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ROBOTICS

fischertechnik 

ROBOTICS

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Germany

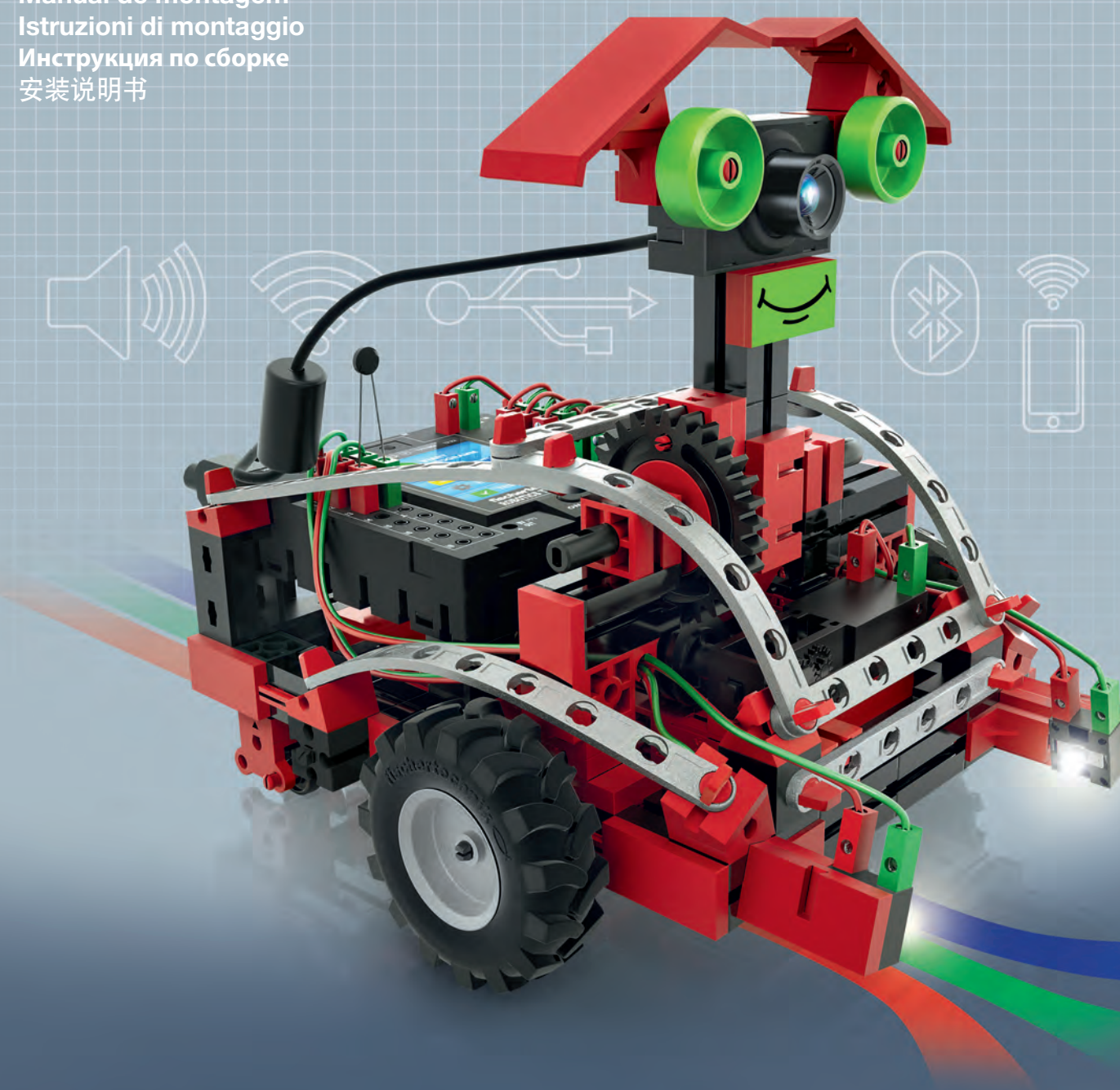
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Bauanleitung
Assembly instruction
Instructions de montage
Bouwhandleiding
Instrucciones de construcción
Manual de montagem
Istruzioni di montaggio
Инструкция по сборке
安装说明书



TXT Discovery Set

14 MODELS
MODELS

TXT Discovery Set

14 MODELS
MODELS

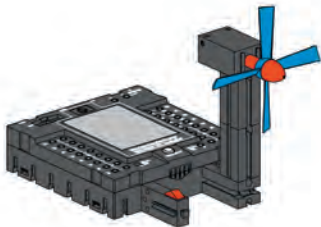
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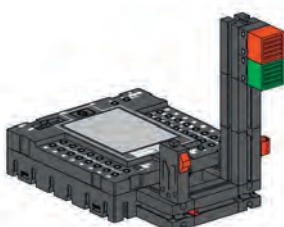
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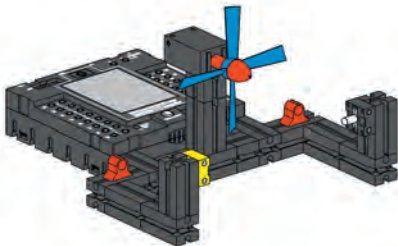
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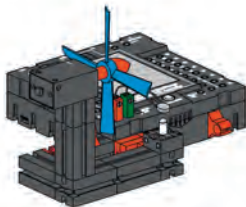
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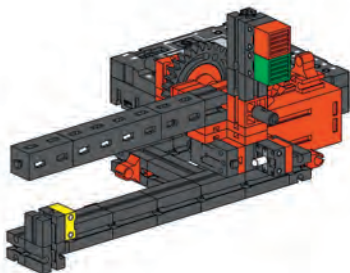
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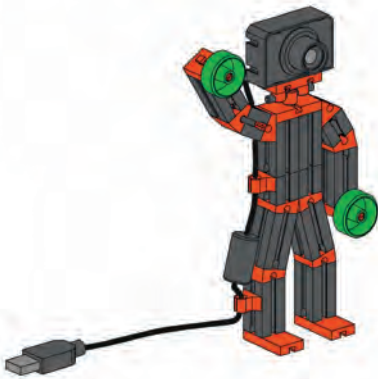
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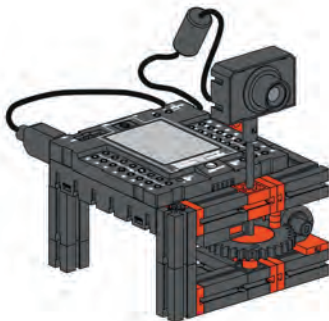
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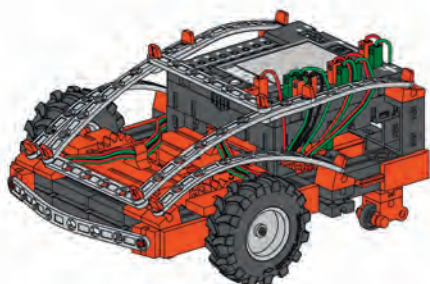


Schwenkbare Kamera / Swiveling camera / Cámara orientable /
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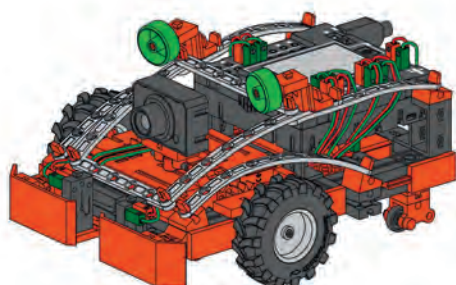
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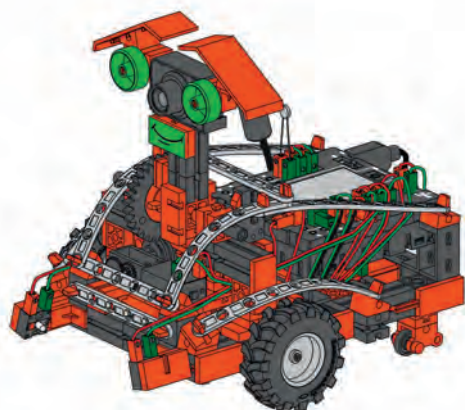
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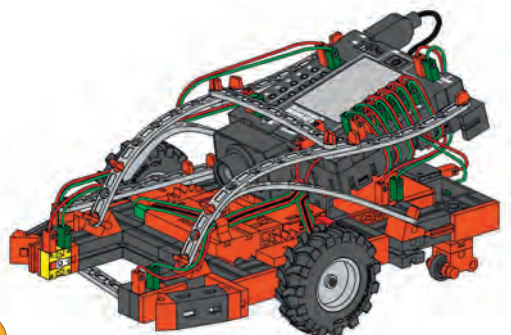
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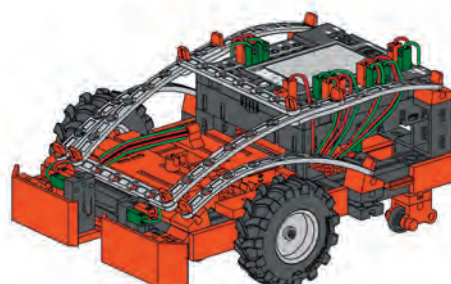
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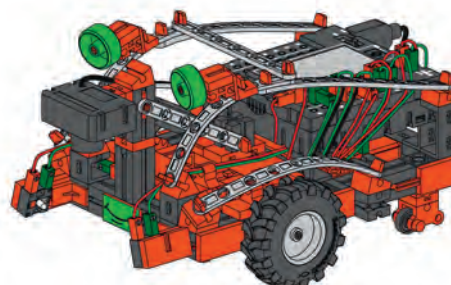
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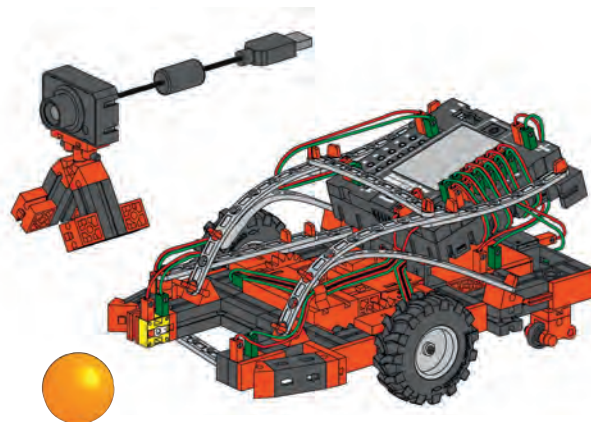
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Hinderniserkenner / Hindrance detector / Détecteur d'obstacles /
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Einzelteilübersicht
Spare parts list
Liste des pièces détachées

	31 010 2 x
	31 011 8 x
	31 058 1 x
	31 060 1 x
	31 061 6 x
	31 078 1 x
	31 082 1 x
	31 124 2 x
	31 330 6 x
	31 336 19 x
	31 337 21 x
	31 360 1 x
	31 426 2 x
	31 436 2 x
	31 597 4 x
	31 674 2 x
	31 690 2 x

Onderdelenoverzicht
Lista da piezas
Resumo de peça individual

	31 771 1 x
	31 848 2 x
	31 918 1 x
	31 981 4 x
	31 982 23 x
	31 983 1 x
	32 064 12 x
	32 071 1 x
	32 085 2 x
	32 321 2 x
	32 330 8 x
	32 870 1 x
	32 879 19 x
	32 881 9 x
	35 031 1 x
	35 033 2 x
	35 049 2 x

Singoli componenti
Перечень деталей
零件概览

	36 334 16 x
	36 337 1 x
	36 437 1 x
	36 443 1 x
	36 532 1 x
	36 573 2 x
	36 586 2 x
	36 920 2 x
	36 921 1 x
	36 922 2 x
	36 950 4 x
	37 237 19 x
	37 468 5 x
	37 679 3 x
	37 681 1 x
	37 783 2 x
	37 875 1 x

	38 216 3 x		116 913 2 x		152 223 2 x		153 669 3 x
	38 241 1 x		121 661 2 x		152 522 1 x		153 670 1 x
	38 246 2 x		134 867 1 x		153 367 5 x		154 452 2 x
	38 413 1 x		137 125 2 x		153 422 2 x		154 454 1 x
	38 423 4 x		137 096 1 x		153 513 1 x		154 485 1 x
	38 428 8 x		137 677 2 x		153 668 2 x		

Montagetipps Tips for assembly Tuyaux pour le montage

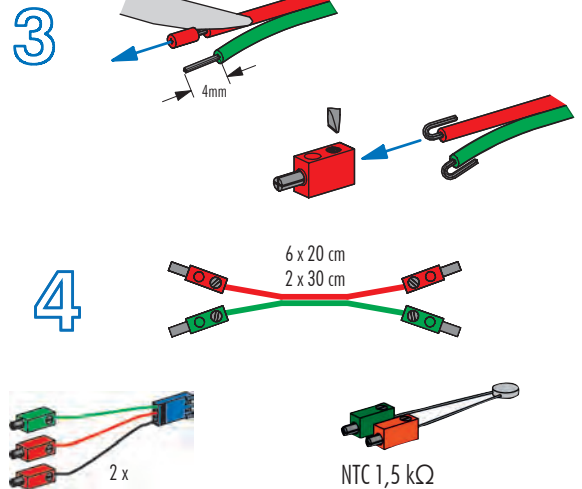
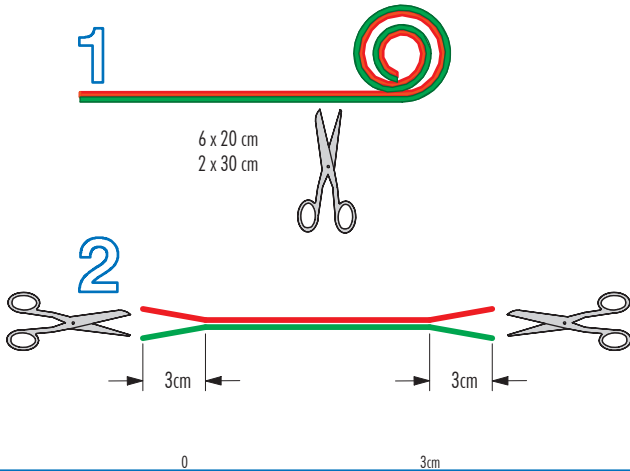
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Consigli per il montaggio Советы по сборке 装配建议

Kabel und Stecker
Plugs and cables
Fiches et des câbles

Stekkers en cables
Enchufes en cables
Cabos e contatos

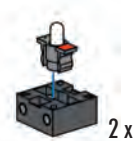
Cavi e connettori
Провода и штекеры
电缆和插头



Fototransistor
Phototransistor
Phototransistor
Fototransistor
Fototransistores
Fototransistor
Fototransistor
Фототранзистор
光电晶体管

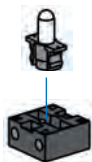


LED
LED
DEL
LED
LED
LED
LED
LED
Светодиод
LED



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 = +

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



1 x 9V ... / 0,15 A



9 V ... / 0,01 A

LED
LED
DEL
LED
LED
LED
LED
LED
Светодиод
LED

Montagetipps Tips for assembly Tuyaux pour le montage

Montagetips Consejos para el montaje "Dicas" para montagem

Consigli per il montaggio Советы по сборке 装配建议

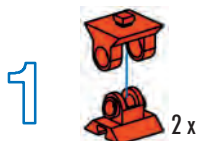
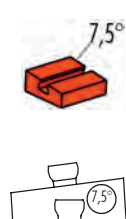
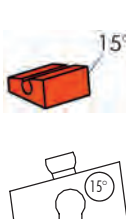
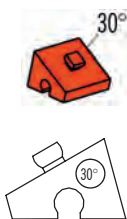
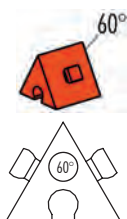
- Bei der Reifenmontage Profilrichtung links und rechts beachten!
- When mounting the tyres, please pay attention to the direction of the tread, left and right.
- Pour le montage des pneus, faire attention à la direction gauche et droite du profil.
- Let bij de bandenmontage op de profielrichting links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



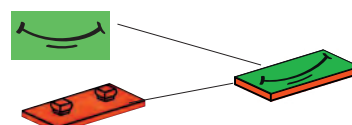
links
left
gauche
links
izquierda
à esquerda
sinistra
левое
左



rechts
right
droite
rechts
derecha
à direita
destra
правое
右



2

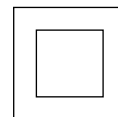


Sicherheitshinweise Safety Information Consignes de sécurité

Veiligheidsrichtlijnen Indicaciones de seguridad Observações sobre segurança

Informazioni per la sicurezza Указания по технике безопасности 安全指南

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



- Achtung! Verletzungsgefahr an Bauteilen mit funktionsbedingten scharfen Kanten und Spitzen!
- Caution! Be careful not to hurt yourself on components with sharp or pointed edges!
- Attention! Risque de blessure sur les éléments comportant des arêtes et o pointes vives indispensables au bon fonctionnement!
- Let op! U kunt zich bezeren aan bouwstenen met scherpe randen of punten!
- Attenzione! Esiste il pericolo di lesione con i pezzi di costruzione che hanno bordi e punte spigolosi necessari per la funzionalità del pezzo!
- Atenção! Perigo de ferimentos em peças componentes com cantos vivos e pontas obrigatórios para o funcionamento!
- Attenzione! Pericolo di lesioni dovute a componenti con spigoli vivi e punte per motivi funzionali!
- Будьте осторожны! Об острые края деталей и и концы 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 limpas.
- 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。

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

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.	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. • Afgeleverde 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.	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.
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.	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.	Не пытайтесь заряжать непerezаряжаемые 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. • И 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.
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.	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.	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

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 storinger

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

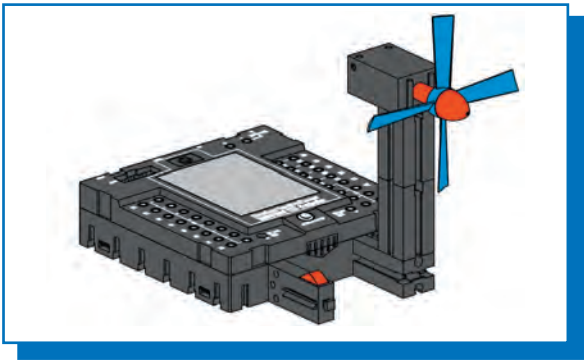
Se il Controller viene disturbato da influenze elettromagnetiche esterne, al termine del disturbo si può continuare a utilizzarlo senza problemi. Eventualmente si deve interrompere brevemente l'alimentazione elettrica e riavviare il Controller.

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。

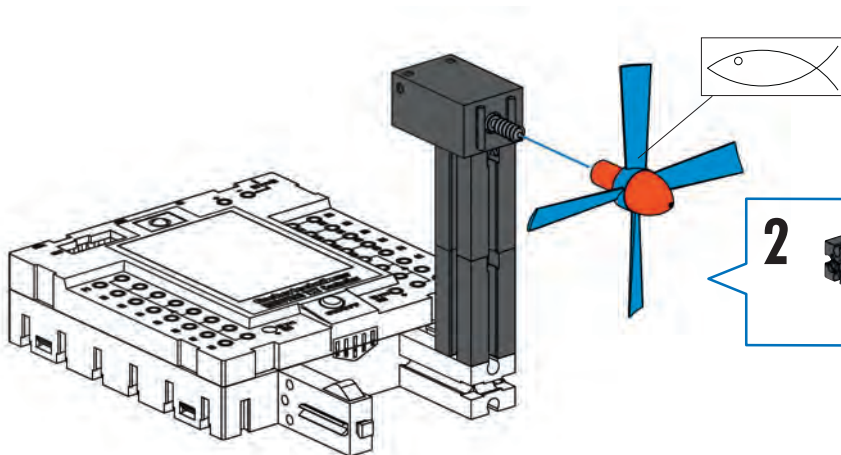
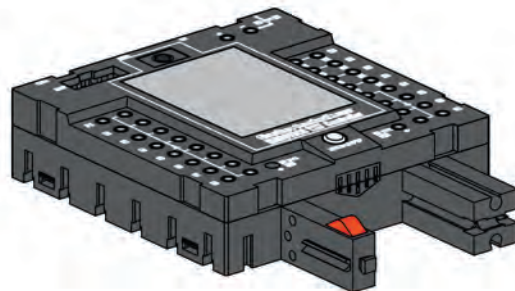
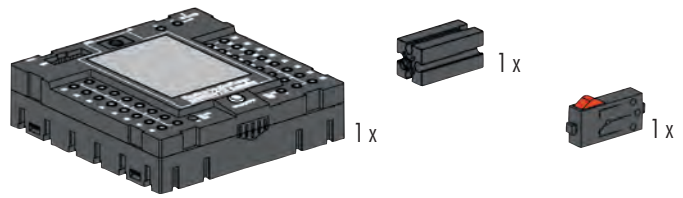


Ventilator
Ventilating fan
Ventilateur

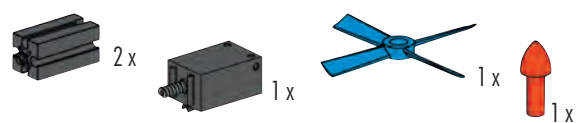
Ventilator
Ventilador
Ventilador

Ventilatore
вентилятор
风扇

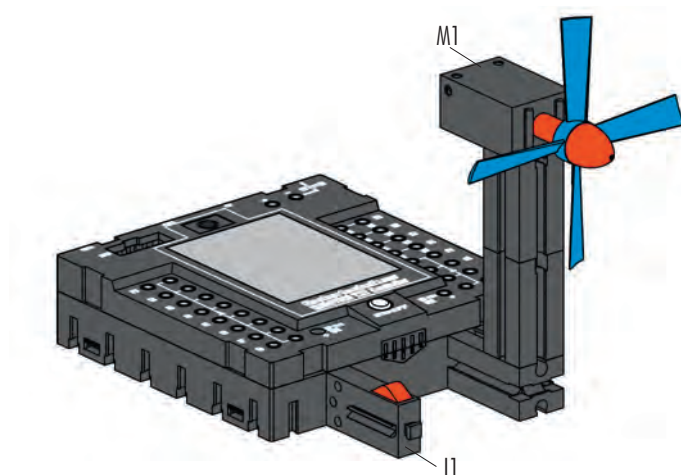
1



2



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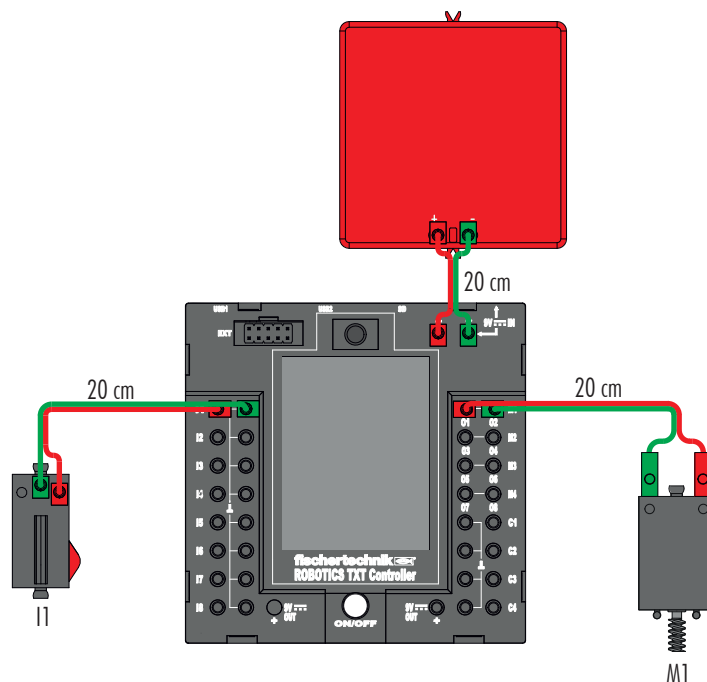


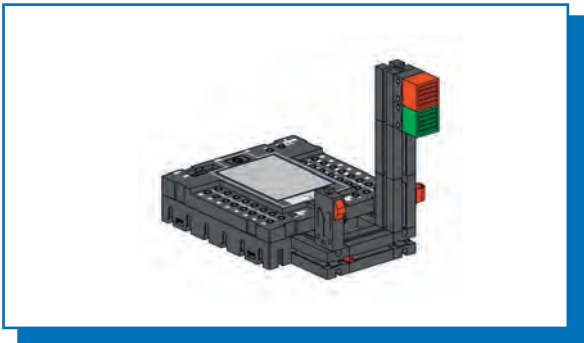
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

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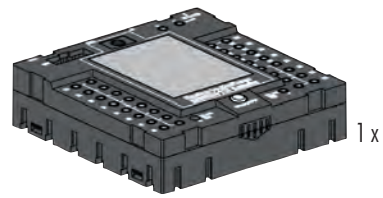


Fußgängerampel
Pedestrian light
Feu de signalisation pour piétons

Voetgangersstoplicht
Semáforo para peatones
Semáforo para pedestres

Semaforo pedonale
Светофор для пешеходов
行人交通信号灯

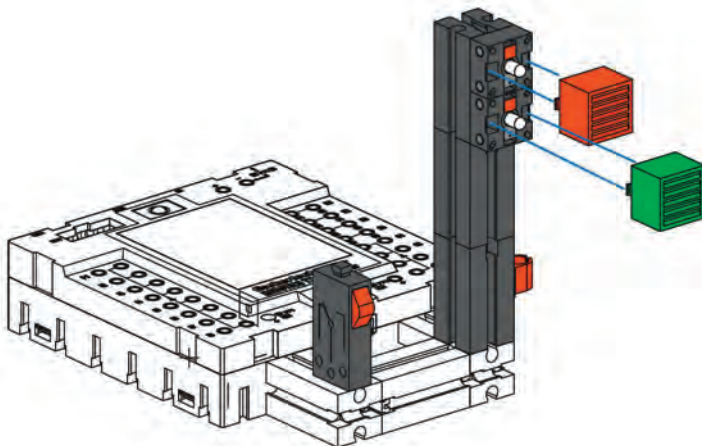
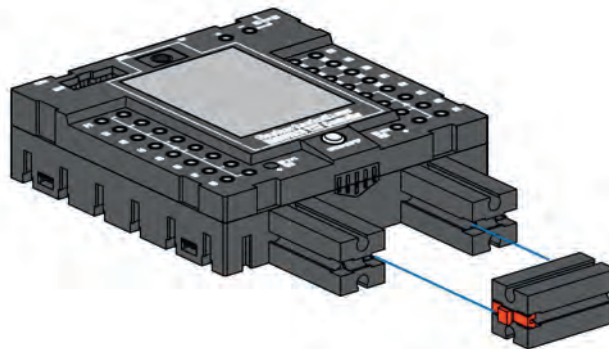
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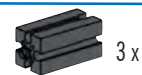
3 x



1 x



2



3 x



1 x



1 x



1 x



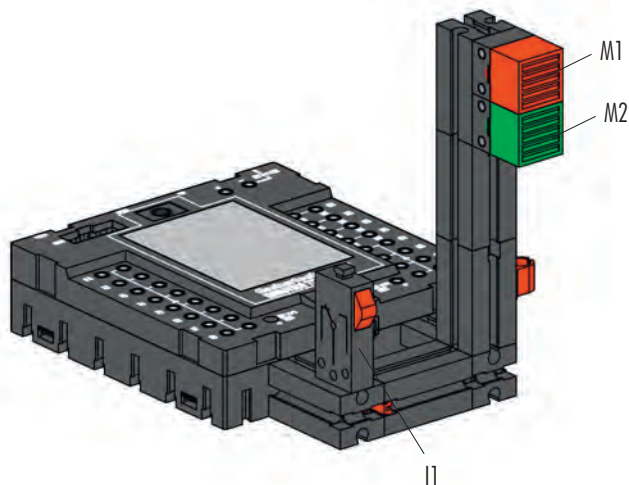
1 x



2 x

LED

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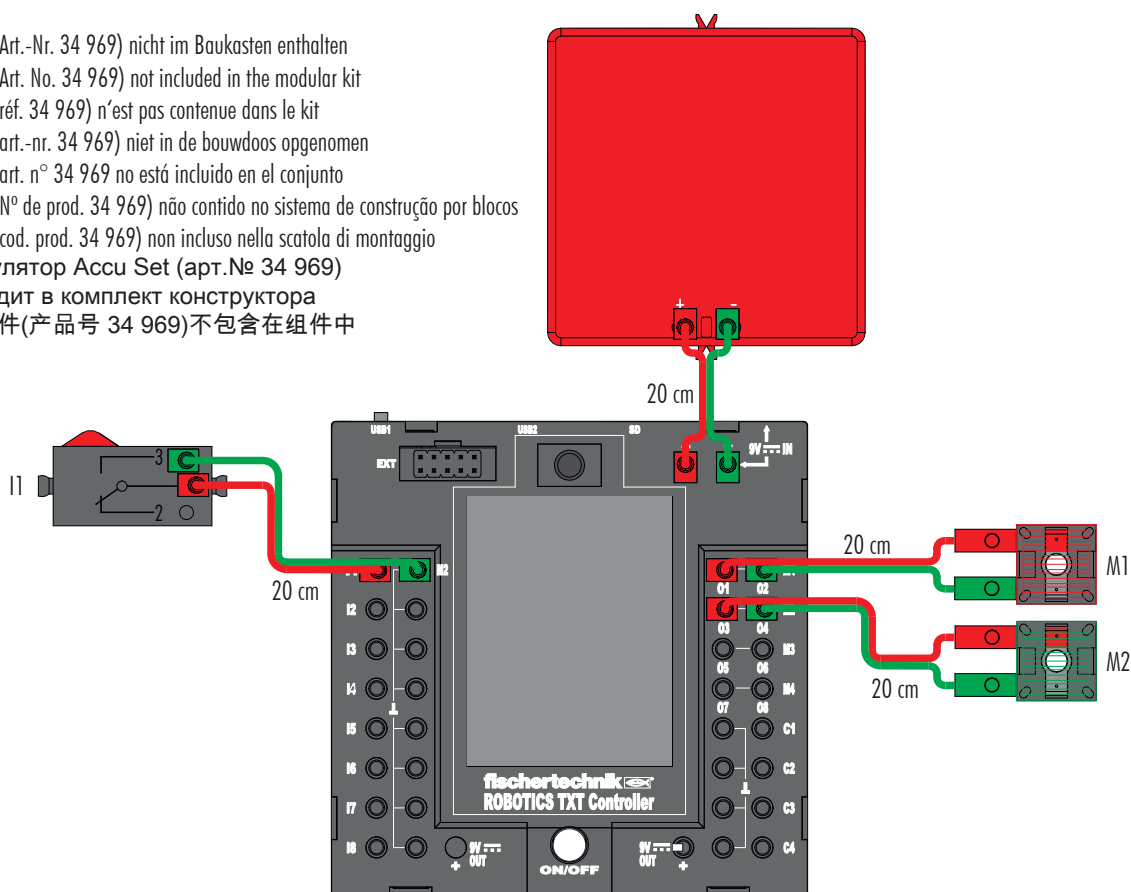


