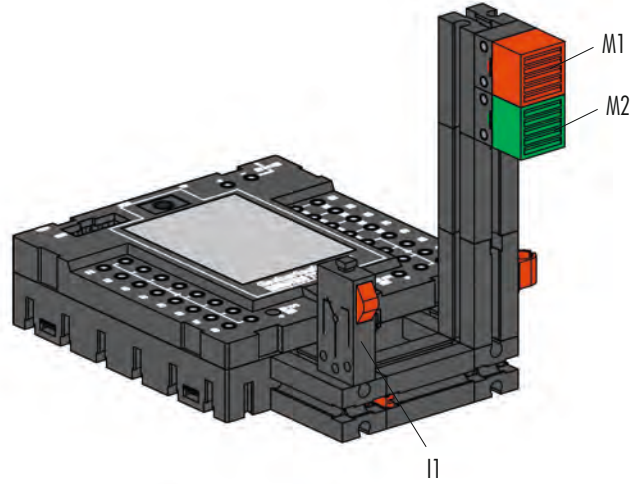
**Fußgängerampel**  
**Pedestrian light**  
**Feu de signalisation pour piétons**

**Voetgangersstoplicht**  
**Semáforo para peatones**  
**Semáforo para pedestres**

**Semaforo pedonale**  
**Светофор для пешеходов**  
**行人交通信号灯**



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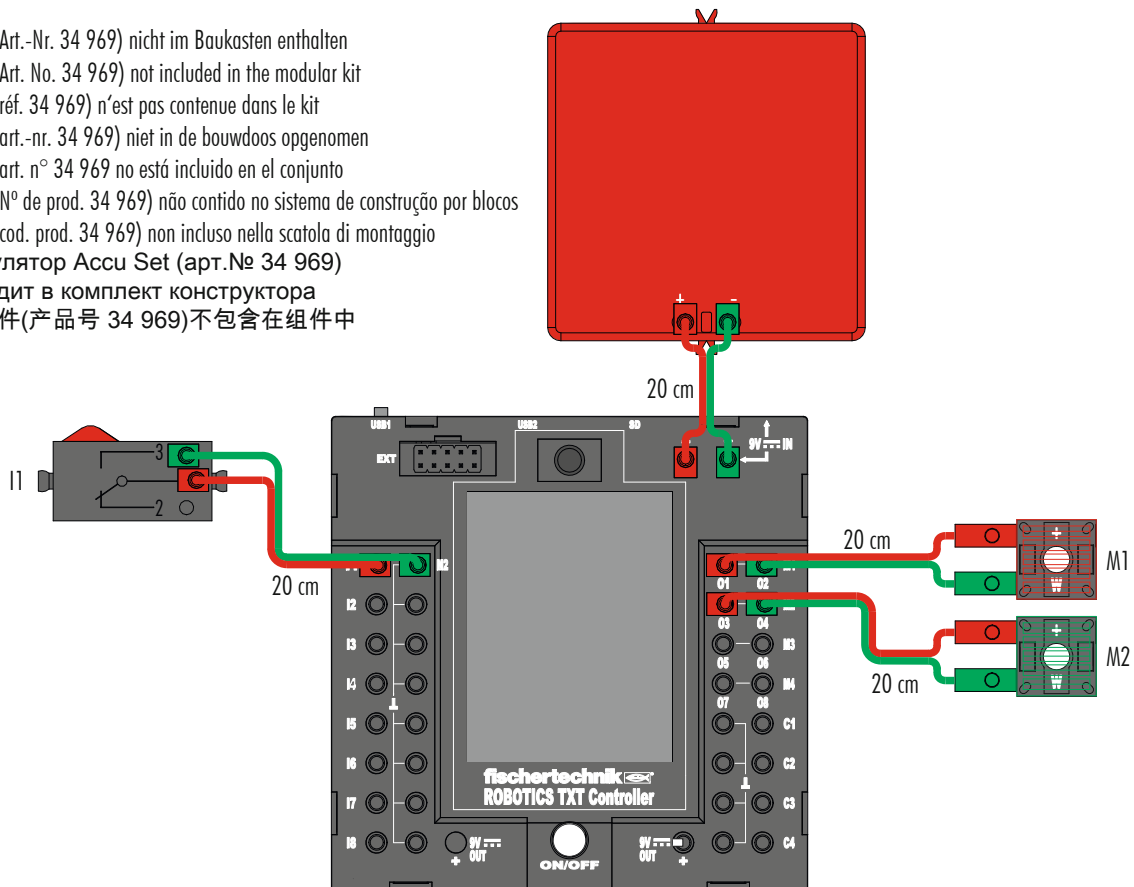


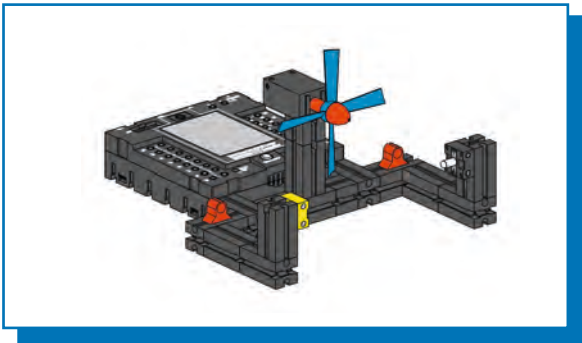
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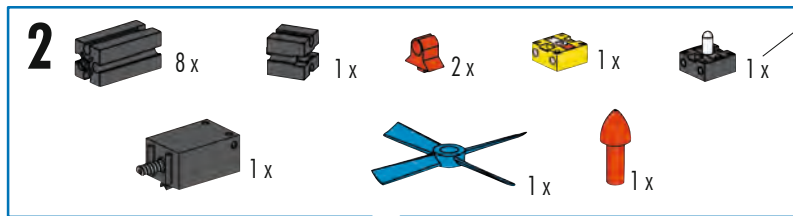
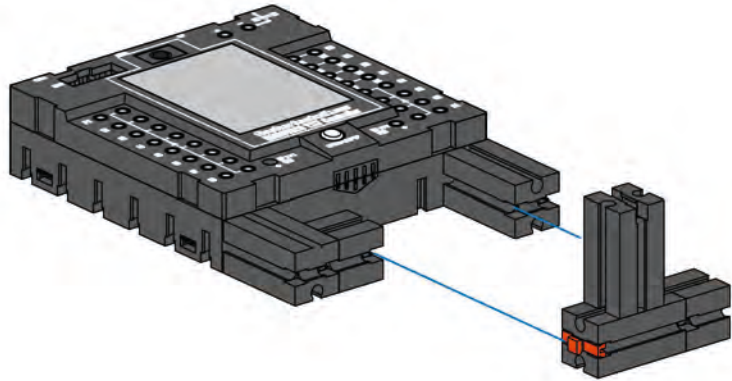
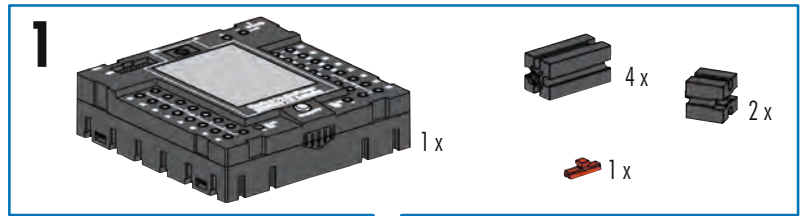




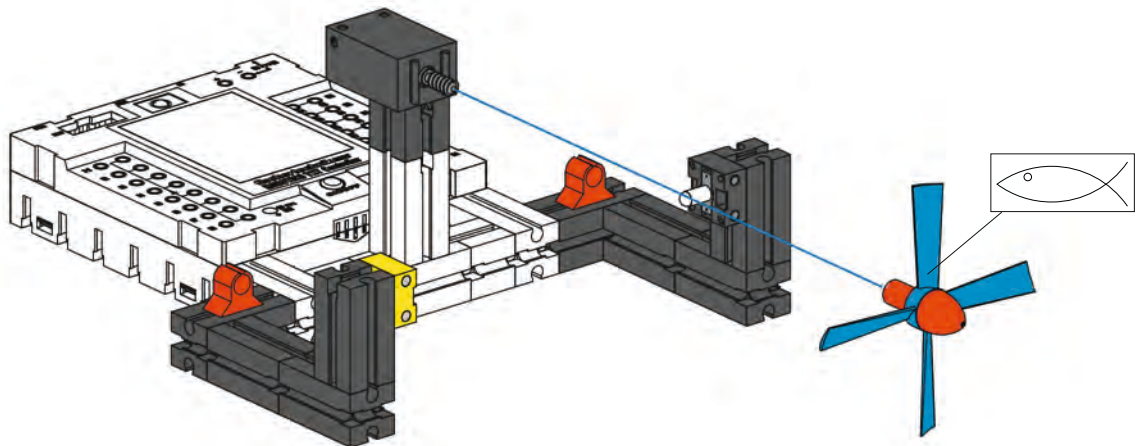
Händetrockner  
Hand dryer  
Sèche-mains

Handdroger  
Secador de mãos  
Secador de mãos

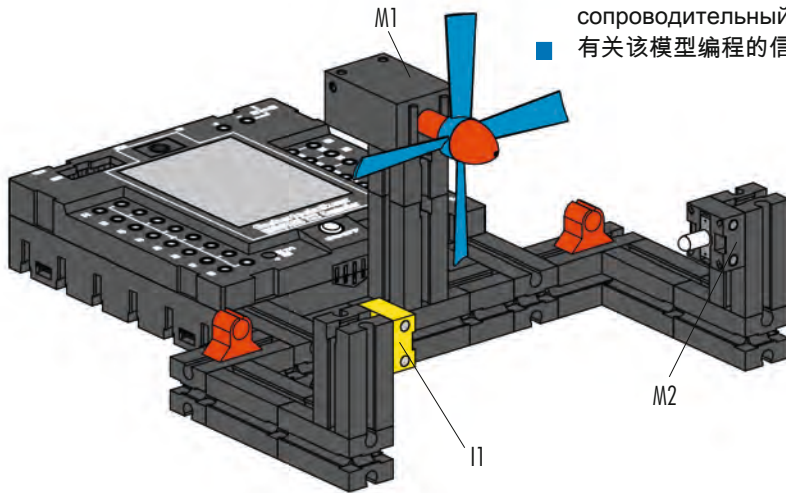
Apparechio asciugamani  
Сушилка для рук  
干手机



Linsenslampe  
Lens tip lamp  
Ampoule lentille  
Linsenslampe  
Lampada lenticolare  
Lâmpada de formato lenticular  
Lampada lenticolare  
Лампа с линзой  
透镜灯



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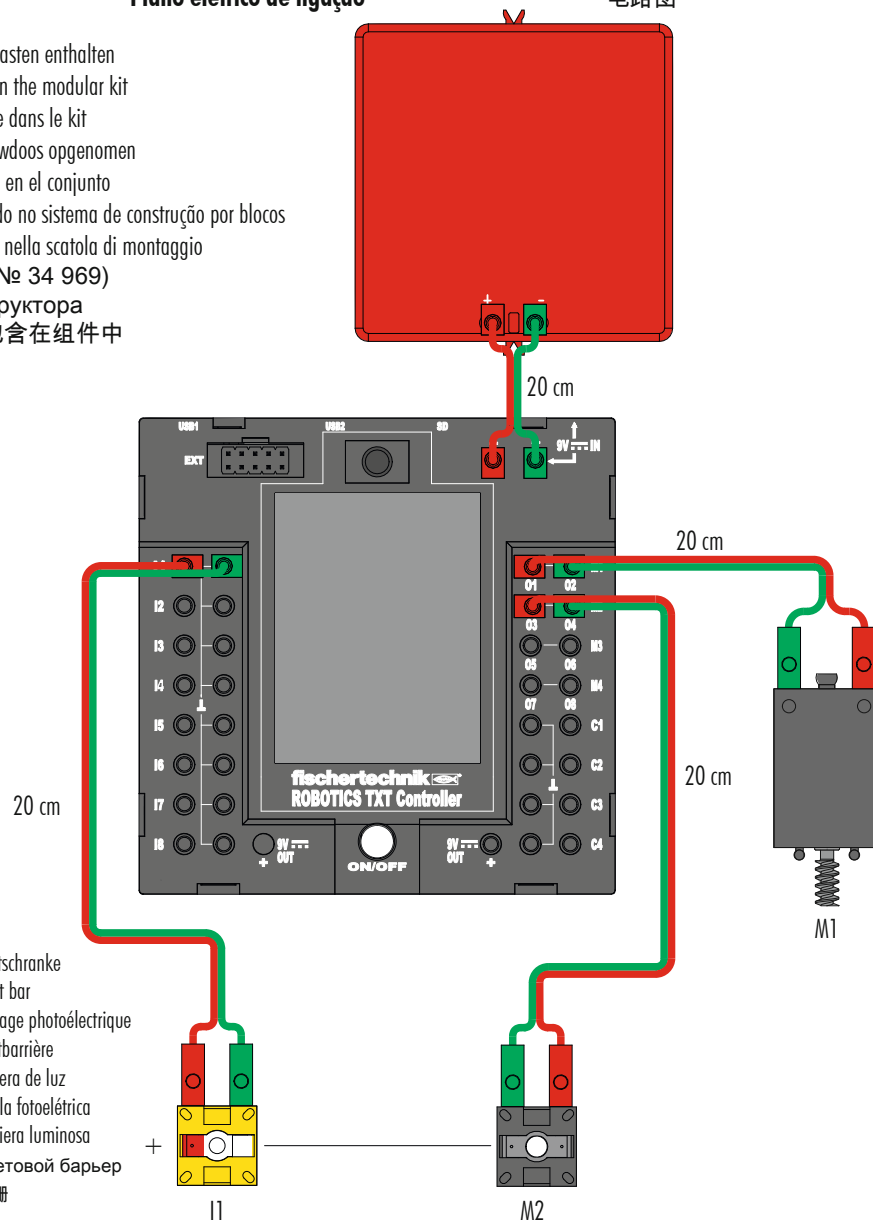


**Schaltplan**  
**Circuit diagram**  
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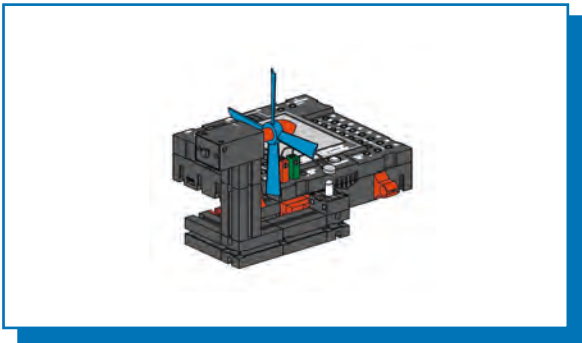
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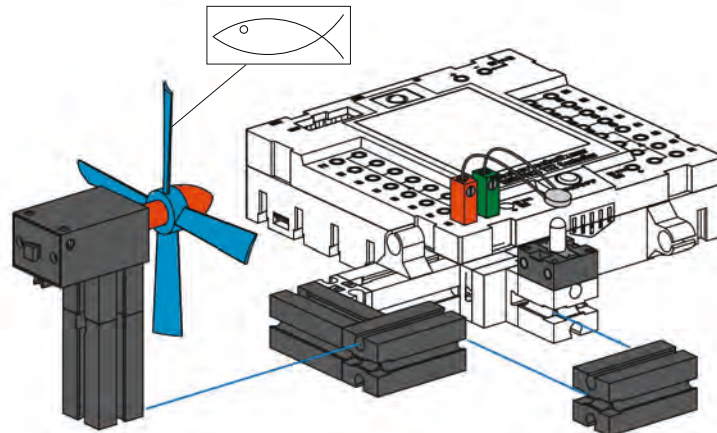
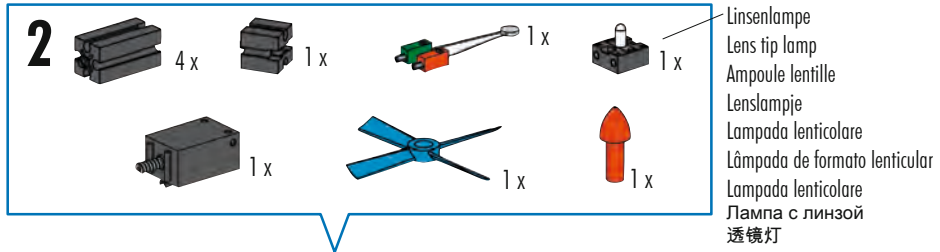
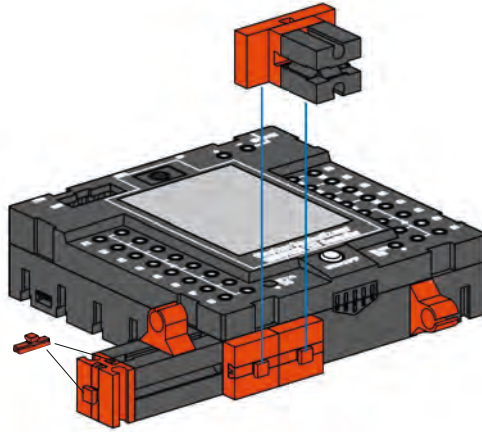
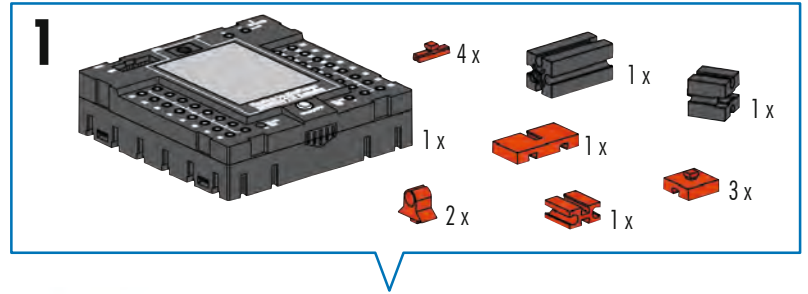
- Lichtschränke
- Light bar
- Barrage photoélectrique
- Lichtbarrière
- Barrera de luz
- Célula fotoelétrica
- Barriera luminosa
- Световой барьер
- 光栅



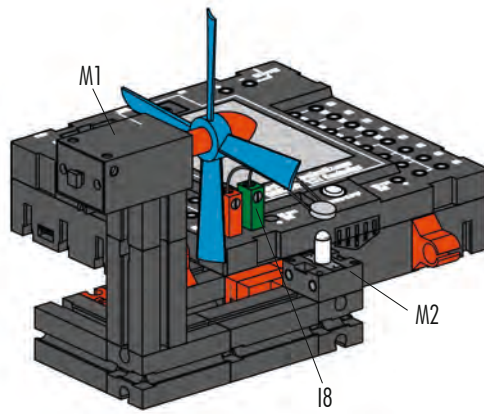
Temperaturregelung  
 Temperature control  
 Régulation de la température

Temperatuurregeling  
 Regulador de temperatura  
 Regulagem de temperatura

Regolazione temperatura  
 Регулятор температуры  
 温度调节器







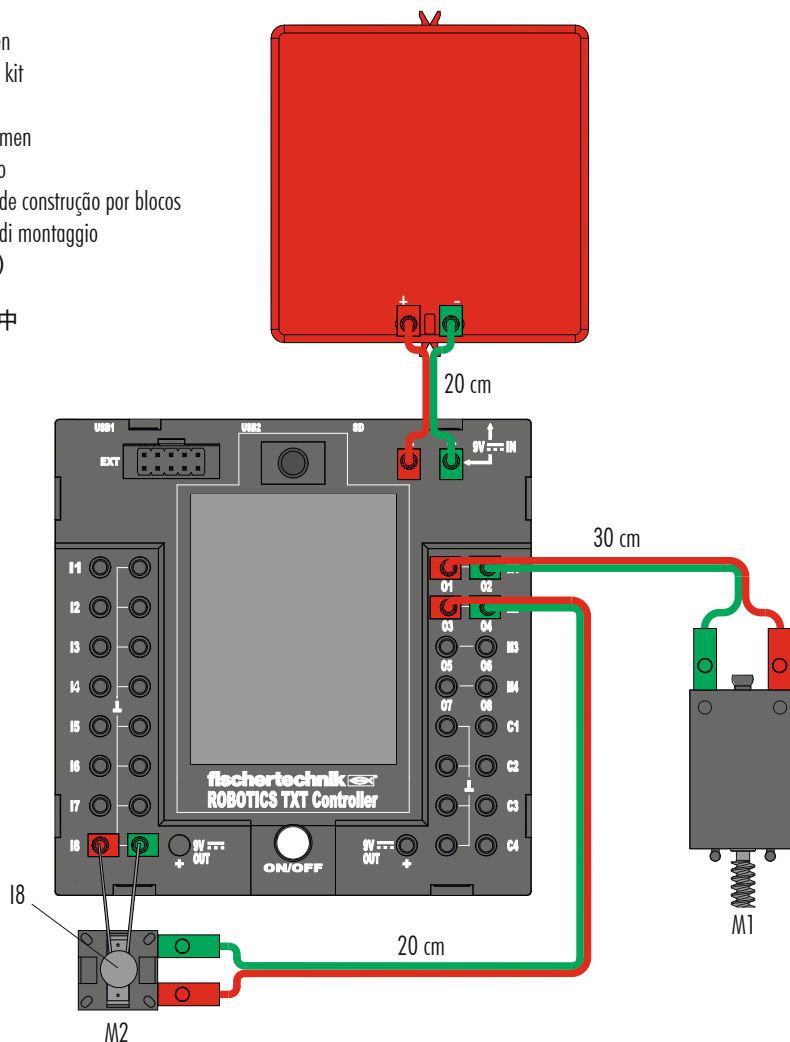
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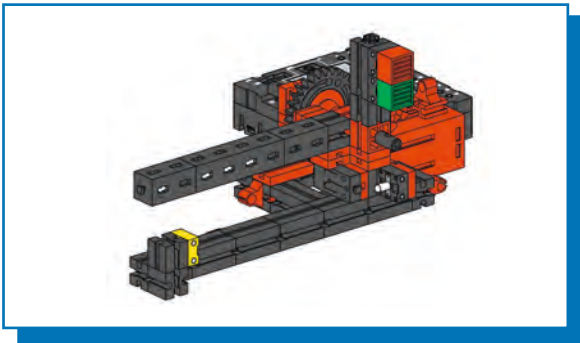
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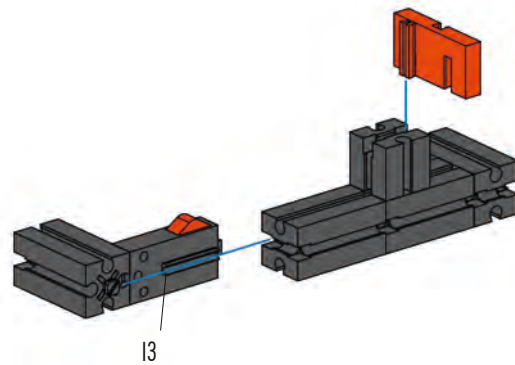
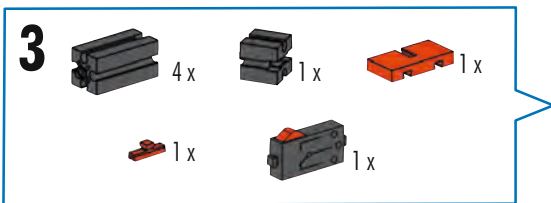
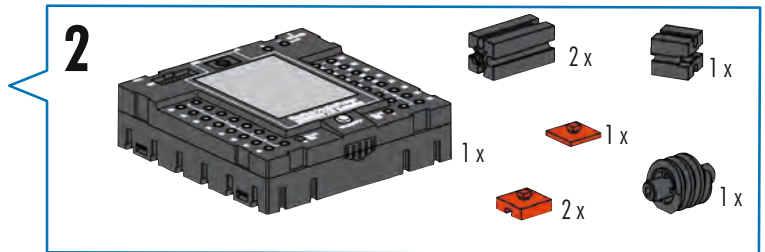
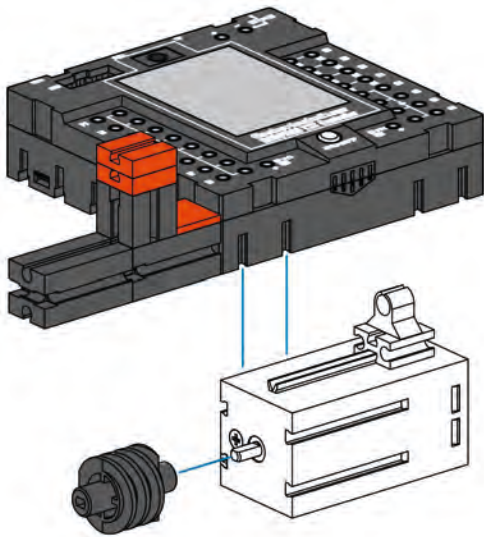
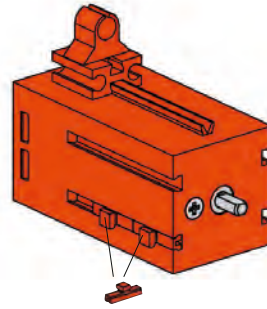
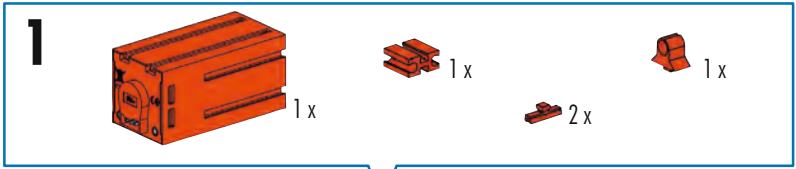


