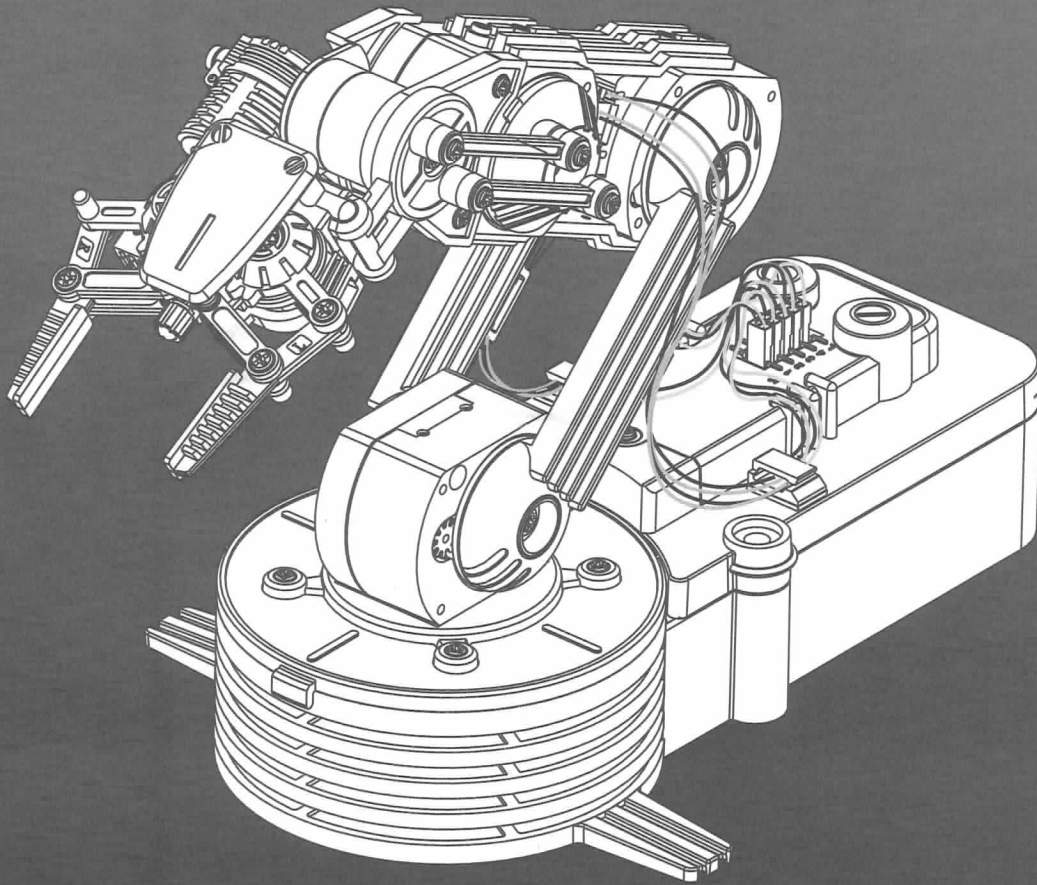


ROBOT ARM

wired control robot arm KIT



Assembly and Instruction Manual

Contents



ROBOT ARM:

1. Product Introduction	P.1
2. Tools You May Need	P.1
3. Mechanical Parts List	P.2
4. Plastic Parts	P.3
5. Mechanical Assembly	P.5

Wired Control Box:

1. Product Introduction	P.27
2. Tools You May Need	P.27
3. Mechanical Parts List	P.27
4. Plastic Parts	P.28
5. Mechanical Assembly	P.28

How it Works	P.31
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Trouble Shooting	P.33
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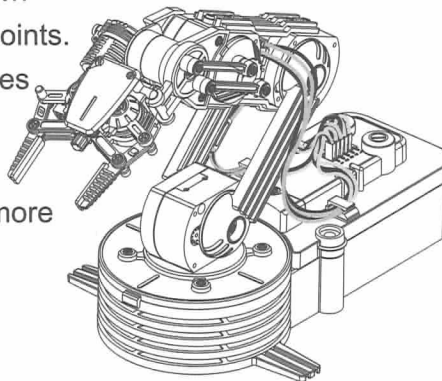
Circuit Diagram	P.33
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ROBOT ARM