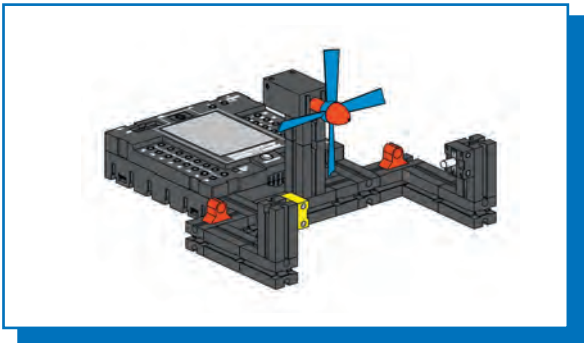
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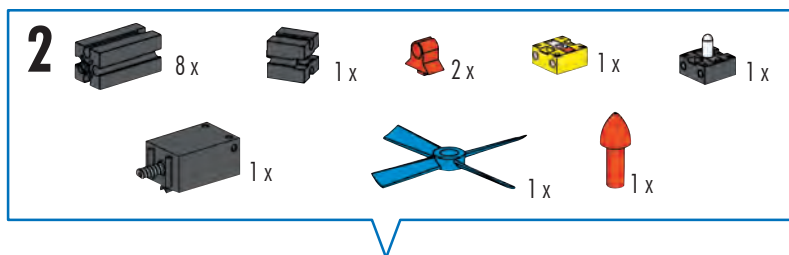
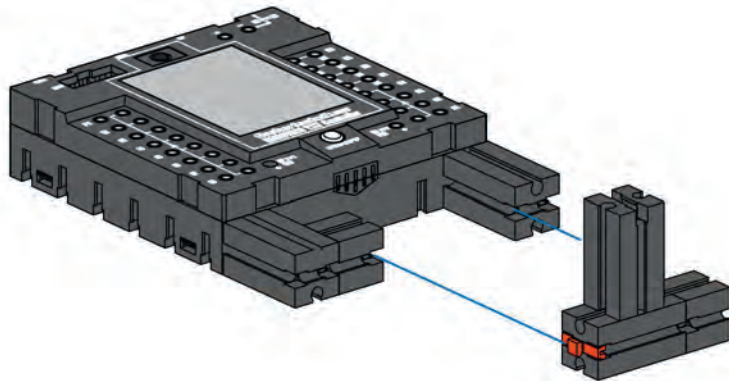
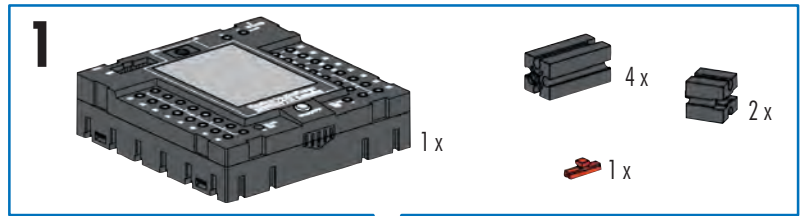




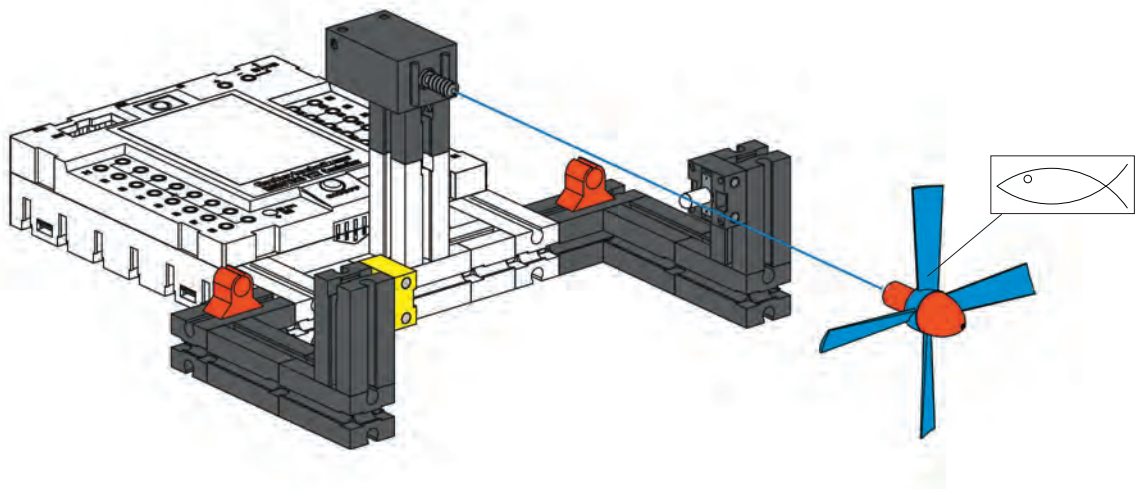
Händetrockner
Hand dryer
Sèche-mains

Handendroger
Secador de manos
Secador de mãos

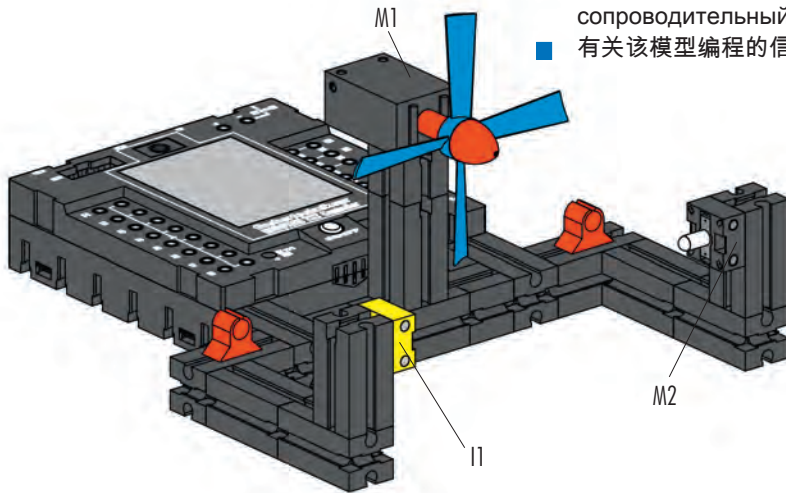
Apparecchio asciugamani
Сушилка для рук
干手机



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



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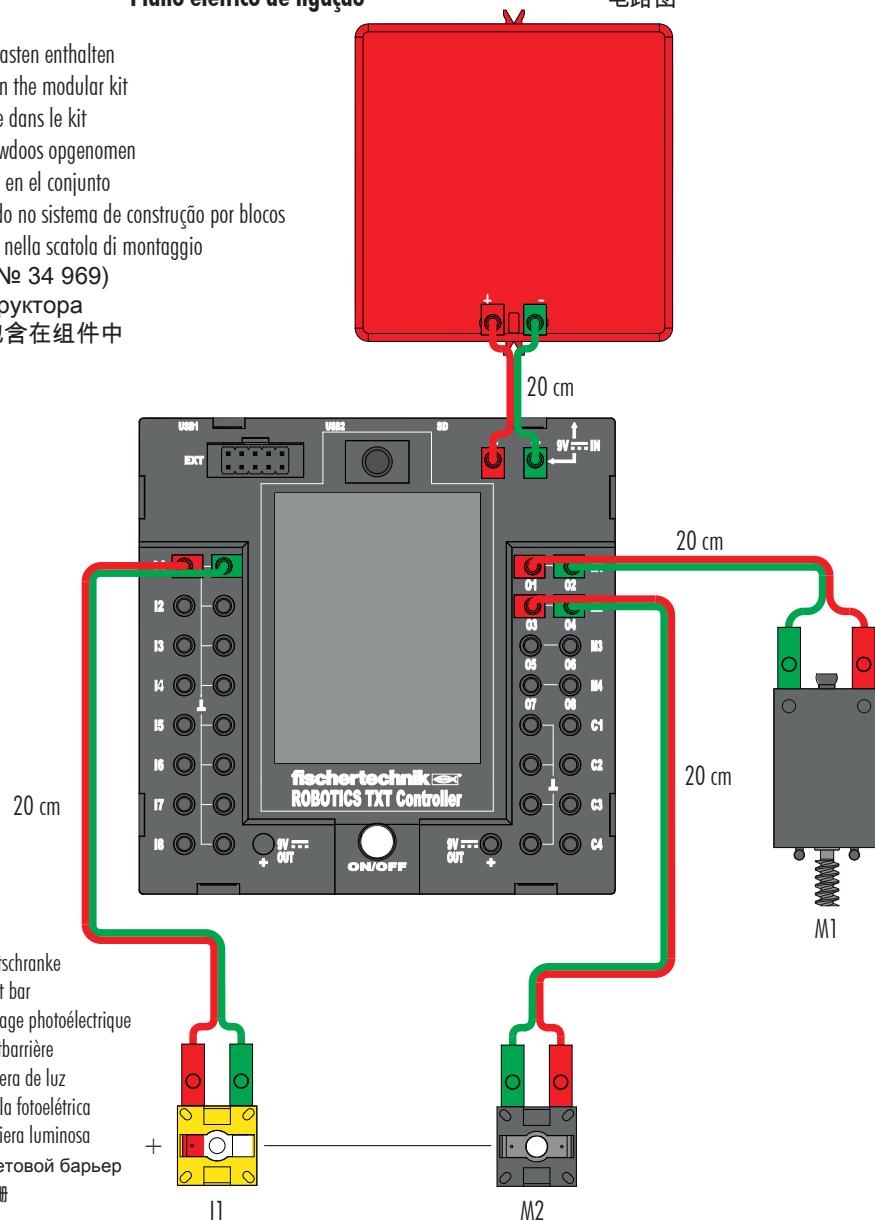


Schaltplan Circuit diagram Plan électrique

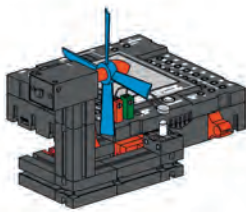
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Schema elettrico Схема подключения 电路图

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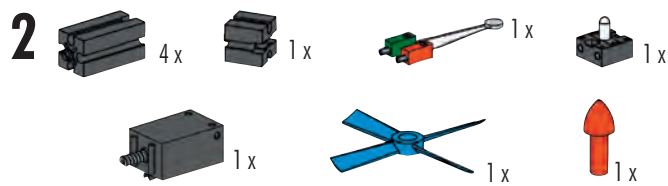
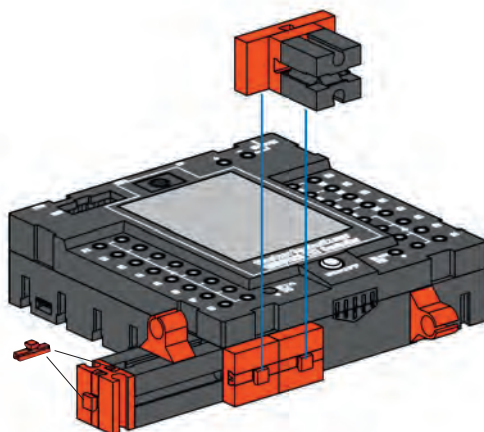
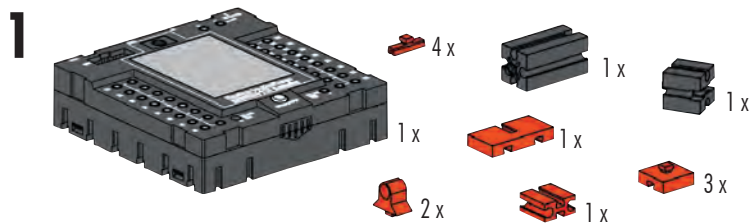
- Lichtschränke
- Light bar
- Barrage photoélectrique
- Lichtbarriere
- Barrera de luz
- Célula fotoelétrica
- Barriera luminosa
- Световой барьер
- 光栅



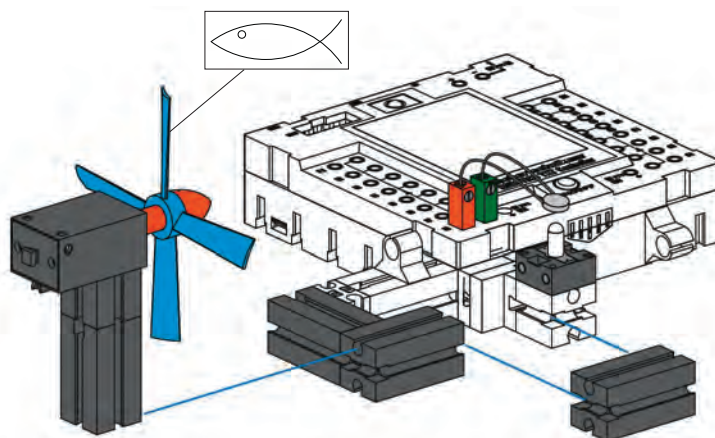
Temperaturregelung
Temperature control
Régulation de la température

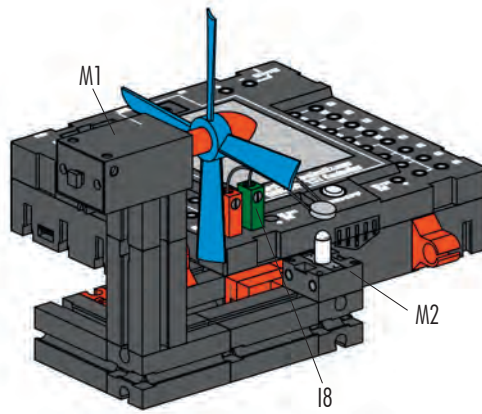
Temperatuurregeling
Regulador de temperatura
Regulagem de temperatura

Regolazione temperatura
Регулятор температуры
温度调节器



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





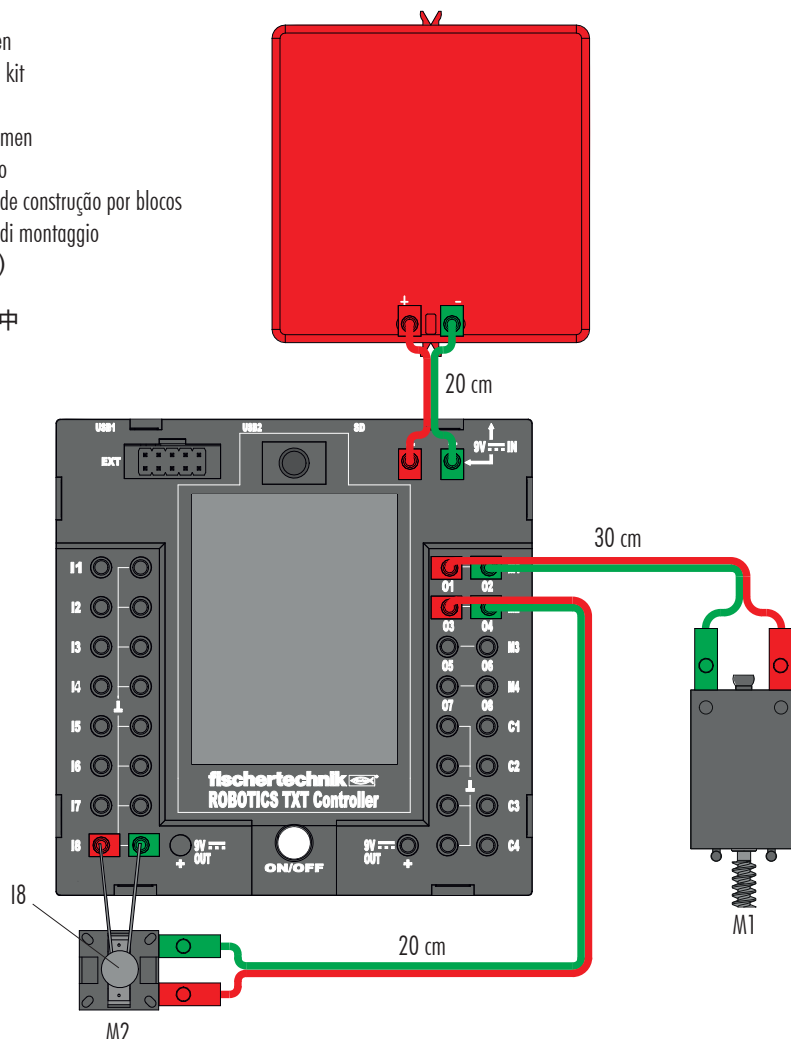
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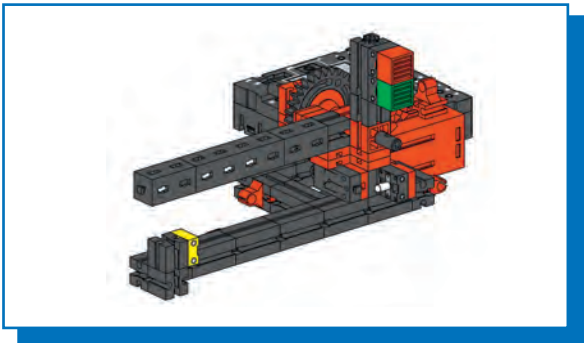
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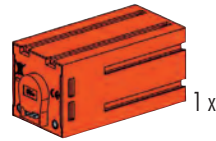


Schranke
Barrier
Barrière

Slagboom
Barrera
Barreira

Barriera
Шлагбаум
栏杆

1



1 x



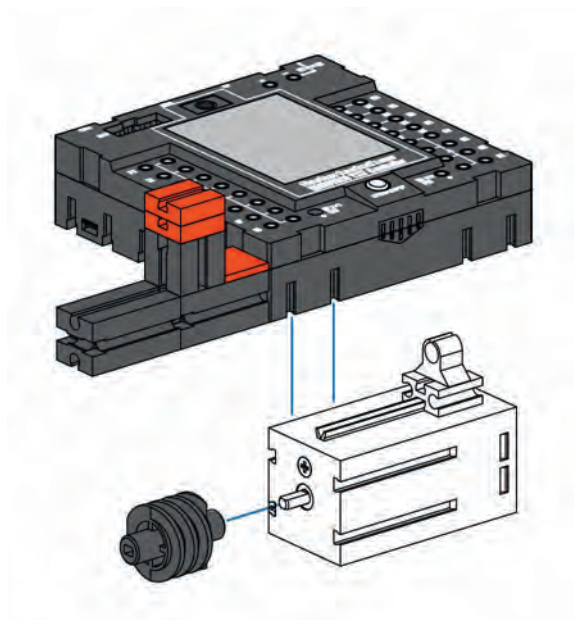
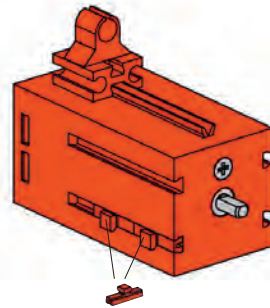
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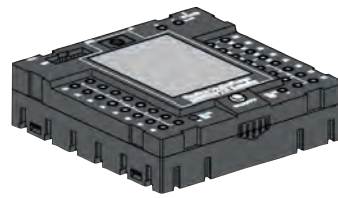
2 x



1 x



2



1 x



2 x



1 x



1 x



2 x



1 x

3



4 x



1 x



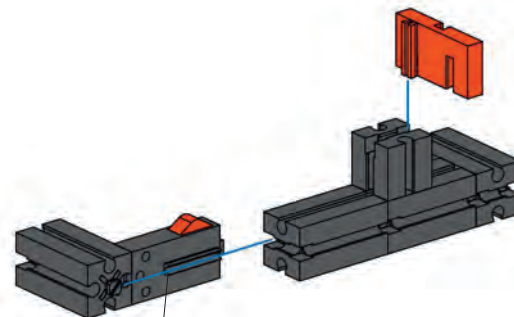
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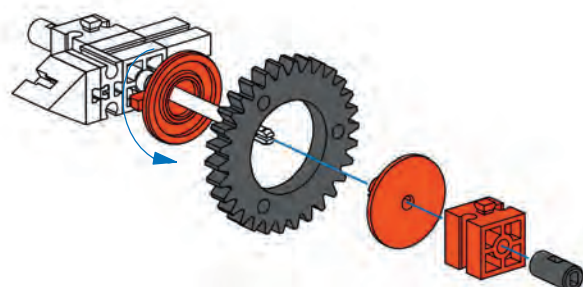
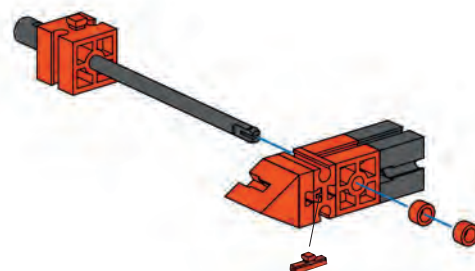
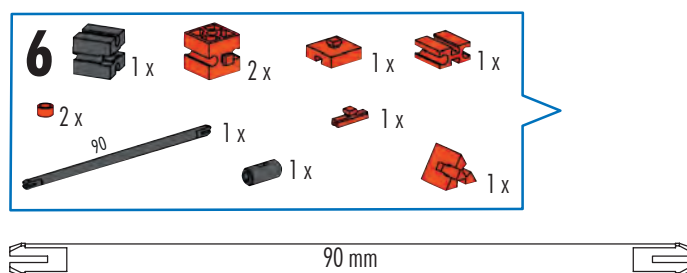
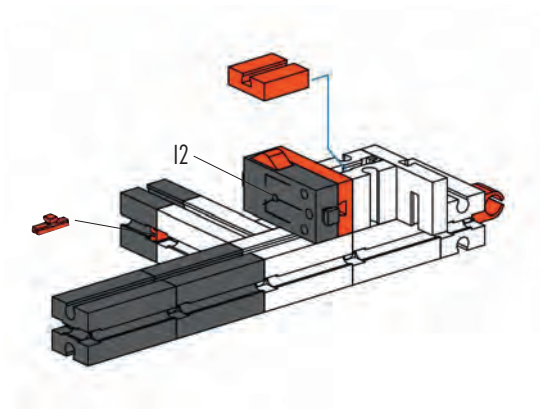
1 x

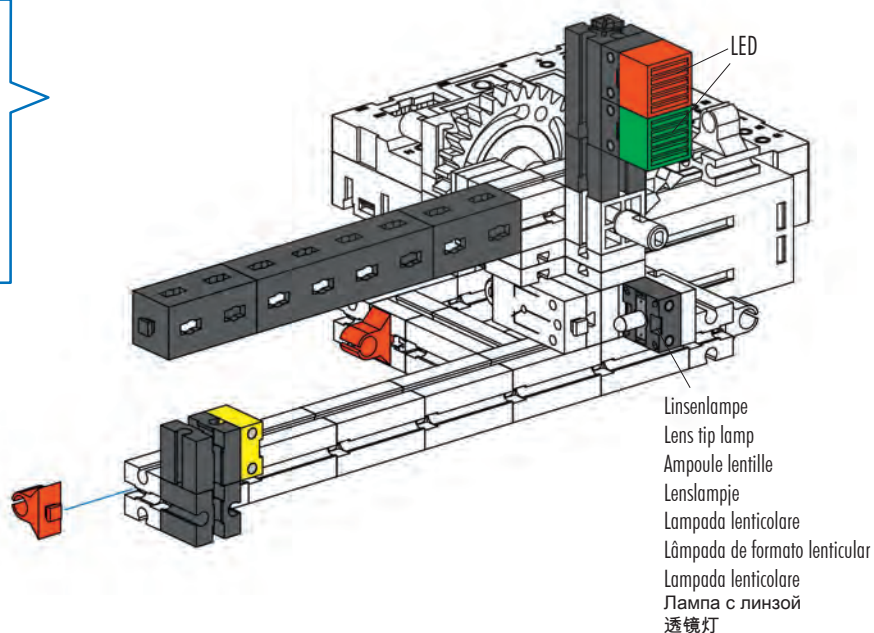
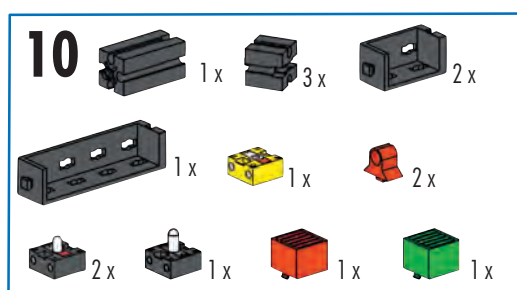
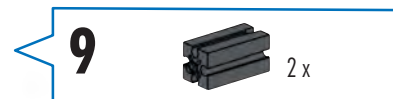
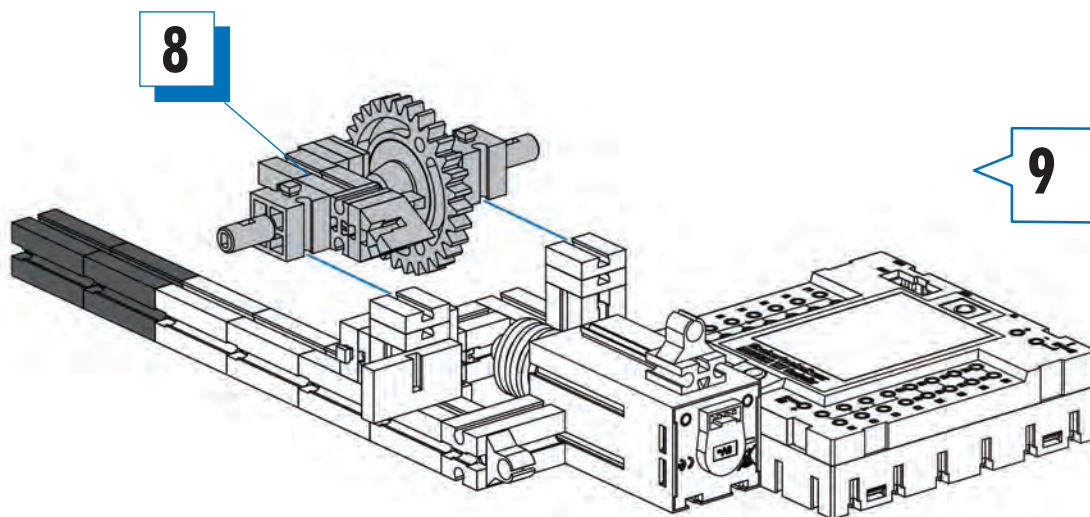
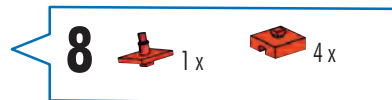
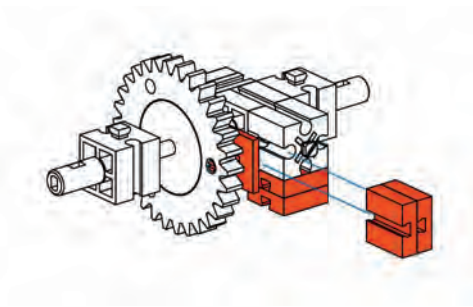