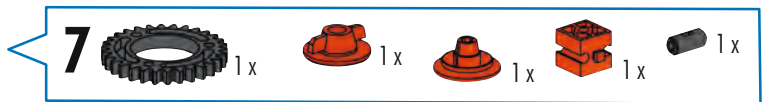
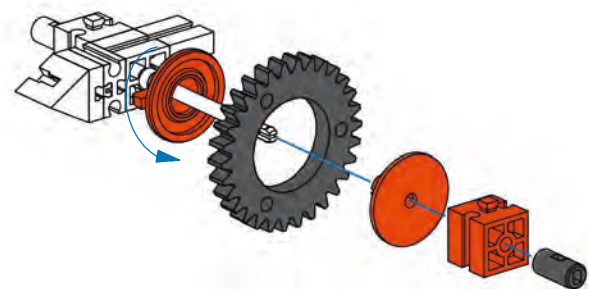
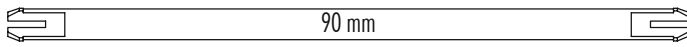
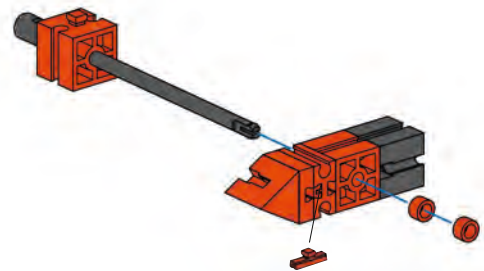
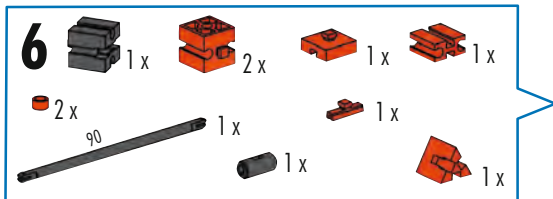
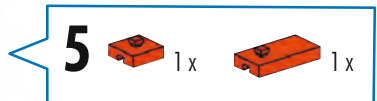
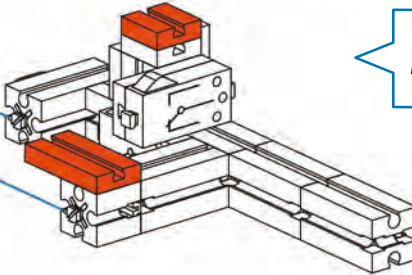
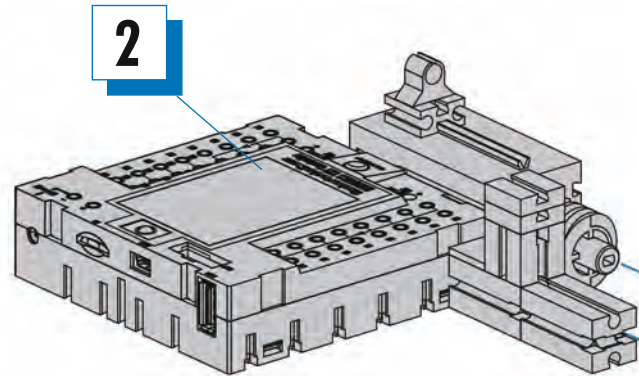
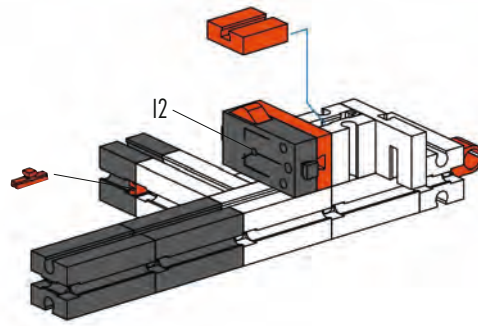
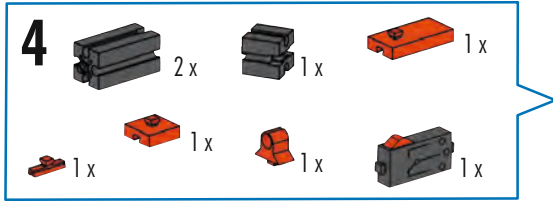


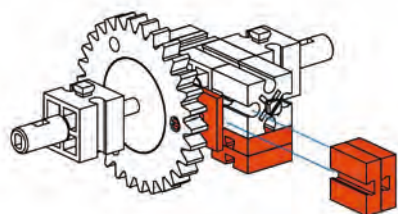
Schranke  
Barrier  
Barrière



Slagboom  
Barrera  
Barreira

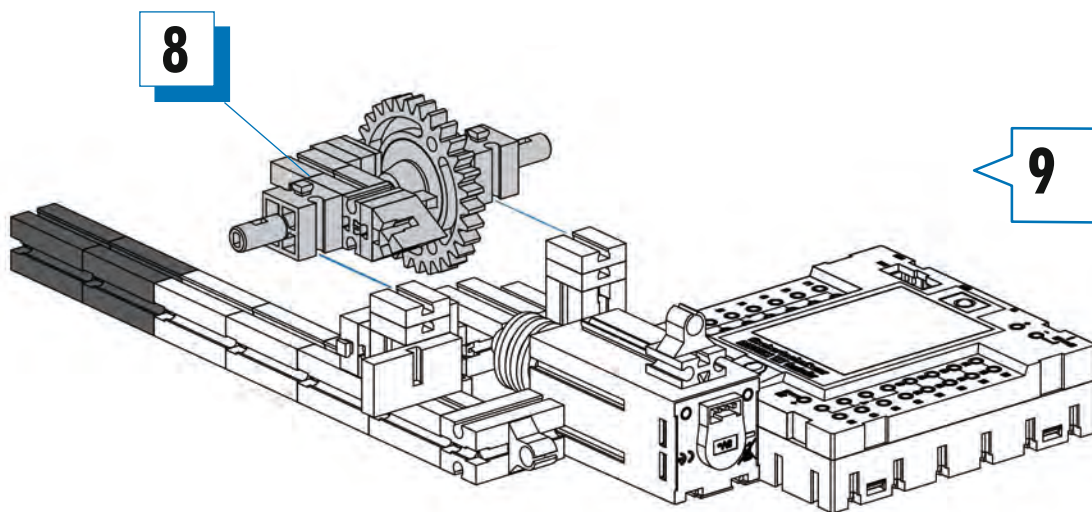
Barriera  
Шлагбаум  
栏杆


















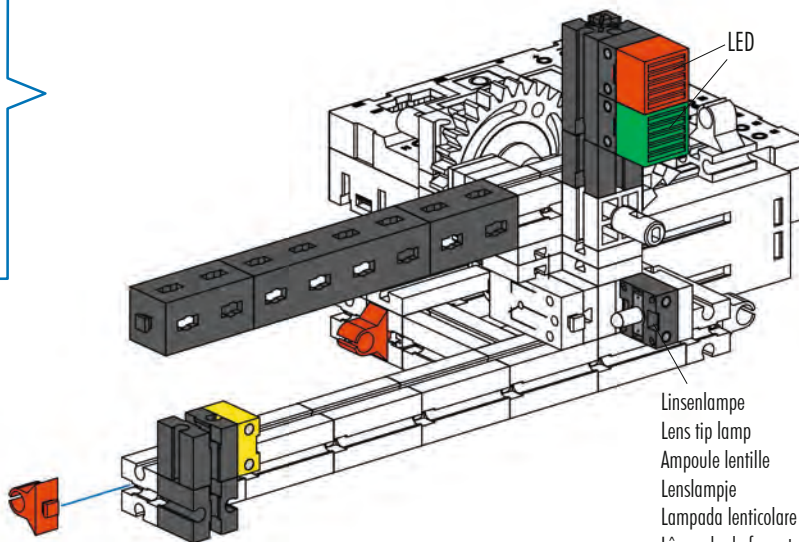
**8**  1x  4x



**8**

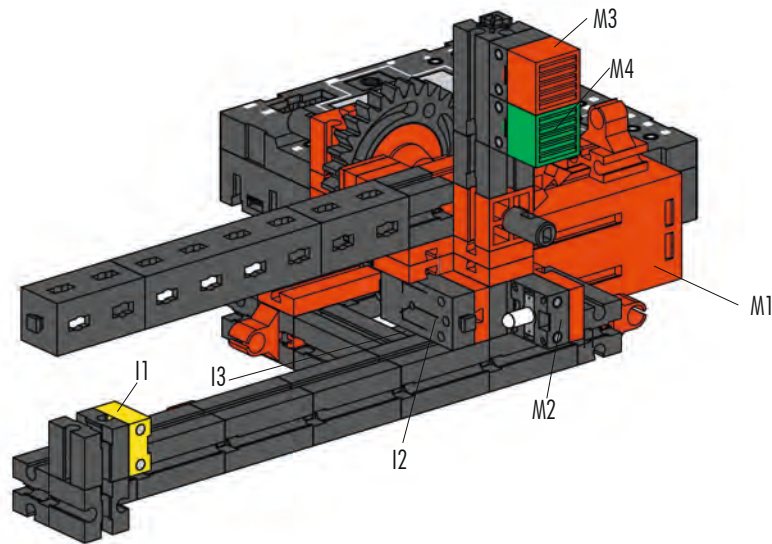
**9**  2x

**10**  1x  3x  2x  
 1x  1x  2x  
 2x  1x  1x  1x



LED

- Linsenlampe
- Lens tip lamp
- Ampoule lentille
- Lenlampje
- Lampada lenticolare
- Lâmpada de formato lenticular
- Lampada lenticolare
- Лампа с линзой
- 透镜灯



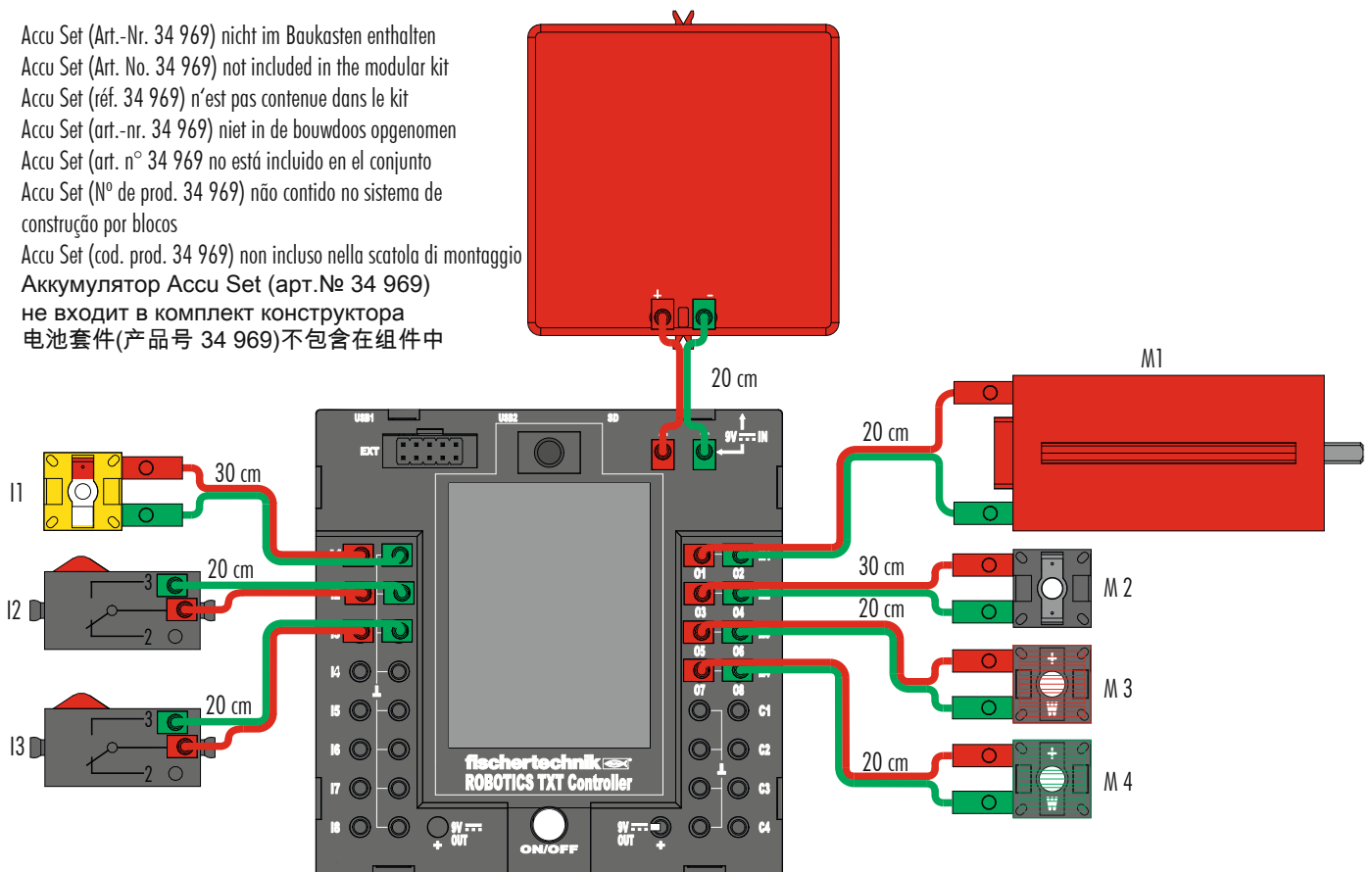
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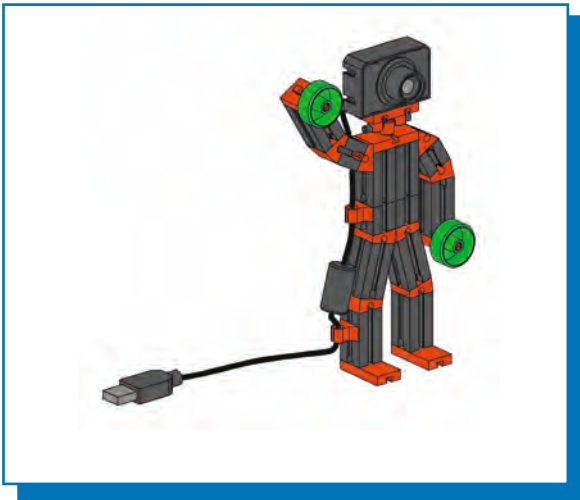
**Schaltplan**  
**Circuit diagram**  
**Plan électrique**

**Schakelschema**  
**Diagrama de circuitos**  
**Plano elétrico de ligação**

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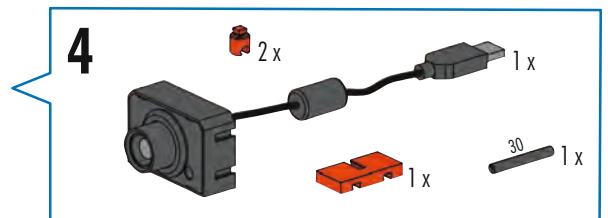
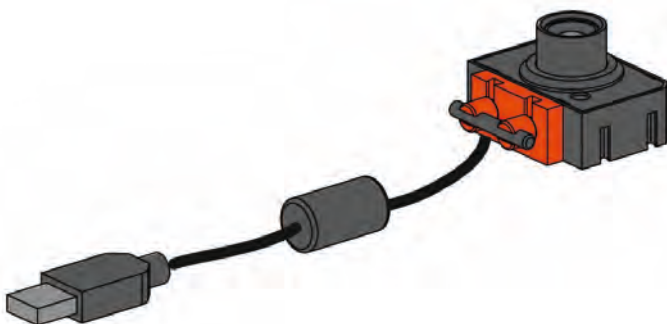
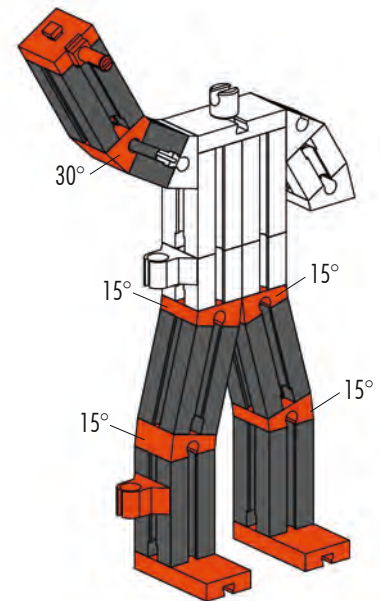
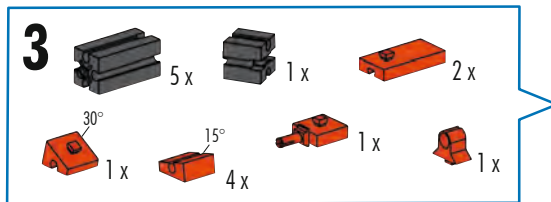
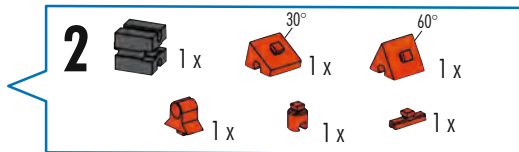
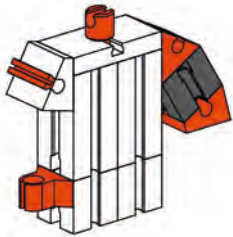
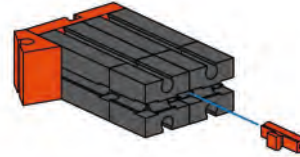




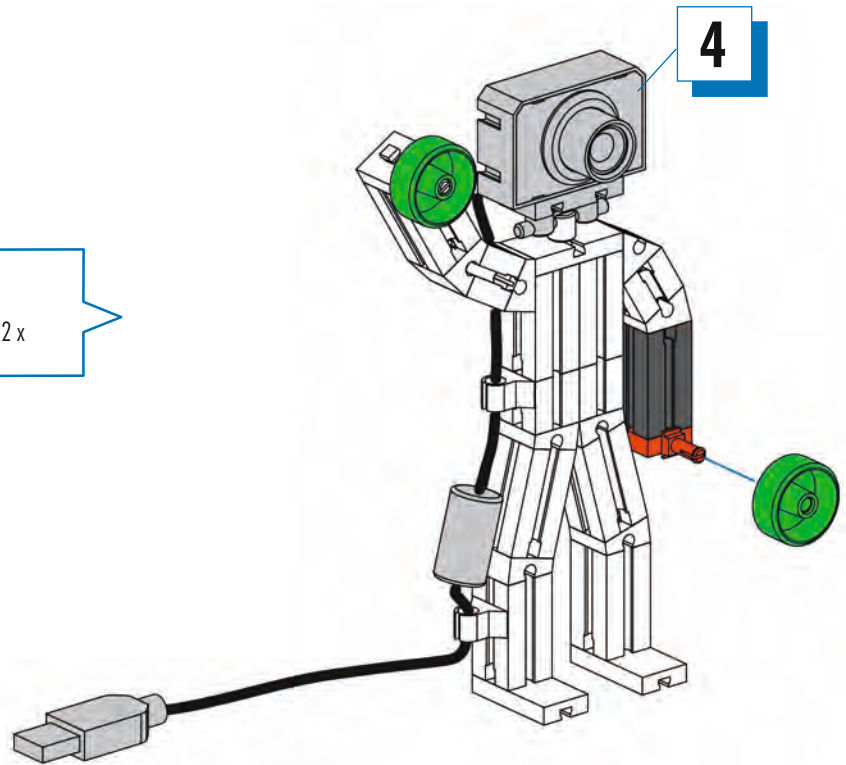
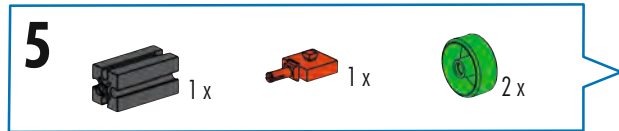
**Kameramann**  
**Camera man**  
**Cadreur**

**Cameraman**  
**Operador de cámara**  
**Cinegrafista**

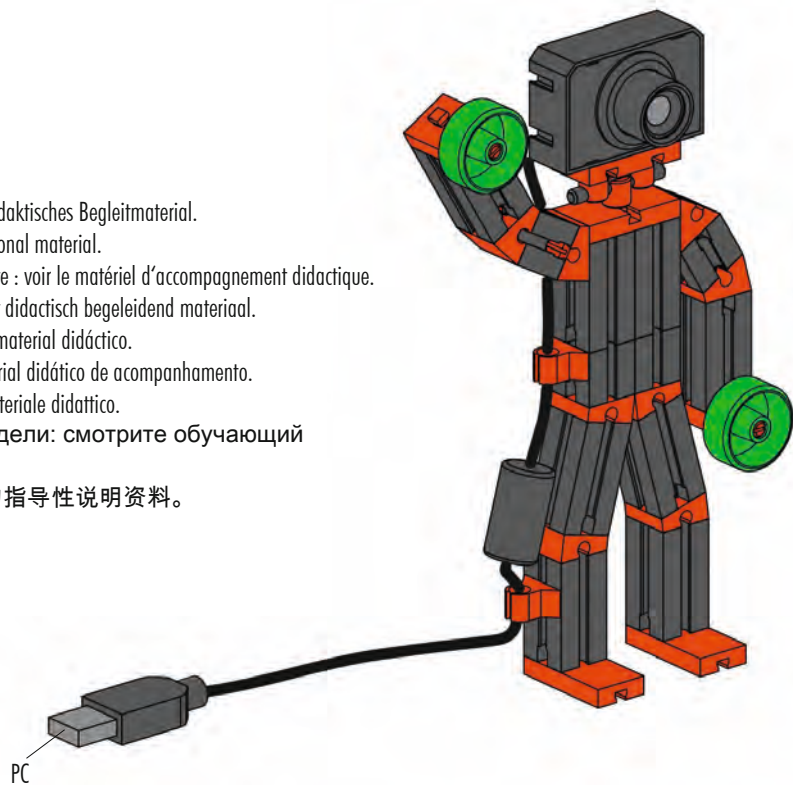
**Самерман**  
**Оператор с камерой**  
**摄影师**

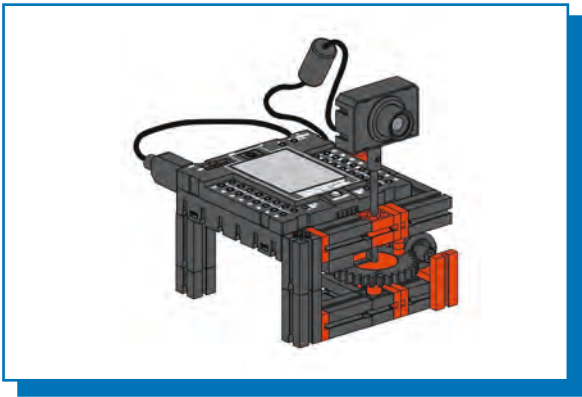


30 mm



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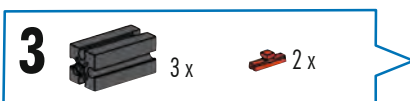
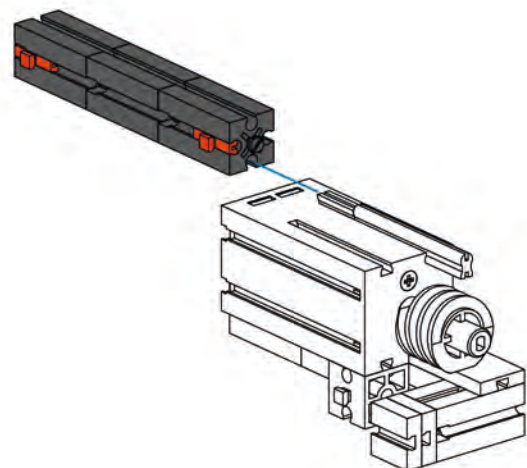
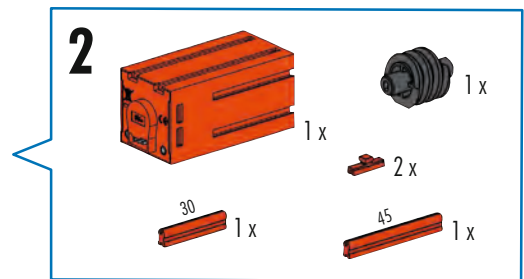
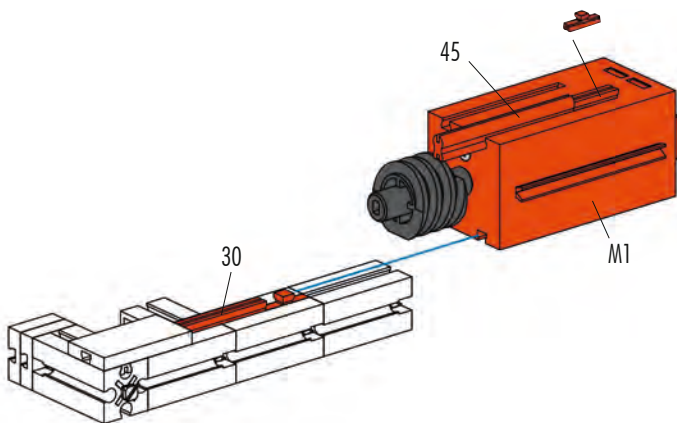
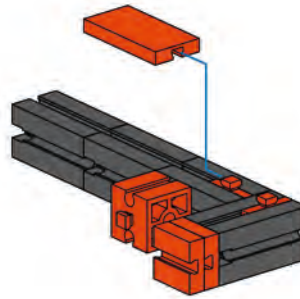




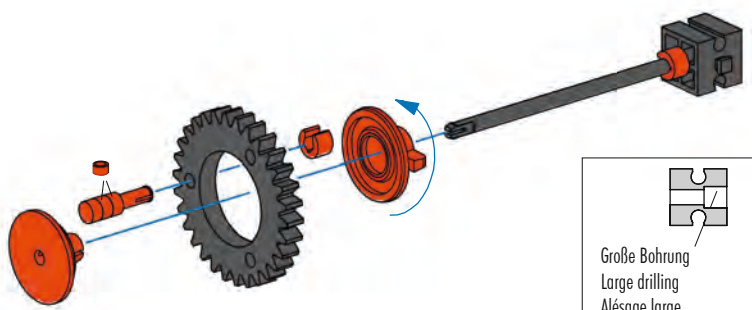
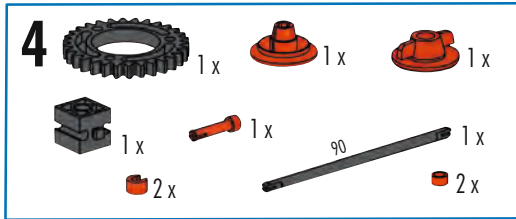
Schwenkbare Kamera  
Swiveling camera  
Cámara orientable