1 Product Introduction:

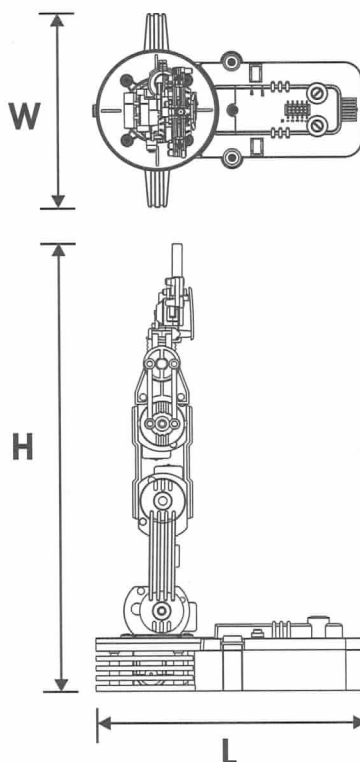
Learning basic robotic technology and build your own Wired Control Robot Arm with five motors and five joints. With its five-switch wired controller, the robot features base rotation, base, elbow and wrist motion, and a functional gripper. The 5 motors operate the grab, release, lift and lower. A built-in searchlight brings more fun when operate in dark.



Maximum lift: 100g.

Dimensions: 9" L x 6.3" W x 15" H

Weight: 658 g



Power source required:

4 x "D" batteries(not included)

2 Tools You May Need:

Long Nose Pliers



Diagonal Cutter



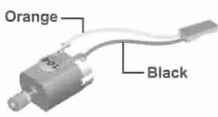
Screwdriver

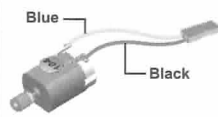


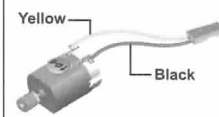
"D" Battery (4pcs)



3 Mechanical Parts List:

P1	Motor(M4.M5)	Qty
		2


P2	Motor(M2.M3)	Qty
		2

P3	Motor(M1)	Qty
		1

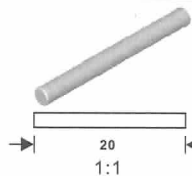
P4	Gear 32/10T(Gray)	Qty
		10

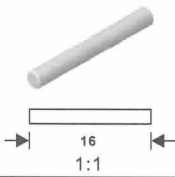
P5	Gear 32/10T(Brown)	Qty
		5

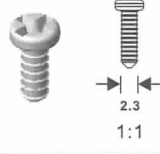
P6	Gear 32T(Blue)	Qty
		5

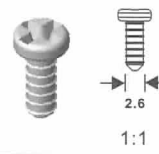
P7	Output Gear 10T(Black)	Qty
		4

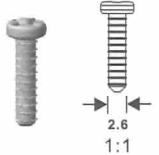
P8	Output Gear 10T(White)	Qty
		1

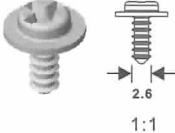
P9	Round Shaft	Qty
		9 (2x20)

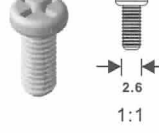
P10	Round Shaft	Qty
		1 (2x16)

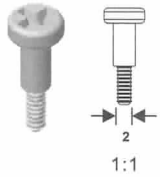
P11	Tapping Screw	Qty
		5 (2.3x7)

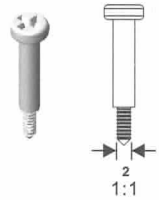
P12	Tapping Screw	Qty
		11 (2.6x6)


P13	Tapping Screw	Qty
		19 (2.6x10)


P14	Tapping Screw	Qty
		12 (2.6x6)


P15	Machine Screw	Qty
		10 (2.6x6)

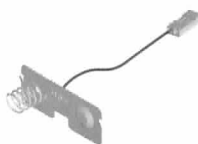
P16	Self Tapping Screw	Qty
		4 (3x11)