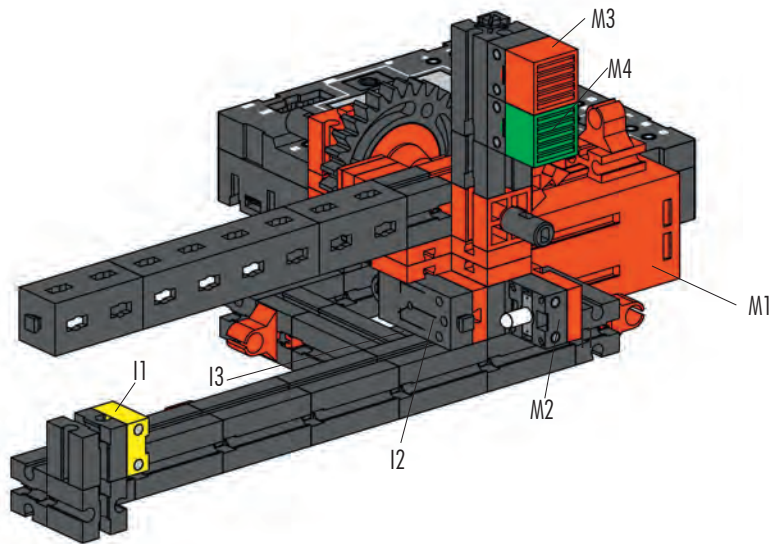
1 x



13







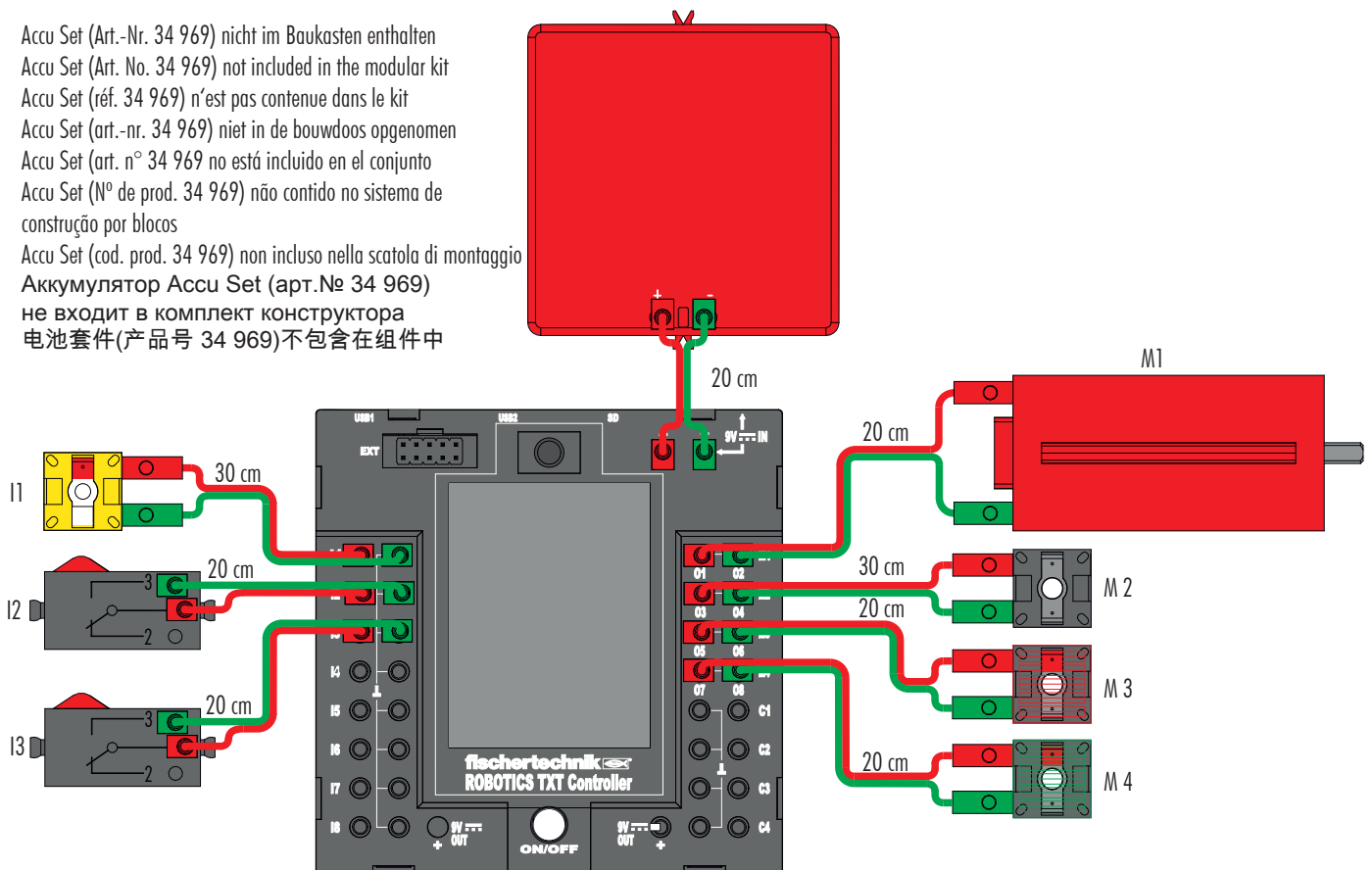
- Informationen zur Programmierung des Modells: Siehe didaktisches Begleitmaterial.
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- 有关该模型编程的信息：见 CD 光盘上的指导性说明资料。

Schaltplan Circuit diagram Plan électrique

Schakelschema Diagrama de circuitos Plano elétrico de ligação

Schema elettrico Схема подключения 电路图

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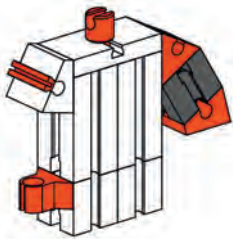
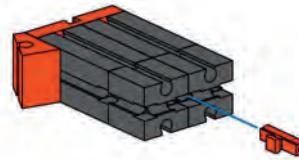


Kameramann
Camera man
Cadreur

Cameraman
Operador de cámara
Cinegrafista

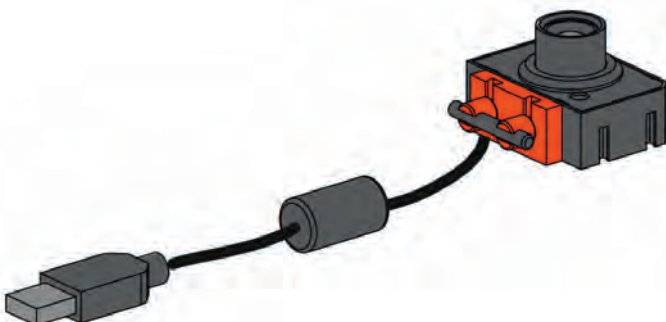
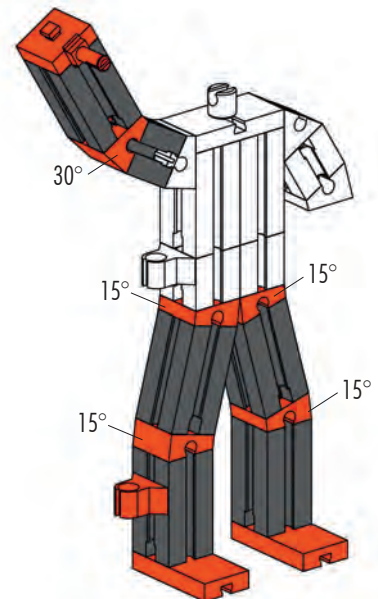
Cameraman
Оператор с камерой
摄影师

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



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

- 3**  5x  1x  2x  1x  4x  1x  1x



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

30 mm

4

5



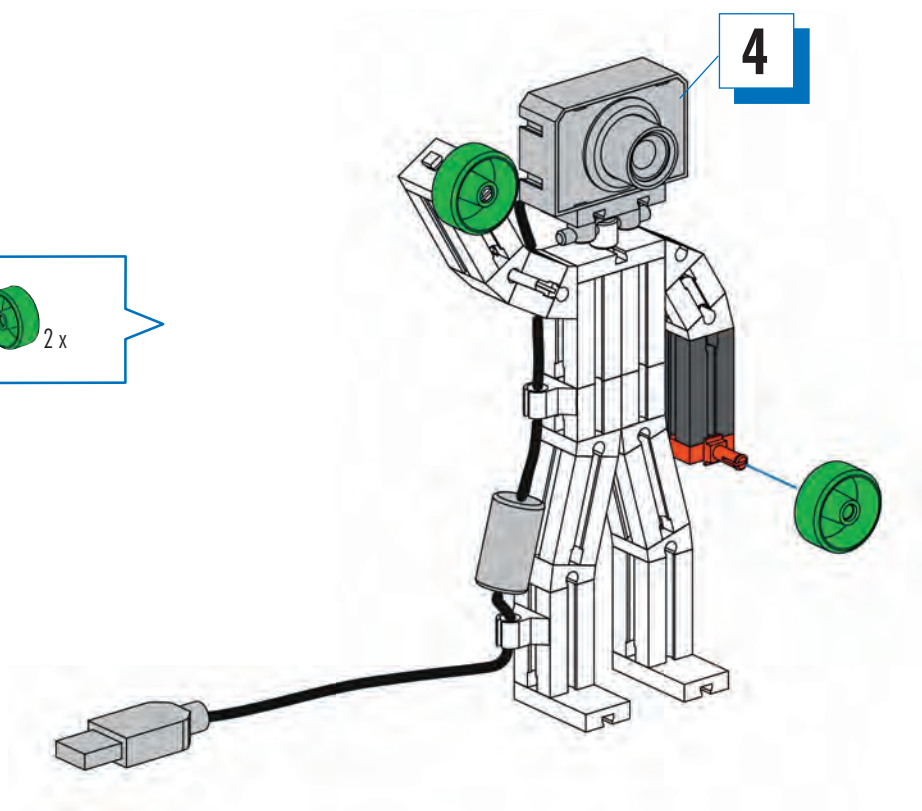
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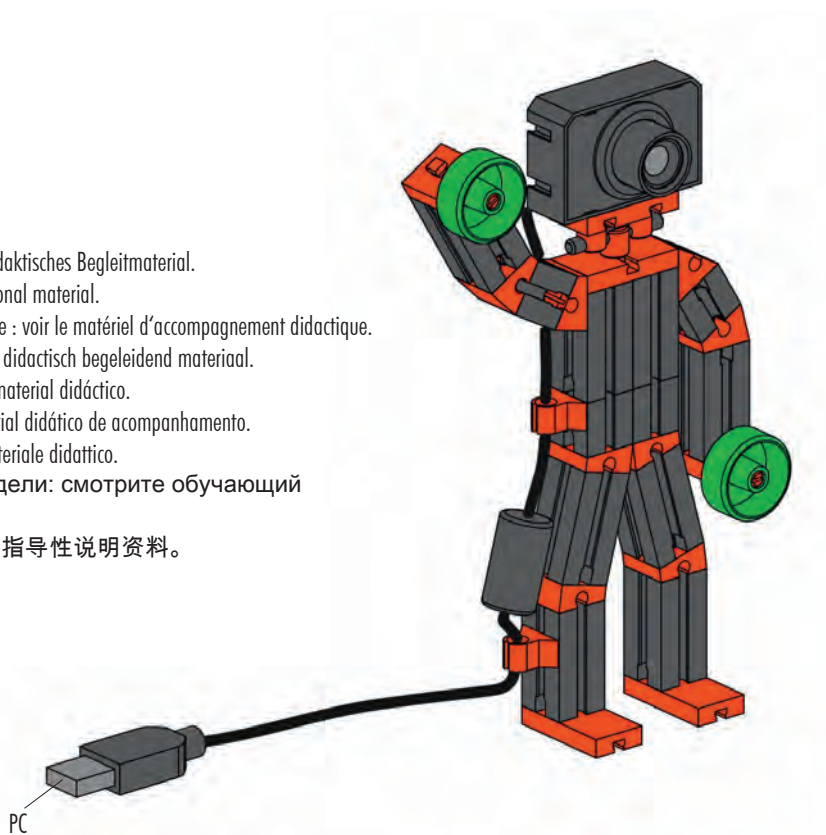
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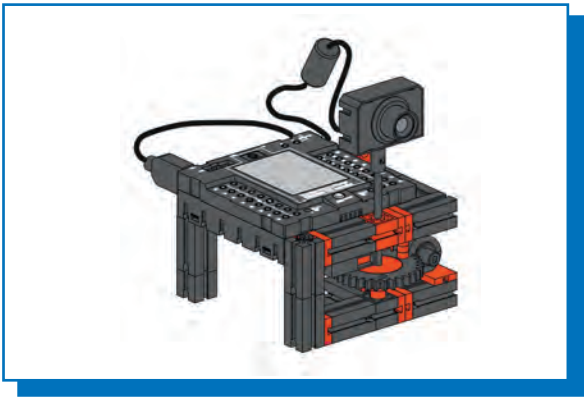


2 x



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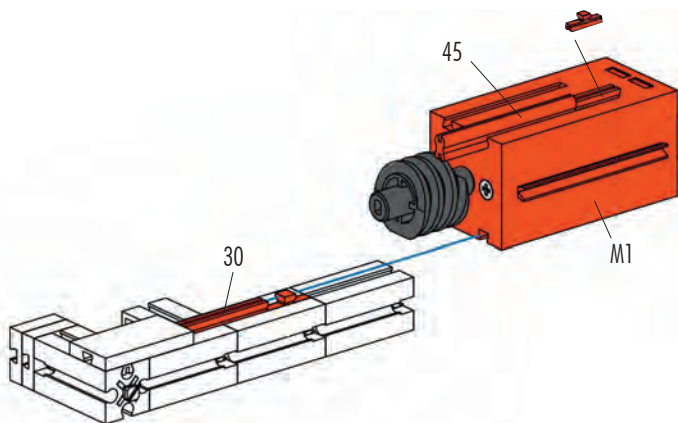
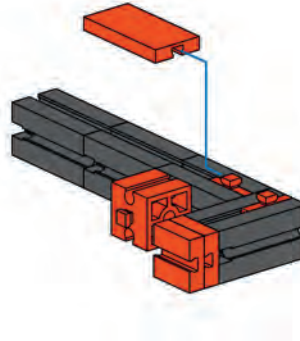


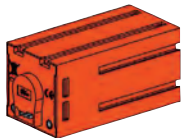
Schwenkbare Kamera
Swiveling camera
Caméra orientable

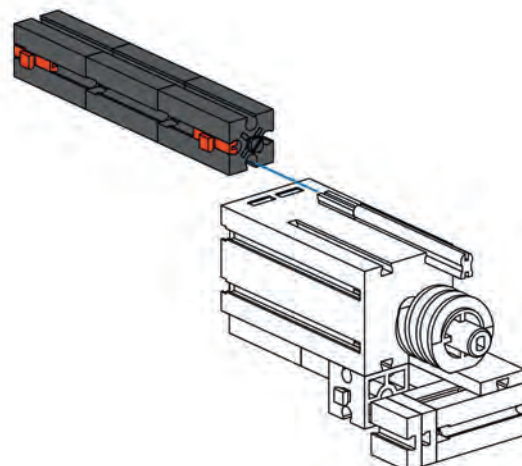
Zwenkbare camera
Cámara basculante
Câmara giratória

Camera orientabile
Поворотная камера
可回转的照相机

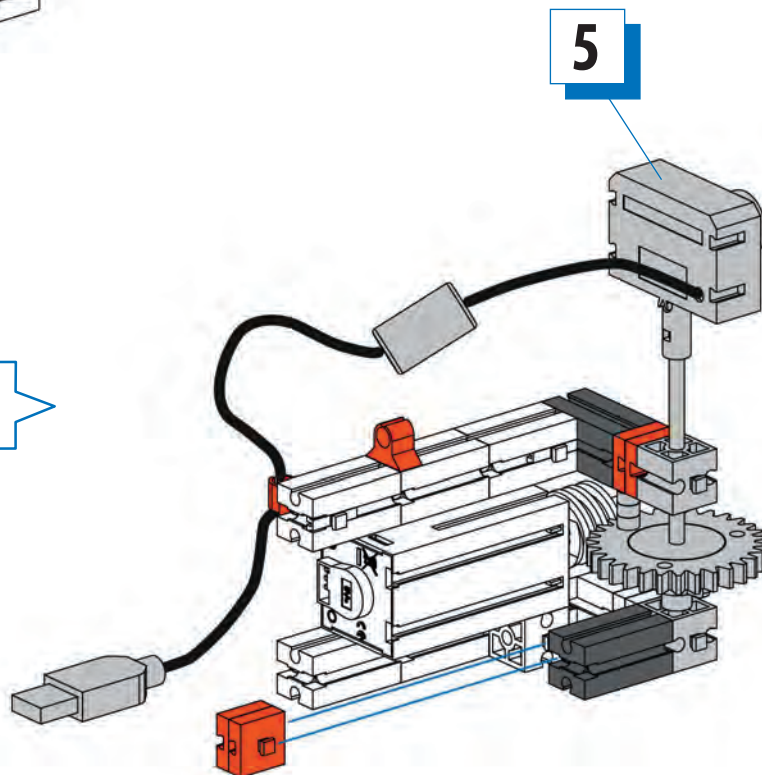
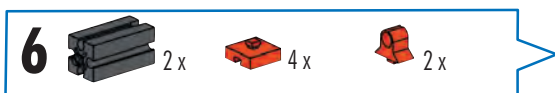
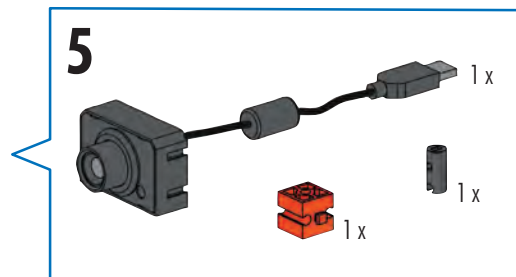
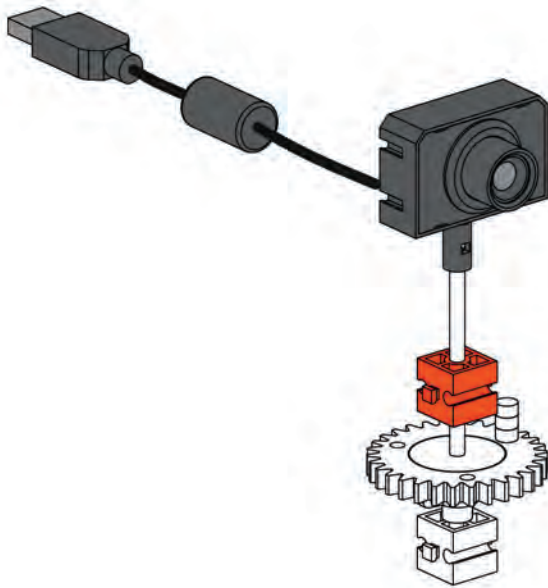
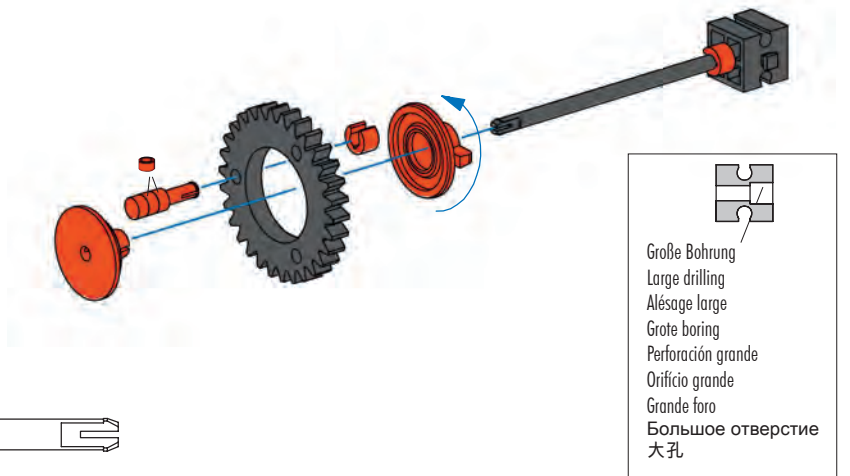
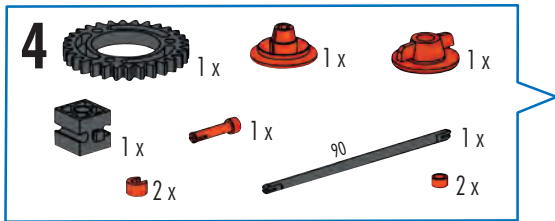
- 1**  4 x  2 x  1 x  1 x  2 x

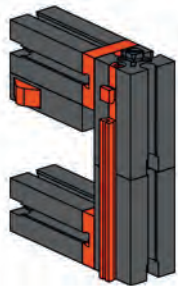


- 2**  1 x  1 x  2 x  1 x  1 x

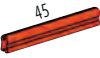


- 3**  3 x  2 x

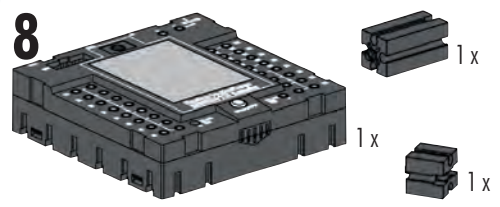




7

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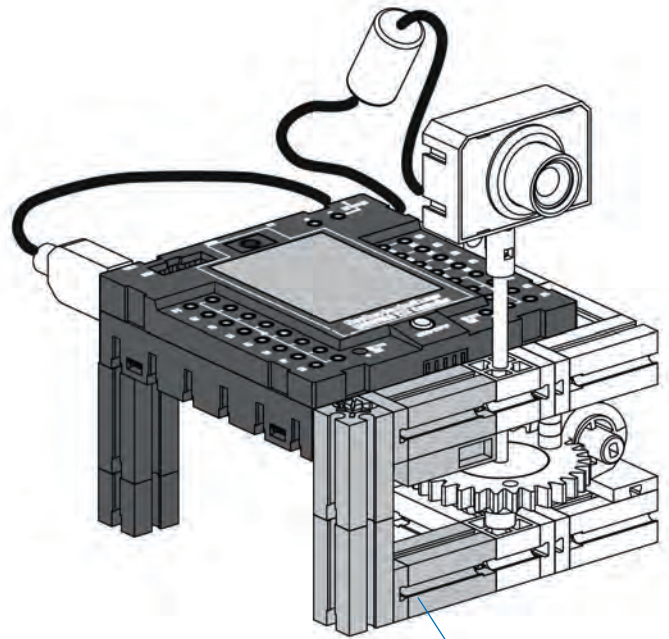
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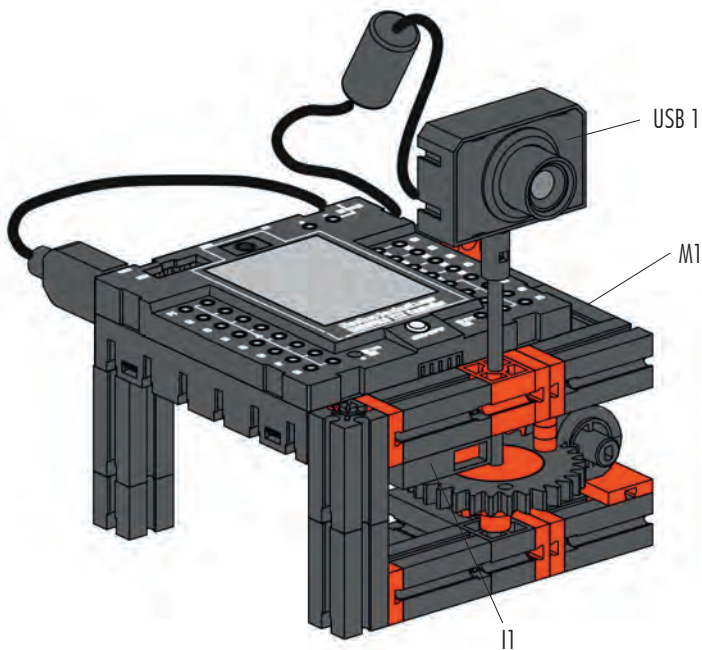
1 x

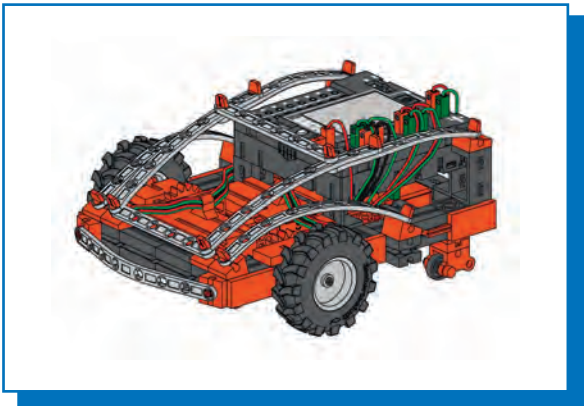
1 x

1 x



7

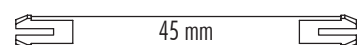
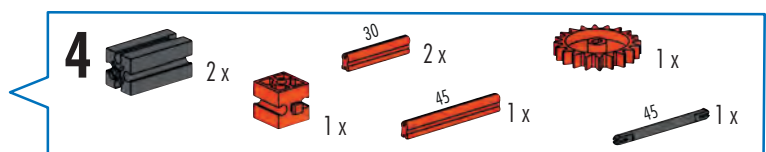
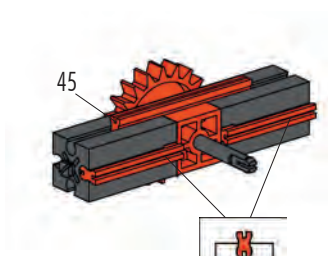
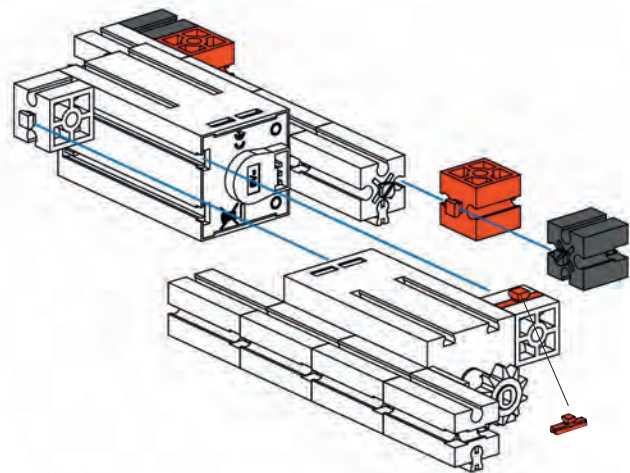
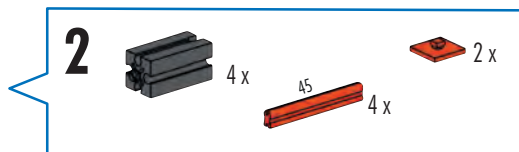
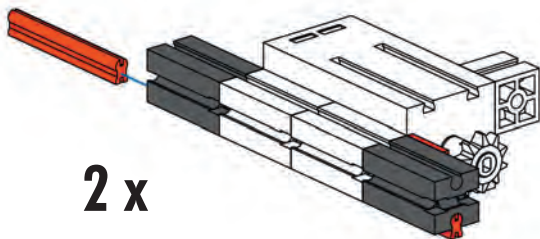
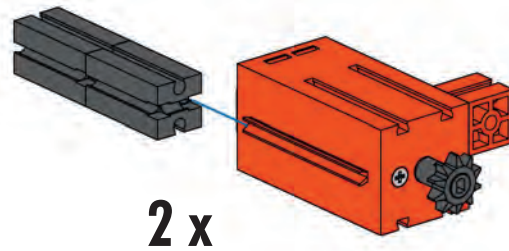
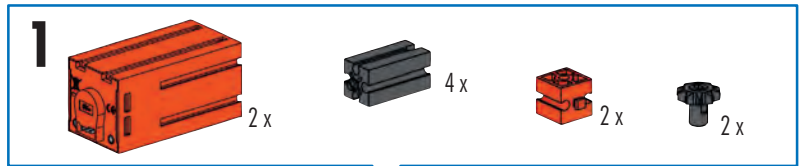




Fahrroboter
Mobile robot
Véhicule robot

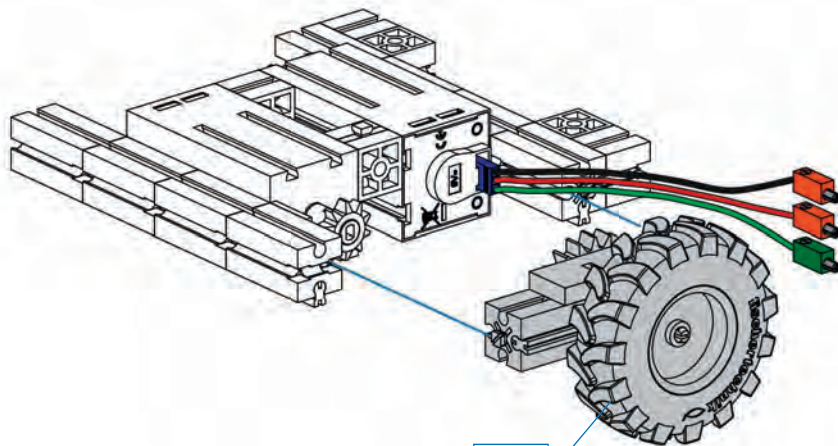
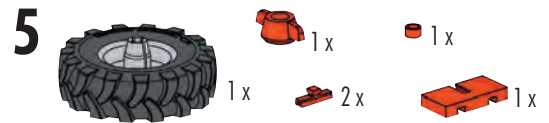
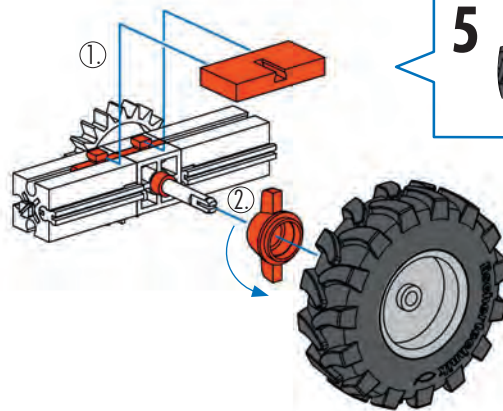
Rijrobot
Robot desplazable
Robô condutor

Robot mobile
Робот-автомобиль
机器人车

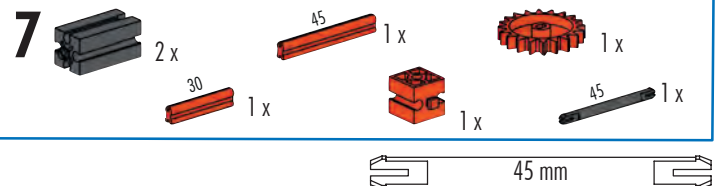
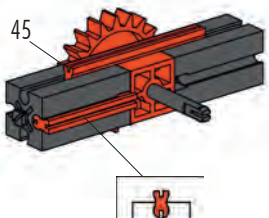




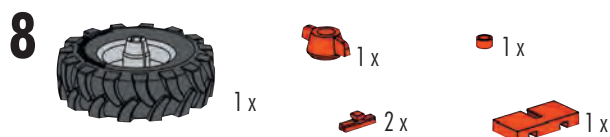
- Nabenmuttern festdrehen
- Fasten the hub nuts home
- Serrer les écrous de moyeu
- Draai de naafmoeren vast
- Atornillar las tuercas laterales
- Apertar bem as porcas de cubo
- Stringere i dadi dei mozzi
- Затянуть гайки ступиц
- 拧紧