Zwenkbare camera  
Cámara basculante  
Câmera giratória

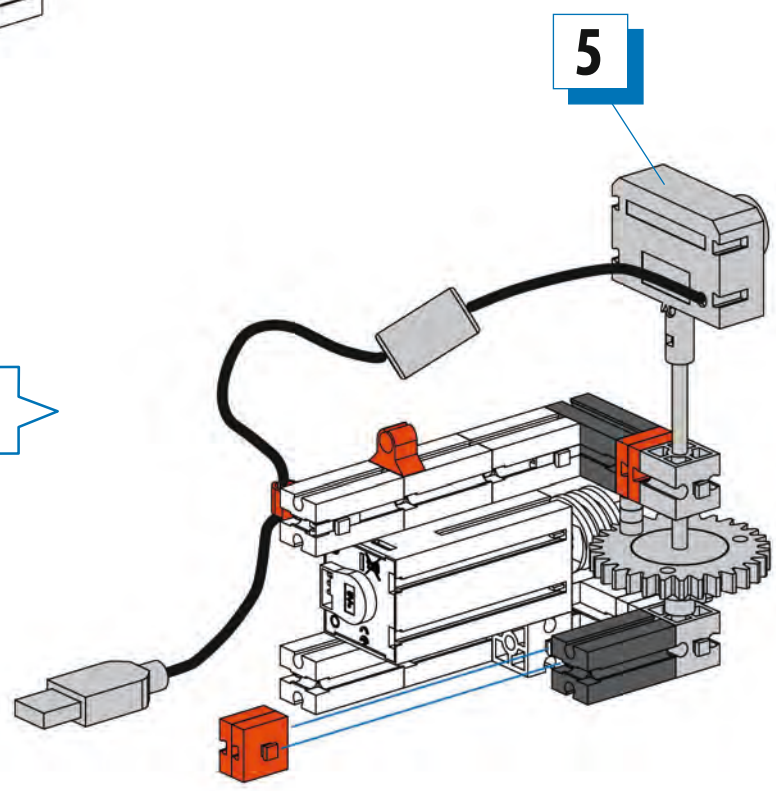
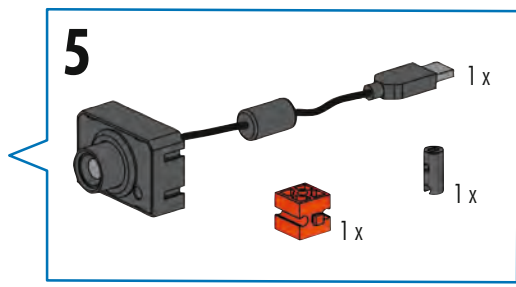
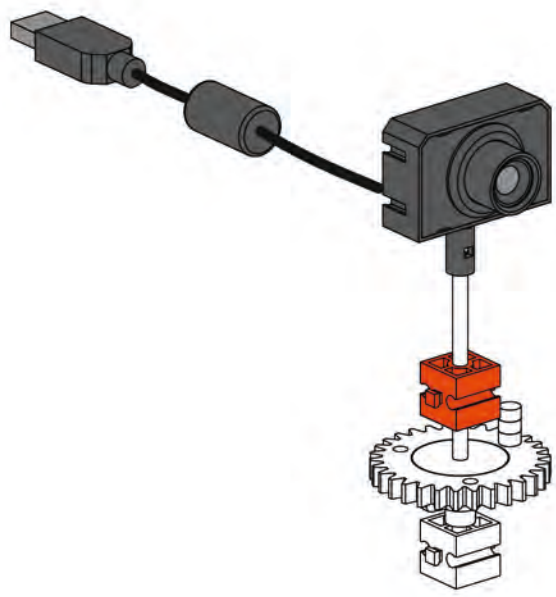
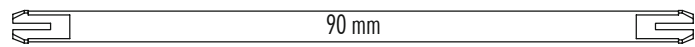
Camera orientabile  
Поворотная камера  
可回轉的照相机

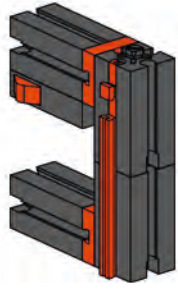










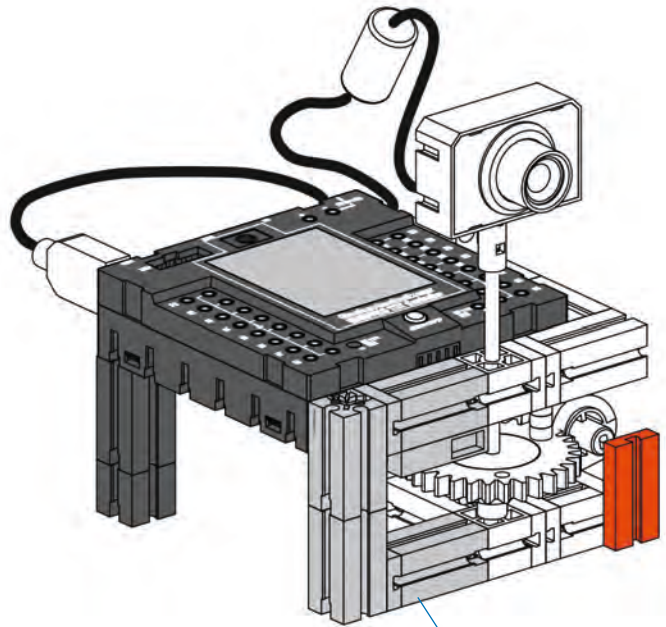
Große Bohrung  
Large drilling  
Alésage large  
Grote boring  
Perforación grande  
Orificio grande  
Grande foro  
Большое отверстие  
大孔



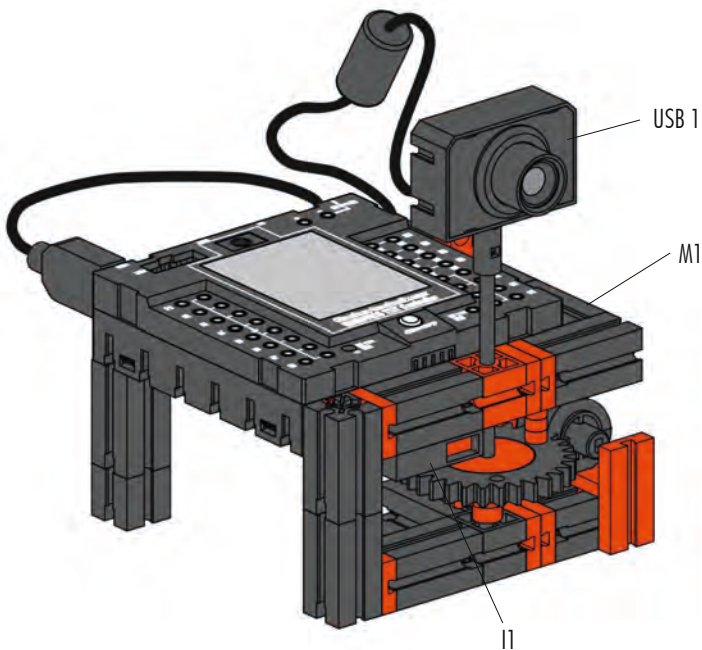


**7**  4x  1x  2x  1x  1x

**8**  1x  1x  1x  1x



**7**

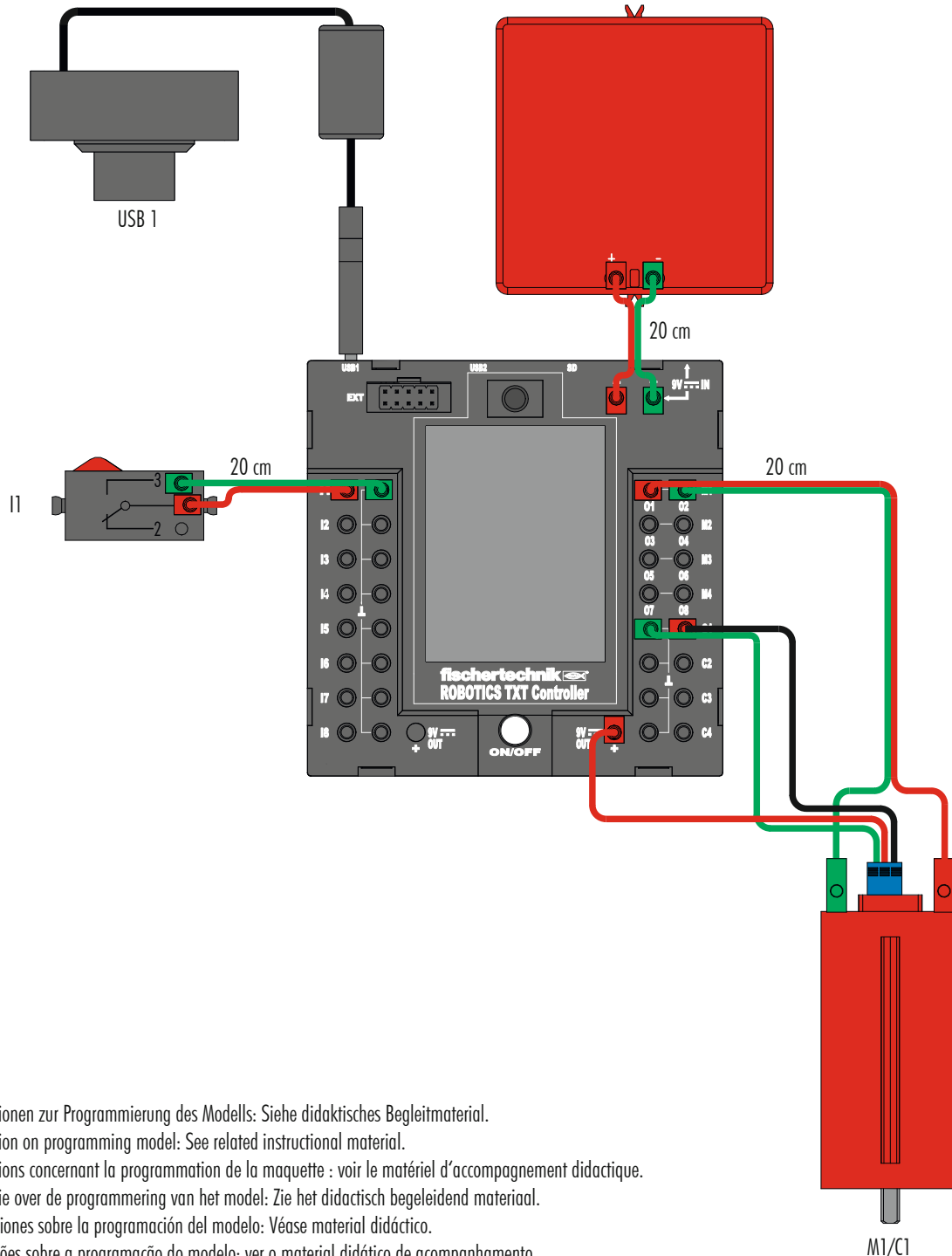


**Schaltplan**  
**Circuit diagram**  
**Plan électrique**

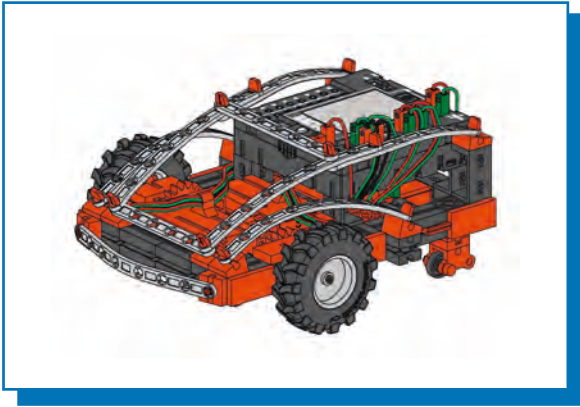
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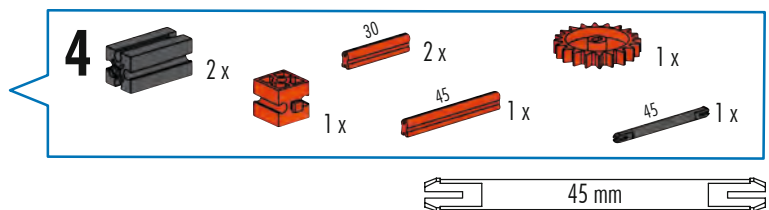
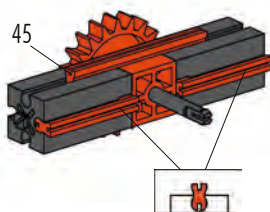
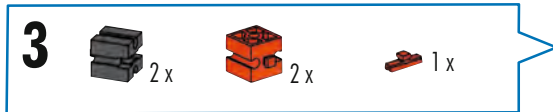
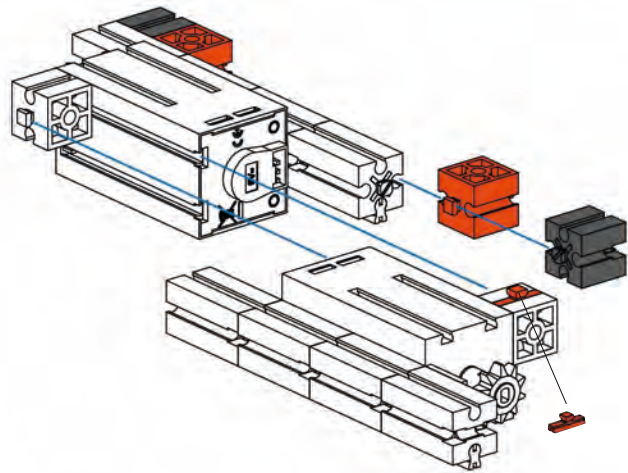
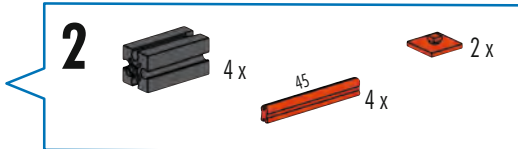
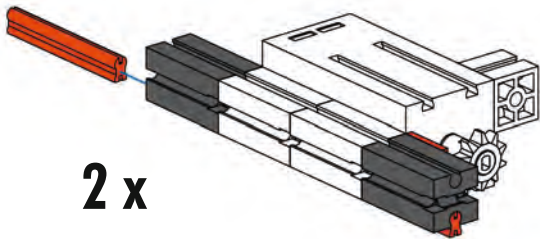
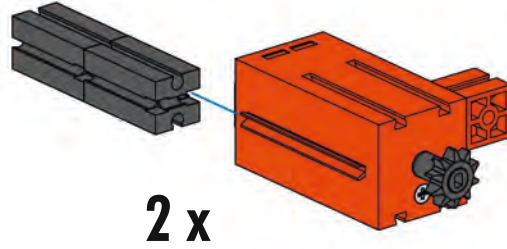
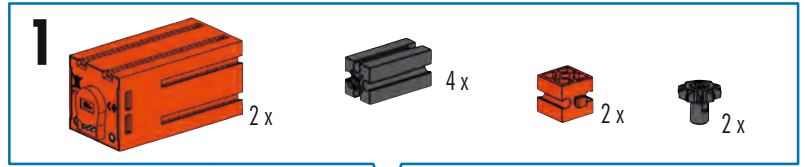
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Fahroboter  
Mobile robot  
Véhicule robot

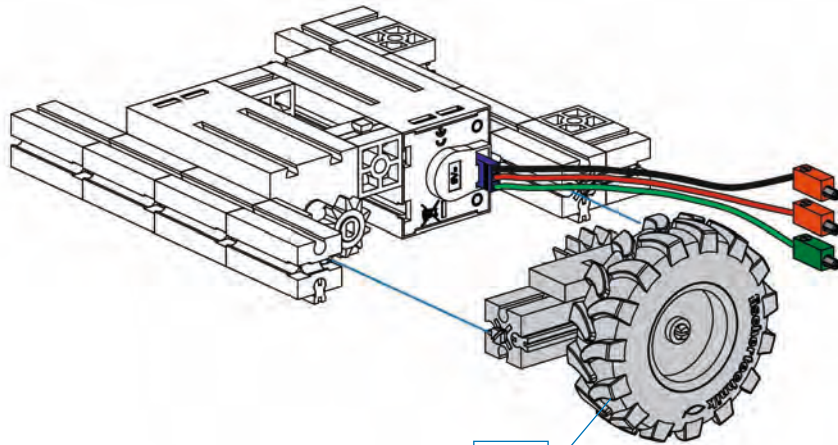
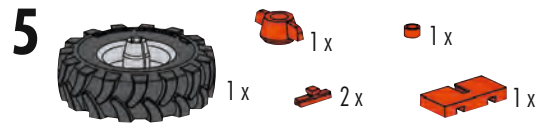
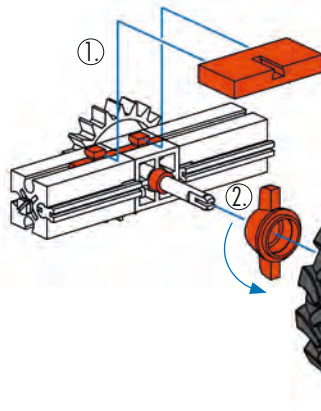
Rijrobot  
Robot desplazable  
Robô condutor

Robot mobile  
Робот-автомобиль  
机器人车

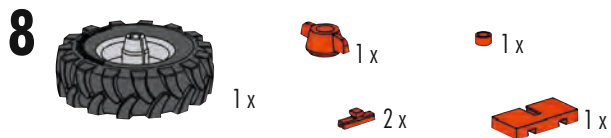
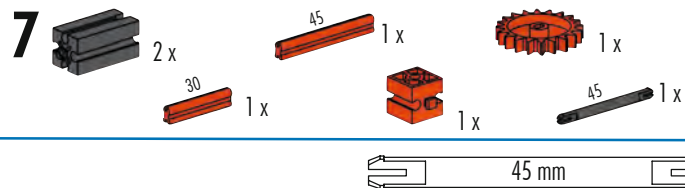
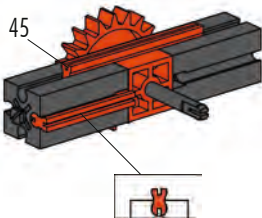




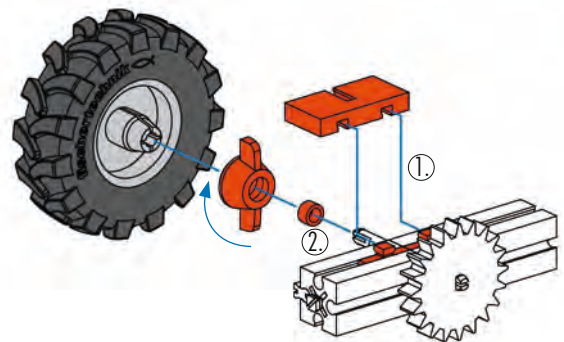
- Nabenmuttern festdrehen
- Fasten the hub nuts home
- Serrer les écrous de moyeu
- Draai de naafmoeren vast
- Atornillar las tuercas laterales
- Apertar bem as porcas de cubo
- Stringere i dadi dei mozzi
- Затянуть гайки ступиц
- 拧紧

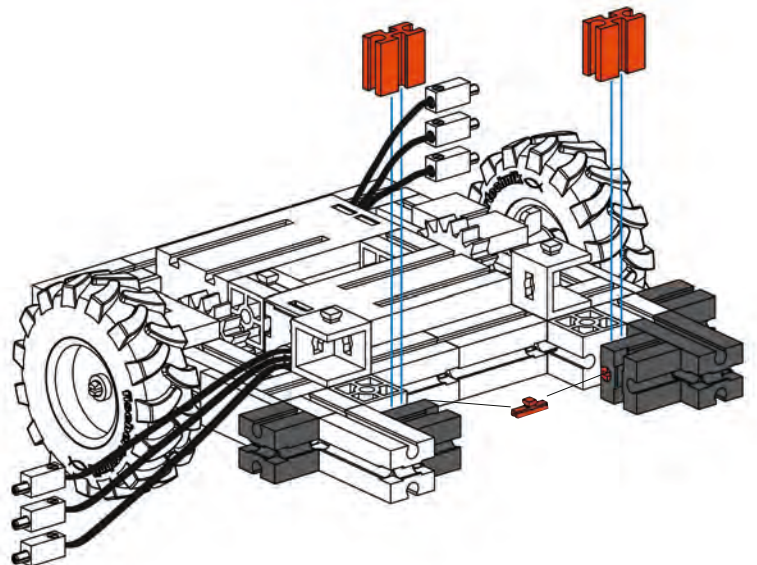
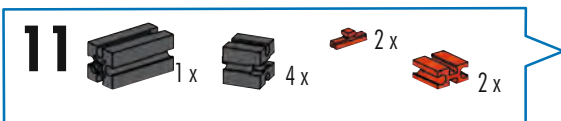
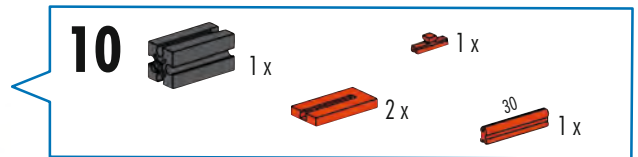
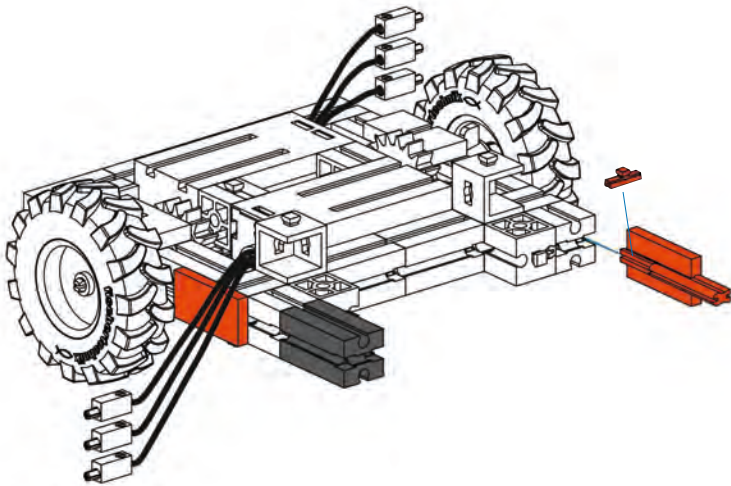
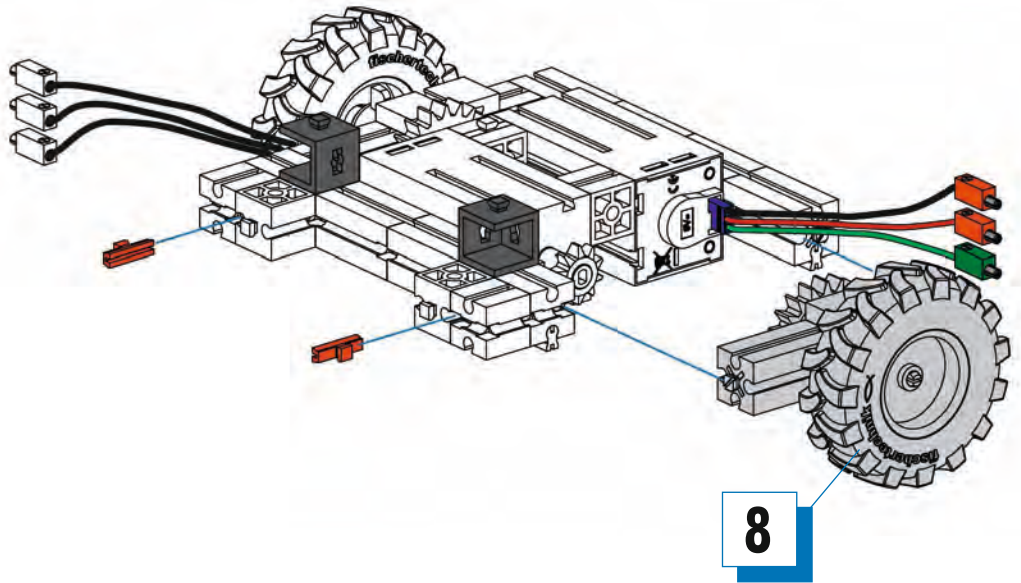
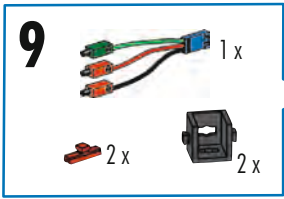