P17	Self Tapping Screw	Qty
		3 (3x16)


P18	Nut	Qty
		16


P19	Washer	Qty
		3

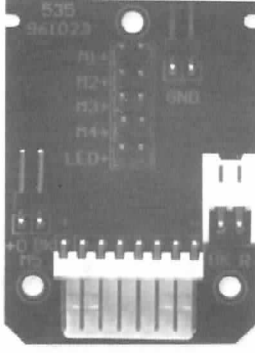
P20	Battery Terminal With Wire	Qty
		1

P21	Battery Terminal With Connector	Qty
		1

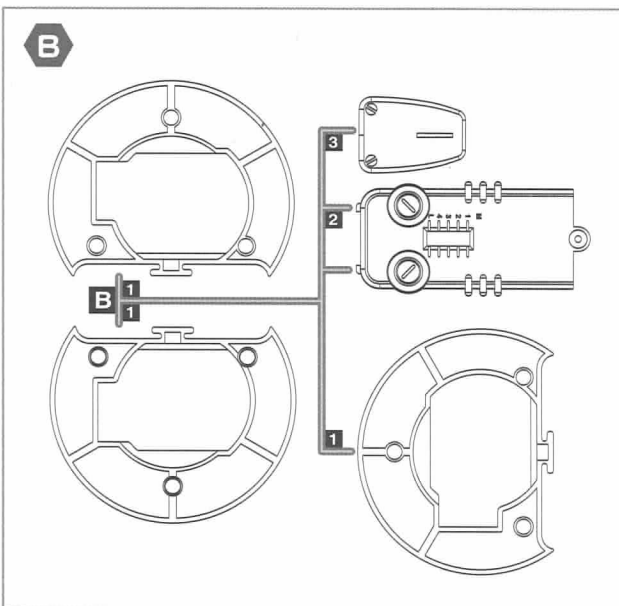
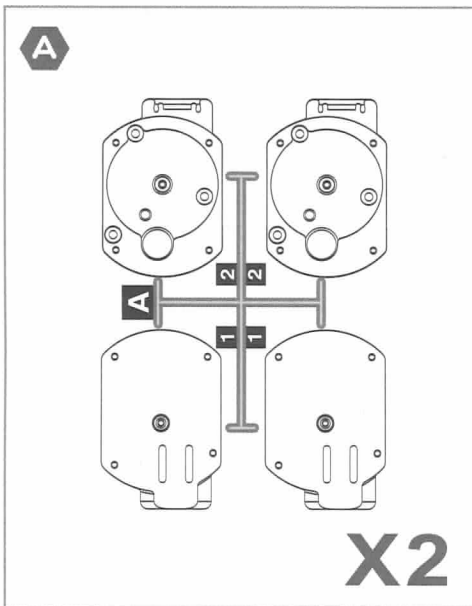
P22	LED With Wire	Qty
		1