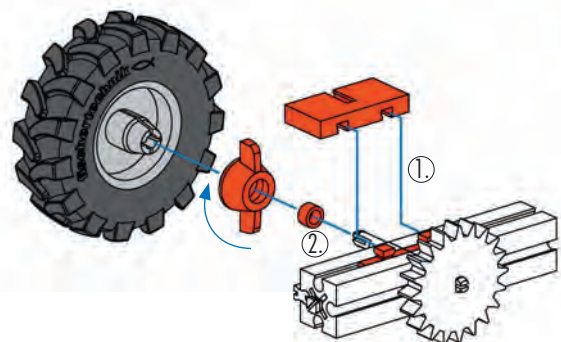
5

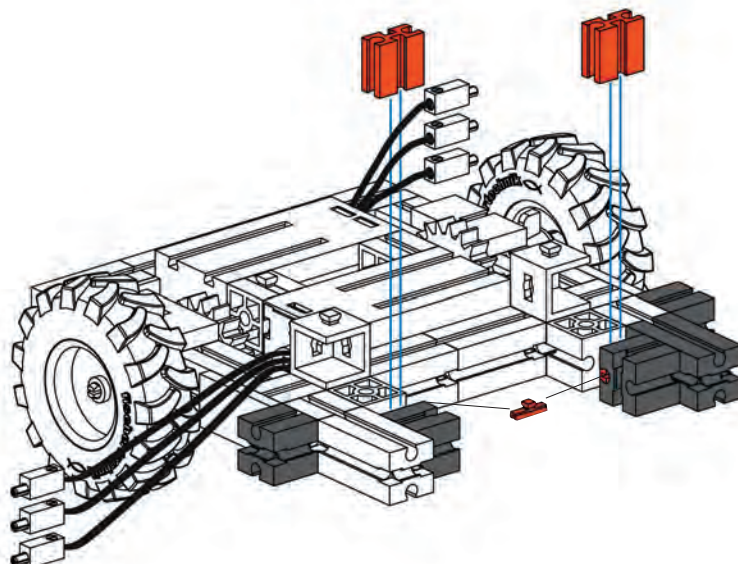
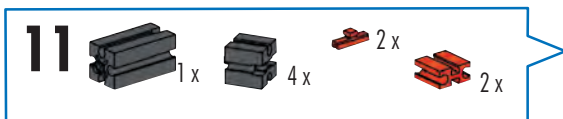
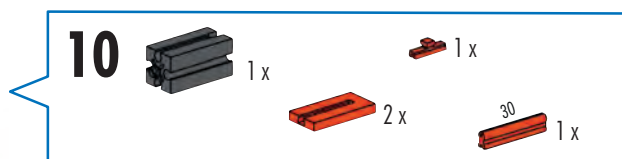
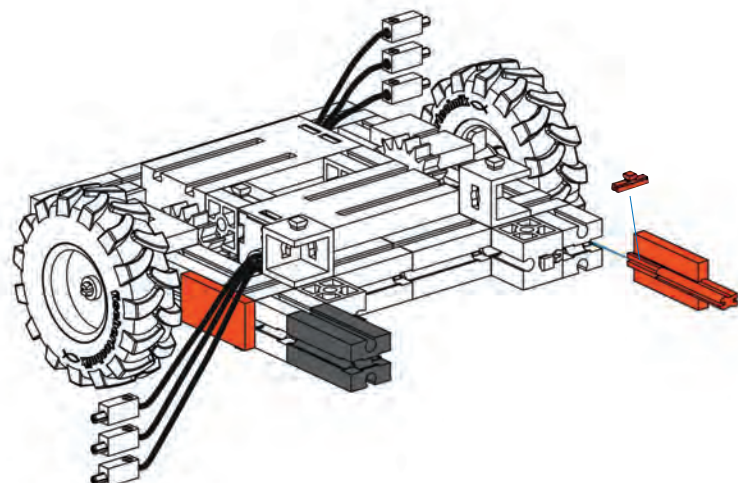
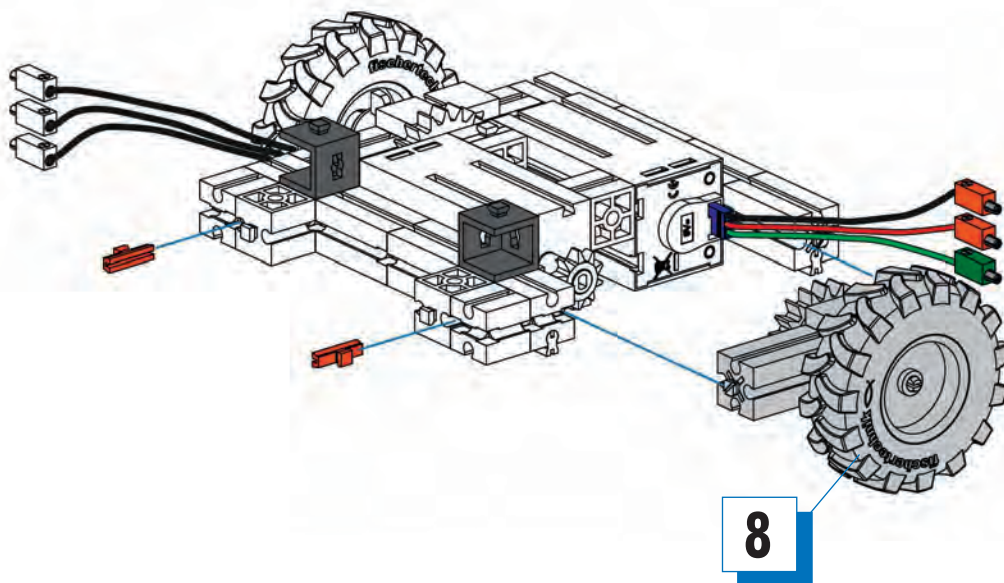
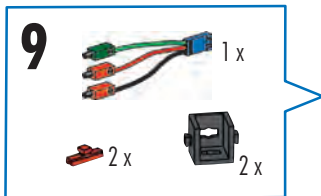


45 mm

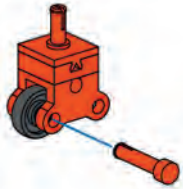


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- Fasten the hub nuts home
- Serrer les écrous de moyeu
- Draai de naafmoeren vast
- Atornillar las tuercas laterales
- Apertar bem as porcas de cubo
- Stringere i dadi dei mozzi
- Затянуть гайки ступиц
- 拧紧





2 x

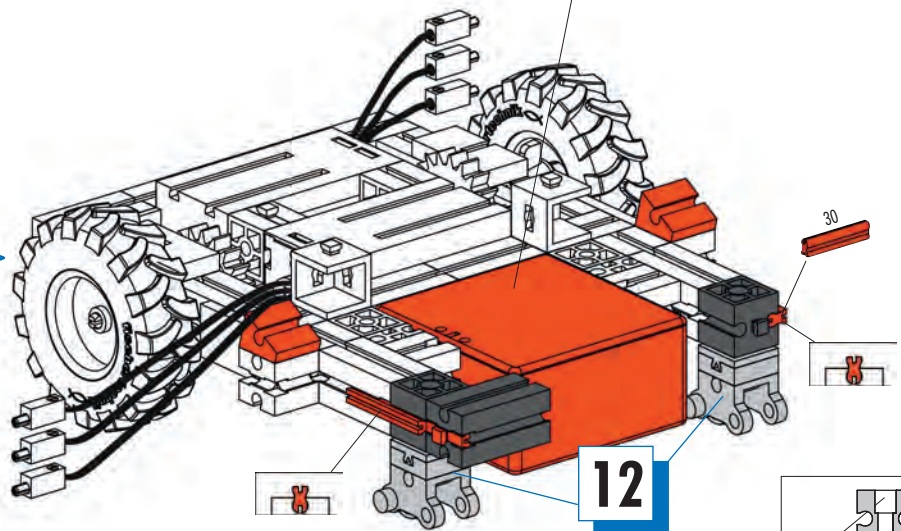
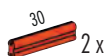


12

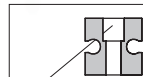


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13

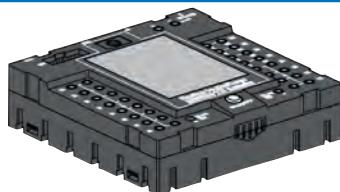


12

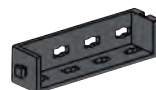


Große Bohrung
Large drilling
Alésage large
Grote boring
Perforación grande
Orificio grande
Grande foro
Большое отверстие
大孔

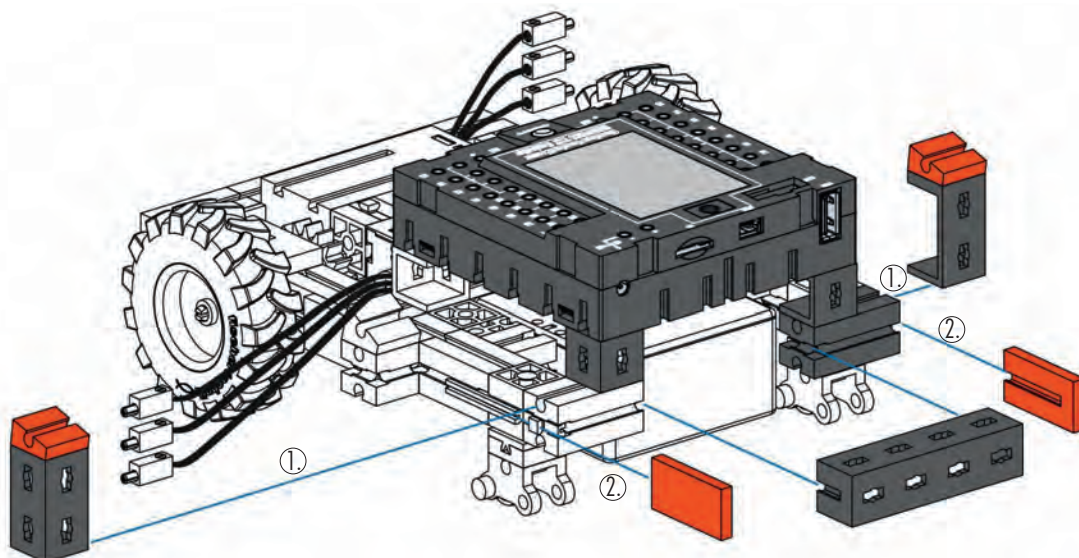
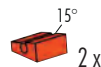
14



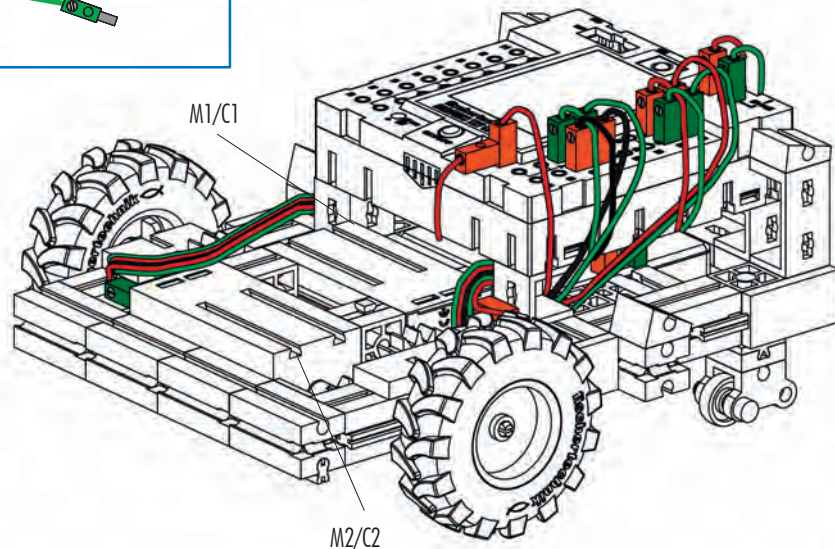
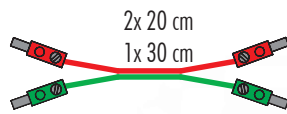
1 x



1 x



15

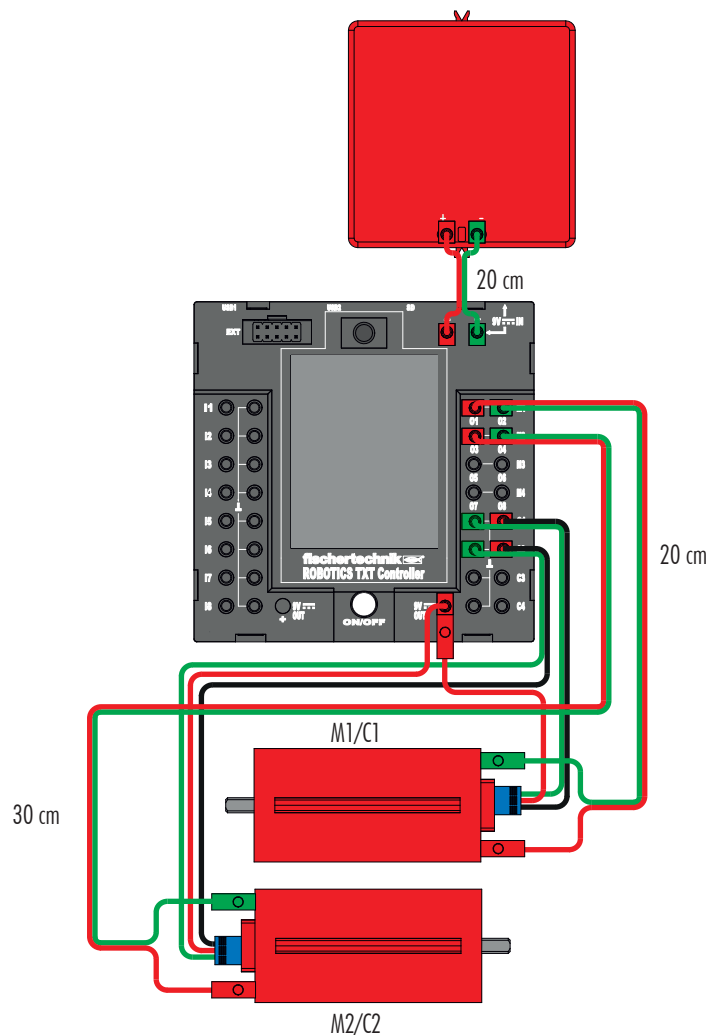


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Schaltplan
Circuit diagram
Plan électrique

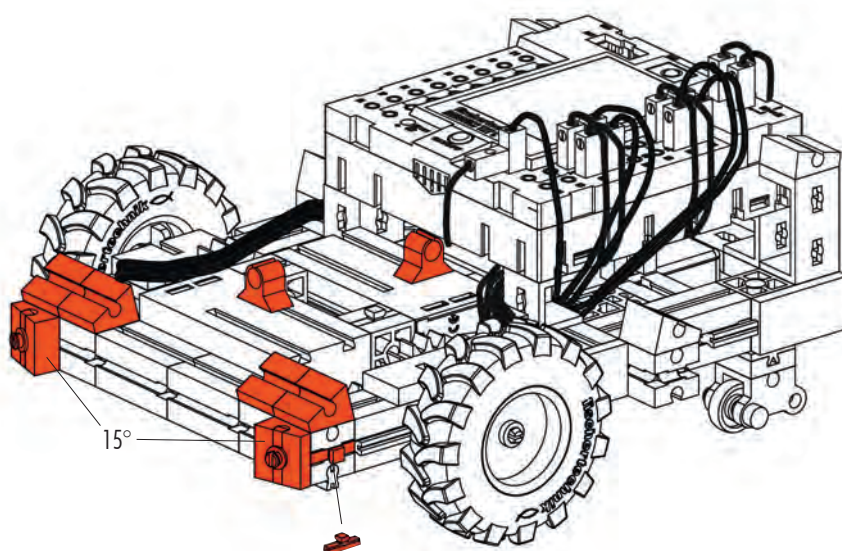
Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

Schema elettrico
Схема подключения
电路图

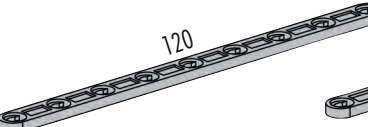
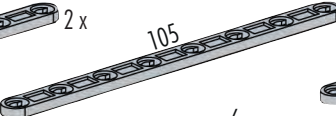
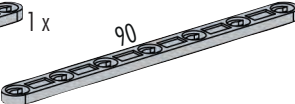
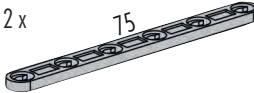


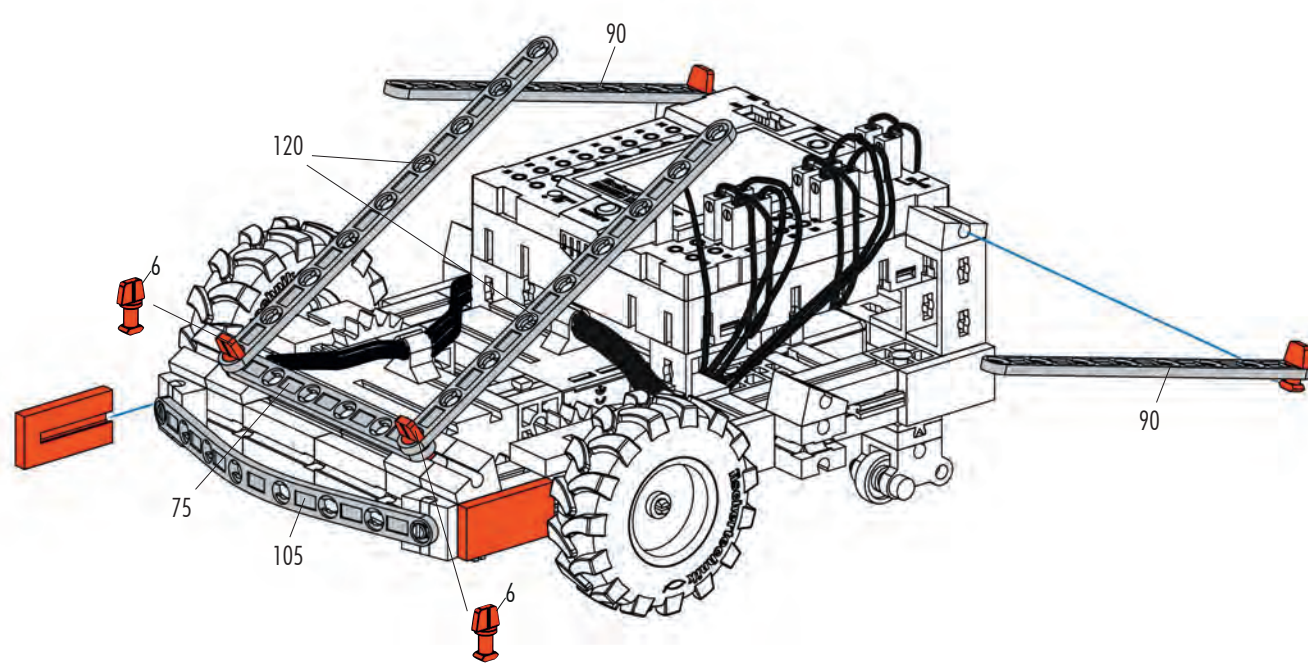
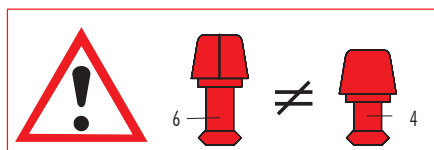
16

 4 x
 2 x
 1 x
 2 x
 2 x

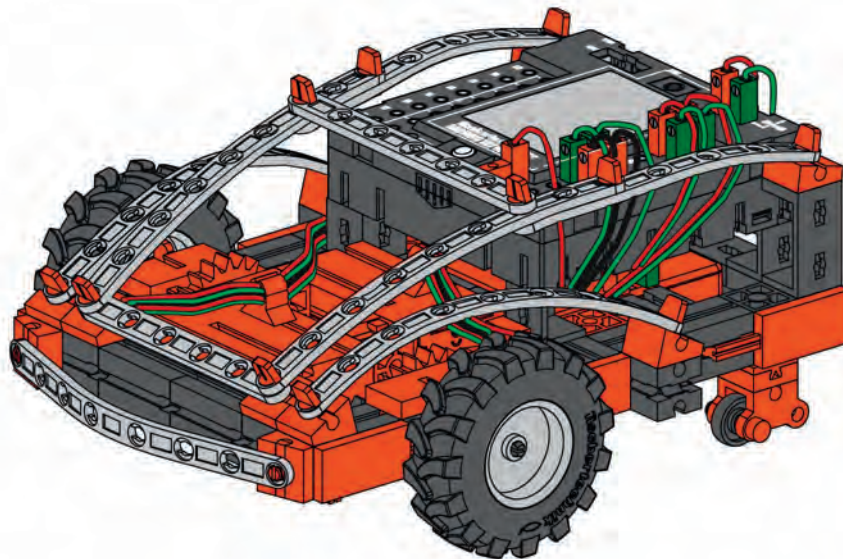
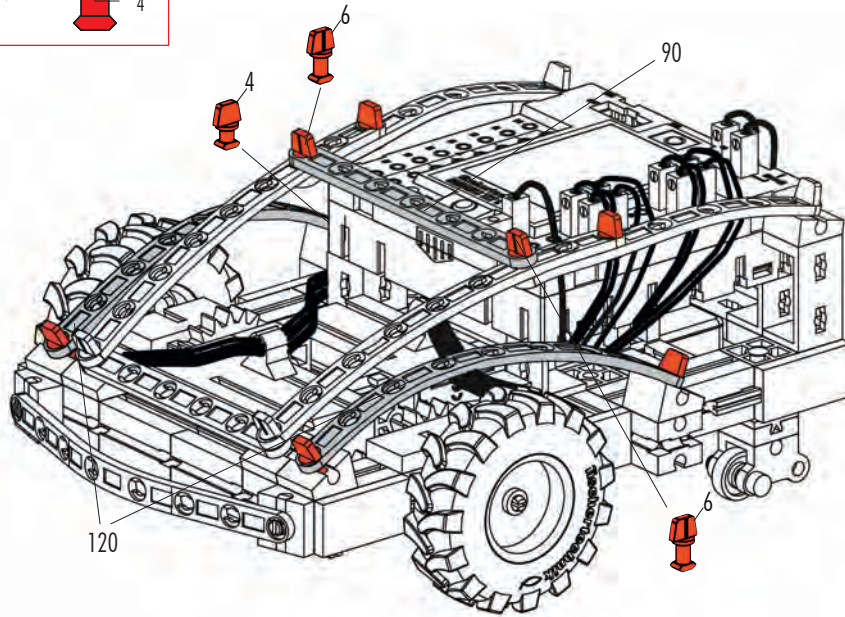
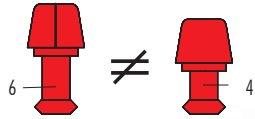
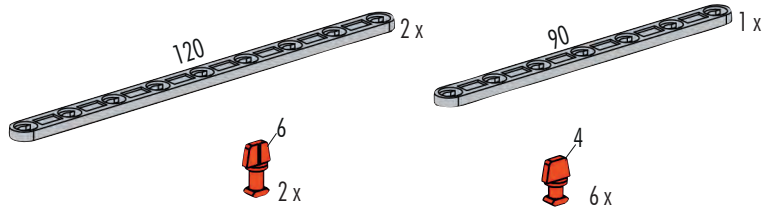


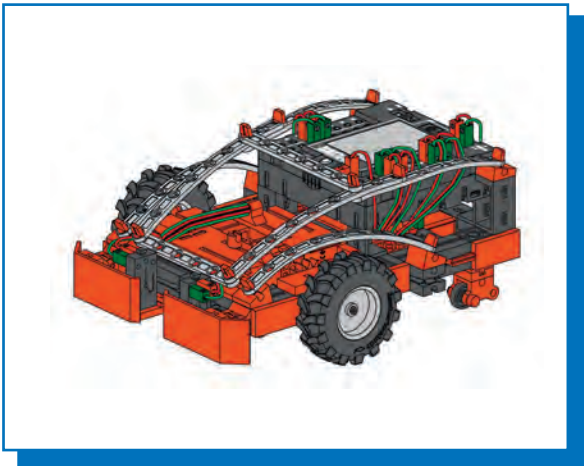
17

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



18





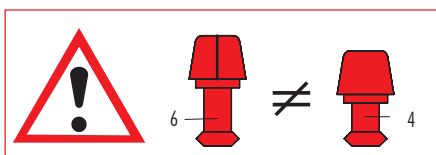
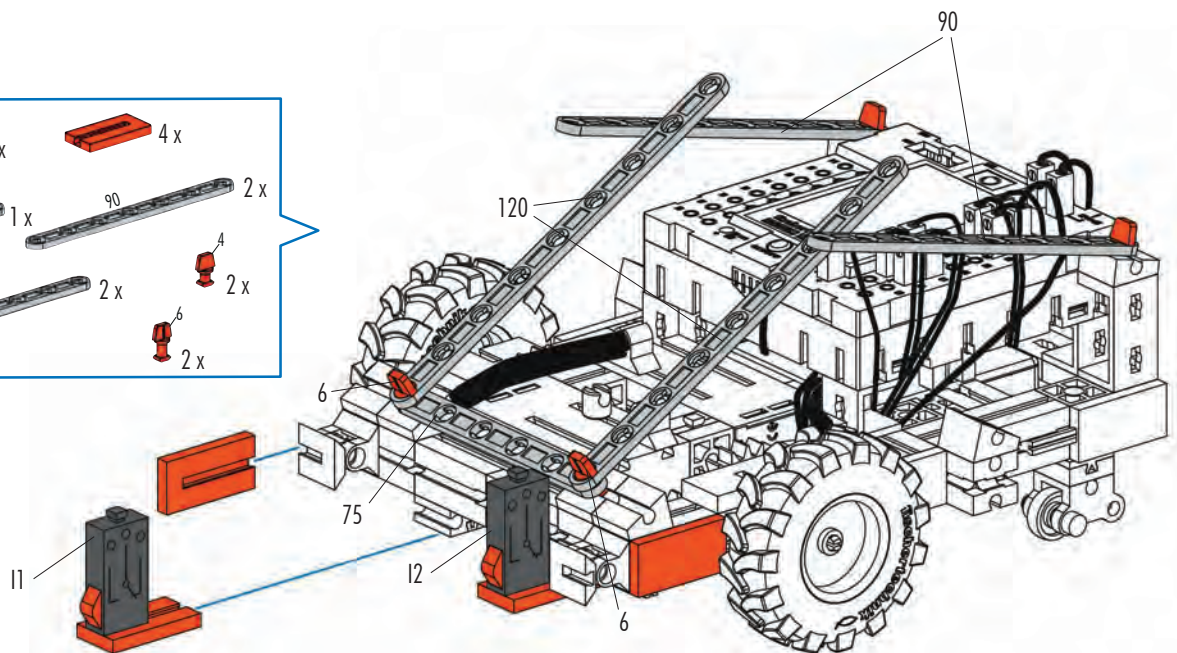
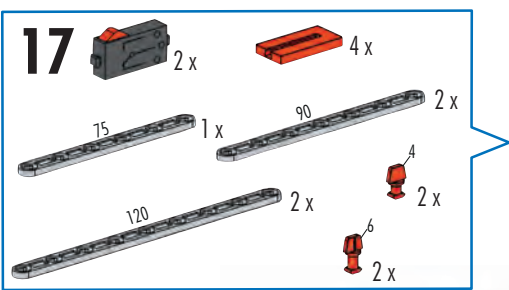
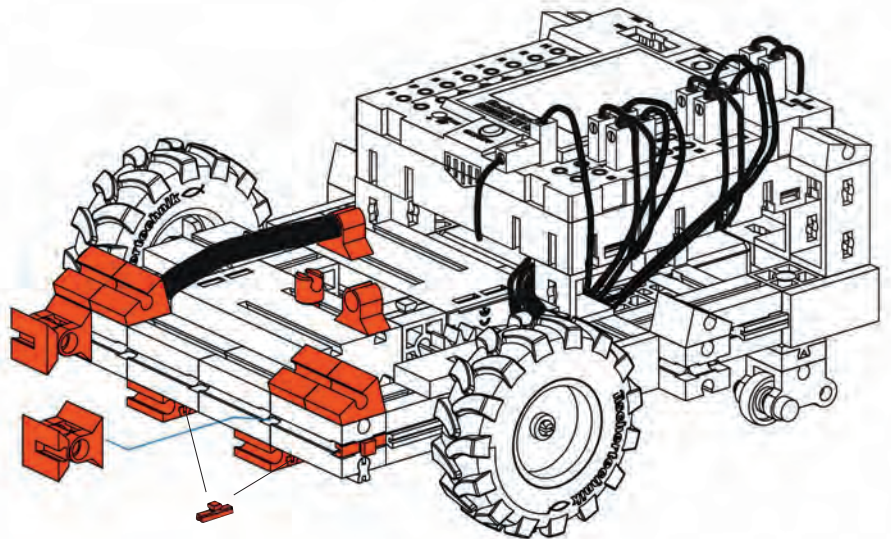
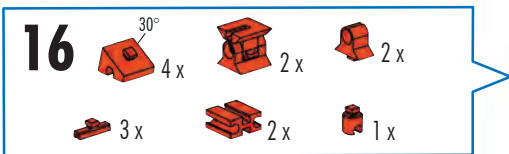
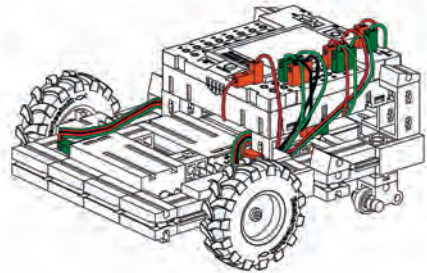
Hinderniserkenner
Hindrance detector
Détecteur d'obstacles