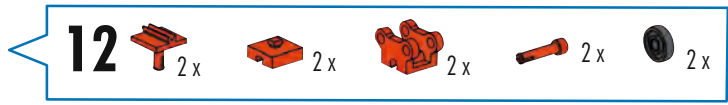
**5**



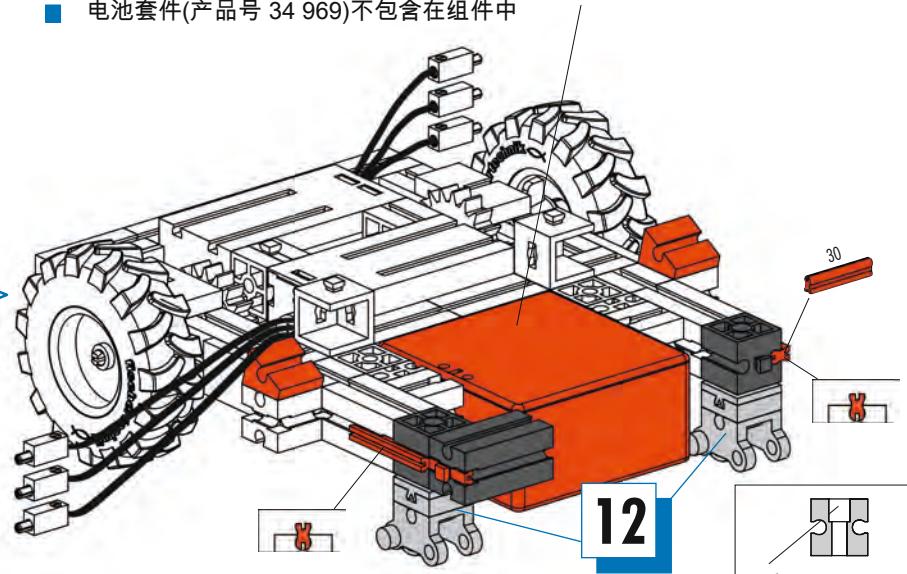
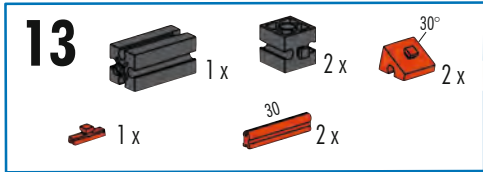
- Nabenmuttern festdrehen
- Fasten the hub nuts home
- Serrer les écrous de moyeu
- Draai de naafmoeren vast
- Atornillar las tuercas laterales
- Apertar bem as porcas de cubo
- Stringere i dadi dei mozzi
- Затянуть гайки ступиц
- 拧紧



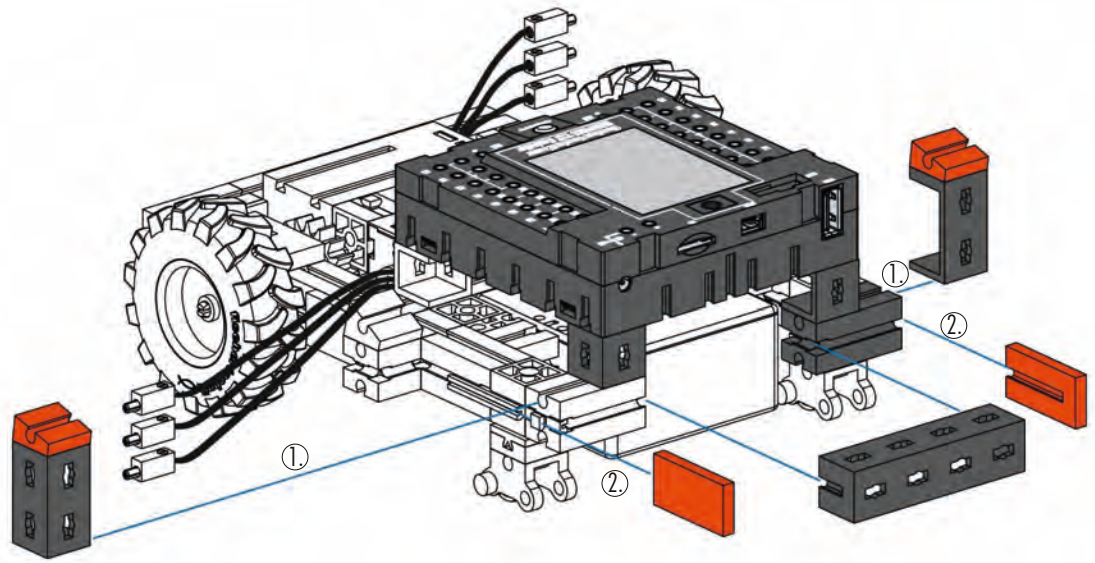
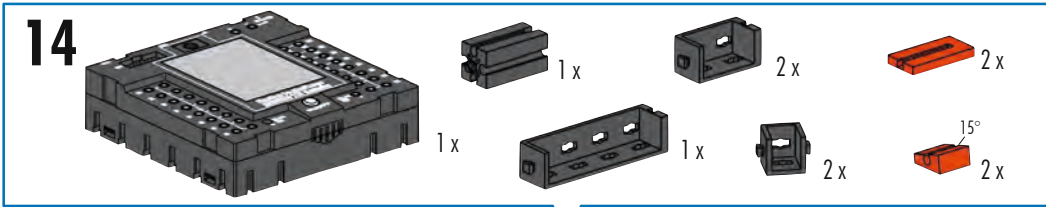


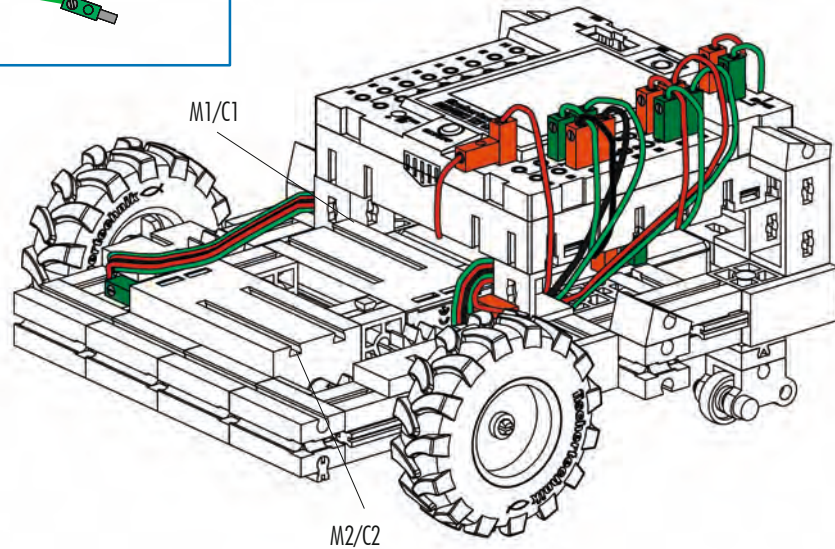
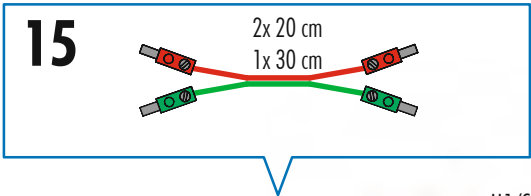


- Accu Set (Art.-Nr. 34 969) nicht im Baukasten enthalten
- Accu Set (Art. No. 34 969) not included in the modular kit
- Accu Set (réf. 34 969) n'est pas contenue dans le kit
- Accu Set (art.-nr. 34 969) niet in de bouwdoos opgenomen
- Accu Set (art. n° 34 969) no está incluido en el conjunto
- Accu Set (Nº de prod. 34 969) não contido no sistema de construção por blocos
- Accu Set (cod. prod. 34 969) non incluso nella scatola di montaggio
- Аккумулятор Accu Set (арт.№ 34 969) не входит в комплект конструктора
- 电池套件(产品号 34 969)不包含在组件中



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



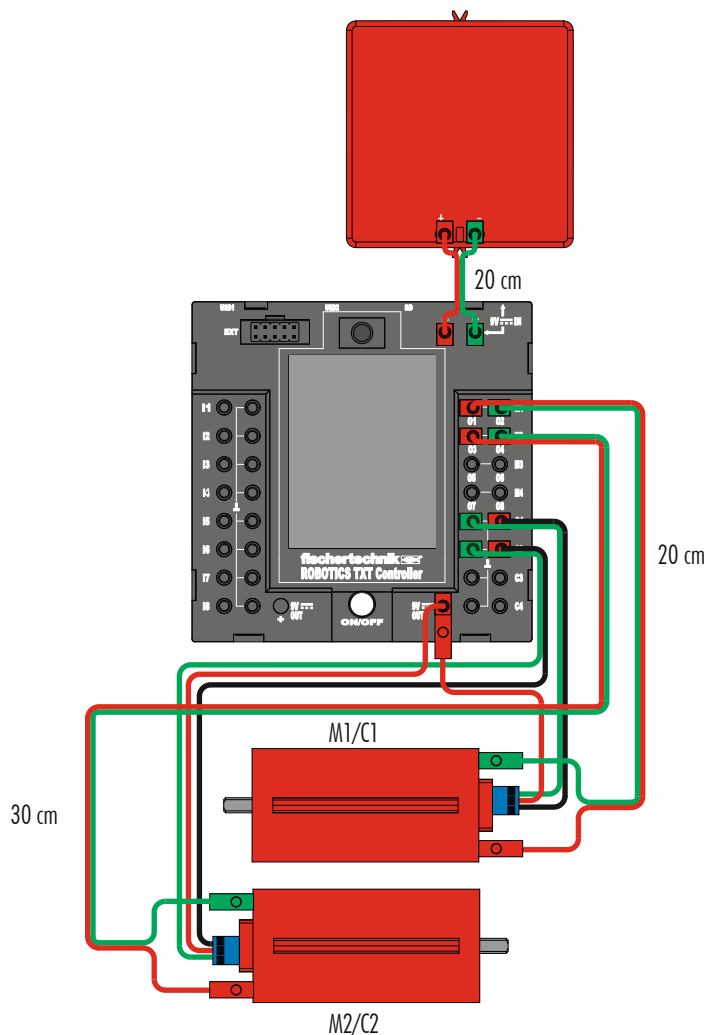


- Informationen zur Programmierung des Modells: Siehe didaktisches Begleitmaterial.
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




**Schaltplan**  
**Circuit diagram**  
**Plan électrique**

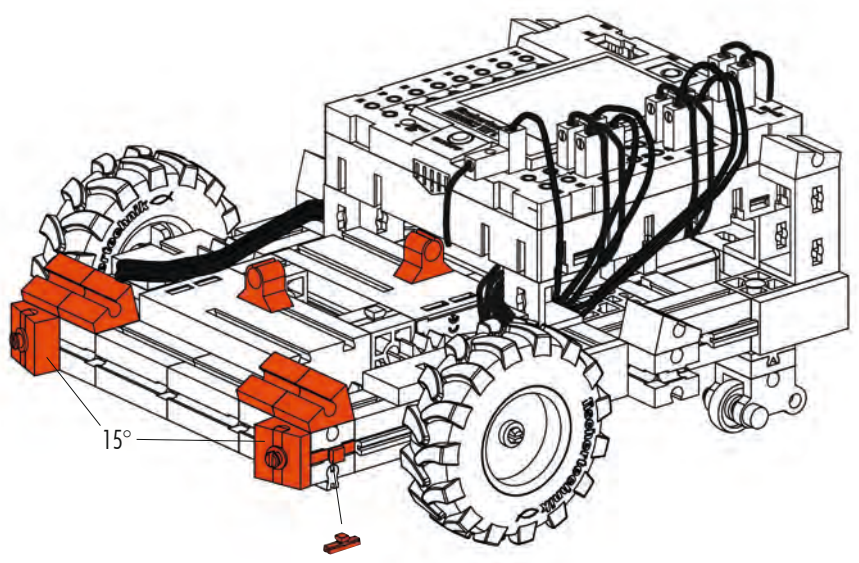
**Schakelschema**  
**Diagrama de circuitos**  
**Plano elétrico de ligação**

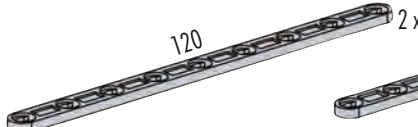
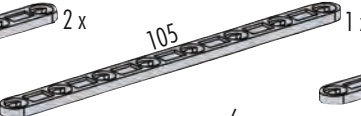
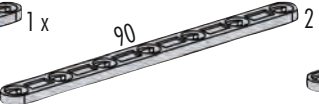
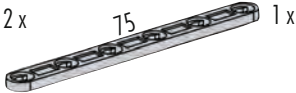



**Schema elettrico**  
**Схема подключения**  
**电路图**

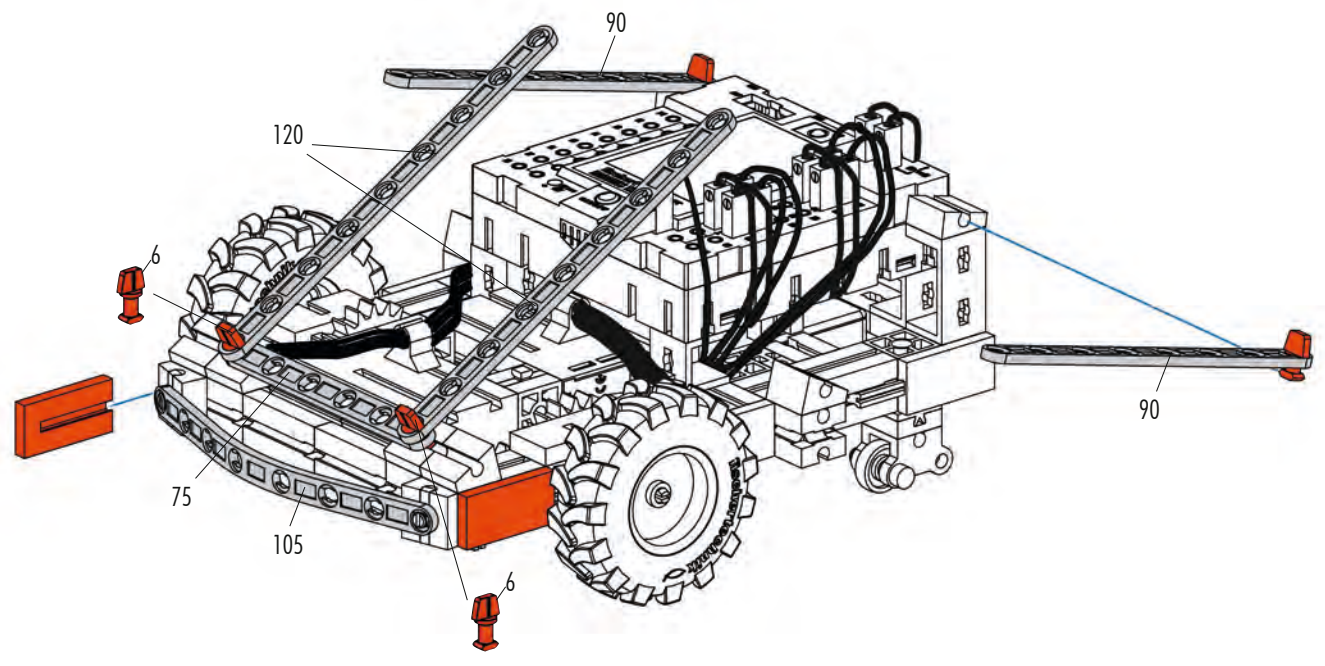
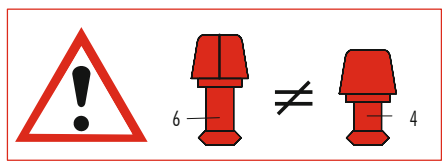




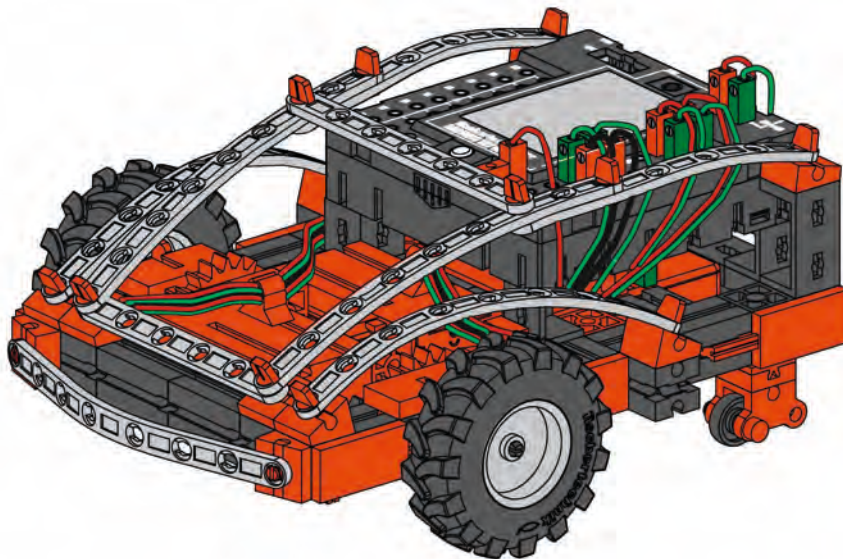
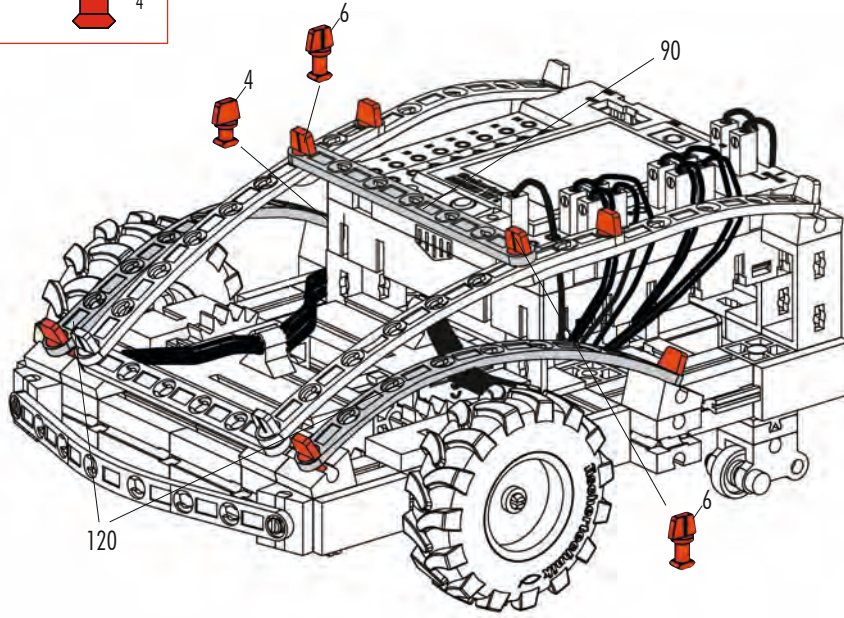
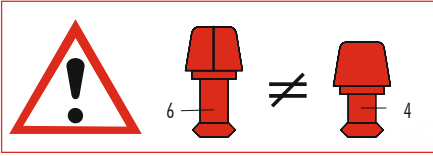
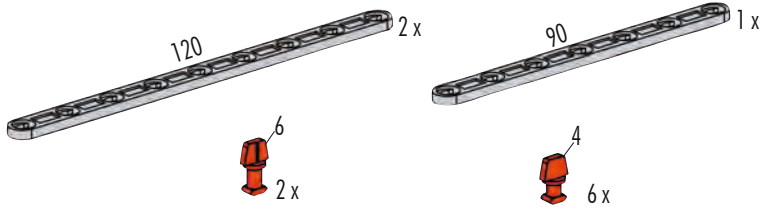
- 16**
-  4x
  -  2x
  -  1x
  -  2x
  -  2x

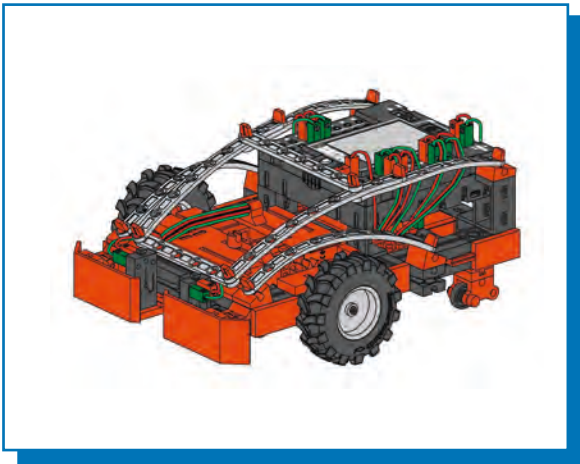


- 17**
-  2x
  -  1x
  -  2x
  -  1x
  -  2x
  -  2x
  -  2x



18





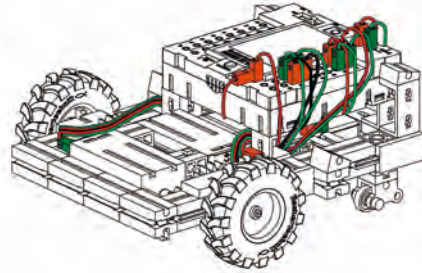
Hinderniserkenner  
Hindrance detector  
Détecteur d'obstacles

Obstakeldetector  
Detector de obstáculos  
Identificador de obstáculos

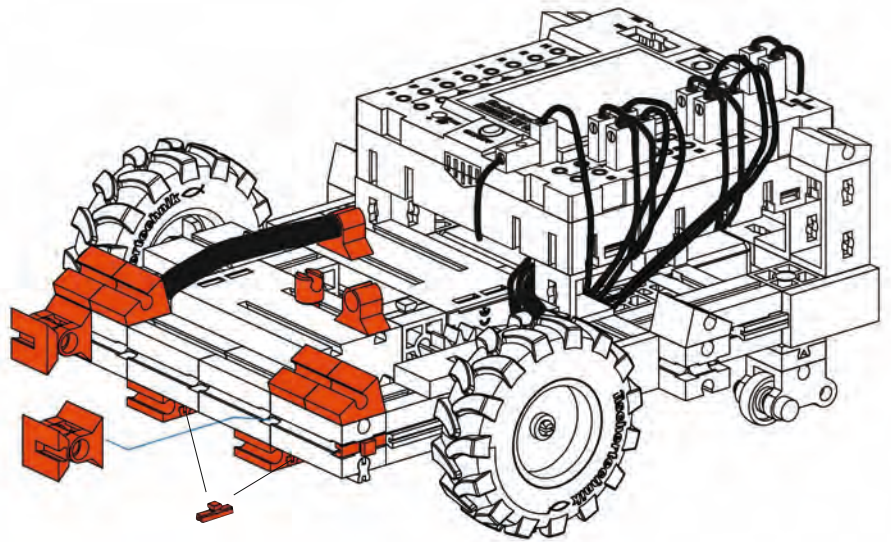
Rilevatore di ostacoli  
Обнаружитель препятствий  
障碍物识别车

# 1-15

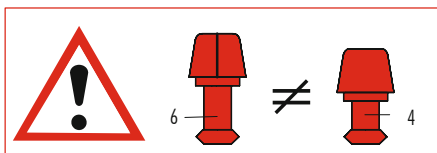
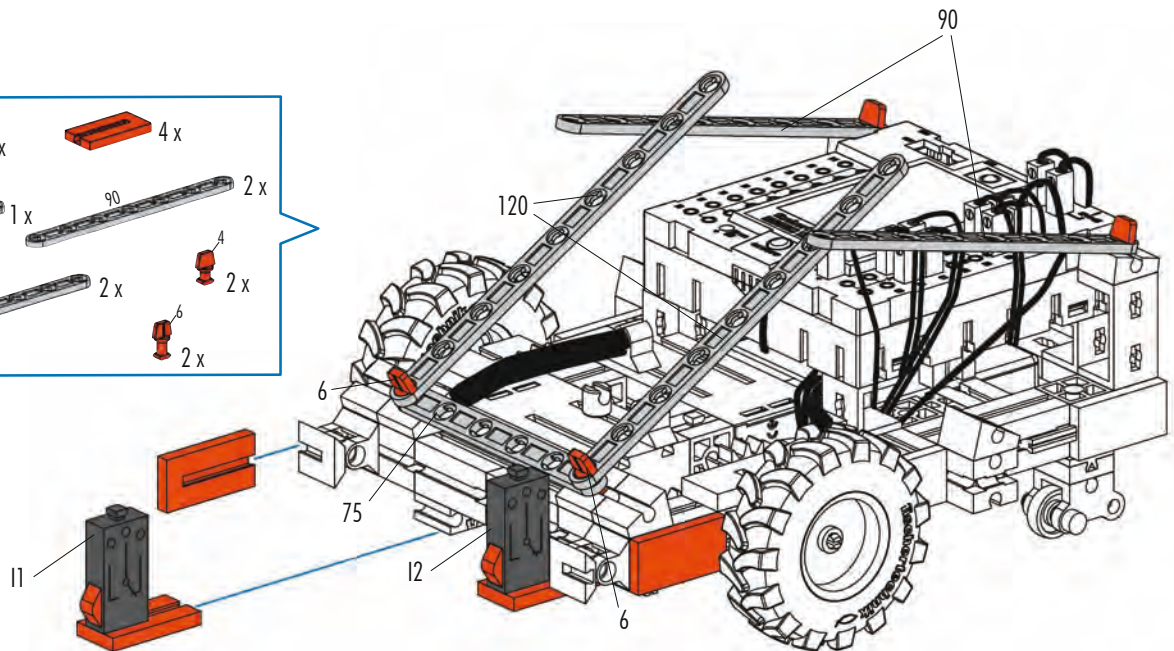
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Страница	26
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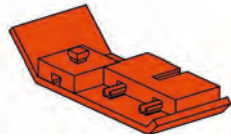