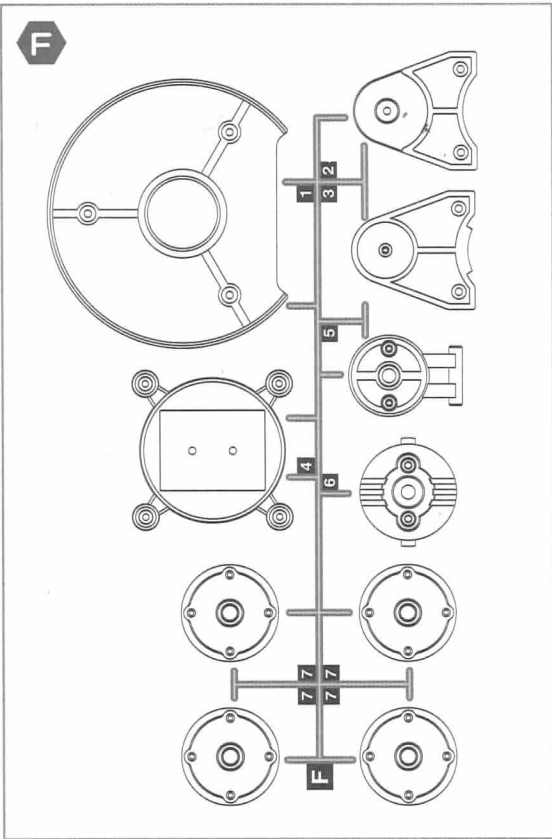
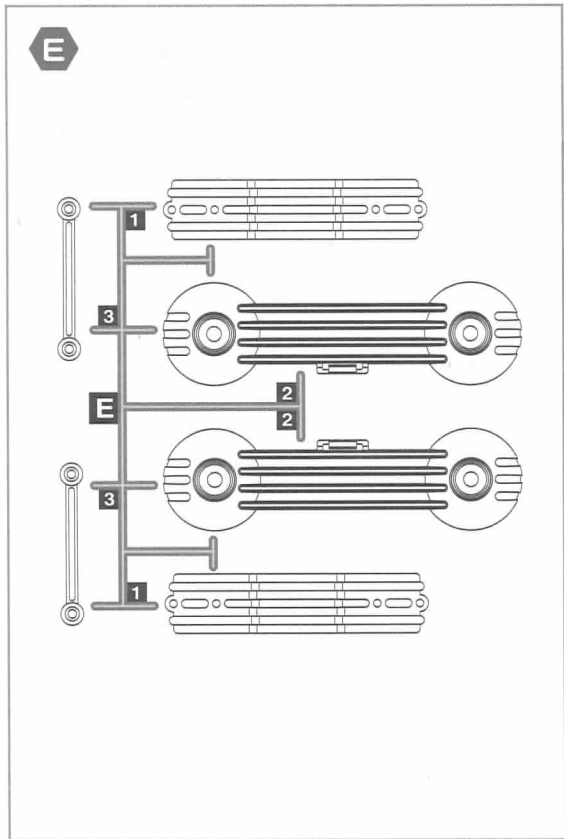
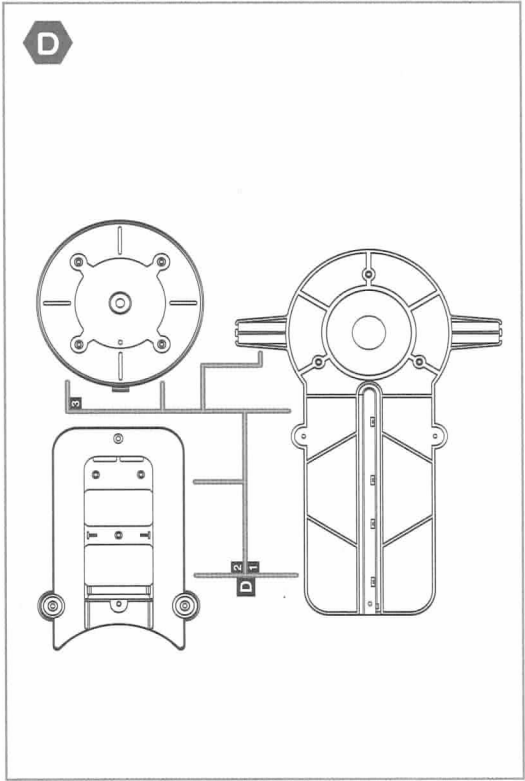
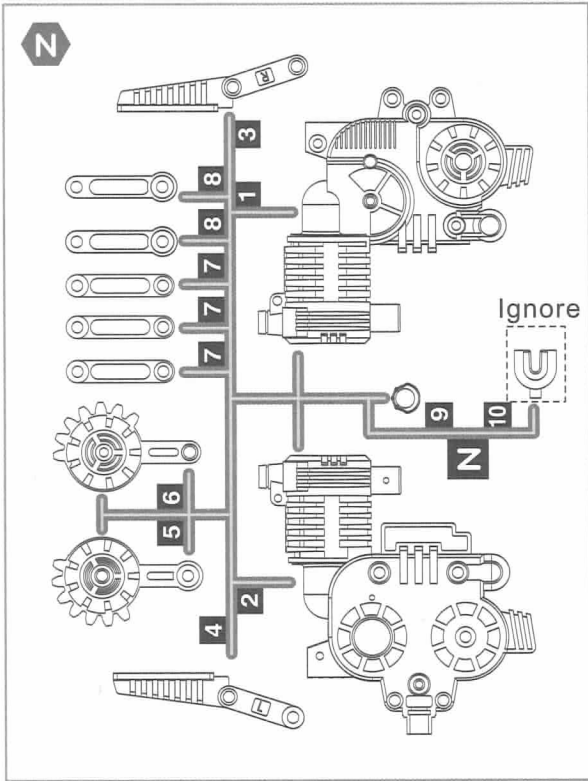
P23	Sponge(Black)	Qty
		2