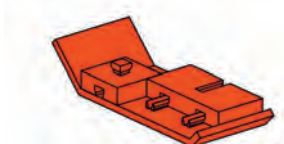
Obstakeldetector
Detector de obstáculos
Identificador de obstáculos

Rilevatore di ostacoli
Обнаружитель препятствий
障碍物识别车

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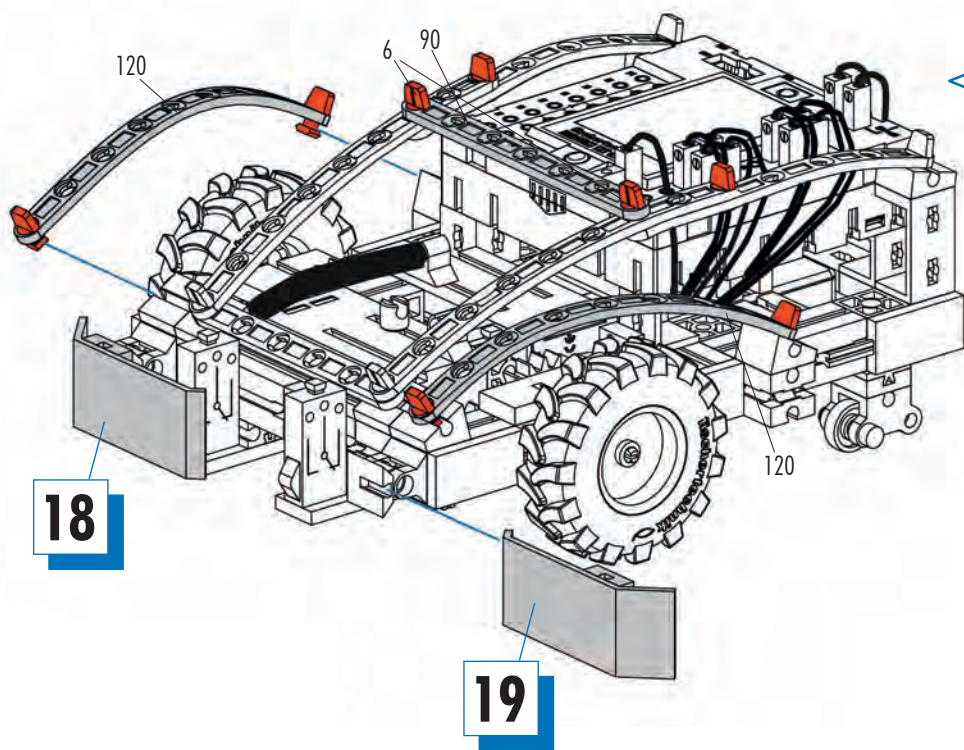
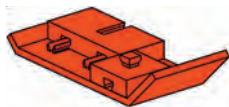
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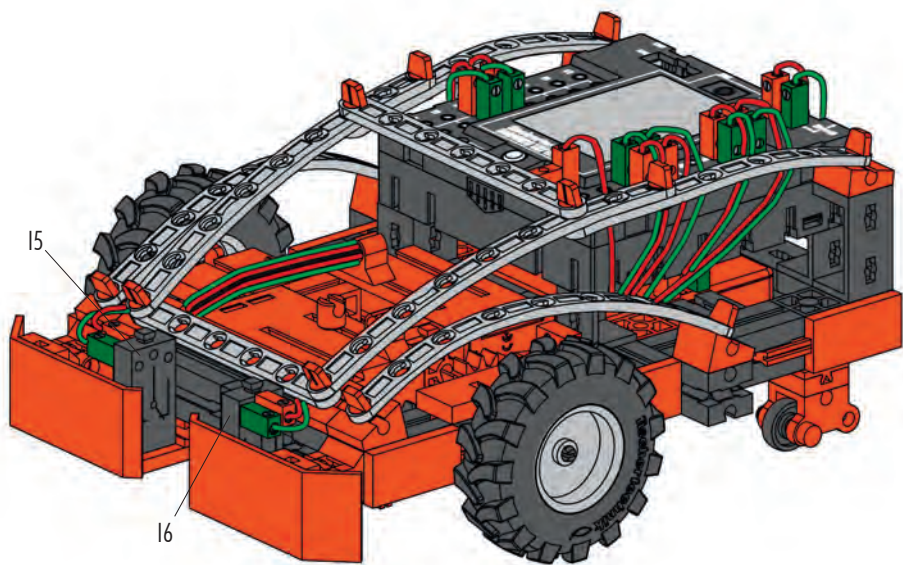
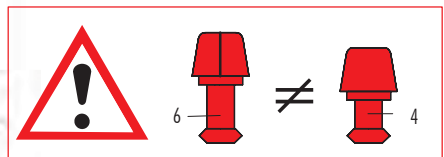


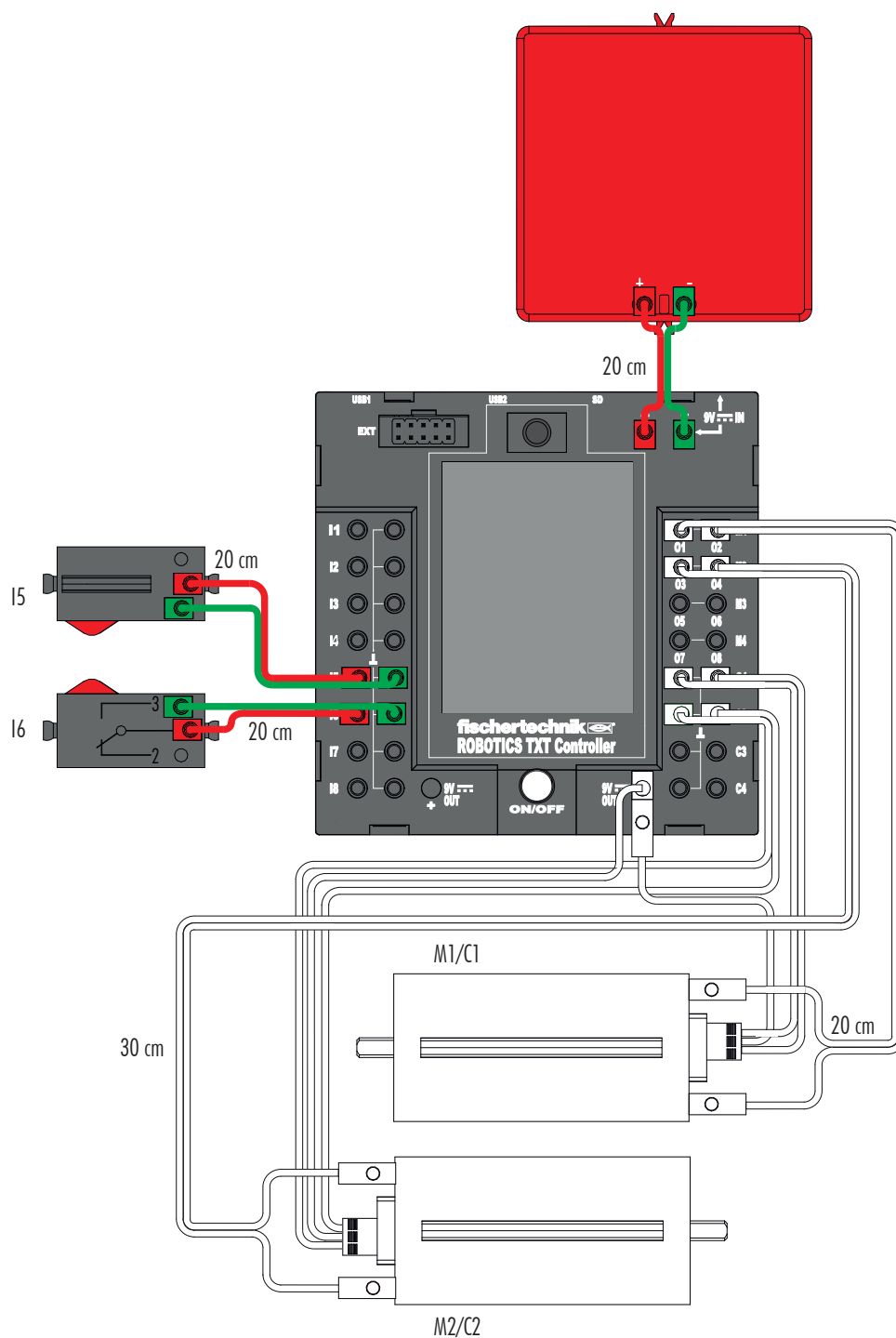
18 1 x 1 x 1 x

19 1 x 1 x 1 x

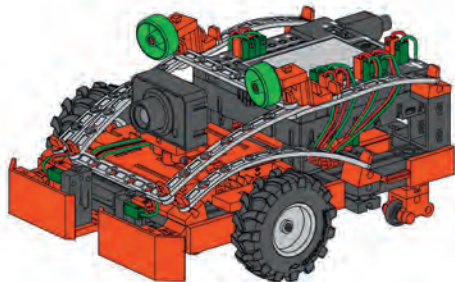


20 2 x 1 x 2 x 6 x





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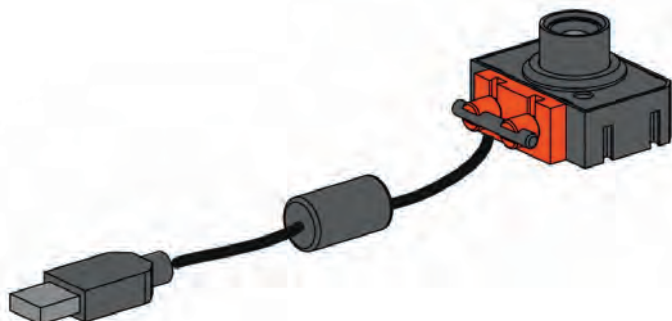
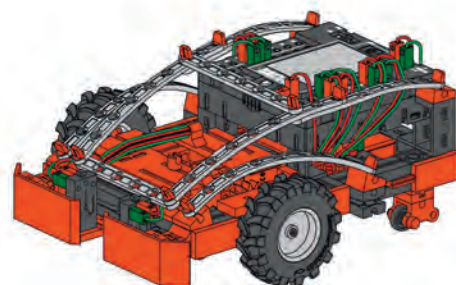
Hinderniserkenner mit Kamera
Hindrance detector with camera
Détecteur d'obstacles avec caméra

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

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21

2 x

1 x



1 x

30 1 x

30 mm

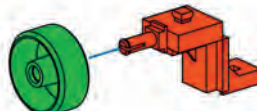
22

2 x

2 x

2 x

2 x



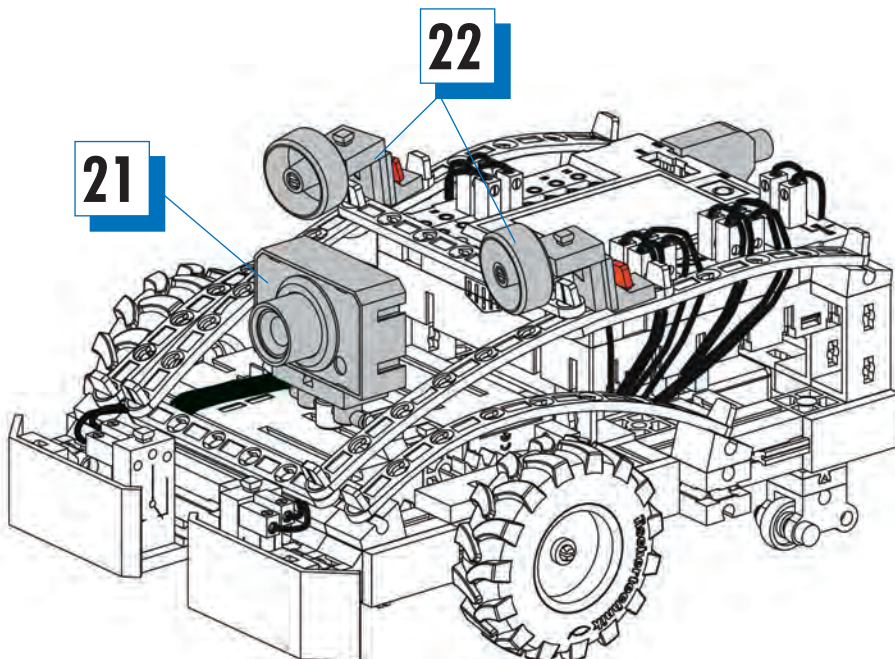
2 x

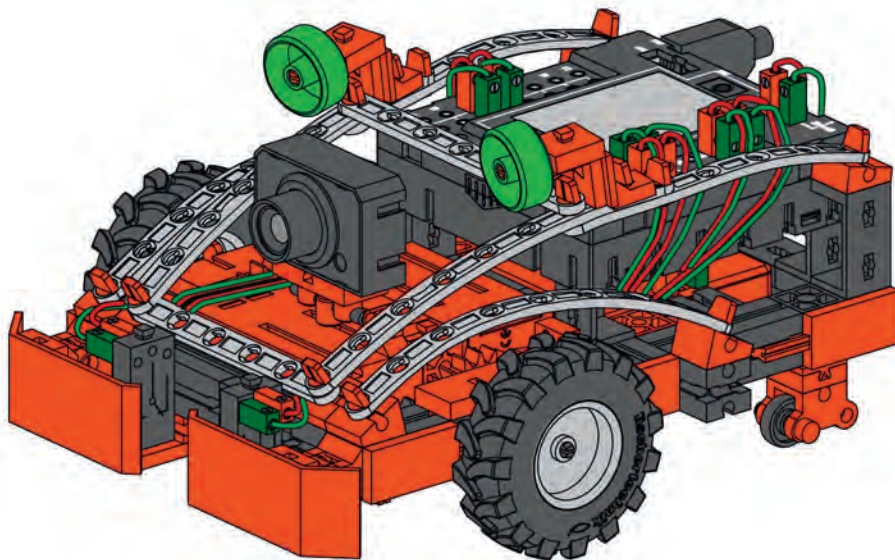
21

22

23

2 x



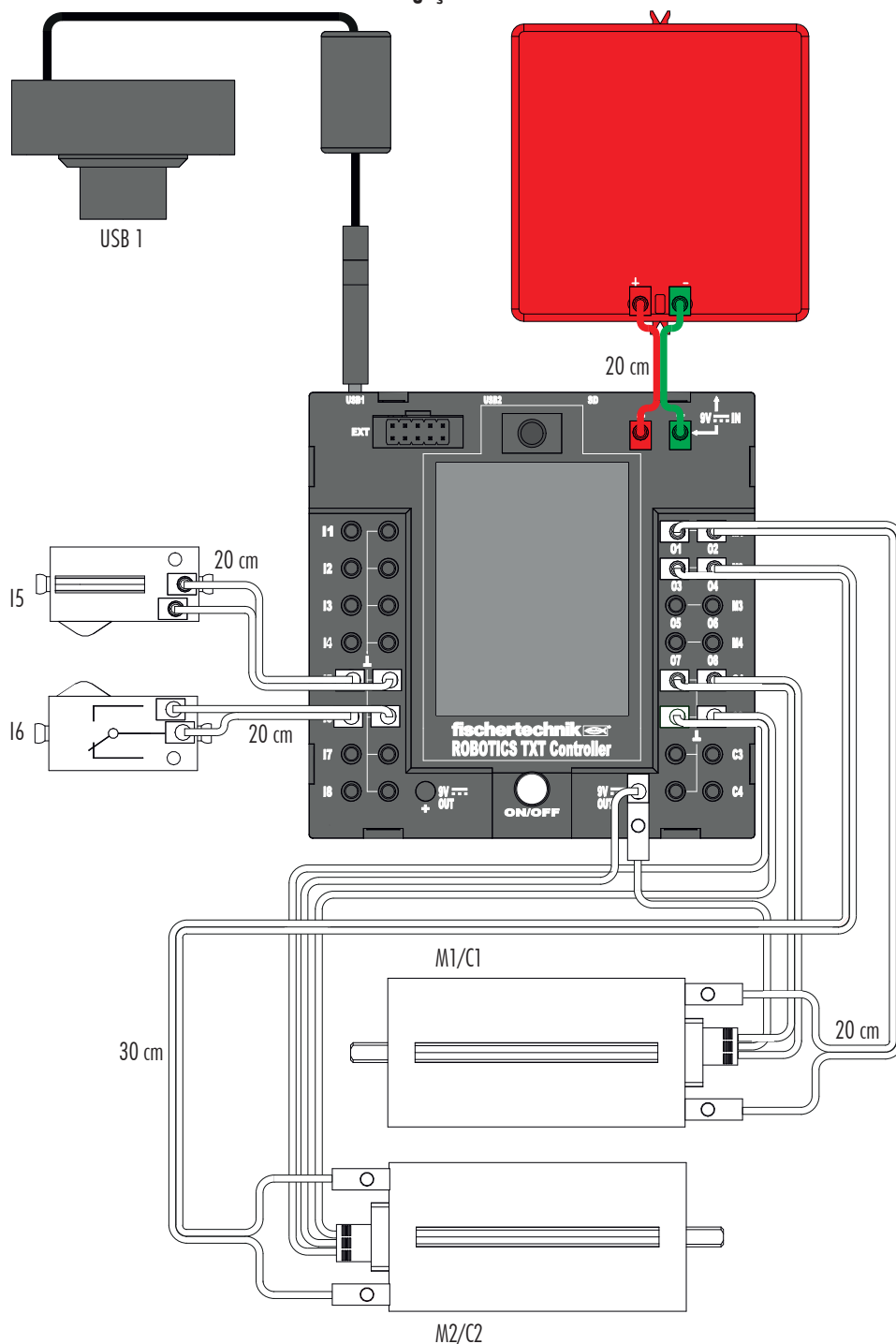


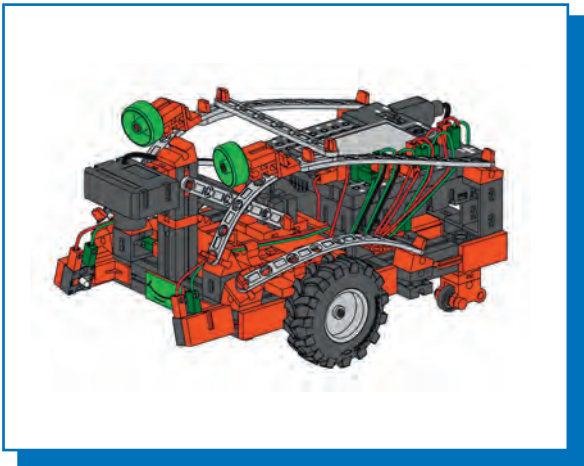
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

Schema elettrico
Схема подключения
电路图

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明资料。





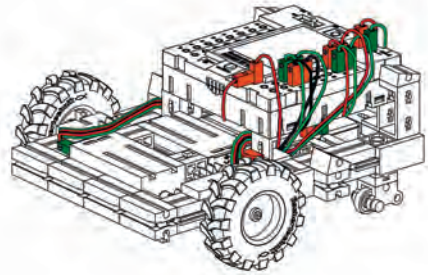
Spurensucher
Trail searcher
Dépisteur

Sporenzoeker
Rastreador
Detector de pistas

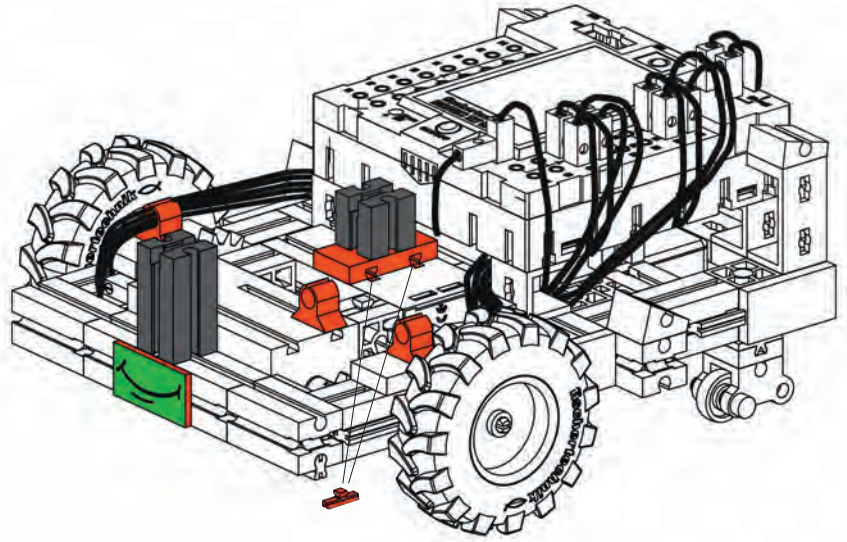
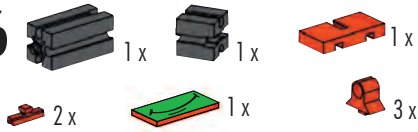
Robot di rilevamento
tracce
Следопыт
寻踪车

1-15

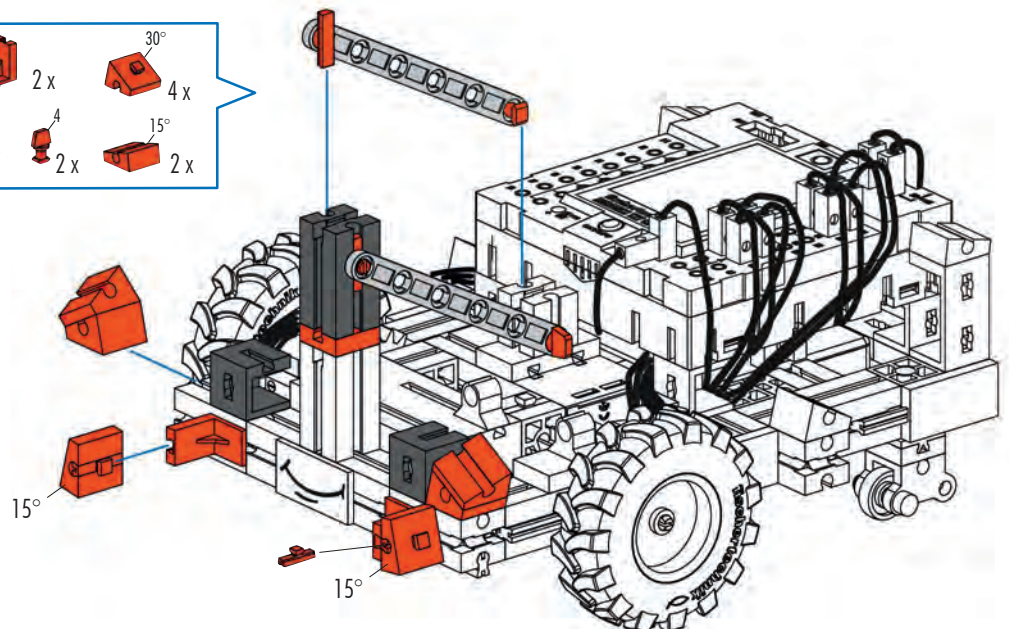
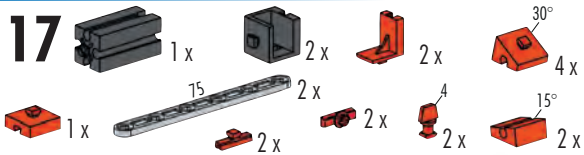
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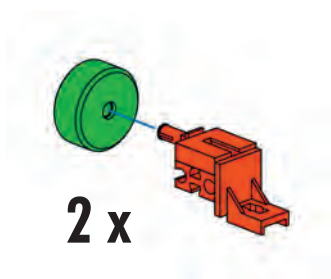
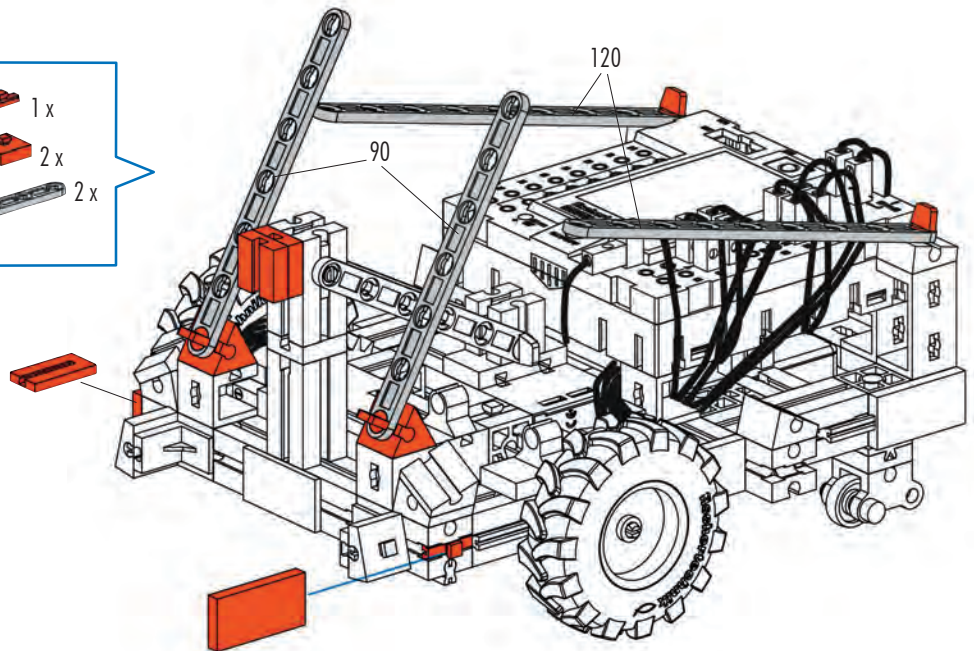
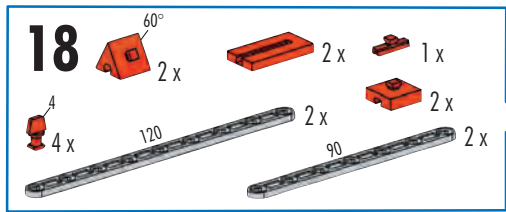


16

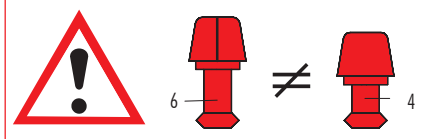
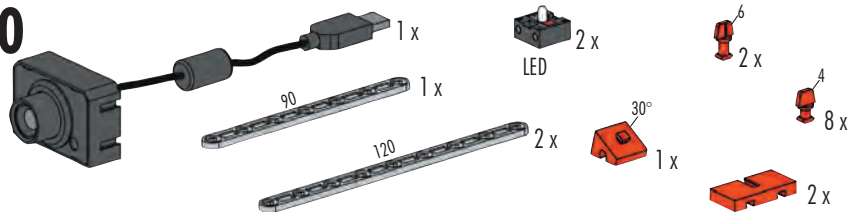


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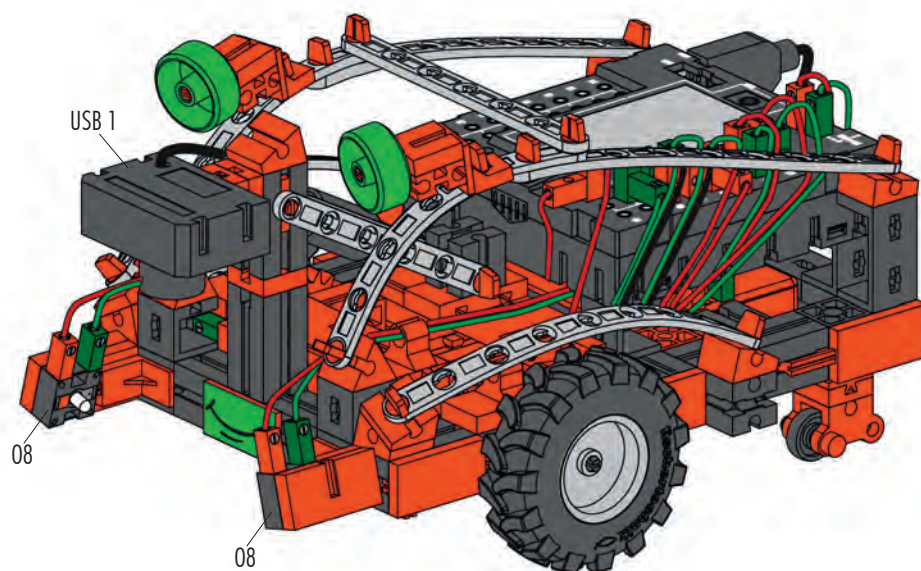
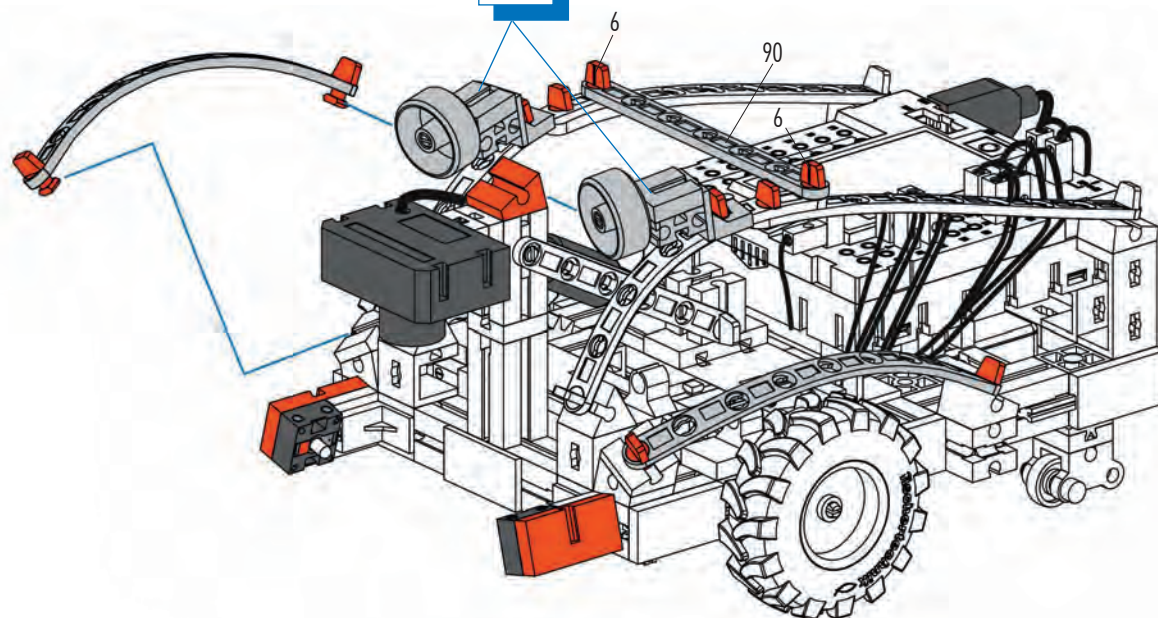