**16**



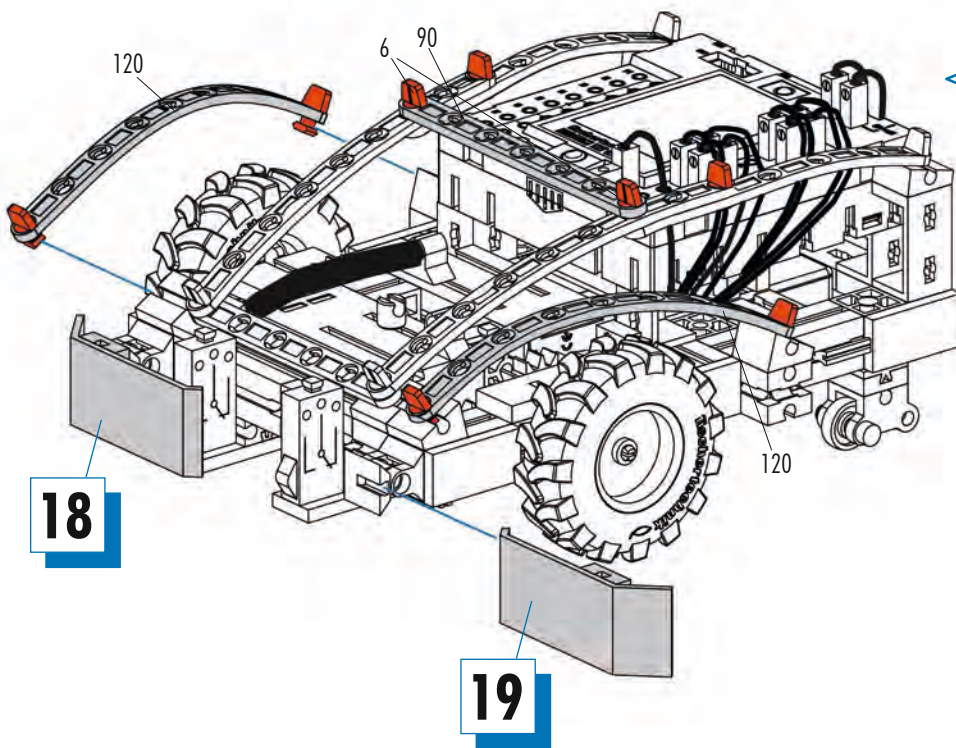
**17**








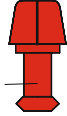
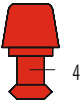


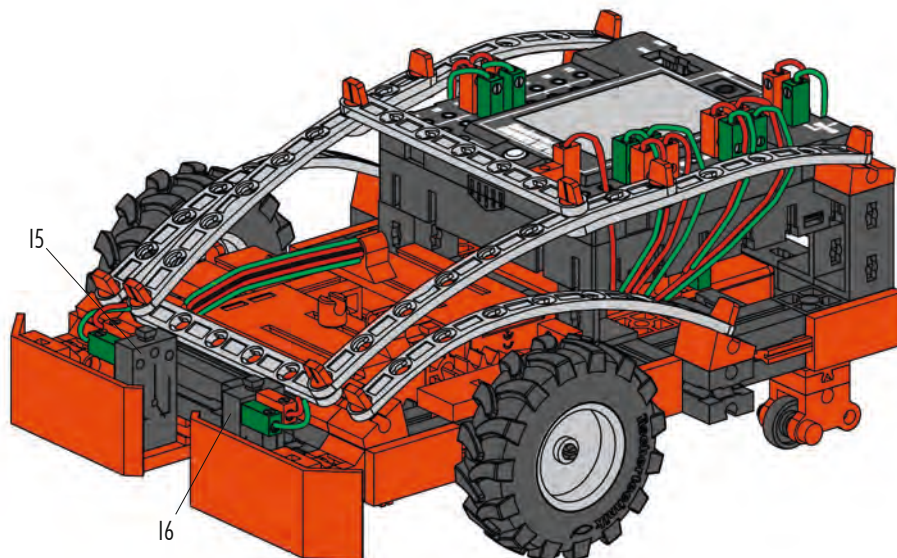
**18**  1x  1x  1x

**19**  1x  1x  1x



**20**  2x  1x  2x  6x

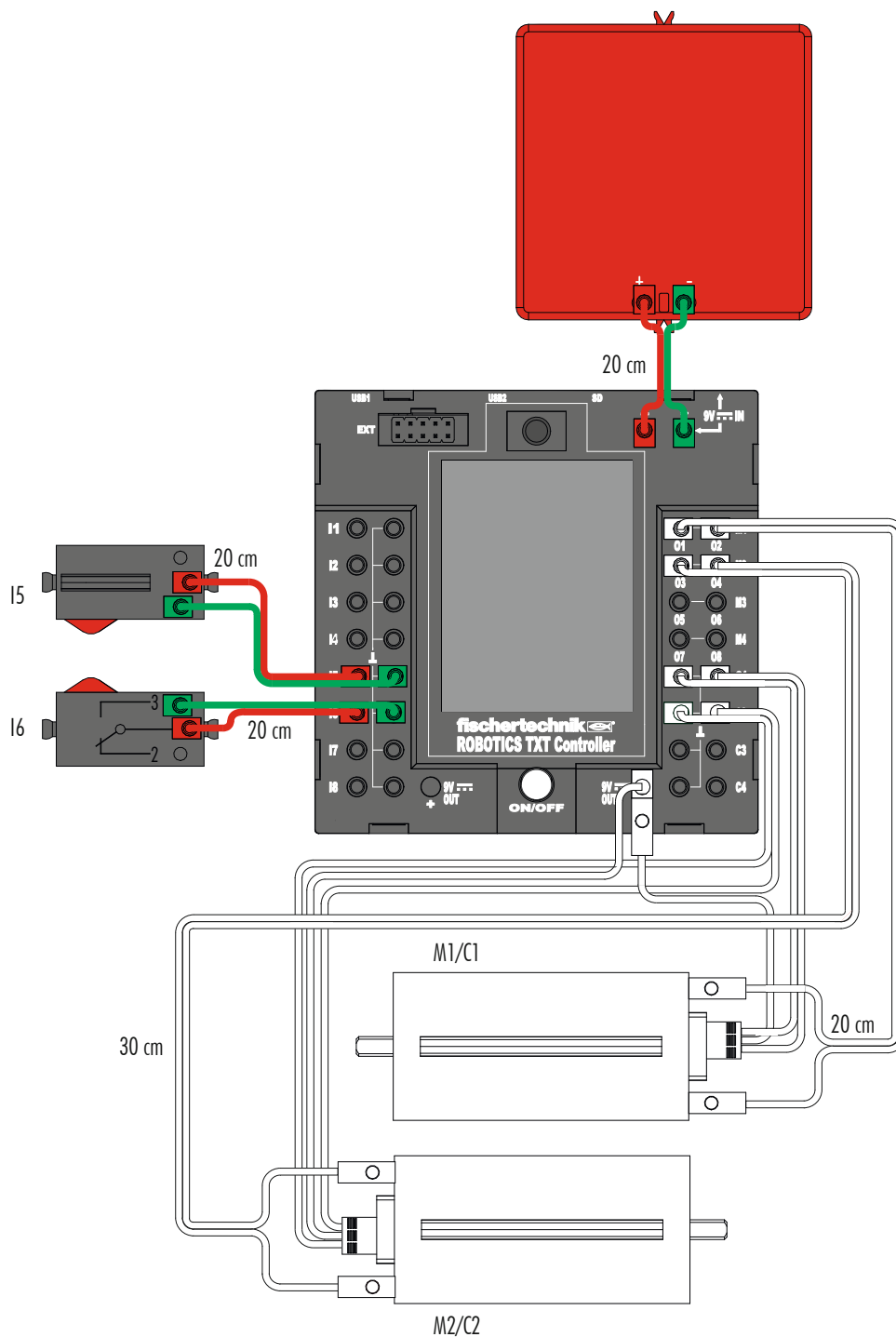
  6  $\neq$   4



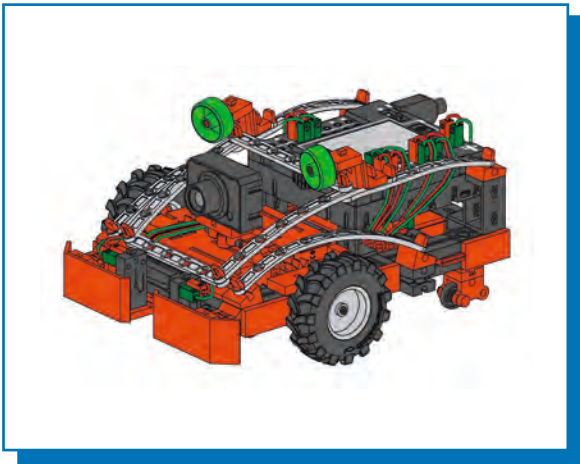
Schaltplan  
Circuit diagram  
Plan électrique

Schakelschema  
Diagrama de circuitos  
Plano elétrico de ligação

Schema elettrico  
Схема подключения  
电路图



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- 有关该模型编程的信息：见 CD 光盘上的指导性说明资料。



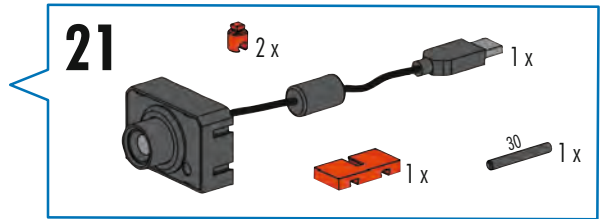
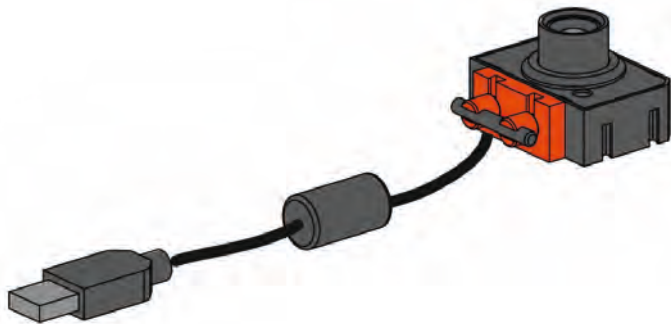
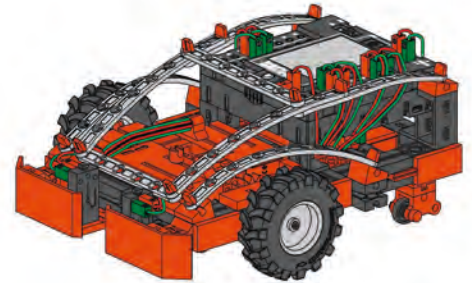
Hinderniserkenner mit Kamera  
 Hindrance detector with camera  
 Détecteur d'obstacles avec caméra

Obstakeldetector met camera  
 Detector de obstáculos con cámara  
 Identificador de obstáculos con cámara

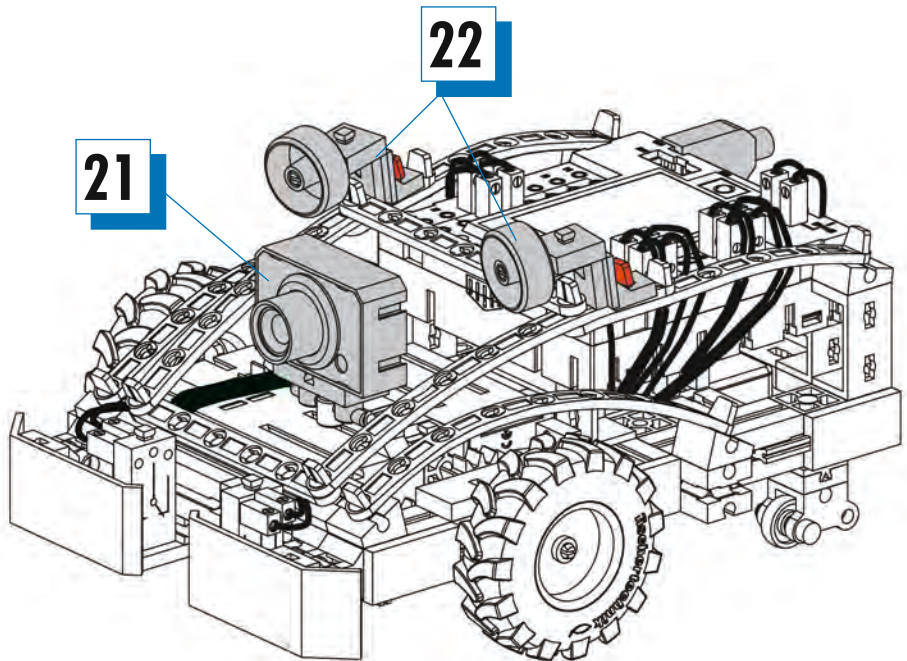
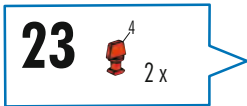
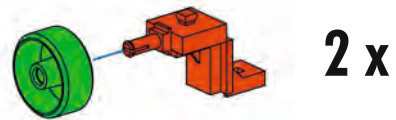
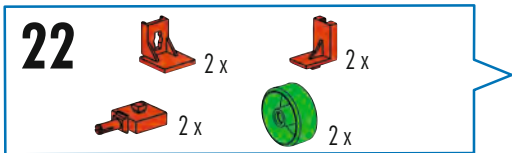
Rilevatore di ostacoli con camera  
 Обнаружитель препятствий с камерой  
 配备照相机的障碍物识别车

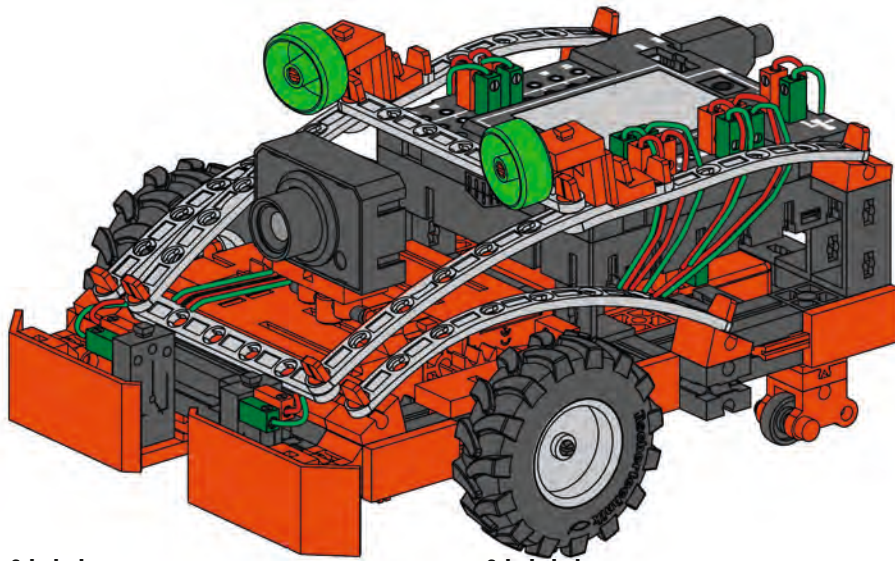
# 1-20

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30 mm



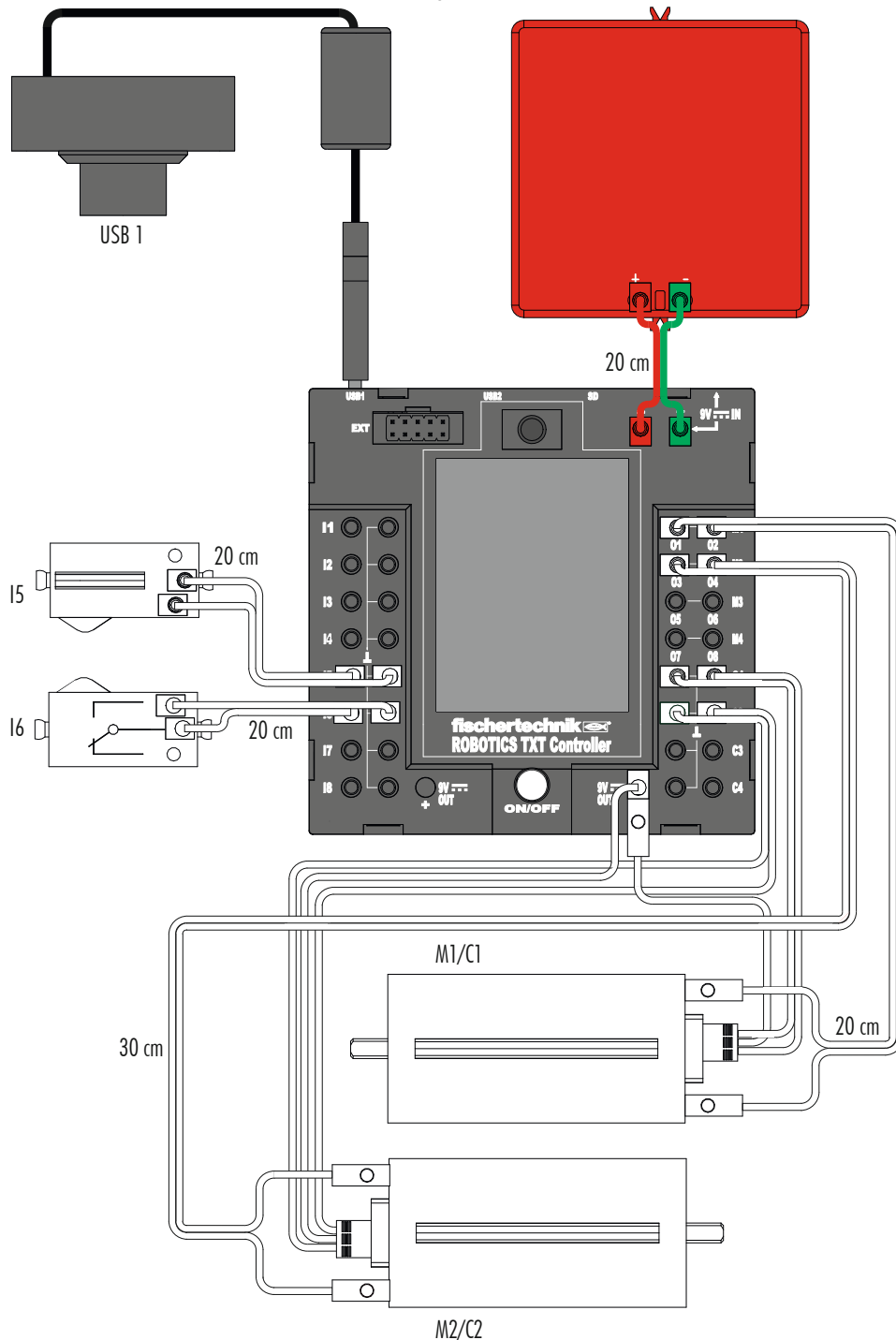


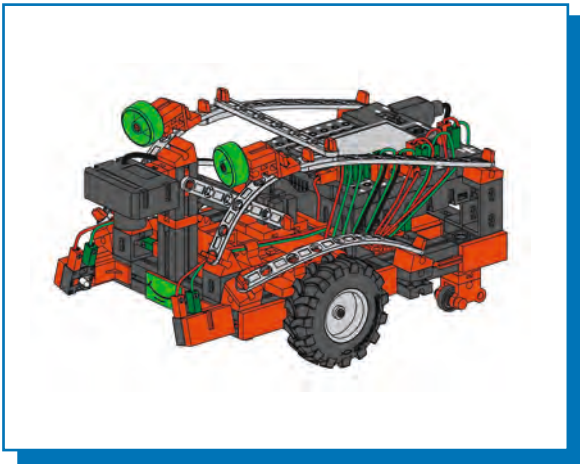
- Informationen zur Programmierung des Modells:  
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didático de acompanhamento.
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vedi materiale didattico.
- Информация о программировании модели:  
смотрите обучающий сопроводительный  
материал на CD.
- 有关该模型编程的信息：见 CD 光盘上的指导性说明  
资料。

**Schaltplan**  
Circuit diagram  
Plan électrique

**Schakelschema**  
Diagrama de circuitos  
Plano elétrico de ligação

**Schema elettrico**  
Схема подключения  
电路图





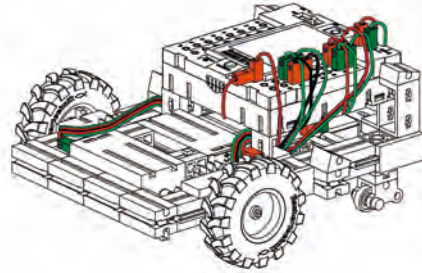
Spurensucher  
Trail searcher  
Dépisteur

Sporenzoeker  
Rastreador  
Detector de pistas

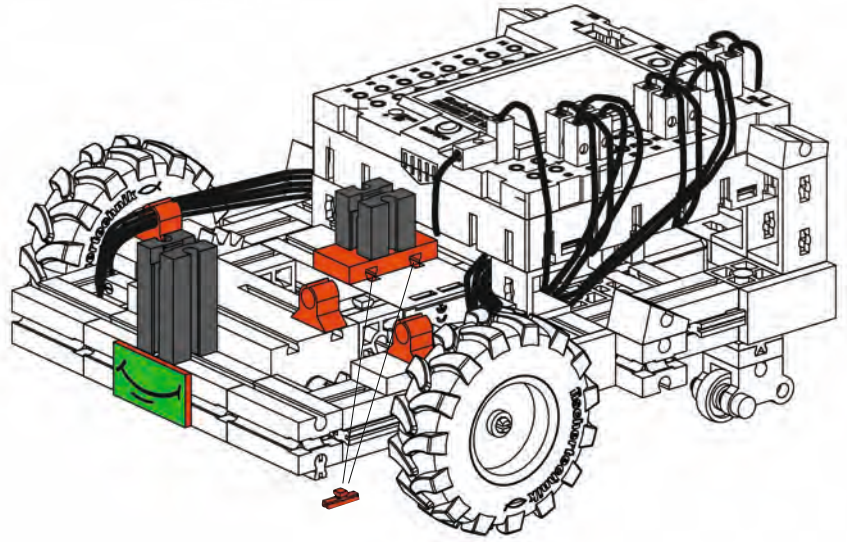
Robot di rilevamento  
tracce  
Следопыт  
寻踪车

# 1-15

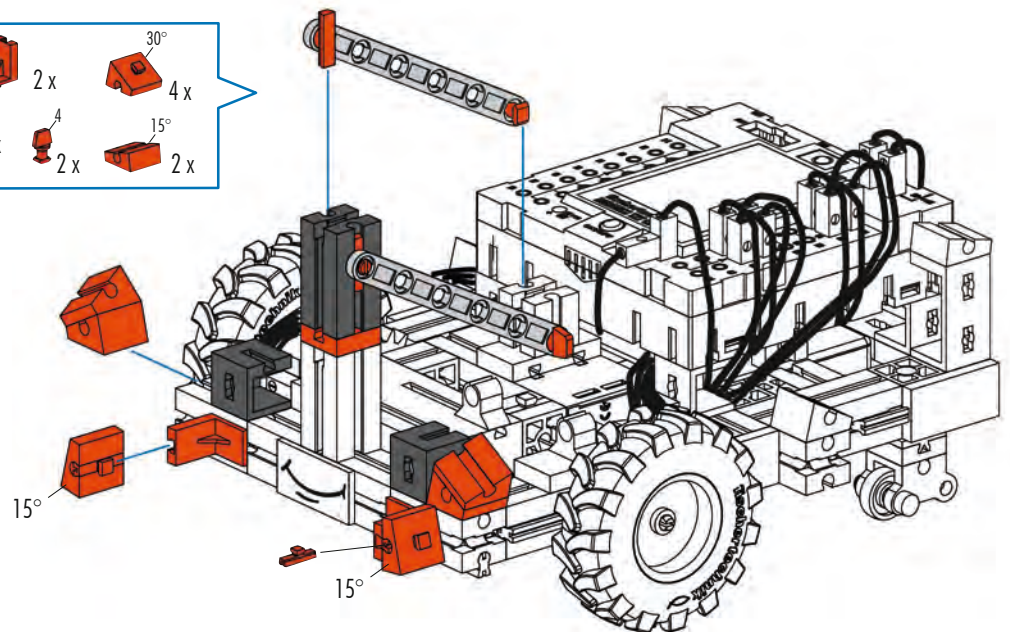
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**16**

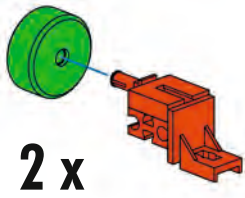
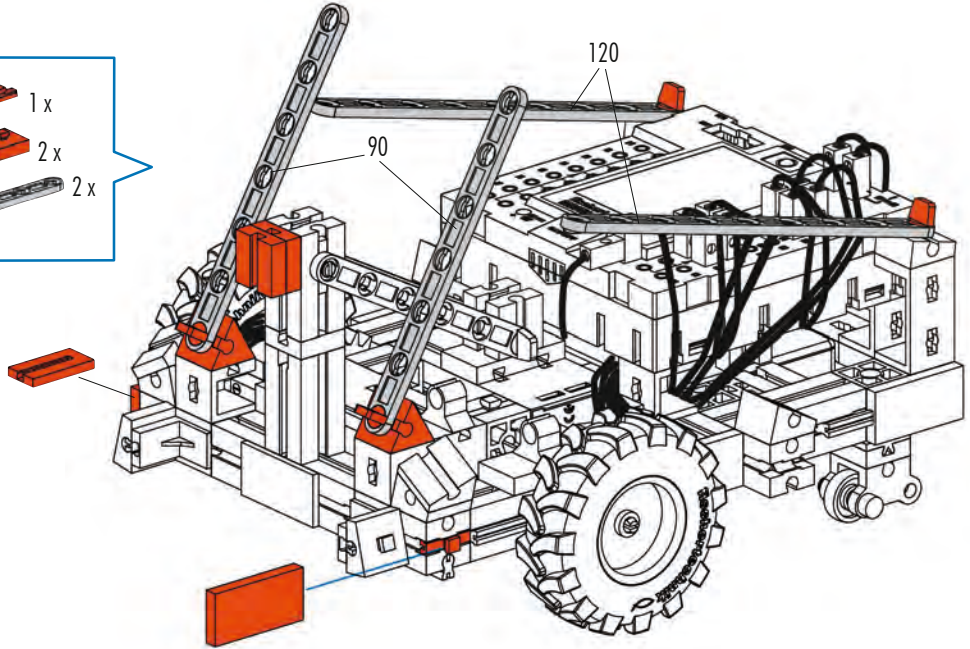