P24	Wire Clip	Qty
		3

P25	PC Board	Qty
		1

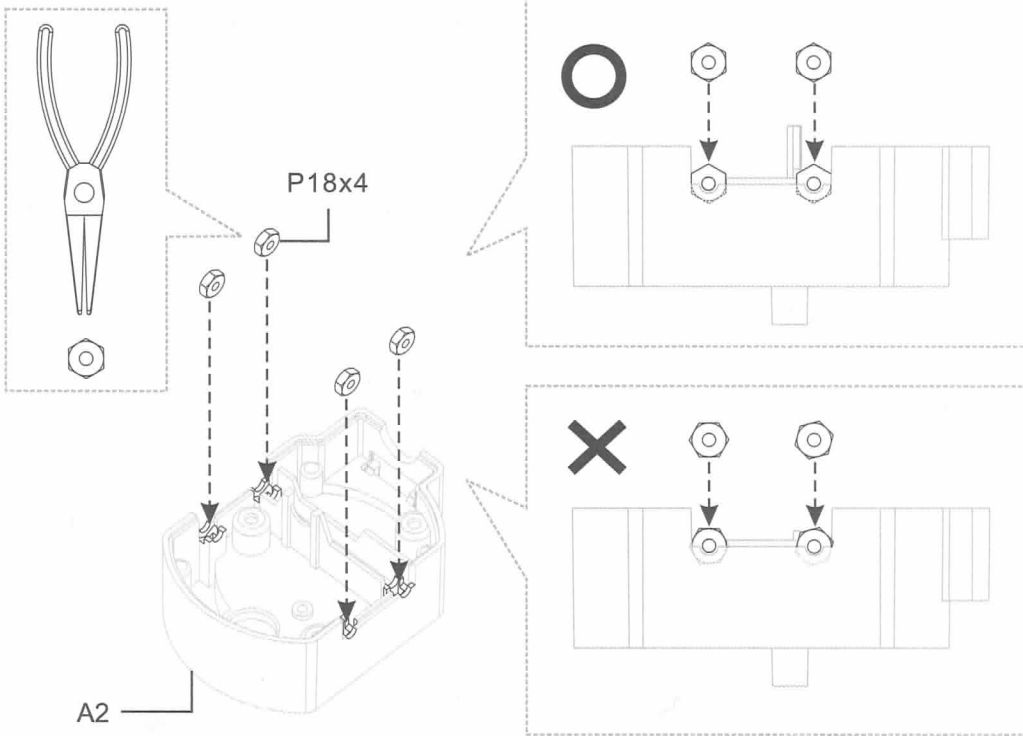
4 Plastic Parts:



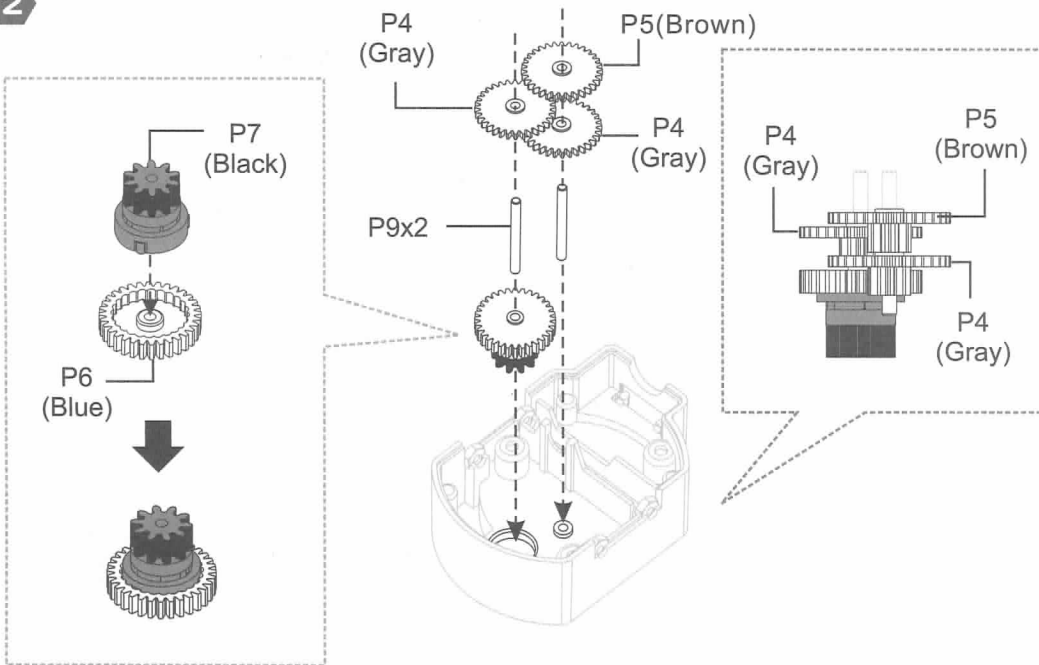


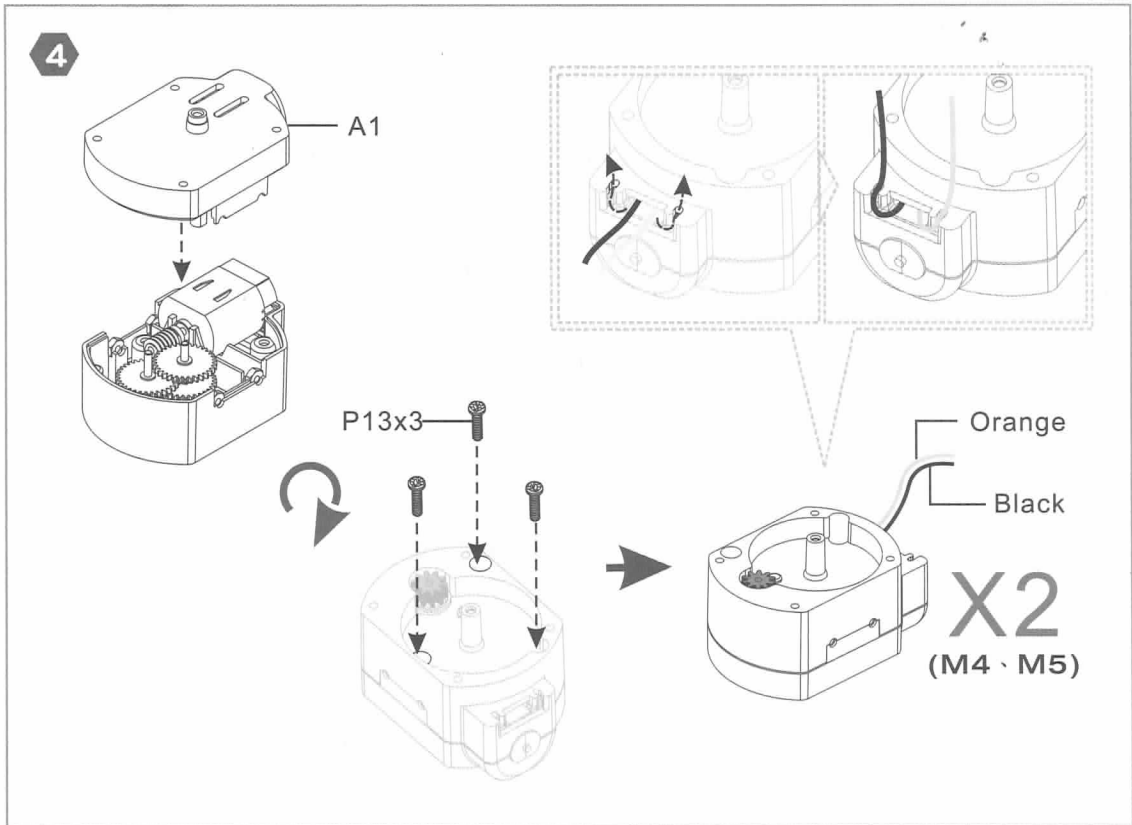