20



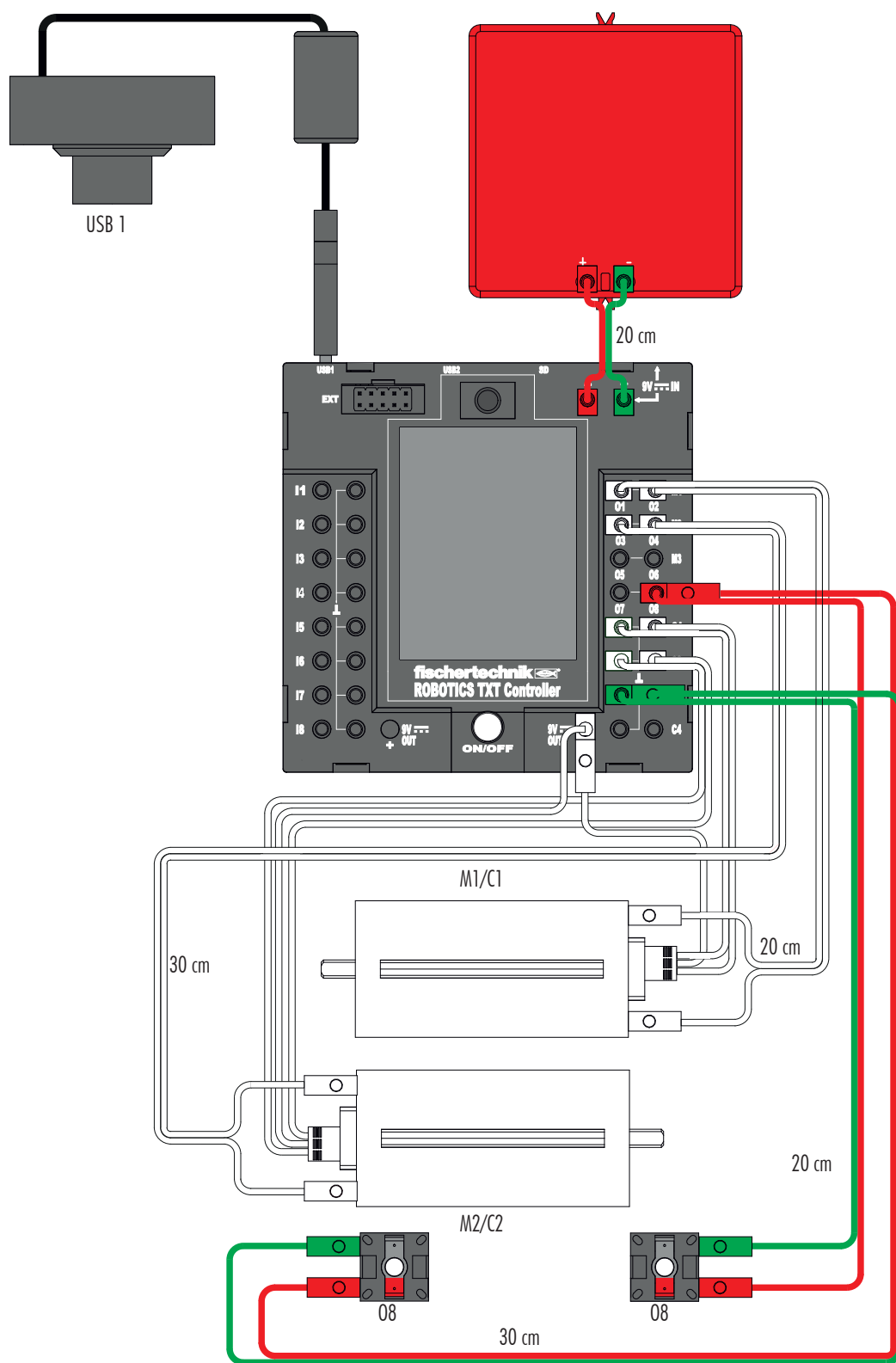
19



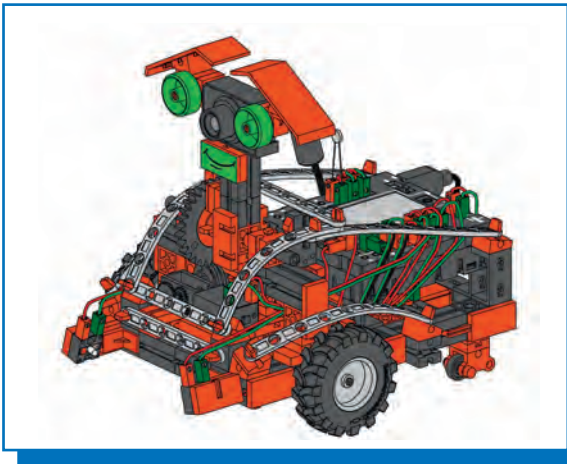
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

Schema elettrico
Схема подключения
电路图



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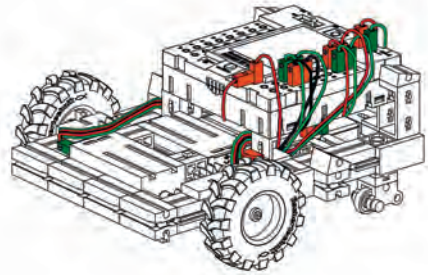
Erkundungsroboter
Detection robot
Robot d'exploration

Ontdekkingsrobot
Robot de
reconocimiento
Robô de exploração

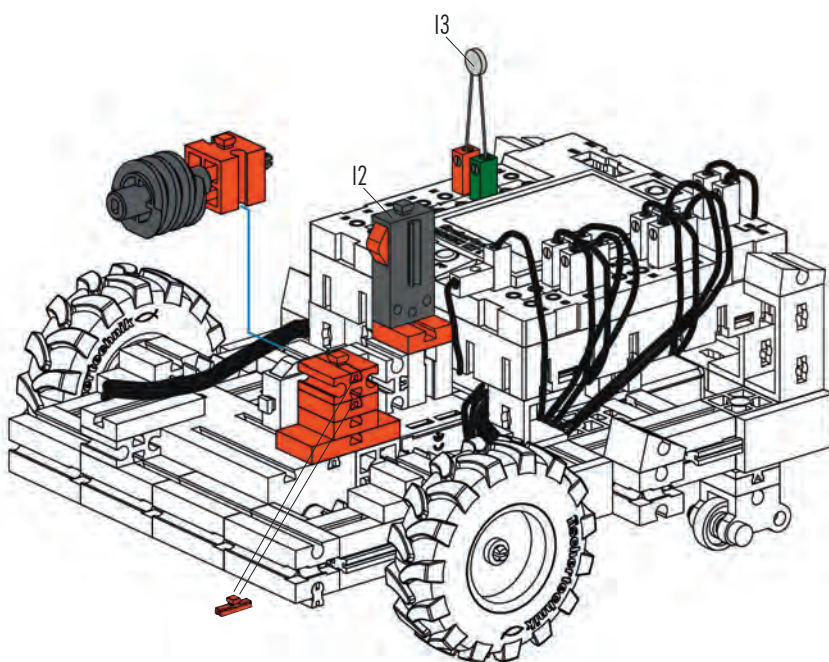
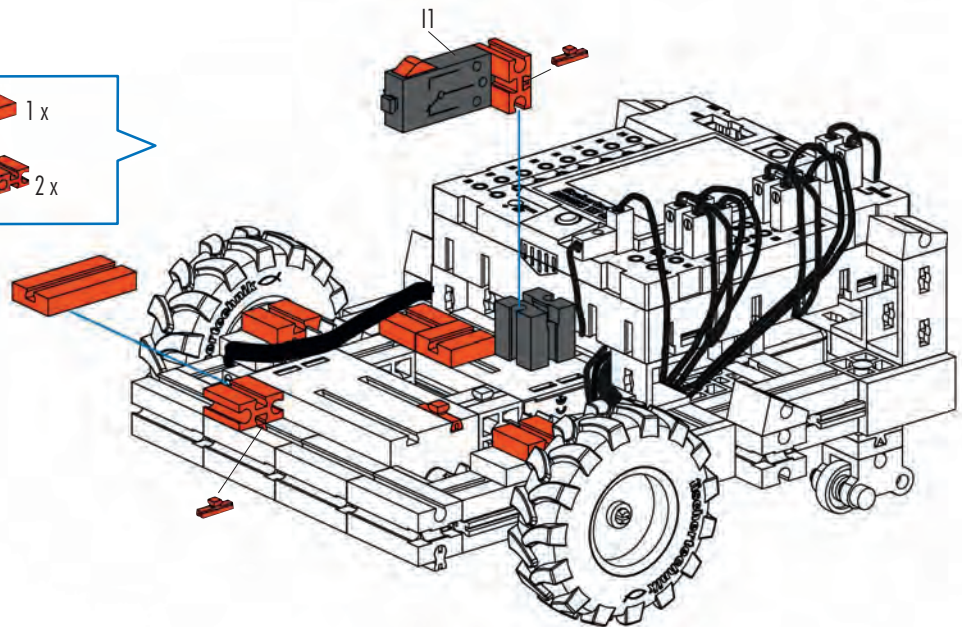
Robot di esplorazione
Робот-разведчик
勘察机器人

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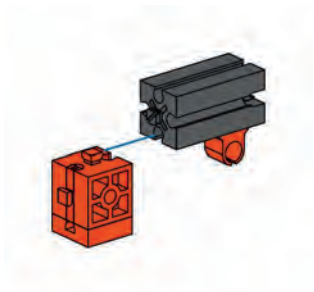


- 16**
- 1 x (black 1x2 Technic brick)
 - 4 x (red 1x2 Technic brick)
 - 1 x (red 1x3 Technic brick)
 - 3 x (red 1x1 Technic pin)
 - 1 x (black 1x2 Technic brick)
 - 2 x (red 1x2 Technic brick)



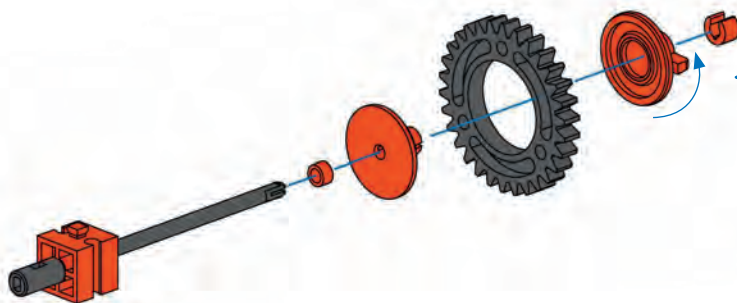
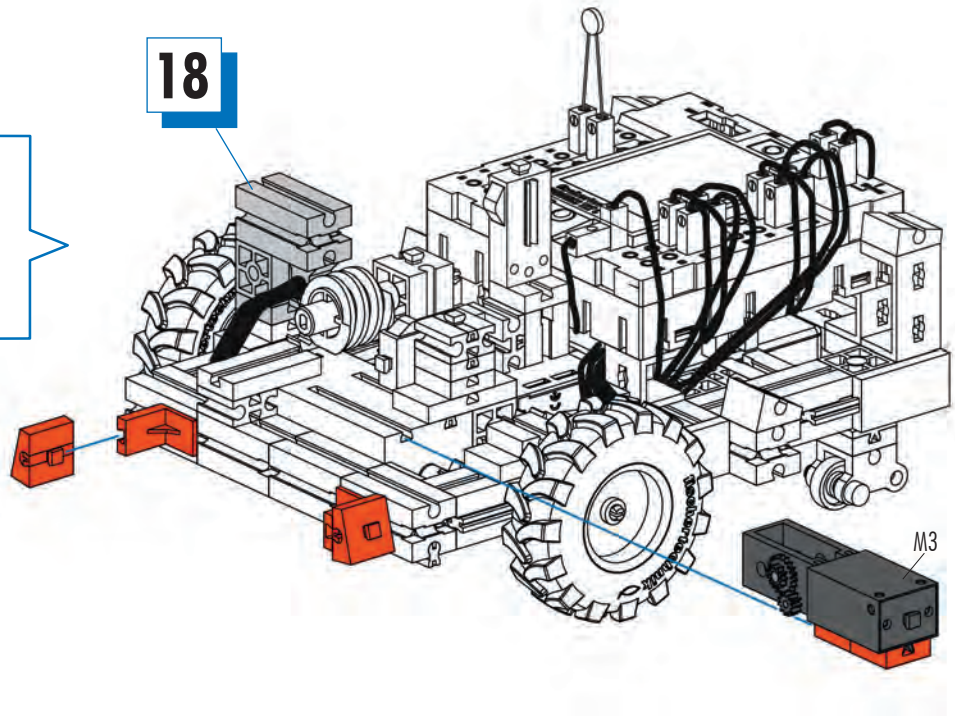
- 17**
- 1 x (black 1x2 Technic brick)
 - 1 x (green 1x2 Technic brick)
 - 1 x (red 1x2 Technic brick)
 - 3 x (red 1x2 Technic brick)
 - 2 x (red 1x1 Technic pin)
 - 1 x (red 1x2 Technic brick)
 - 1 x (red 1x2 Technic brick)
 - 1 x (black 1x2 Technic brick)
 - 1 x (black 1x2 Technic brick)
 - 1 x (black 1x2 Technic brick)
 - 1 x (black 1x2 Technic brick)

30 mm



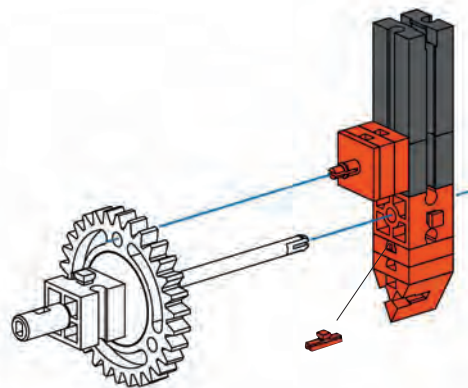
- 18**  1x  1x  1x  1x  1x

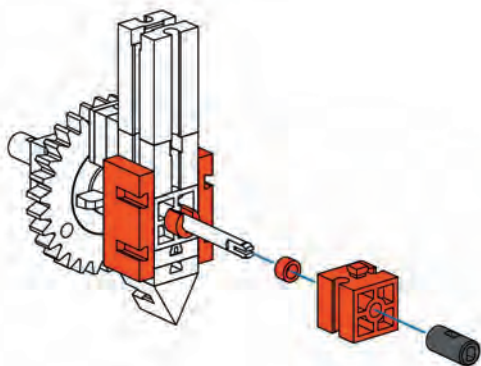
- 19**  1x  2x  2x  2x  1x  2x



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

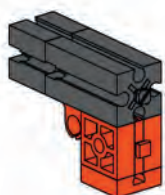
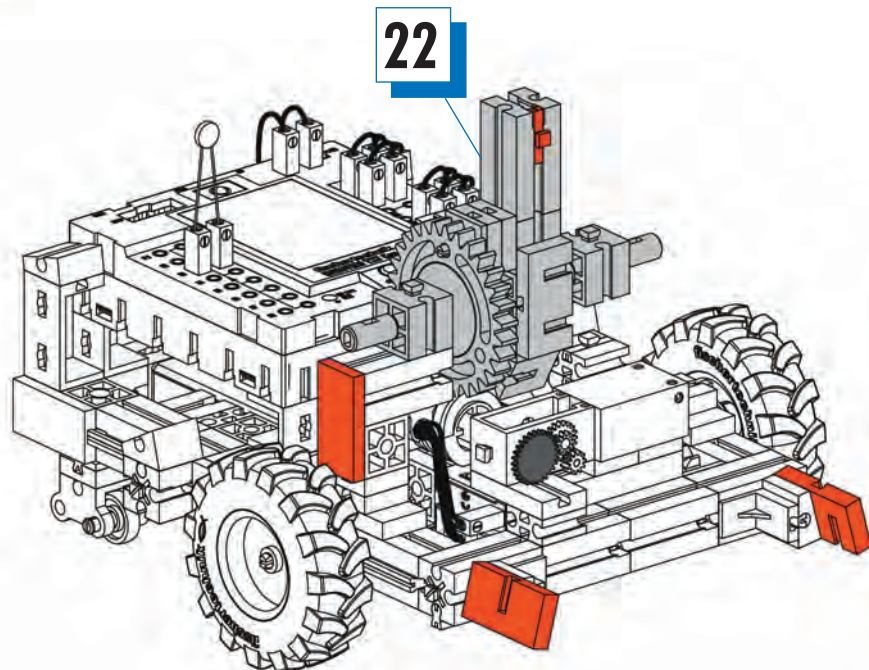
- 21**  1x  1x  1x  1x  1x  1x  4x





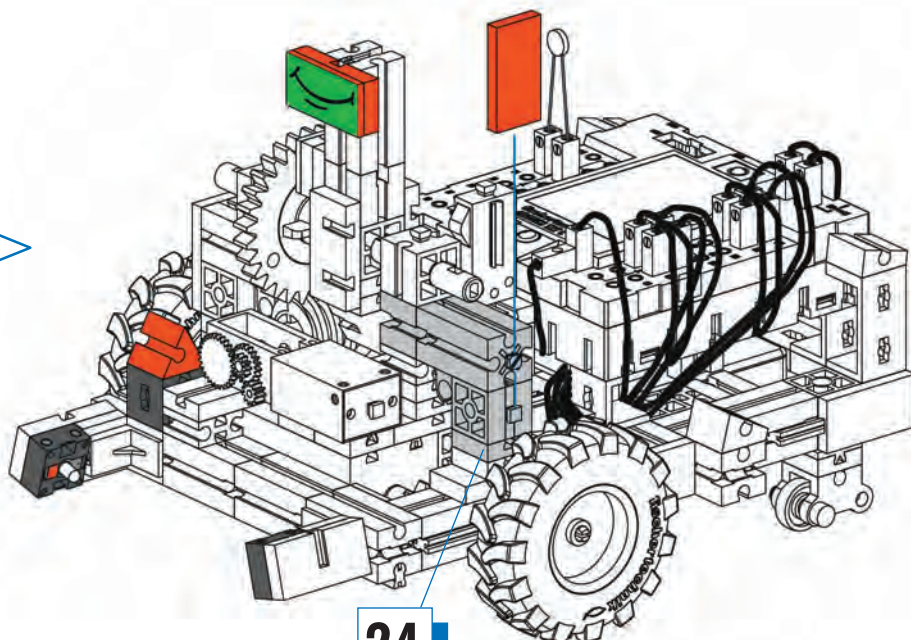
22 1x 2x 1x 1x 1x

23 2x 1x 1x

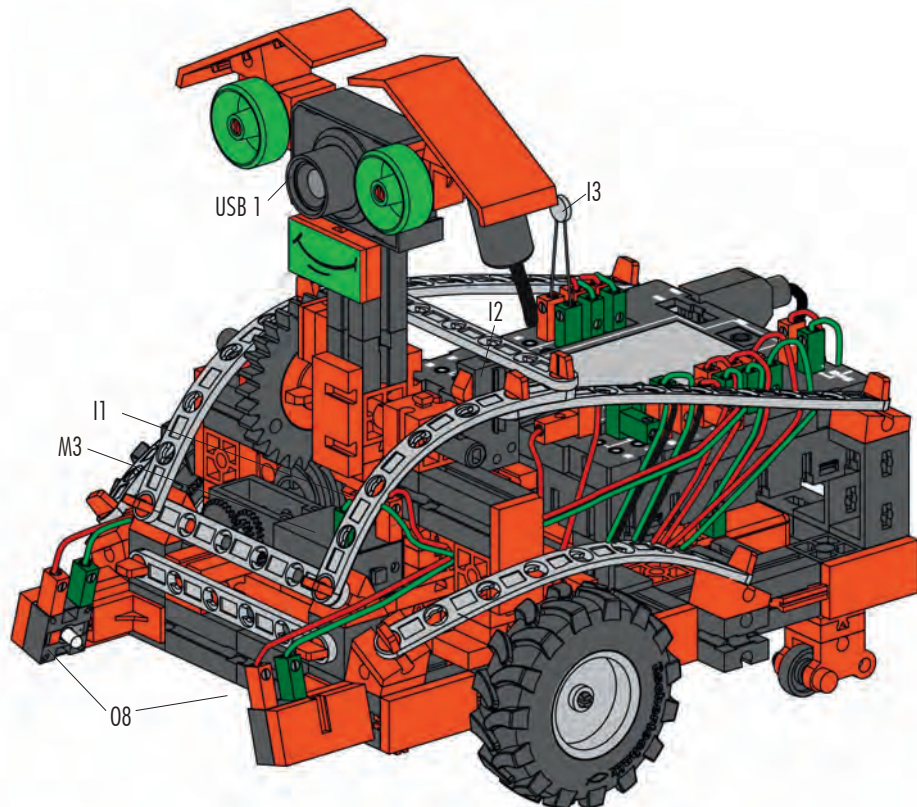
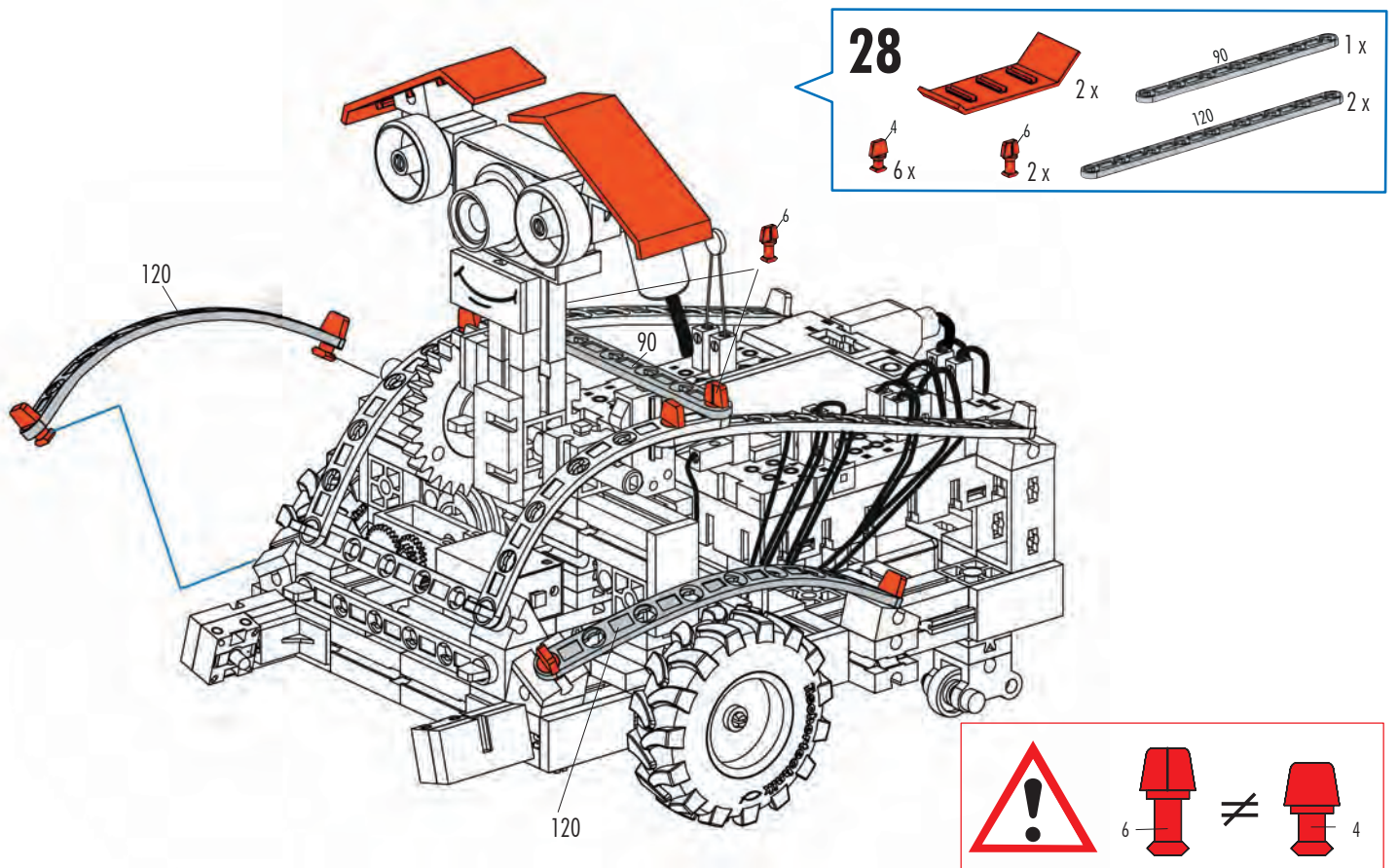


24 1x 1x 1x 1x 1x 1x

25 2x 1x 1x 1x 1x



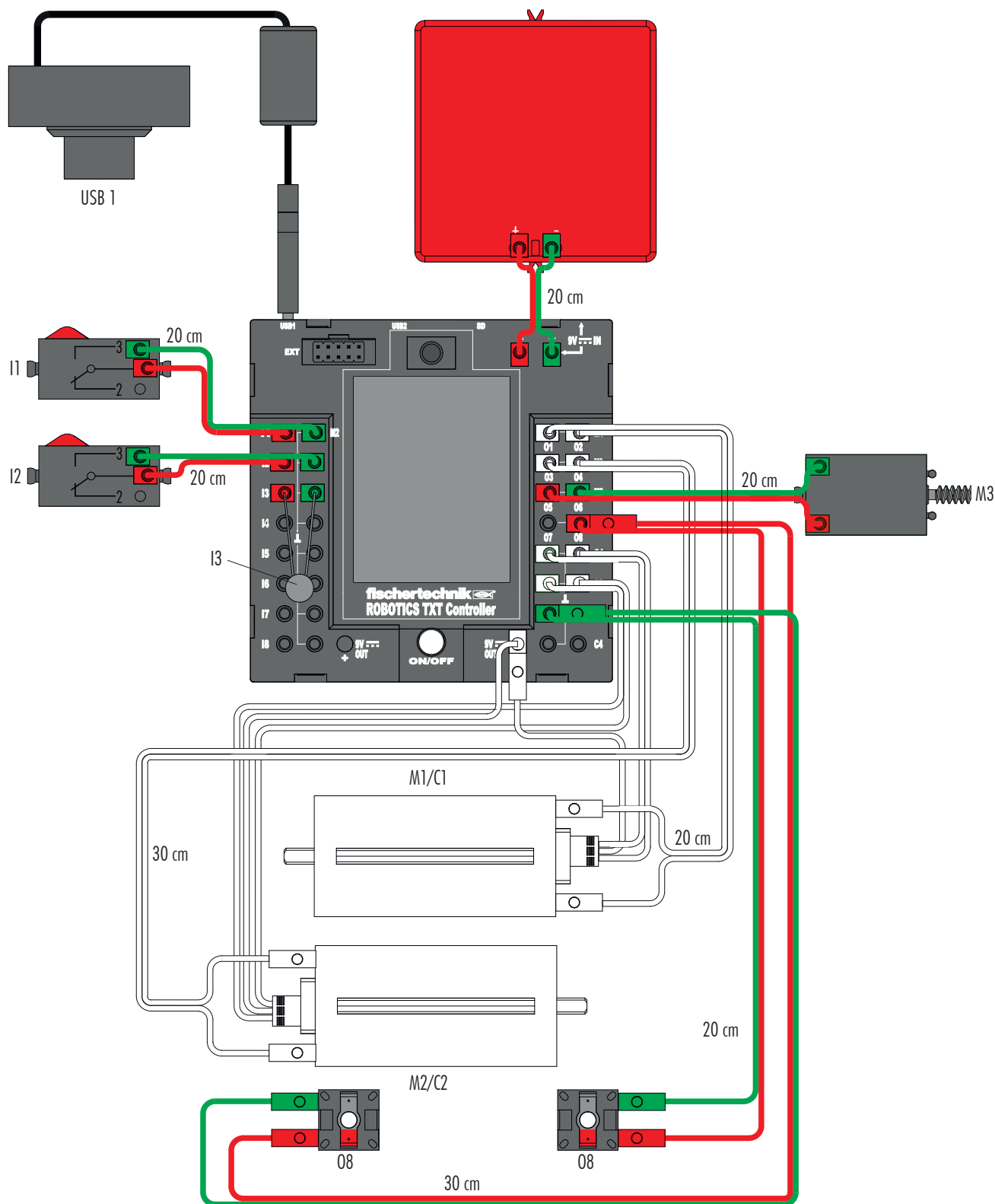
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Schaltplan
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Diagrama de circuitos
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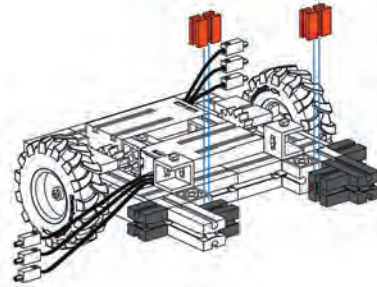
Fußballroboter mit
Bewegungssteuerung
Soccer robot with movement control
Robot footballeur avec commande des
mouvements