**17**

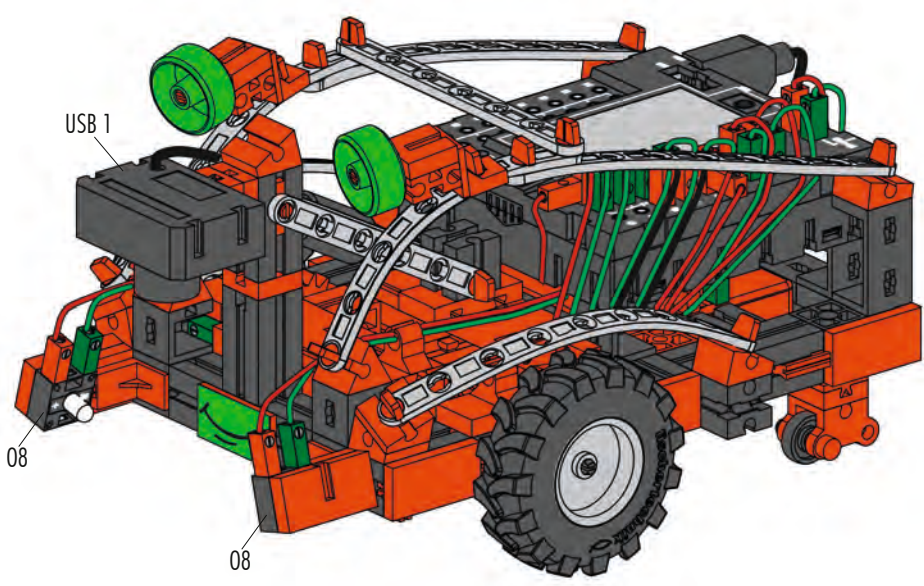
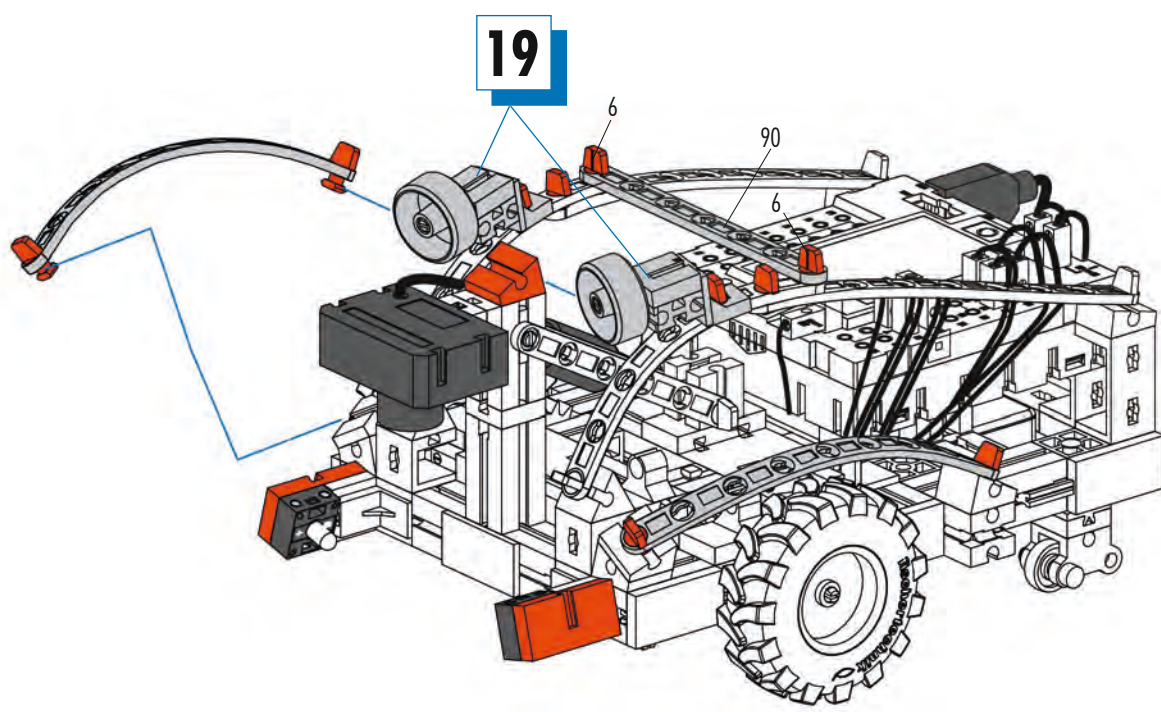
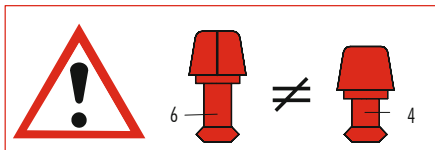
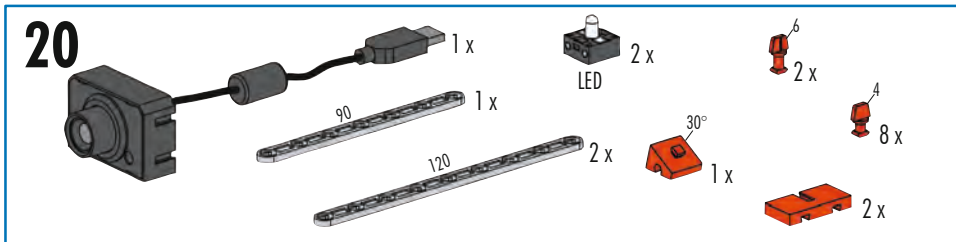




- 18**
- 60° 2 x
  - 2 x
  - 1 x
  - 4 x
  - 120 2 x
  - 90 2 x
  - 2 x
  - 2 x



- 19**
- 2 x
  - 2 x
  - 2 x
  - 2 x







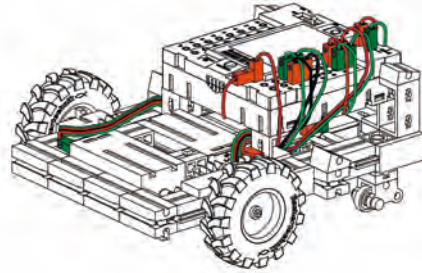
Erkundungsroboter  
Detection robot  
Robot d'exploration

Ontdekkingsrobot  
Robot de  
reconocimiento  
Robô de exploração

Robot di esplorazione  
Робот-разведчик  
勘察机器人

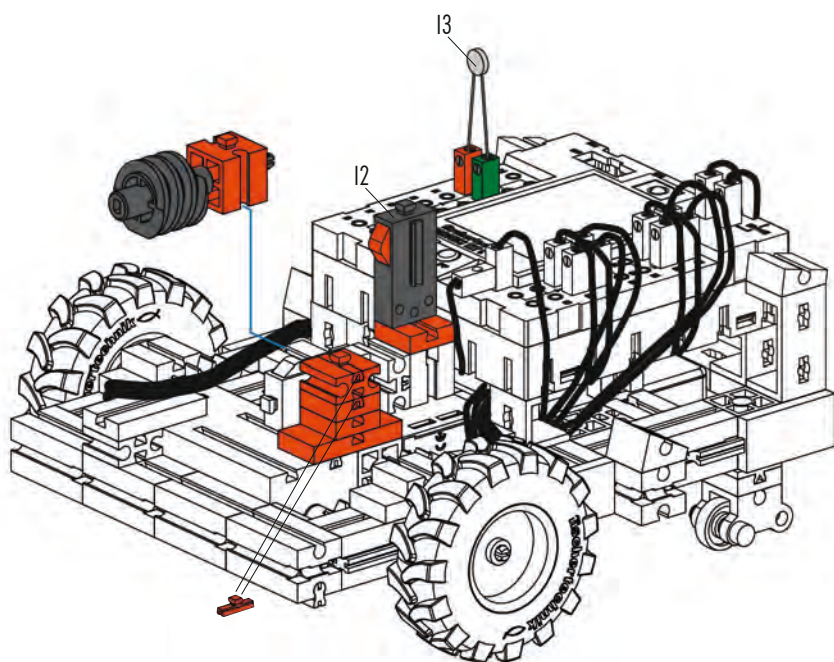
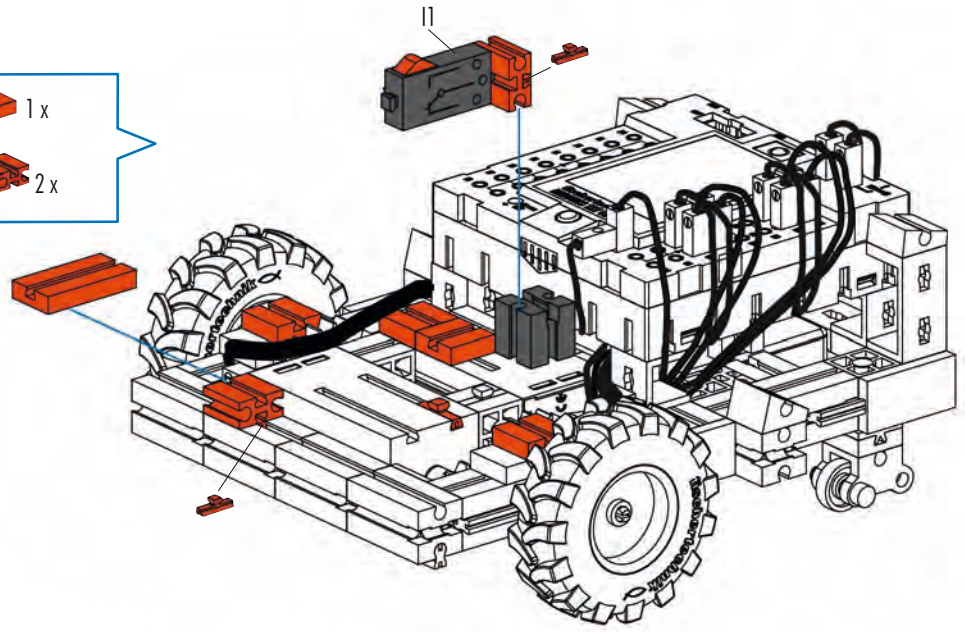
# 1-15

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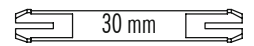
**16**

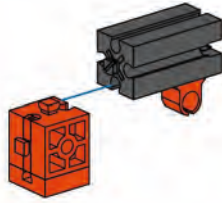
- 1x
- 4x
- 1x
- 3x
- 1x
- 2x








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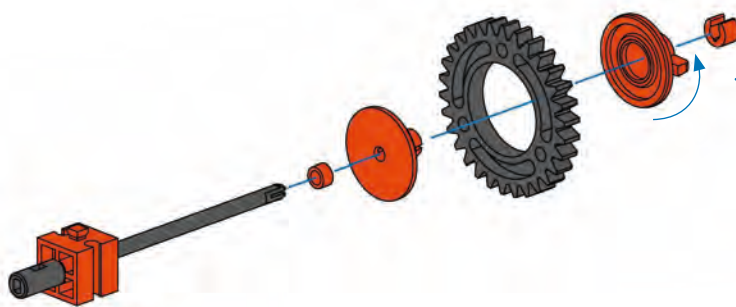
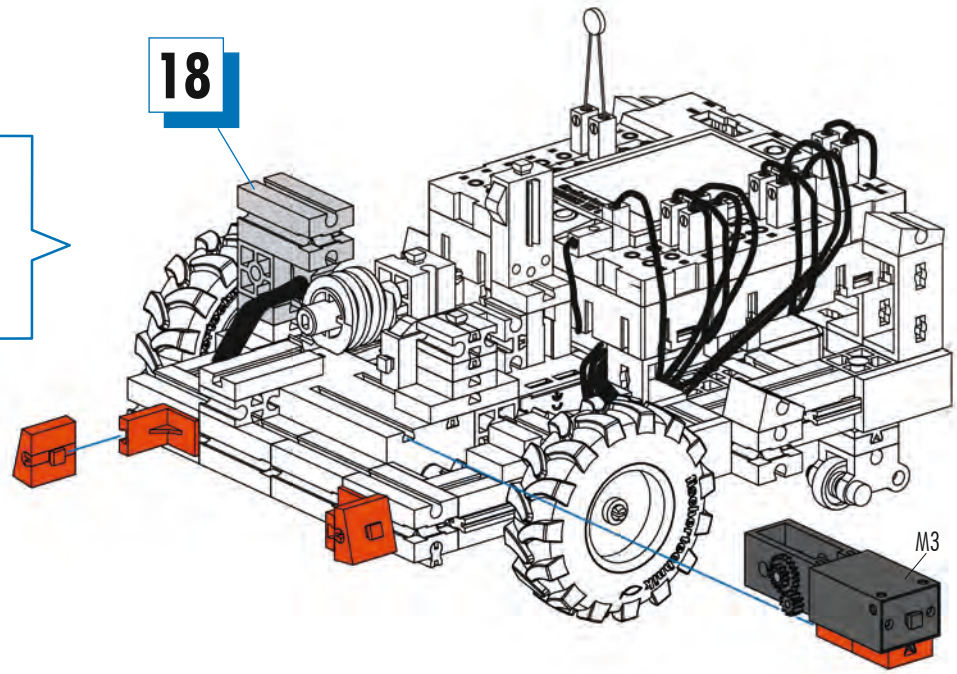
- 1x
- 1x
- 3x
- 2x
- 1x
- 1x
- 1x
- 1x
- 30
- 1x




















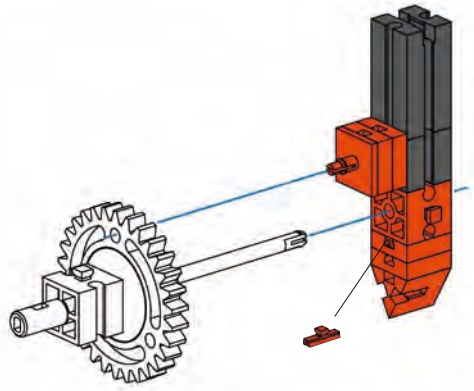
- 18**  1x  1x  1x  1x  1x

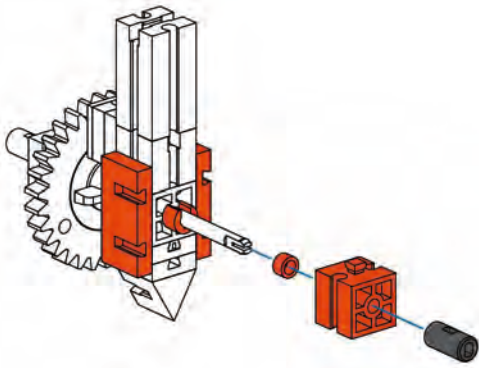
- 19**  1x  2x  2x  2x  2x







- 20**  1x  1x  1x  1x  1x  1x  1x  1x

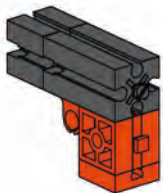
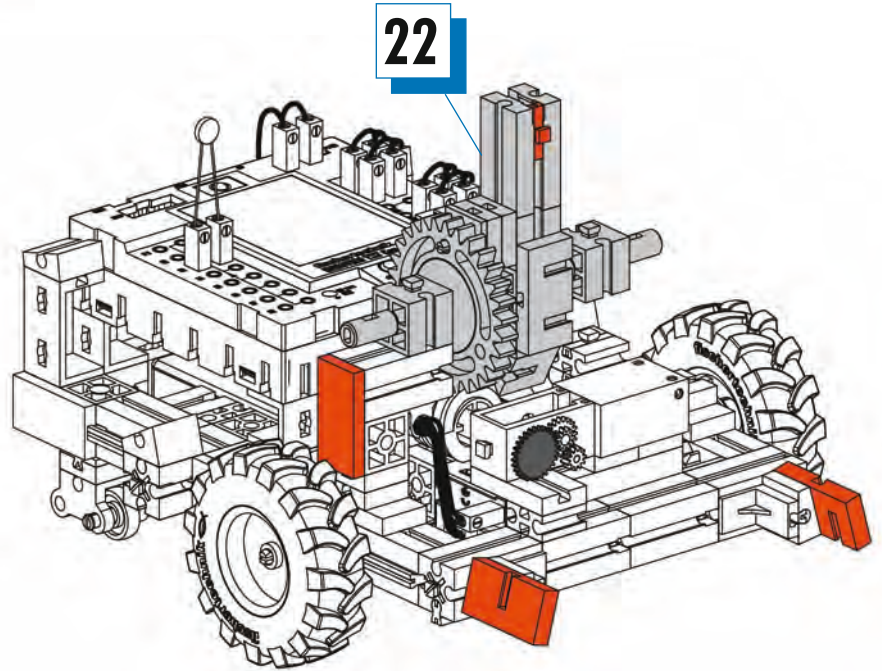
- 21**  1x  1x  1x  1x  1x  1x  4x











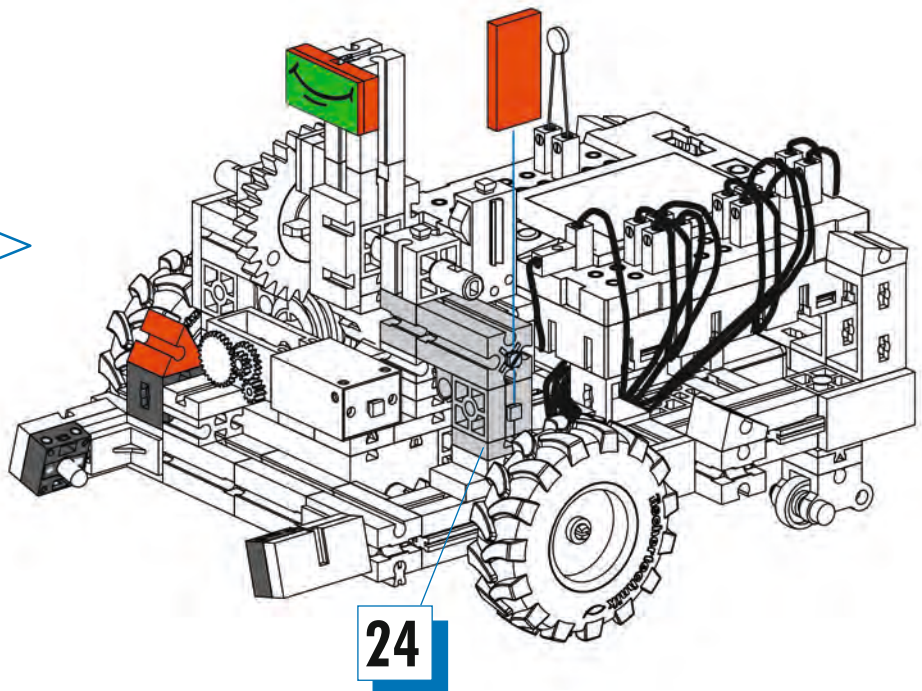
**22**  1x  2x  1x  1x  1x

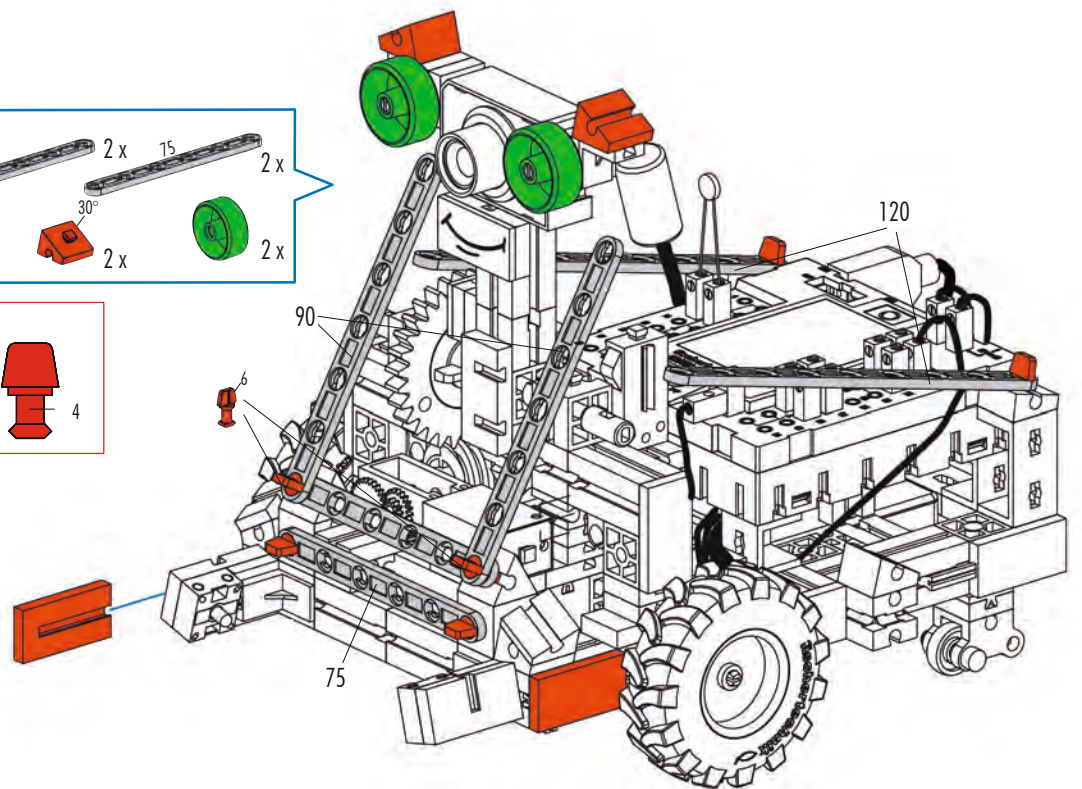
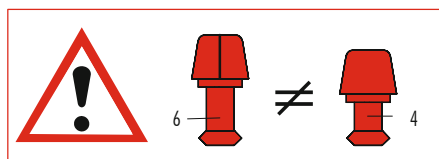
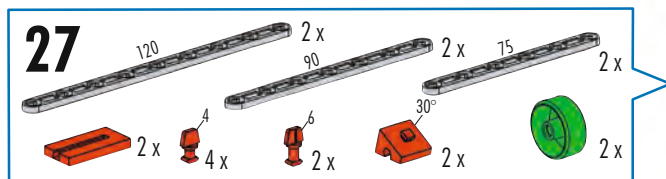
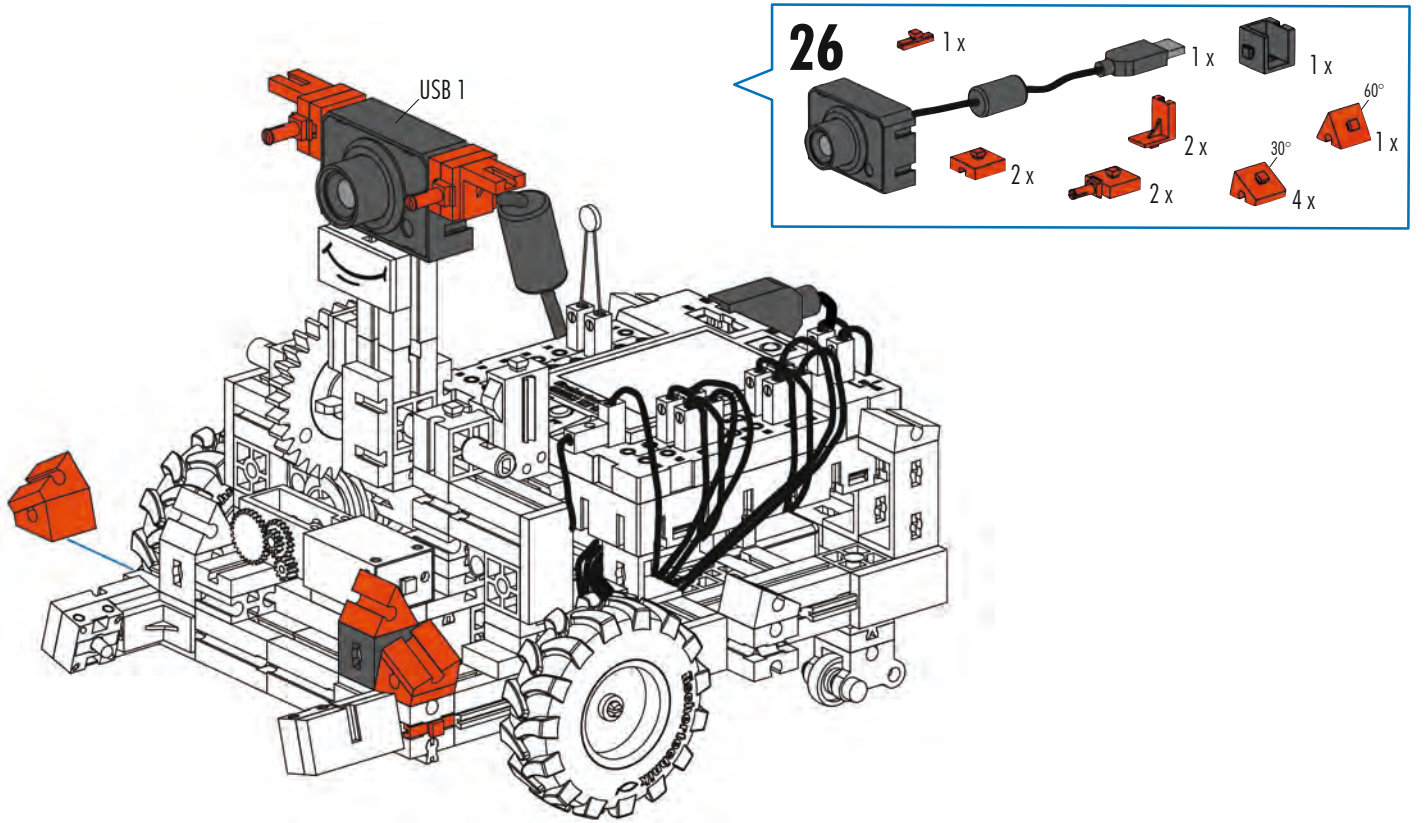
**23**  2x  1x  
 1x  1x



**24**  1x  1x  1x  1x  1x  1x

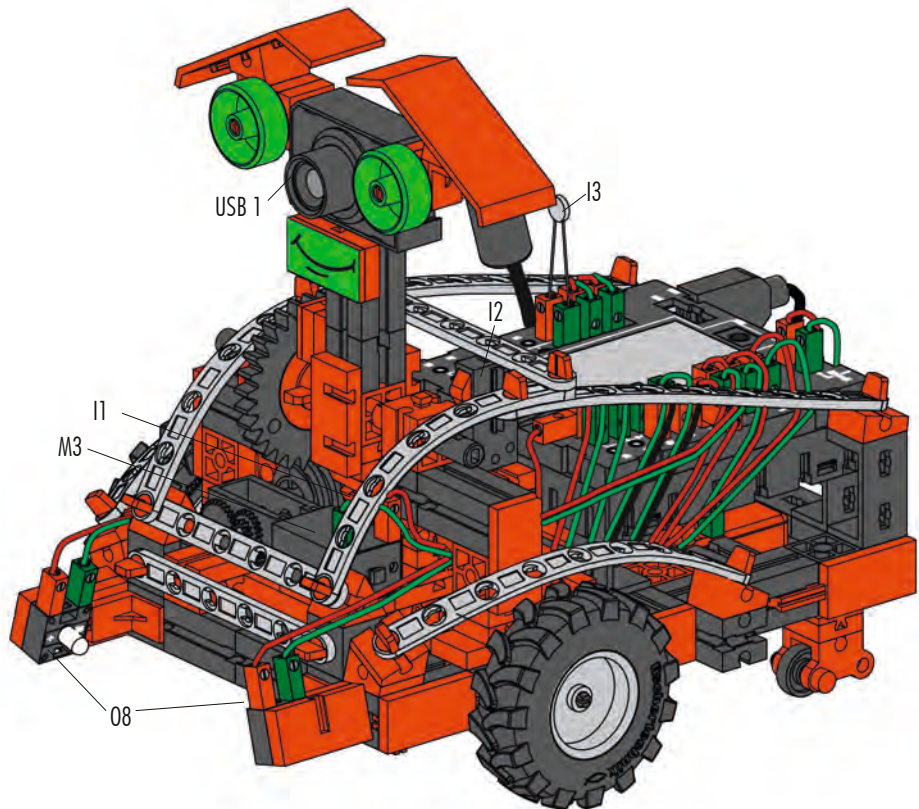
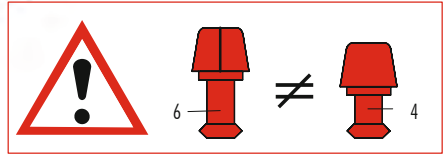
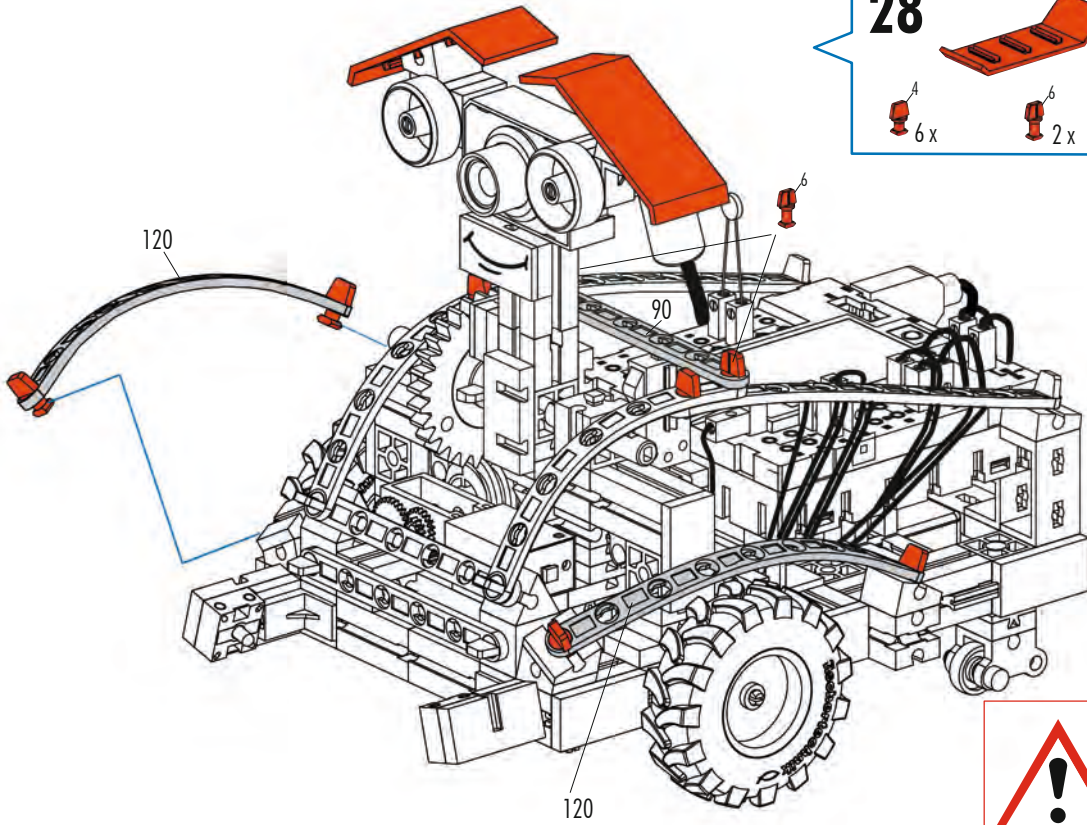
**25**  LED 2x  1x  60° 1x  
 1x  1x  1x





28

- 2 x (orange Technic plate)
- 1 x (grey Technic axle 90)
- 2 x (grey Technic axle 120)
- 6 x (red Technic pin A)
- 2 x (red Technic pin B)

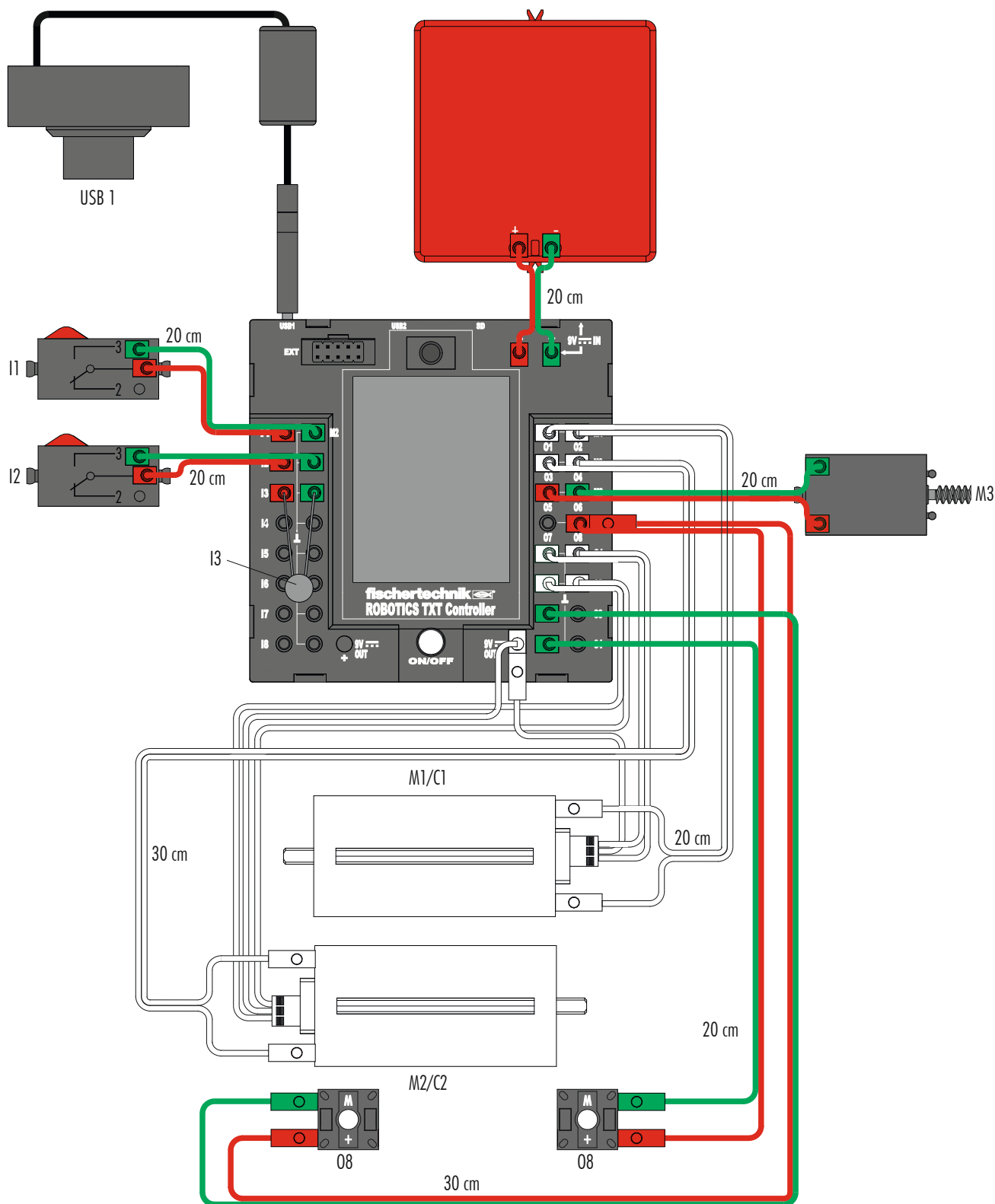




Schaltplan  
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Schakelschema  
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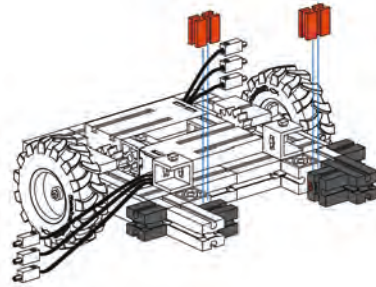
Fußballroboter mit  
Bewegungssteuerung  
Soccer robot with movement control  
Robot footballeur avec commande des  
mouvements

Voetbalrobot met bewegingsbesturing  
Robot de fútbol con control de  
movimiento  
Robô jogador de futebol com controle  
de movimentos

Robot calcio con comando movimenti  
Робот-футболист с  
управлением движениями  
配备运动控制器的足球机  
器人

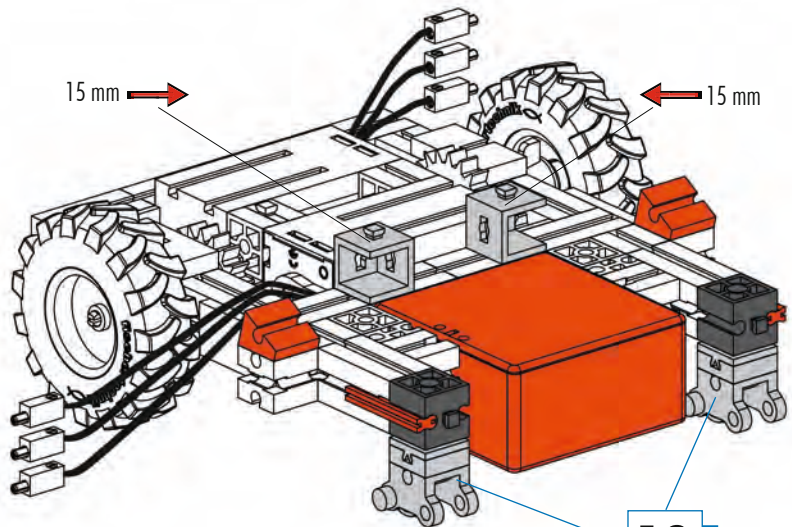
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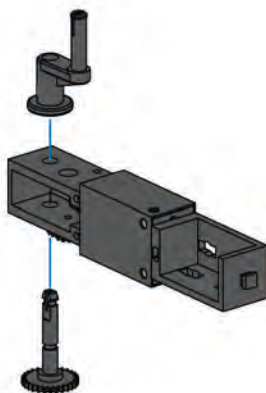
**12** 2x 2x 2x 2x 2x

**13** 2x 2x 2x



**12**

- Accu Set (Art.-Nr. 34 969) nicht im Baukasten enthalten
- Accu Set (Art. No. 34 969) not included in the modular kit
- Accu Set (réf. 34 969) n'est pas contenue dans le kit
- Accu Set (art.-nr. 34 969) niet in de bouwdoos opgenomen
- Accu Set (art. n° 34 969) no está incluido en el conjunto
- Accu Set (Nº de prod. 34 969) não contido no sistema de construção por blocos
- Accu Set (cod. prod. 34 969) non incluso nella scatola di montaggio
- Аккумулятор Accu Set (арт.№ 34 969) не входит в комплект конструктора
- 电池套件(产品号 34 969)不包含在组件中



**14** 1x 1x 1x 1x 1x





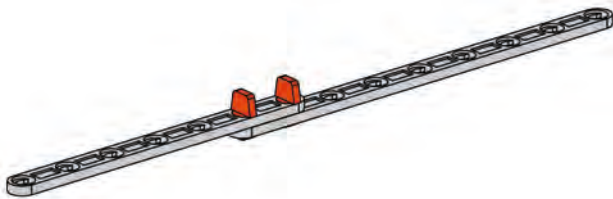
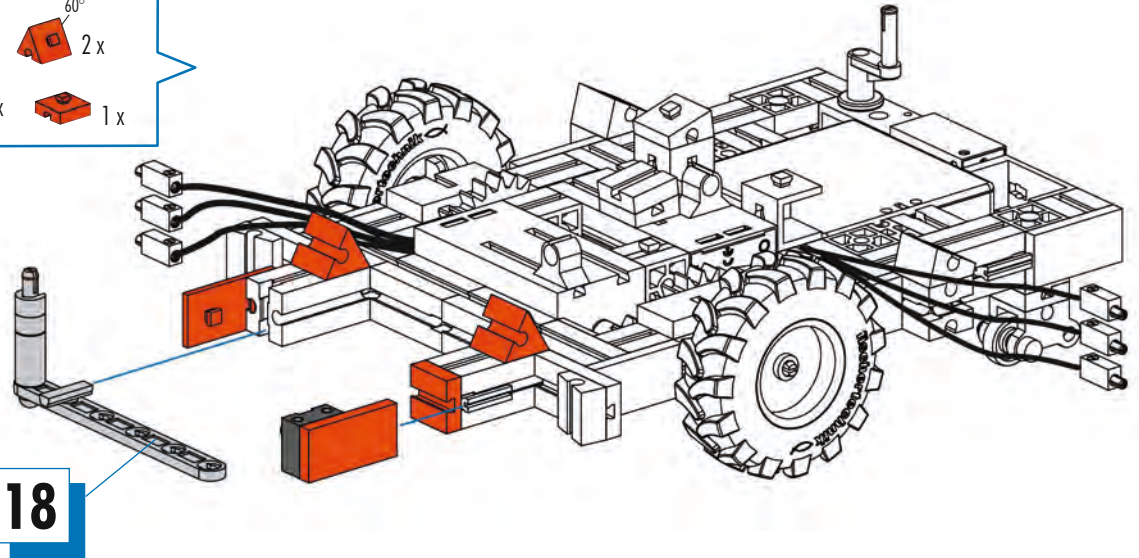
**18**

15 1x 1x 2x 1x 1x

**19**

1x 60° 2x 1x 1x 1x

Linsenlampe  
 Lens tip lamp  
 Ampoule lentille  
 Lenslampe  
 Lampada lenticolare  
 Lâmpada de formato lenticular  
 Lampada lenticolare  
 Лампа с линзой  
 透镜灯

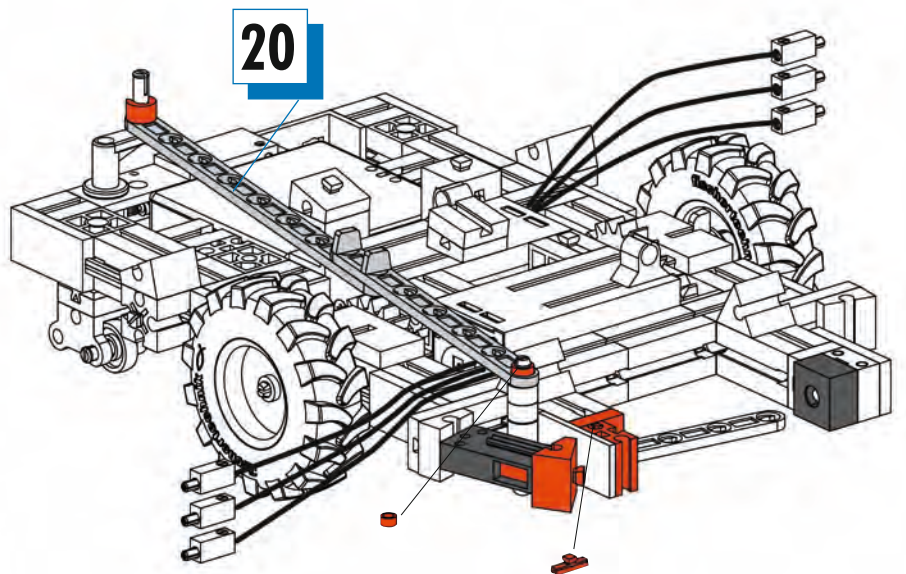


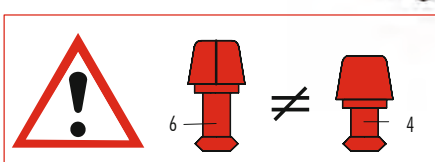
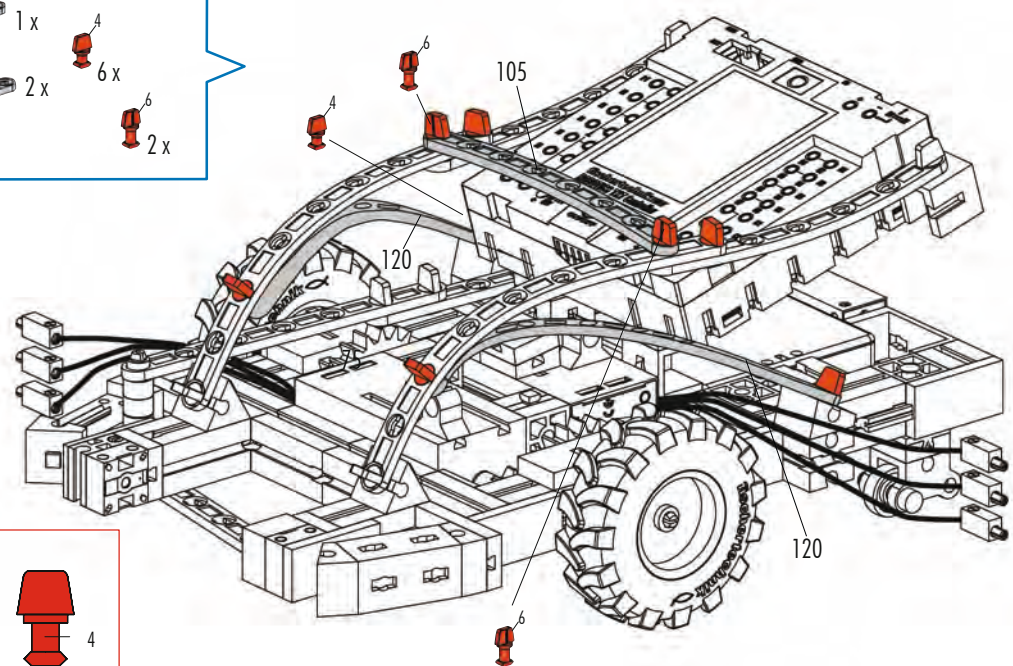
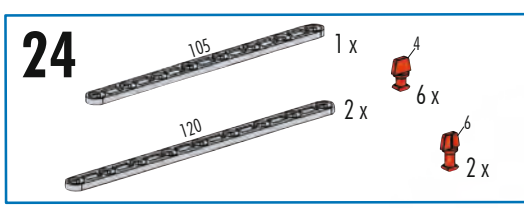
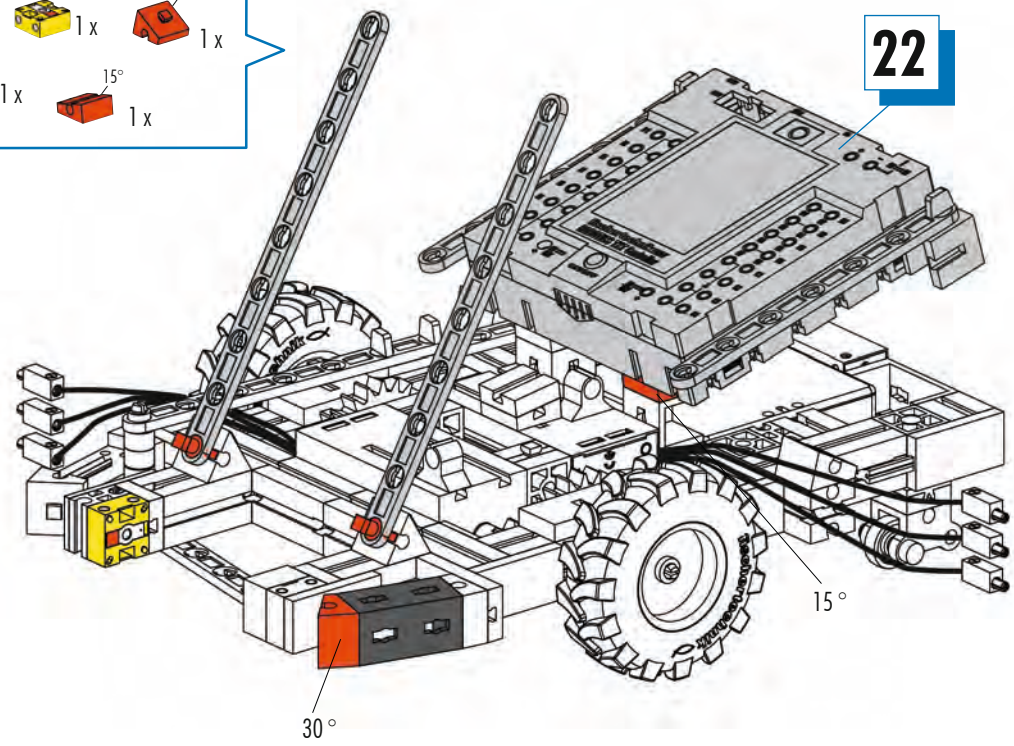
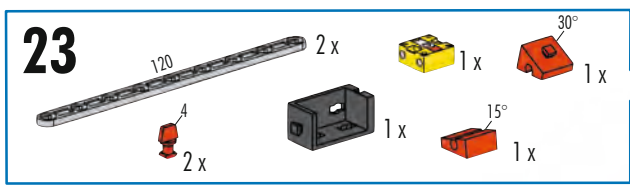
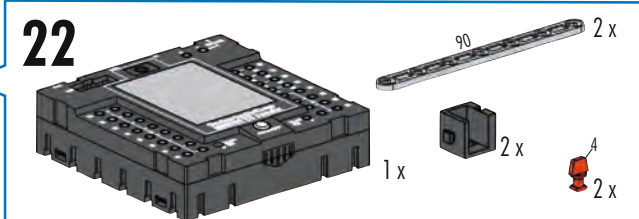
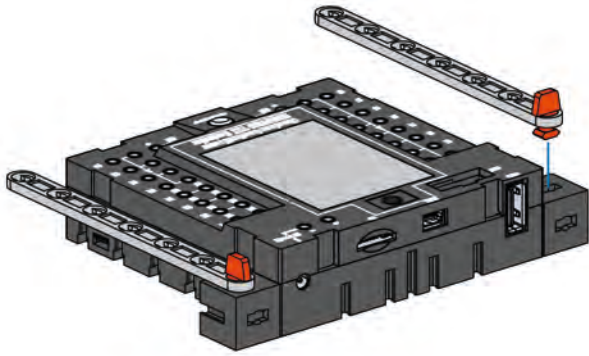
**20**

120 1x 90 1x 4 2x

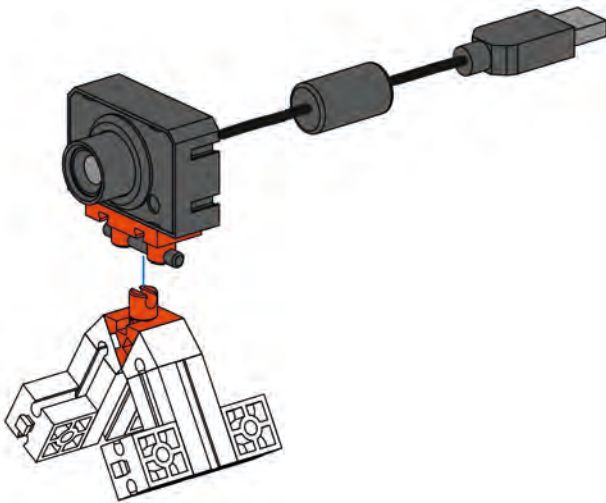
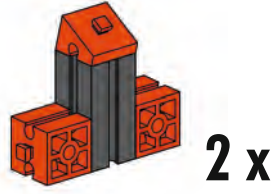
**21**