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

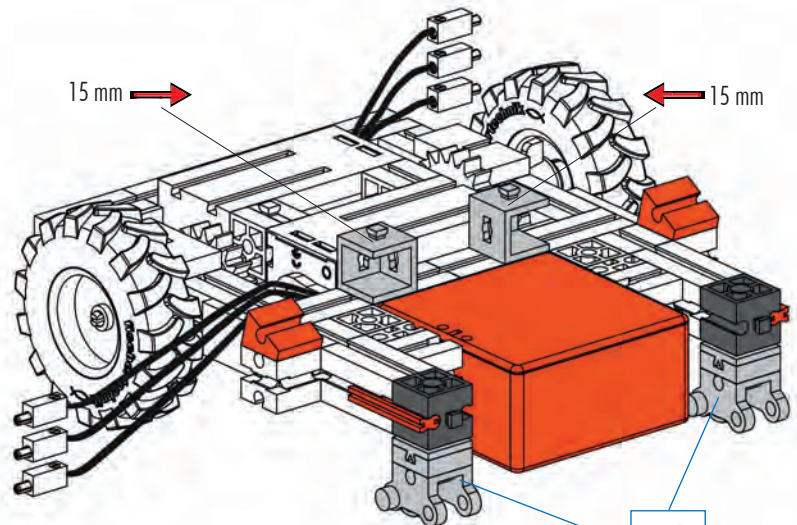
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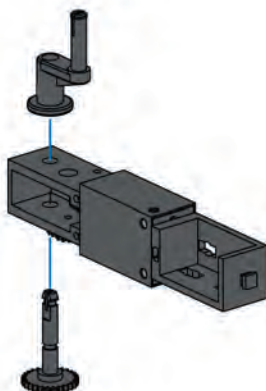
12  2 x  2 x  2 x  2 x  2 x

13  2 x  2 x  2 x

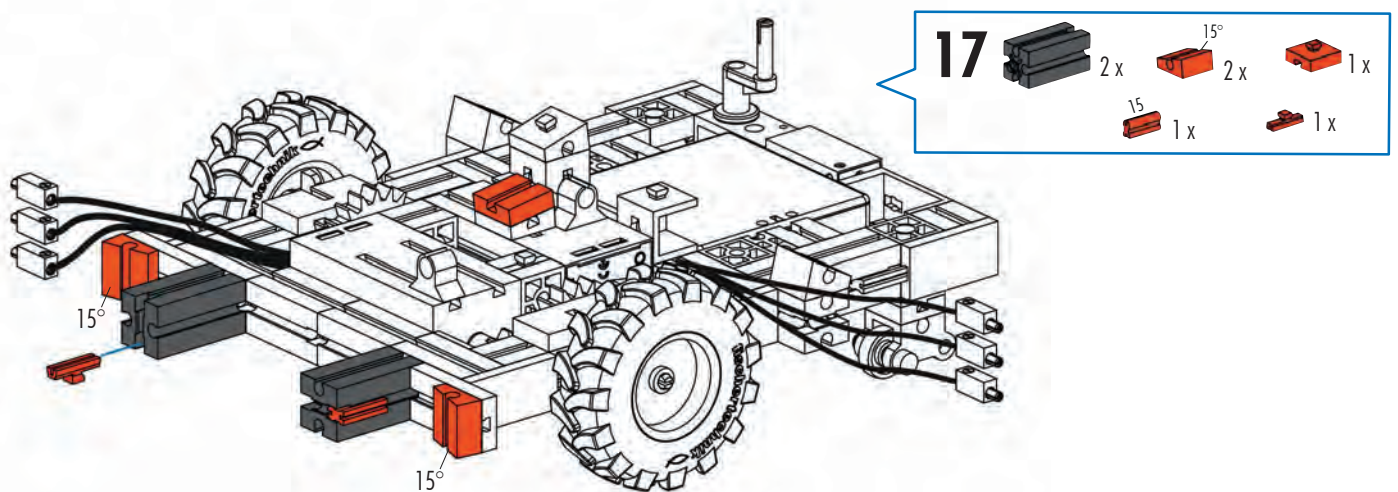
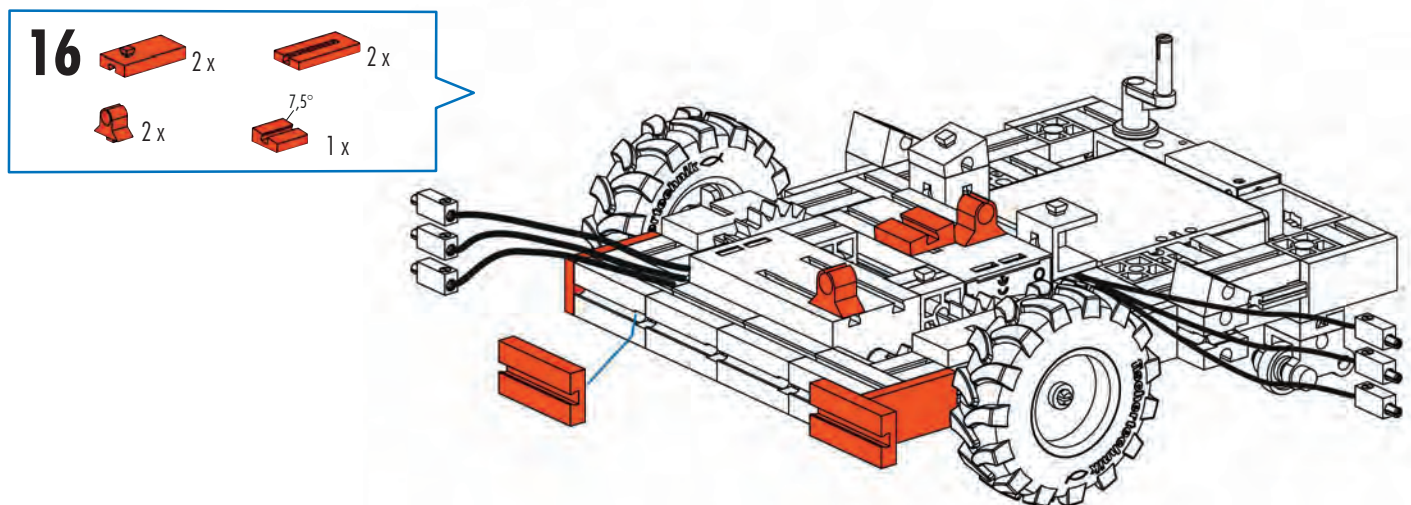
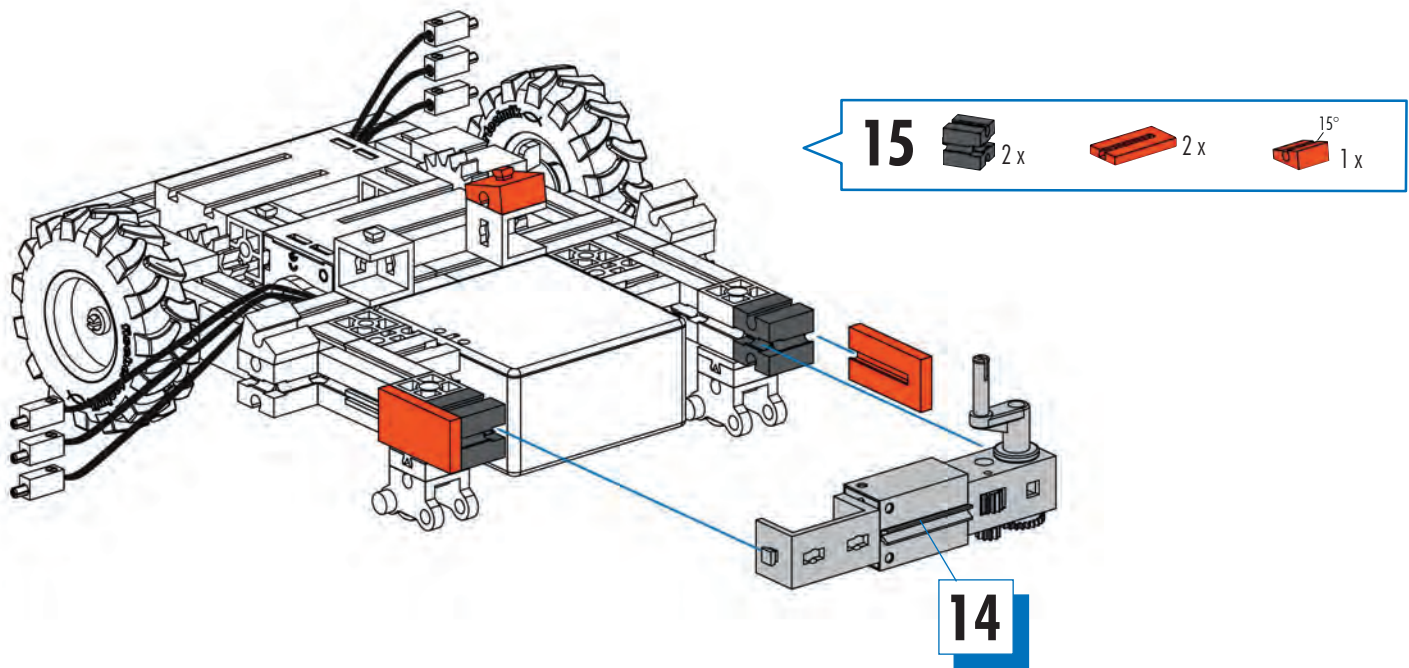


12

- 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 (N° 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  1 x  1 x  1 x  1 x  1 x

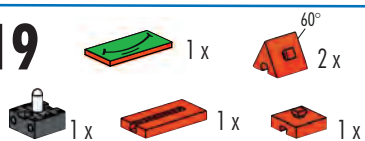




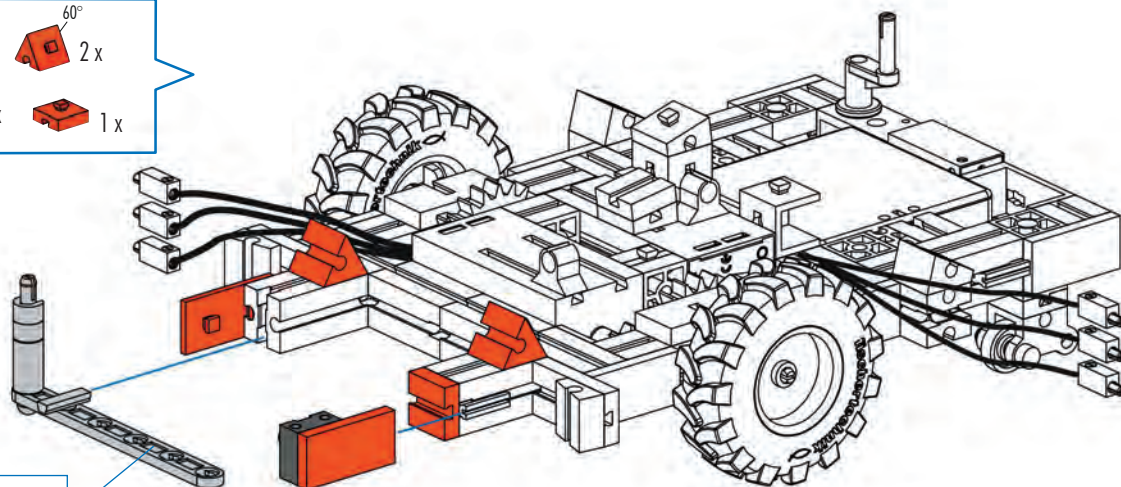
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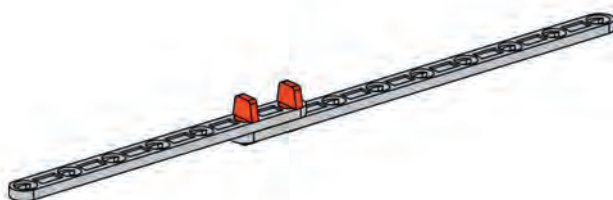
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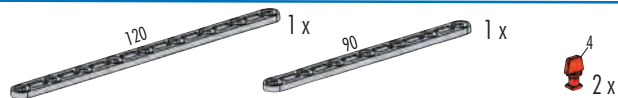
Linsenlampe
 Lens tip lamp
 Ampoule lentille
 Lenslampe
 Lampada lenticolare
 Lâmpada de formato lenticular
 Lampada lenticolare
 Лампа с линзой
 透镜灯



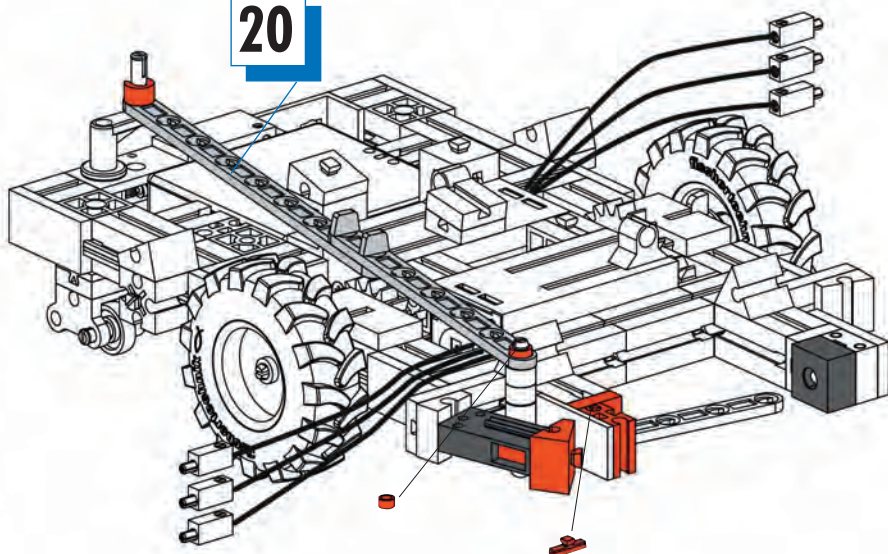
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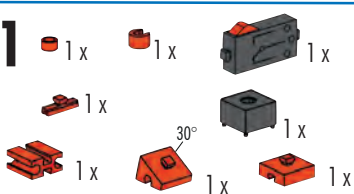
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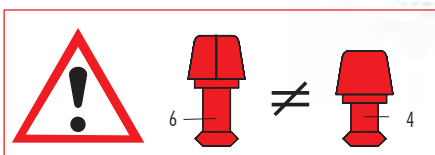
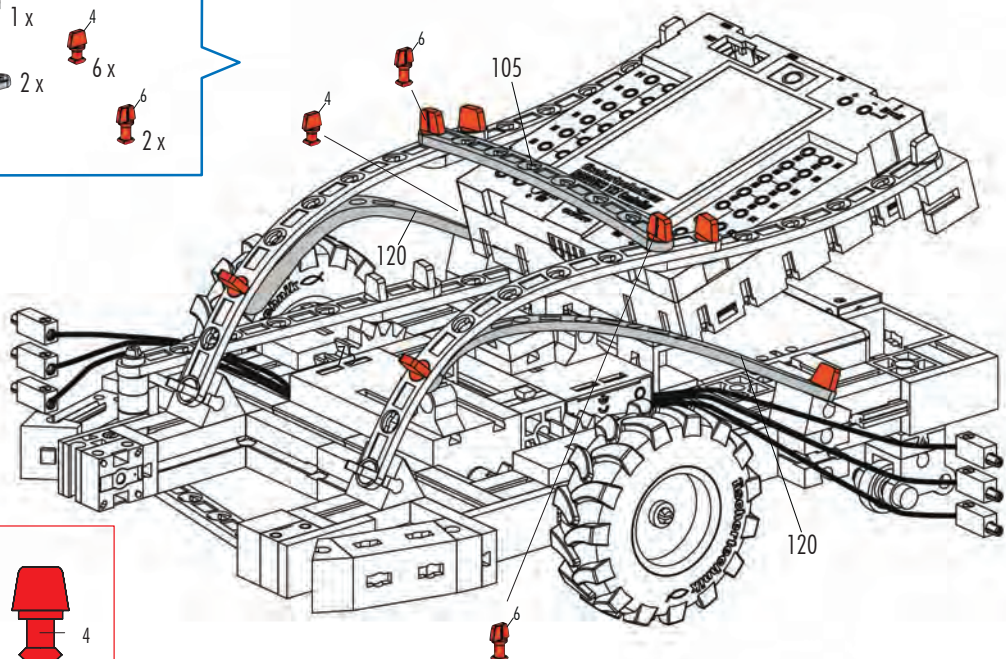
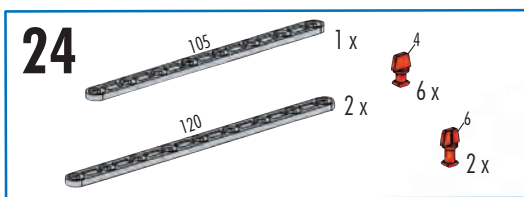
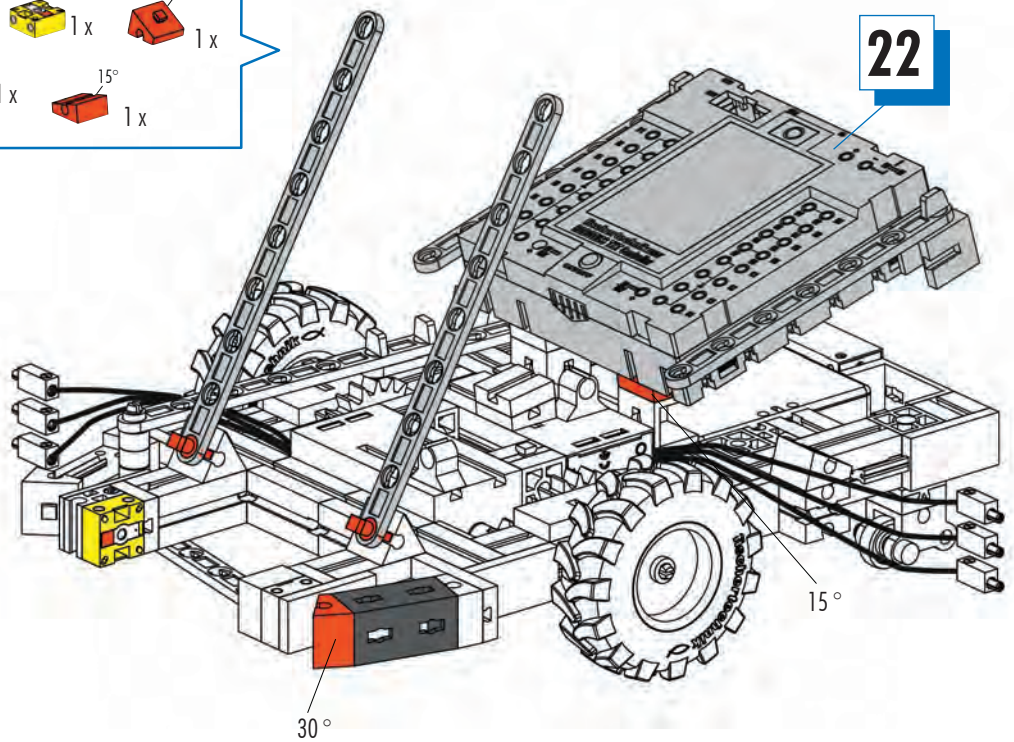
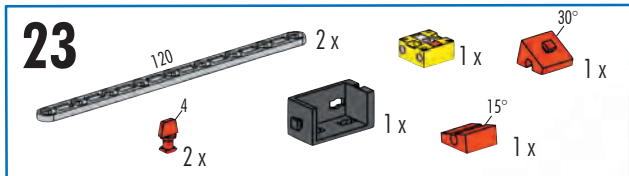
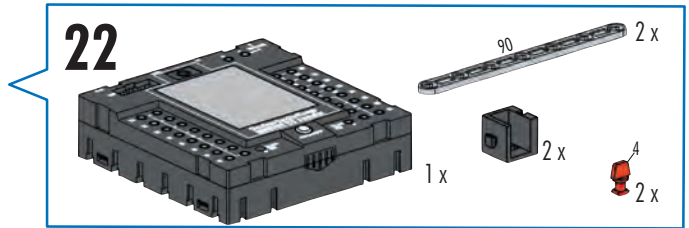
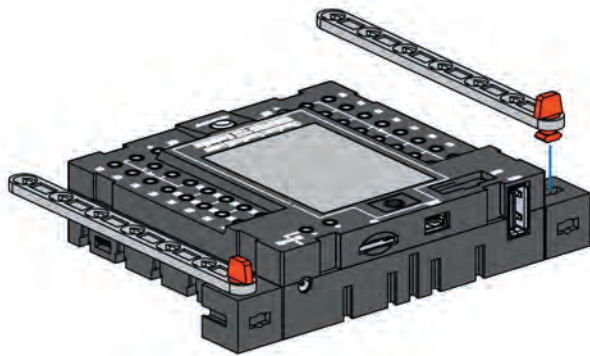


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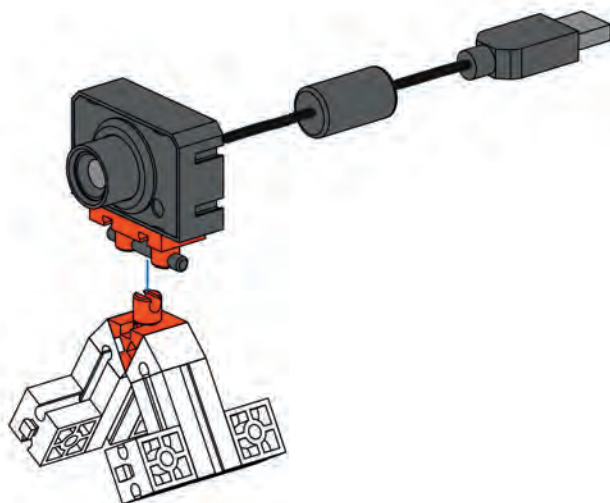
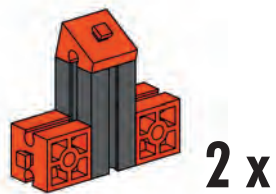


21

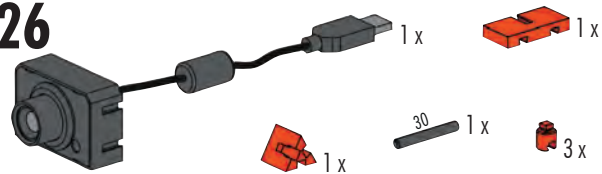




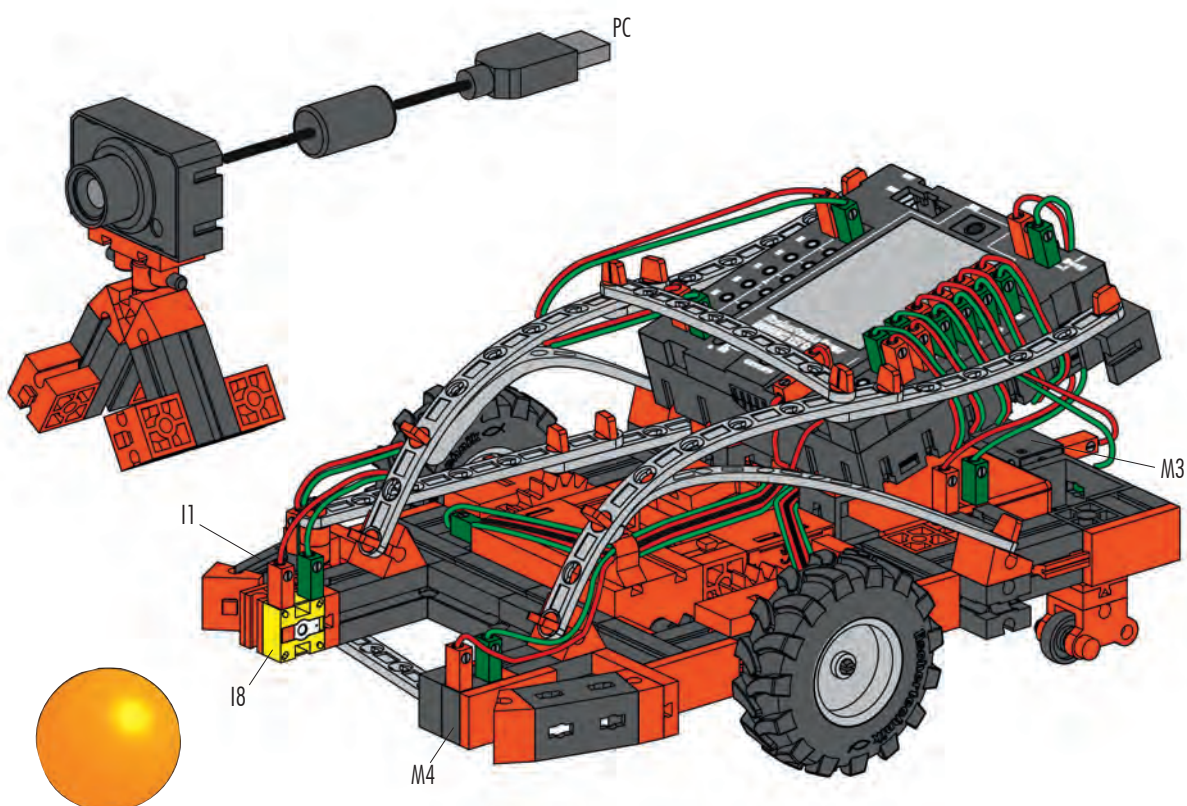
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26



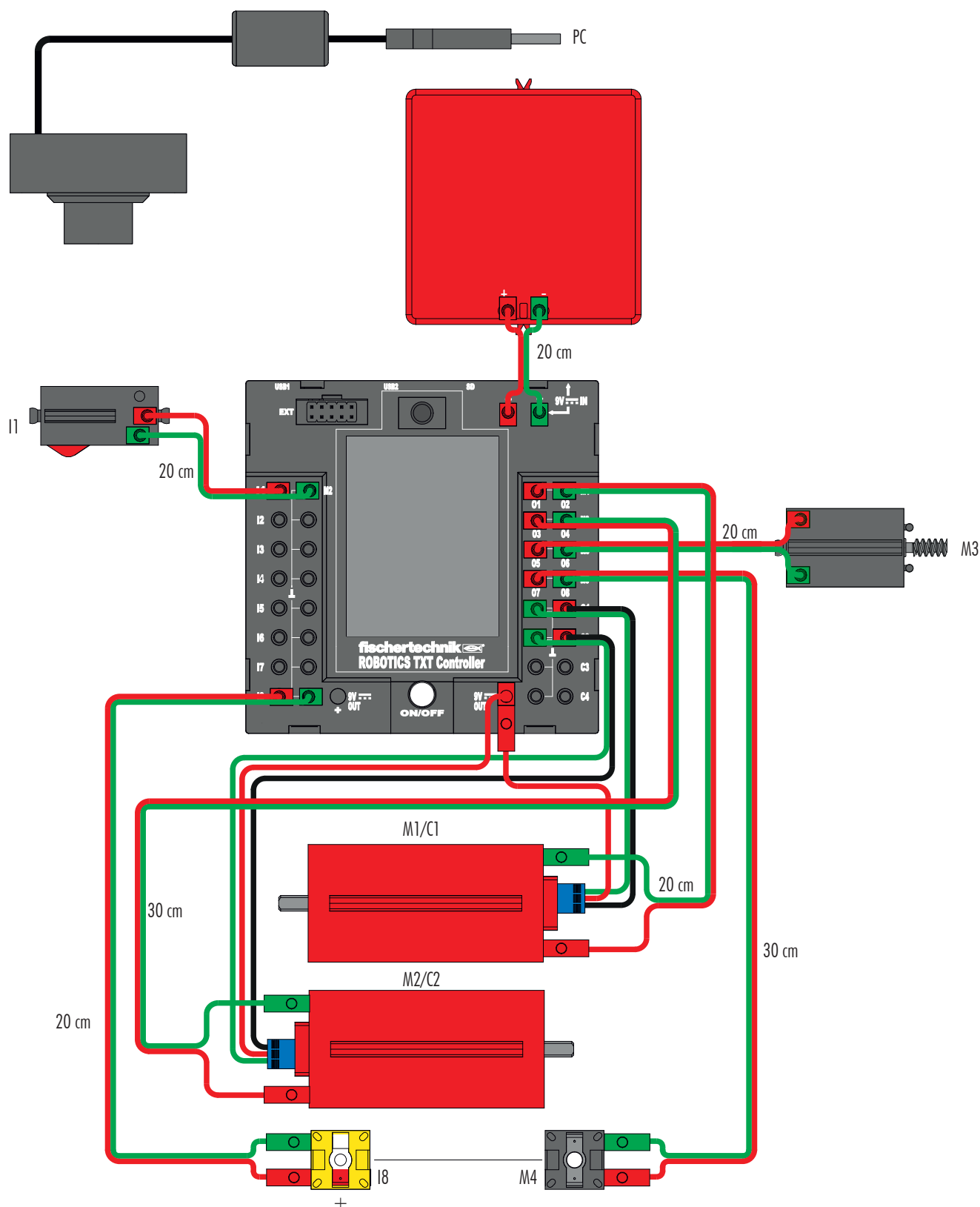
30 mm



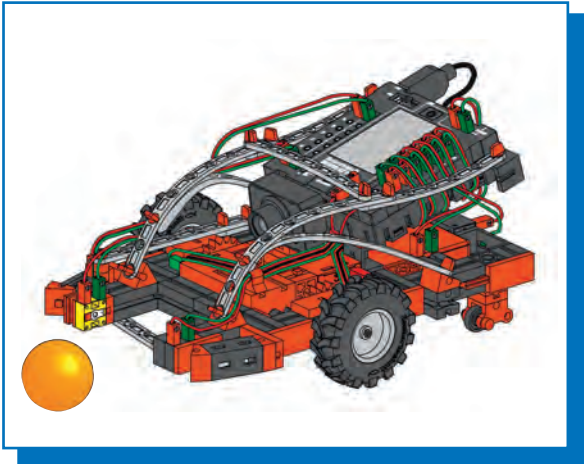
Schaltplan
Circuit diagram
Plan électrique

Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

Schema elettrico
Схема подключения
电路图



- Informationen zur Programmierung des Modells: Siehe didaktisches Begleitmaterial.
- Information on programming model: See related instructional material.
- Informations concernant la programmation de la maquette : voir le matériel d'accompagnement didactique.
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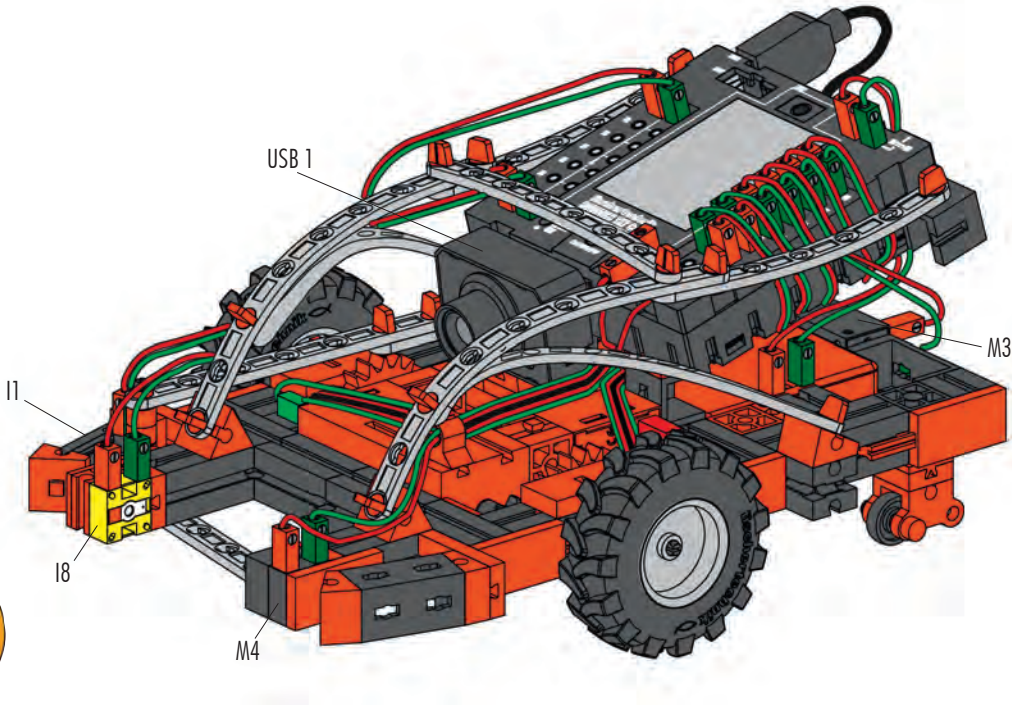
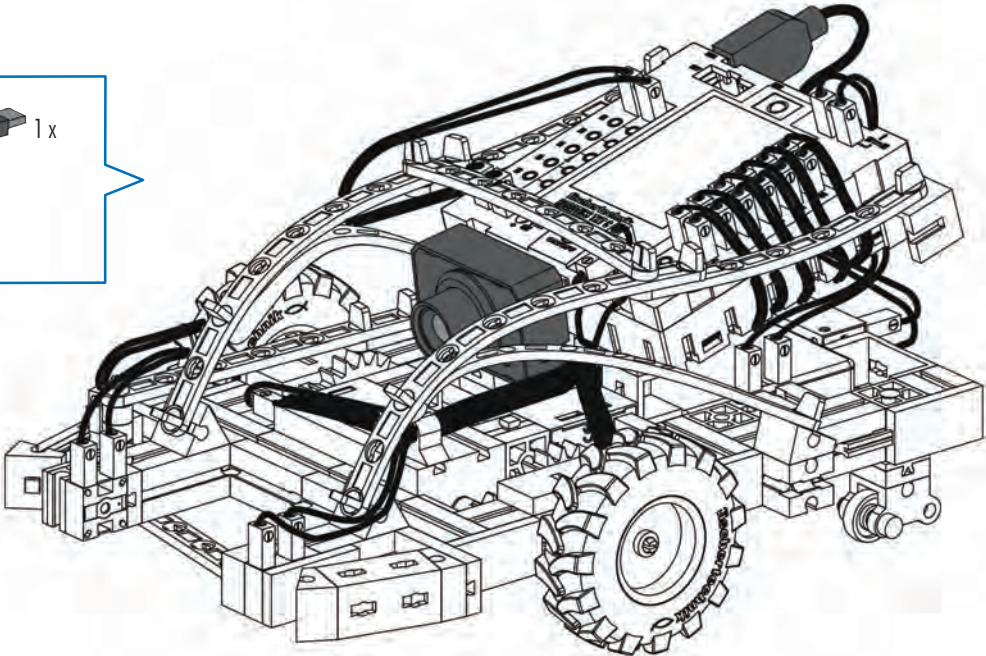
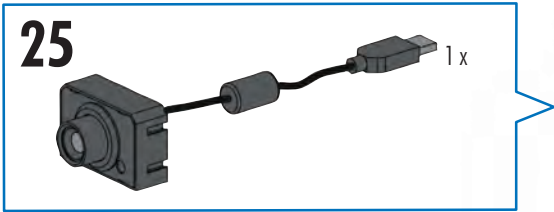
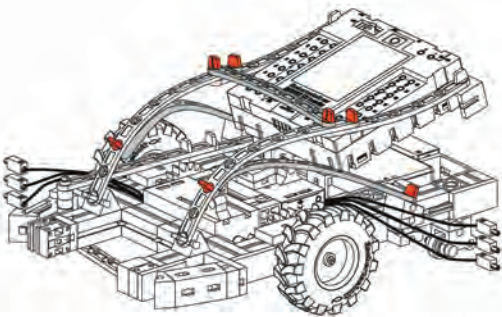
Fußballroboter
Soccer robot
Robot footballeur

Voetbalrobot
Robot de fútbol
Robô jogador de futebol

Robot calcio
Робот-футболист
足球机器人

1-24

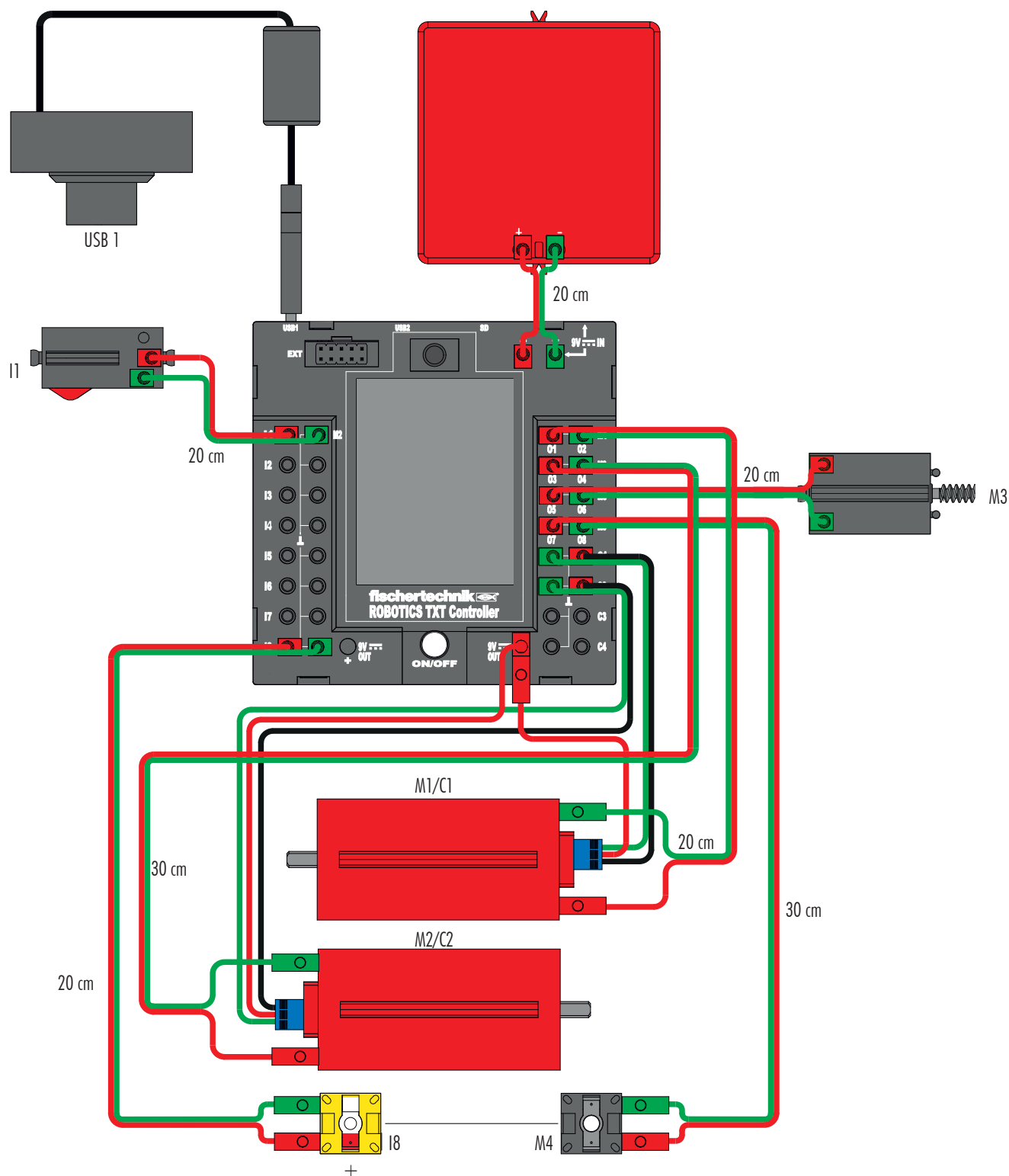
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Page	46
Page	46
Bladzijde	46
Página	46
Página	46
Página	46
Страница	46
页次	46



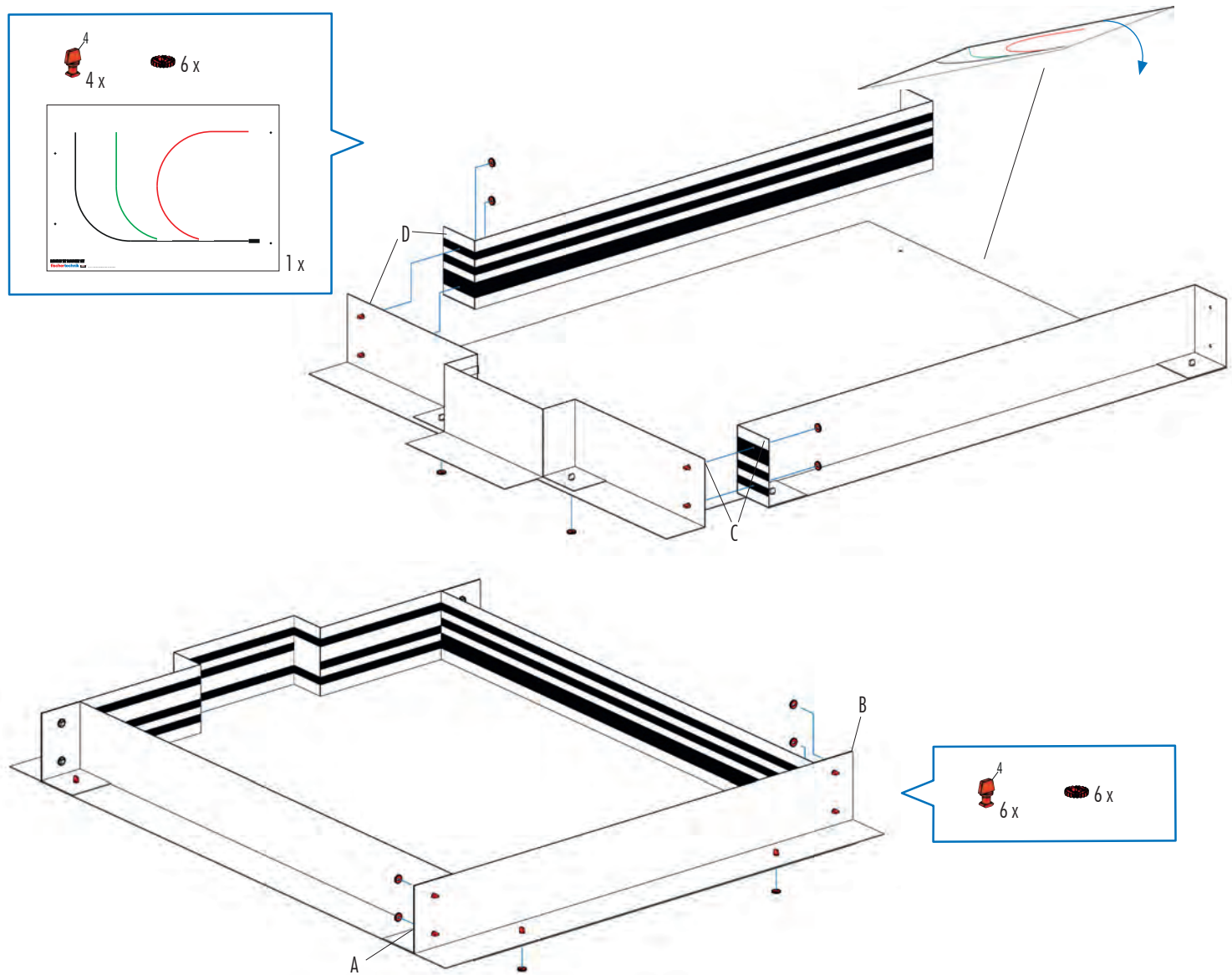
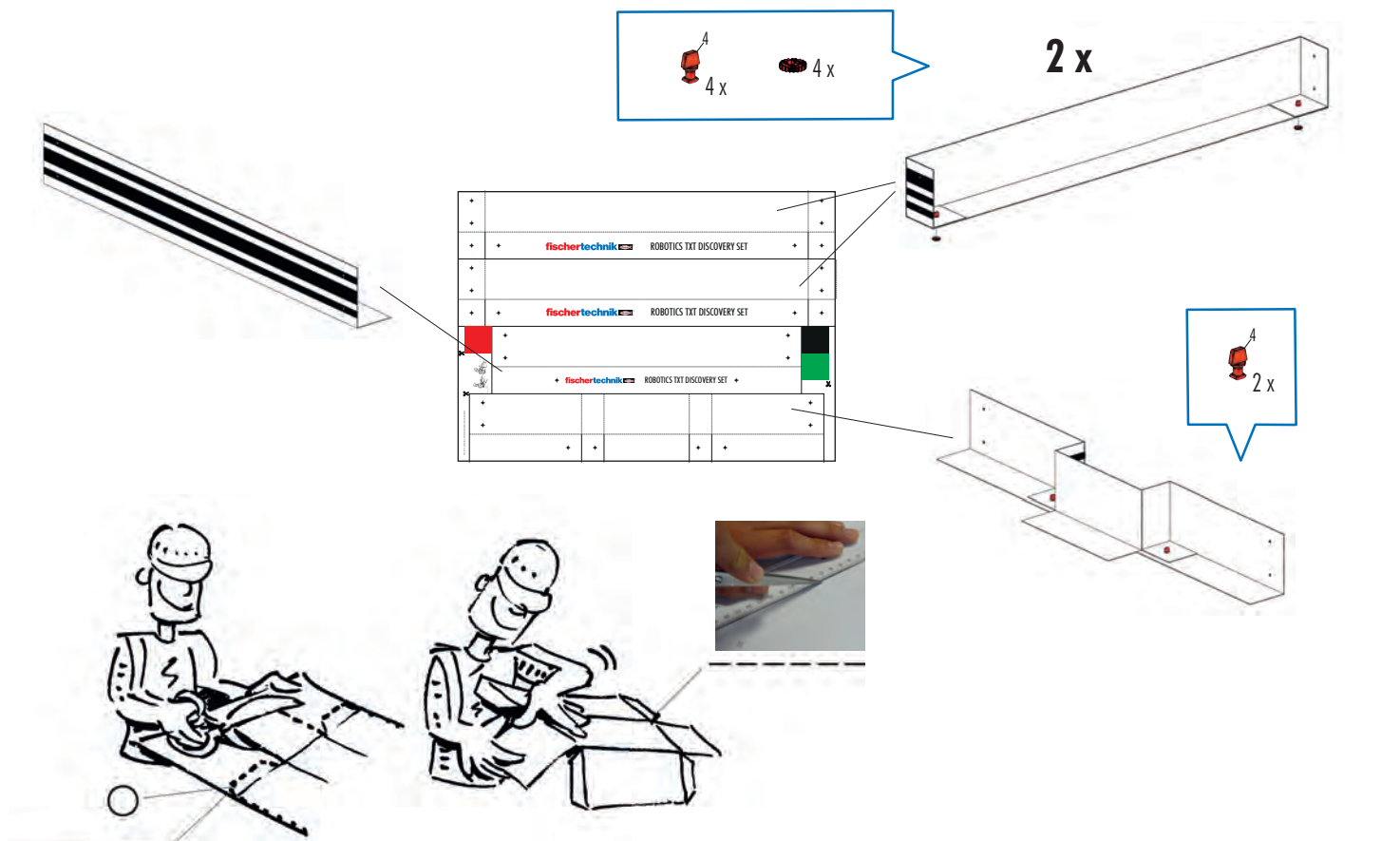
Schaltplan
Circuit diagram
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Schakelschema
Diagrama de circuitos
Plano elétrico de ligação

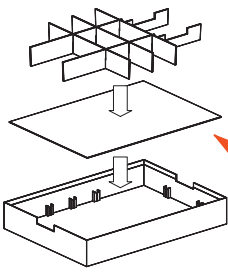
Schema elettrico
Схема подключения
电路图



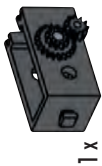
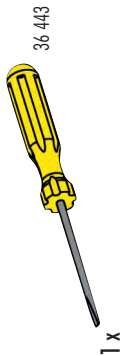
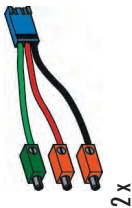
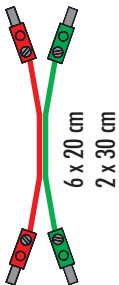
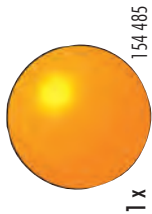
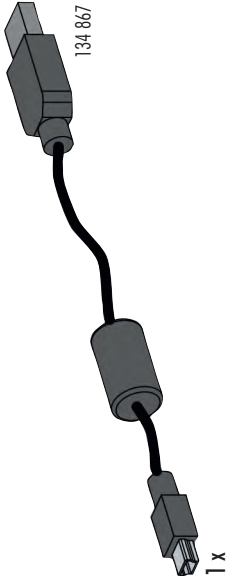
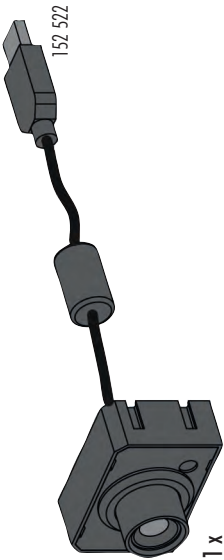
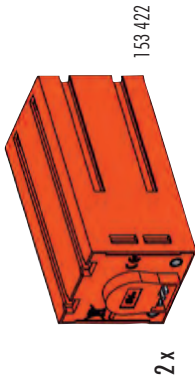
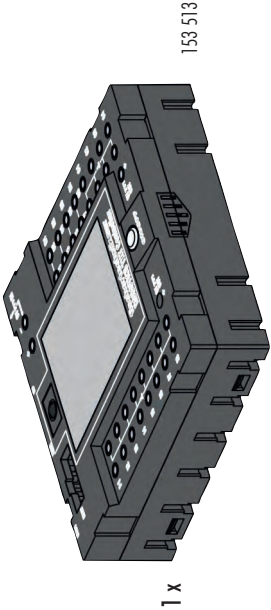
- Informationen zur Programmierung des Modells: Siehe didaktisches Begleitmaterial.
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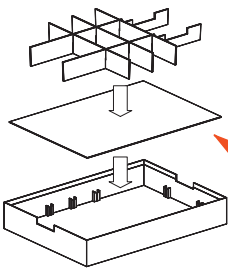
Sortiervorschlag Box 1 für Aufbewahrungssystem Art.-Nr. 94828
Storage suggestion box 1 for storage system Art No. 94828
Suggestion de classement Boîte 1 pour le système de stockage Art n° 94828
Sorteervoorstel box 1 voor bewaarsysteem art.-nr. 94828
Propuesta de clasificación Caja 1 para almacenamiento Art. Nº 94828
Proposta de divisão caixa 1 para sistema de conservação n.º de art. 94828
Proposta di sistemazione Box 1 per il sistema di conservazione, cod. prod. 94828
 Рекомендации по сортировке: Бокс 1 для хранения арт. № 94828
 用于产品号为94828的保存系统的1号盒分类建议



Zum Ausschneiden und Einlegen
 For cutting out and inserting
 A découper et à poser
 Uitsnijpen en aanbrengen
 Para cortar y montar
 Para cortar e colocar
 Da tagliare e inserire
 Вырезать и вложить
 用于剪下和放入



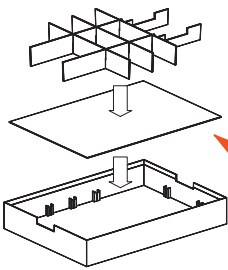
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Storage suggestion box 2 for storage system Art No. 94828
Suggestion de classement Boîte 2 pour le système de stockage Art n° 94828
Sorteervoorstel box 2 voor bewaarsysteem art.-nr. 94828
Propuesta de clasificación Caja 2 para almacenamiento Art. N° 94828
Proposta de divisão caixa 2 para sistema de conservação n.º de art. 94828
Proposta di sistemazione Box 2 per il sistema di conservazione, cod. prod. 94828
Рекомендации по сортировке: Бокс 2 для хранения арт. № 94828
用于产品号为94828的保存系统的2号盒分类建议



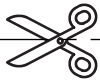
Zum Ausschneiden und Einlegen
For cutting out and inserting
A découper et à poser
Uitknippen en aanbrengen
Para cortar y montar
Para cortar e colocar
Da tagliare e inserire
Вырезать и вложить
用于剪下和放入



Sortiervorschlag Box 3 für Aufbewahrungssystem Art.-Nr. 94828
Storage suggestion box 3 for storage system Art No. 94828
Suggestion de classement Boîte 3 pour le système de stockage Art n° 94828
Sorteervoorstel box 3 voor bewaarsysteem art.-nr. 94828
Propuesta de clasificación Caja 3 para almacenamiento Art. N° 94828
Proposta de divisão caixa 3 para sistema de conservação n.º de art. 94828
Proposta di sistemazione Box 3 per il sistema di conservazione, cod. prod. 94828
Рекомендации по сортировке: Бокс 3 для хранения арт. № 94828
用于产品号为94828的保存系统的3号盒分类建议

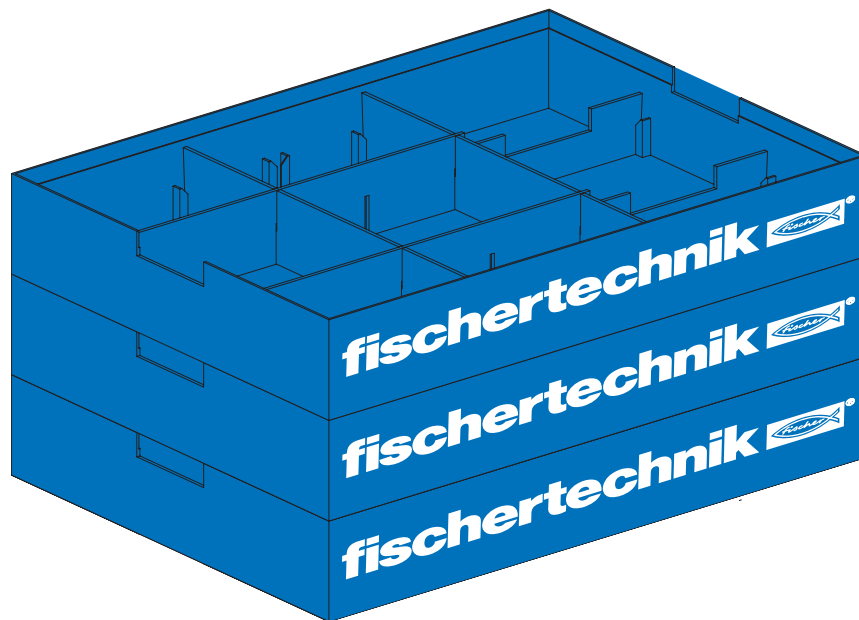


Zum Ausschneiden und Einlegen
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Uitknippen en aanbrengen
Para cortar y montar
Para cortar e colocar
Da tagliare e inserire
Вырезать и вложить
用于剪下和放入



 19 x 37 237 4 x 36 950	4 x 35 989 2 x 31 124 1 x 31 060 2 x 31 690	2 x 31 848 2 x 35 073 6 x 31 061	2 x 31 674 2 x 36 586 2 x 32 371 2 x 35 064 1 x 35 066 1 x 38 413 1 x 35 063 90 mm
2 x 36 922 8 x 38 428 2 x 31 010 4 x 31 981 15°	1 x 31 918	4 x 31 597 16 x 36 334 3 x 37 679 23 x 31 982 2 x 36 573	12 x 32 064 1 x 36 921 2 x 36 920
2 x 38 246 2 x 32 085	1 x 35 088 3 x 35 980 4 x 36 324 6	1 x 32 071 7.5°	6 x 31 330 8 x 32 330 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



Hinweise zum Umweltschutz

Die elektrischen und elektronischen Bauteile dieses Baukastens (z. B. Motoren, Lampen, Sensoren) gehören nicht in den Hausmüll. Sie müssen am Ende ihrer Lebensdauer an einem Sammelpunkt für das Recycling von elektrischen und elektronischen Geräten abgegeben werden. Das Symbol auf dem Produkt, der Verpackung oder der Anleitung weist darauf hin.

Instructions for Environmental Protection

Do not put the electrical and electronic components of this construction kit such as motors, lights and sensors in the household waste. At the end of their service life, take them to a collection point for the recycling of electrical and electronic devices. The symbol on the product, packaging or the instructions shows this.

Remarques de protection de l'environnement

Les composants électriques et électroniques de ce coffret (par ex. moteurs, lampes, capteurs) ne doivent pas être jetés avec les ordures ménagères. Lorsqu'elles ne sont plus utilisables, il faut les remettre auprès d'un centre de collecte spécialisé dans le recyclage des appareils électriques et électroniques. Le symbole sur le produit, l'emballage ou la notice d'instructions le signale.

Bescherming van het milieu

De elektrische en elektronische onderdelen van deze module (bijv. motoren, lampen, sensoren) behoren niet bij het huisvuil. Aan het einde van hun levensduur moeten ze worden ingeleverd bij een verzamelplaats voor de recycling van elektrische en elektronische apparaten. Het symbool op het product, de verpakking of de gebruiksaanwijzing wijst je daar ook op.

Notas con respecto a la protección del medio ambiente

Los componentes eléctricos y electrónicos de esta unidad modular (p. ej. motores, lámparas, sensores) no han de tirarse a la basura casera. Al final de su vida útil tienen que ser entregados en un puesto colector para el reciclaje de aparatos eléctricos y electrónicos. El símbolo sobre el producto, el embalaje o las instrucciones lo señala.

Instruções para a proteção do meio ambiente

Os componentes elétricos e eletrônicos deste módulo (p.ex. motores, lâmpadas, sensores) não pertencem ao lixo doméstico. Eles devem ser entregues, no final da sua vida útil, num posto de coleta para a reciclagem de aparelhos elétricos e eletrônicos. O símbolo no produto, na embalagem ou no manual indica isto.

Indicazioni sulla tutela ambientale

I componenti elettrici ed elettronici di questa scatola di montaggio (ad es. motori, lampadine, sensori) non vanno smaltiti tra i rifiuti domestici. Alla fine della loro durata di utilizzo devono essere consegnati a un centro di raccolta adibito al riciclaggio di apparecchi elettrici ed elettronici. Ciò viene indicato dal simbolo che si trova sul prodotto, sull'imballo o sul manuale d'istruzioni.

Указания по охране окружающей среды

Электрические и электронные детали этого комплекта (датчики, электромоторы, лампочки и др.) нельзя выбрасывать с бытовым мусором. После того как они отслужат свой срок, их нужно сдать для переработки на сборный пункт электрических и электронных приборов. На это указывает знак на изделии, на упаковке или на инструкции.

有关环保的提示

不得将本组件中的电气和电子部件 (如电机, 灯泡, 传感器) 当作家庭垃圾扔掉。等它们的使用寿命结束后, 应将它们送抵电气和电子器材回收站。产品、包装或说明书上的标记也说明这一规定。