1x 1x 1x 1x 30° 1x 1x 1x

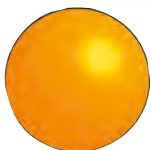
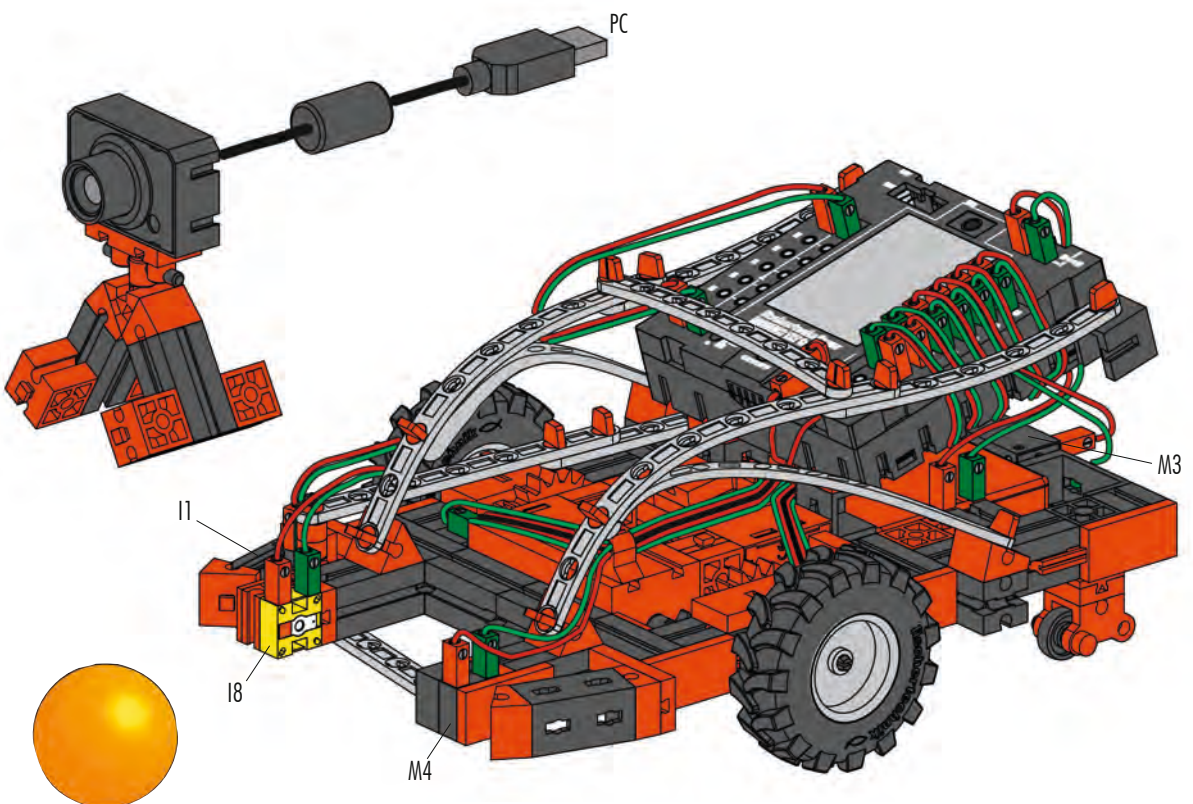
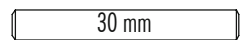
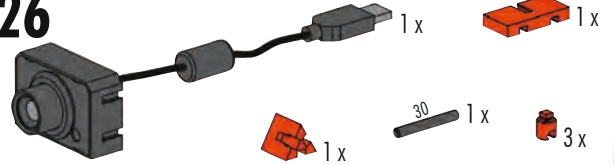




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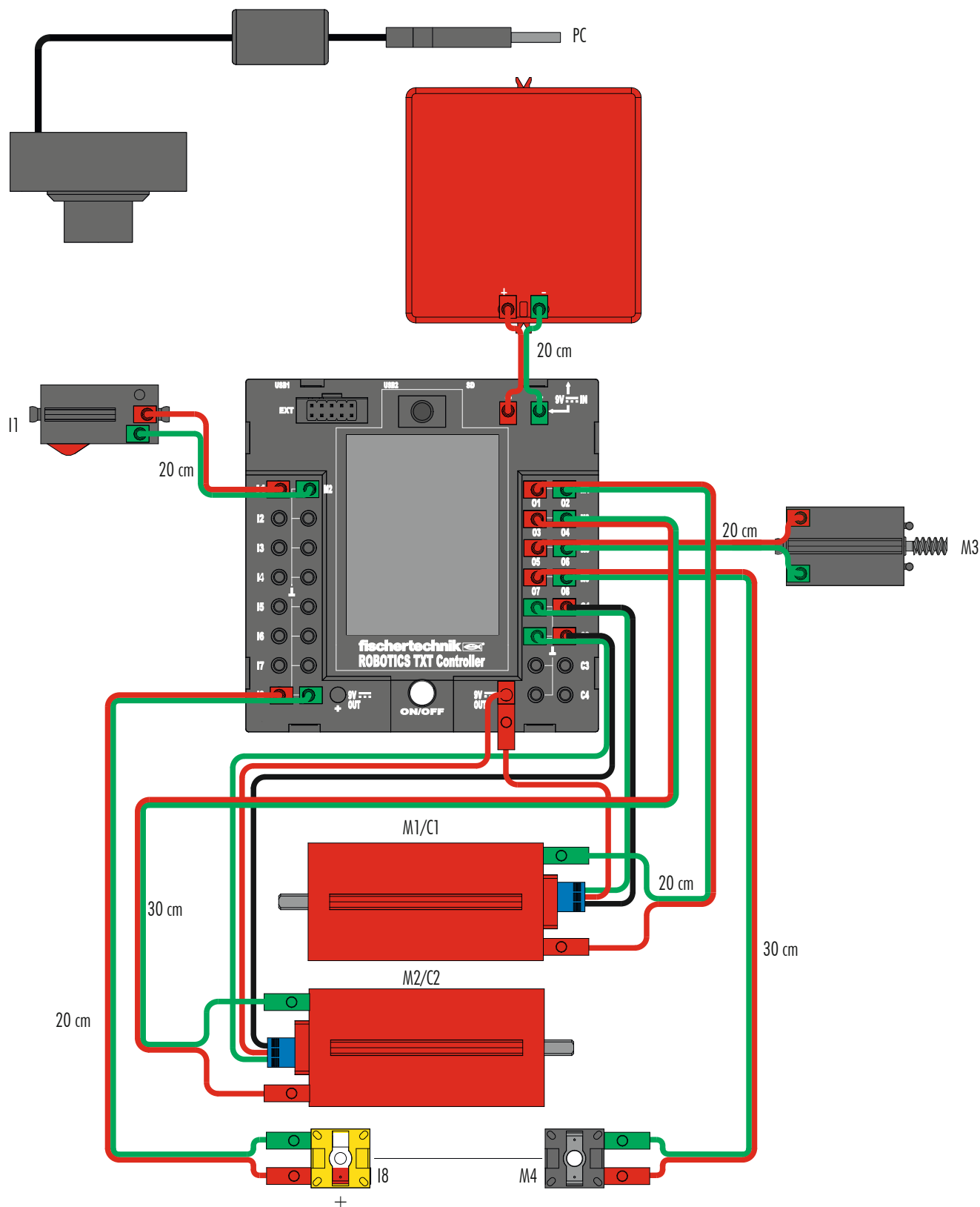
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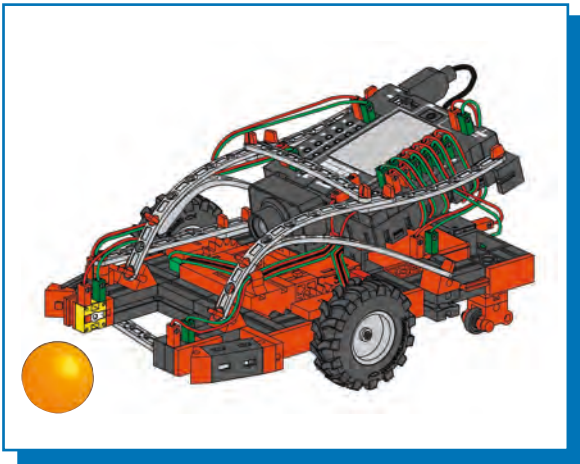
Schaltplan  
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Plano elétrico de ligação

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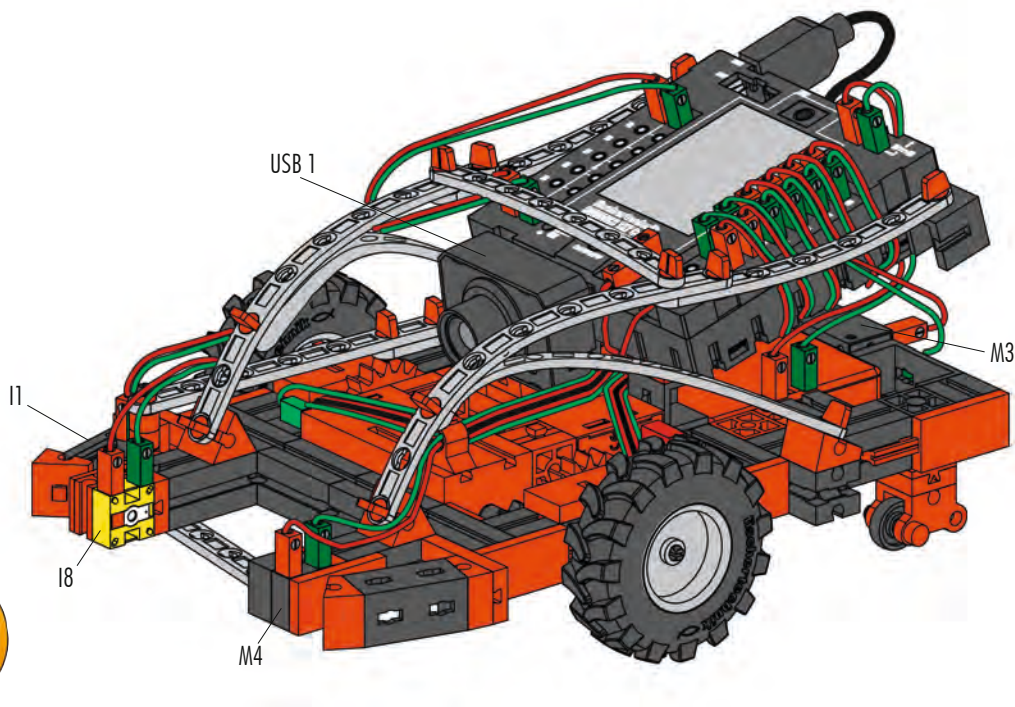
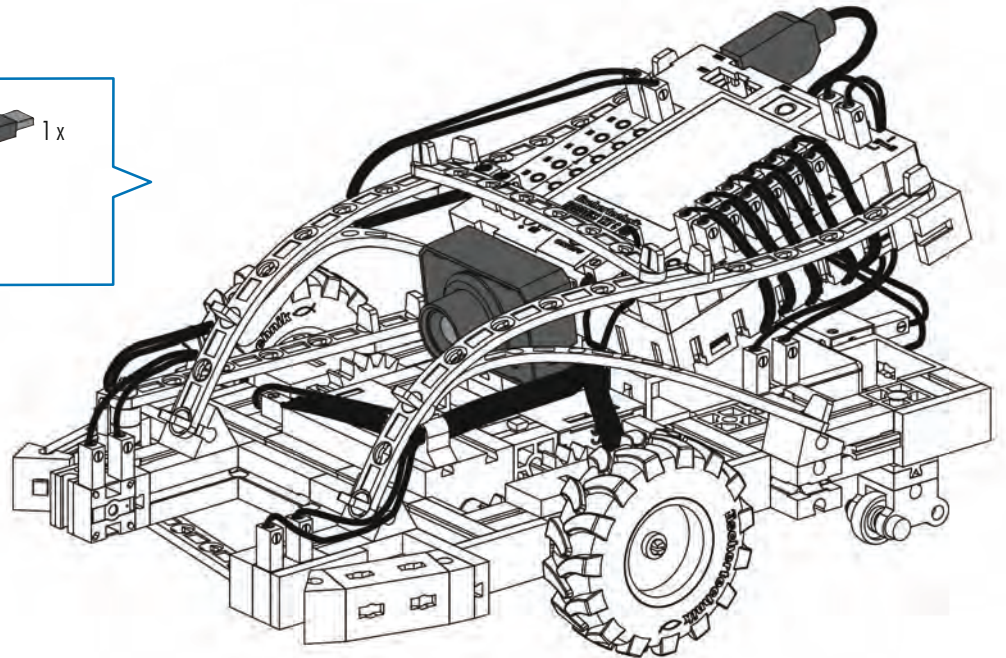
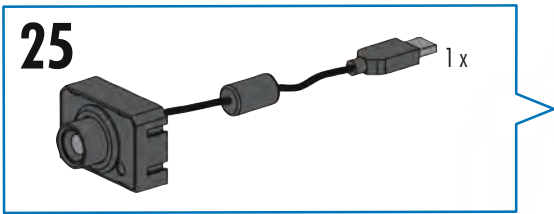
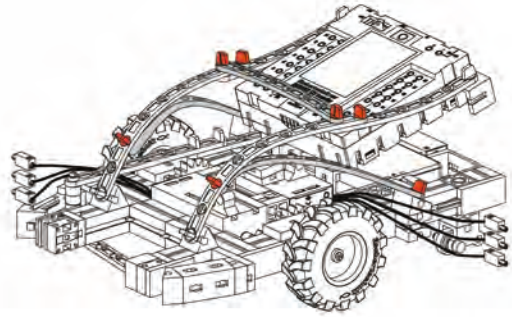
Fußballroboter  
 Soccer robot  
 Robot footballeur

Voetbalrobot  
 Robot de fútbol  
 Robô jogador de futebol

Robot calcio  
 Робот-футболист  
 足球机器人

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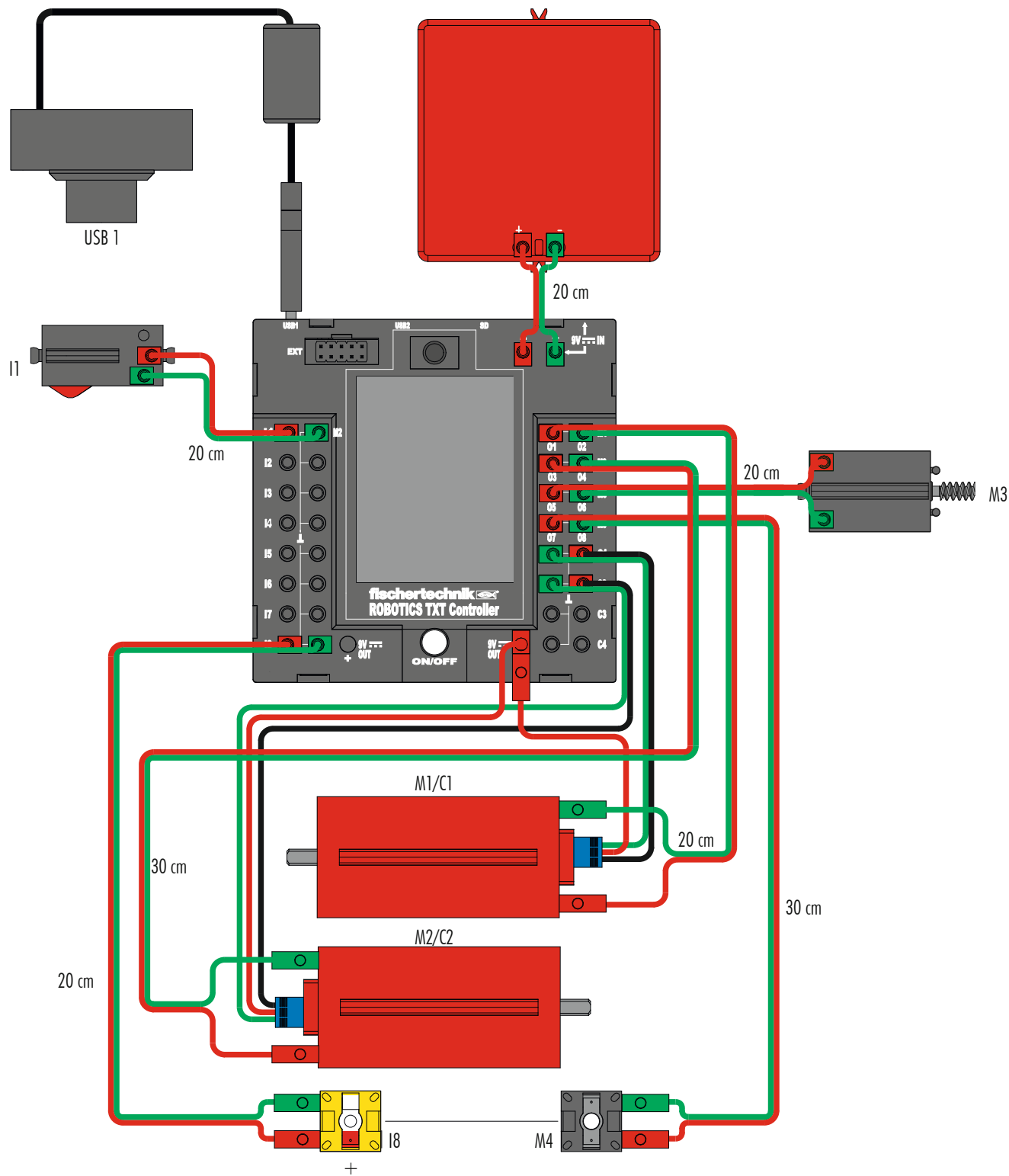




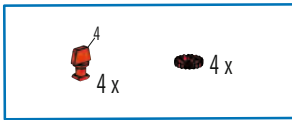
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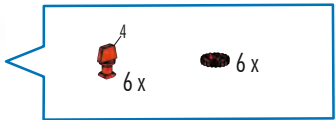
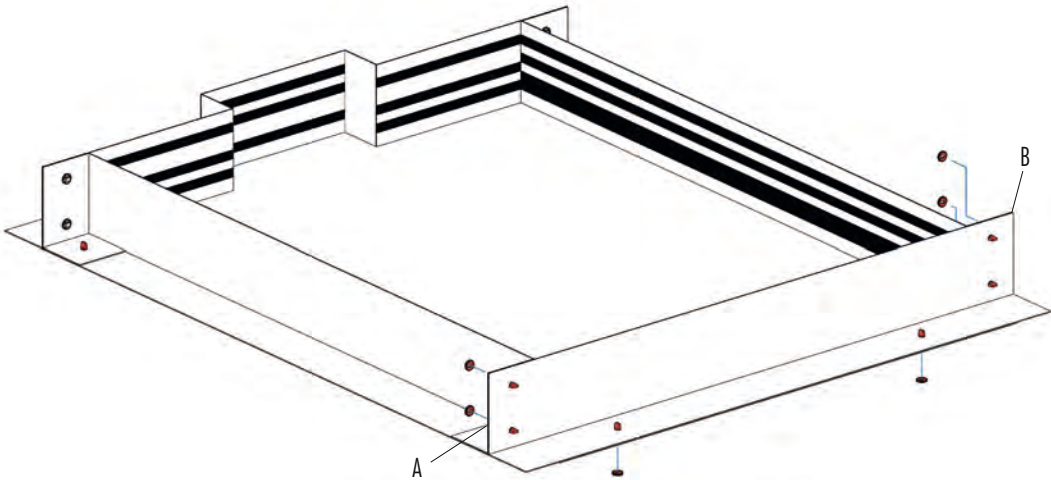
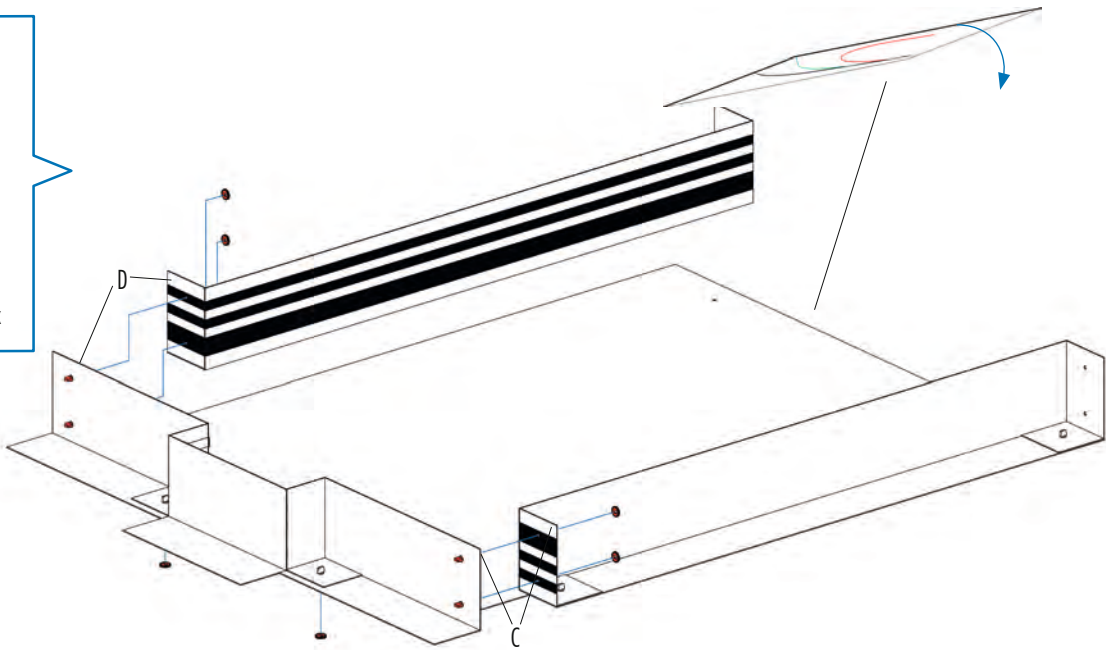
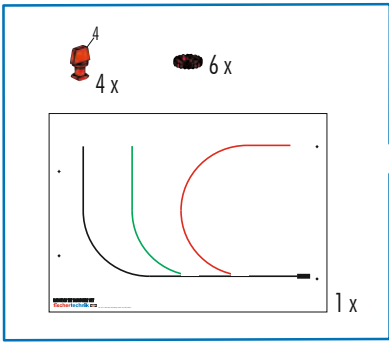
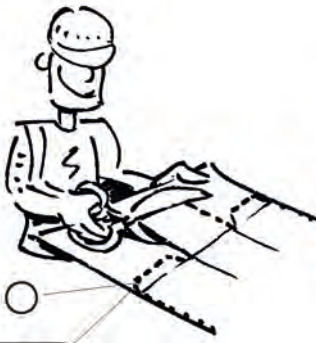
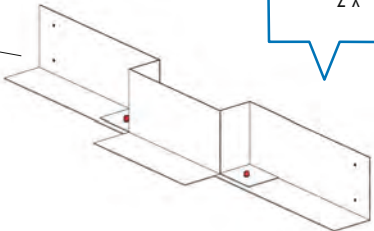
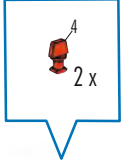
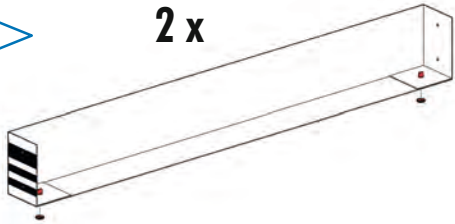
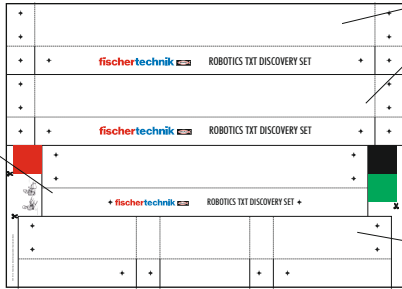
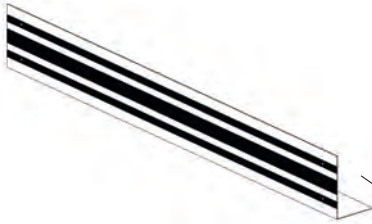
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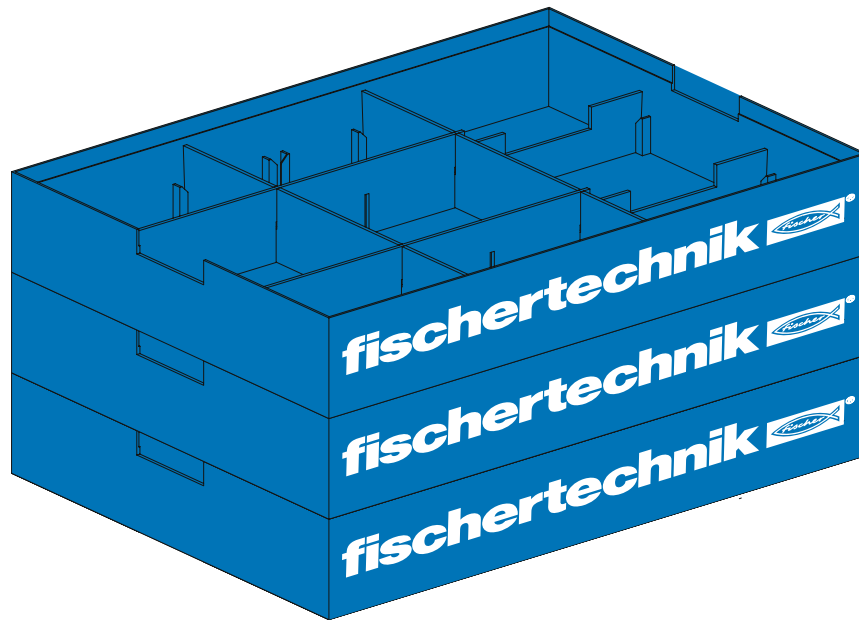
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2 x



Empfohlene Aufbewahrung:	3 x Aufbewahrungssystem Art.-Nr. 94828
Recommended storage:	3 x storage system Art No. 94828
Stockage conseillé :	3 x système de stockage Art n° 94828
Bewaaradvies:	3 x bewaarsysteem art.-nr. 94828
Consejos para guardar el producto:	3 x almacenamiento Art. Nº 94828
Conservação recomendada:	3 x sistema de conservação n.º de art. 94828
Conservazione consigliata:	3 sistemi di conservazione, cod. prod. 94828
Рекомендуемое хранение:	3 x бокса для хранения. Арт.№ 94 828
推荐的保存方式 :	3 个产品号为 94 828 的保存系统



Sortiervorschlag / Storage suggestion / Suggestion de classement / Sorteervoorstel / Propuesta de clasificación / Proposta de divisão / Proposta di sistemazione / Рекомендации по сортировке / 保存系统的分类建议:

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