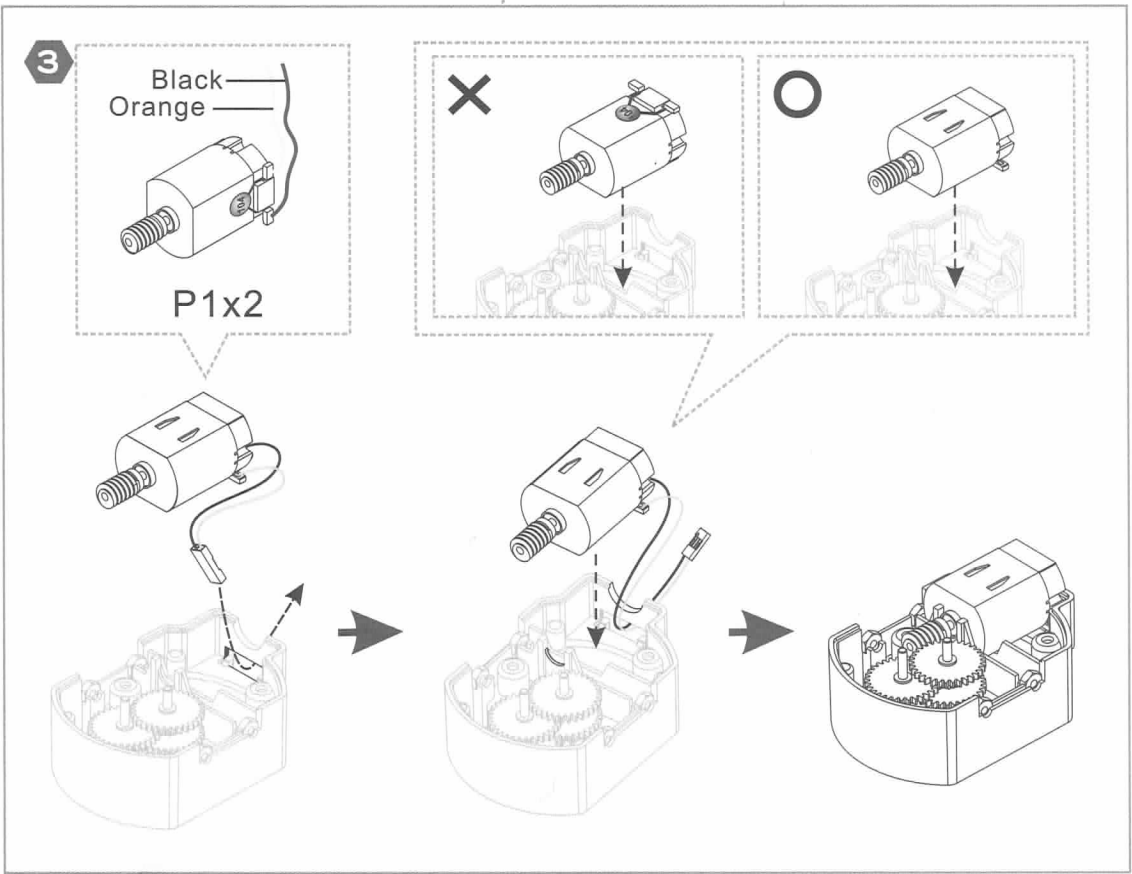
5 Mechanical Assembly:

1 Gearbox Assembly For M4 · M5

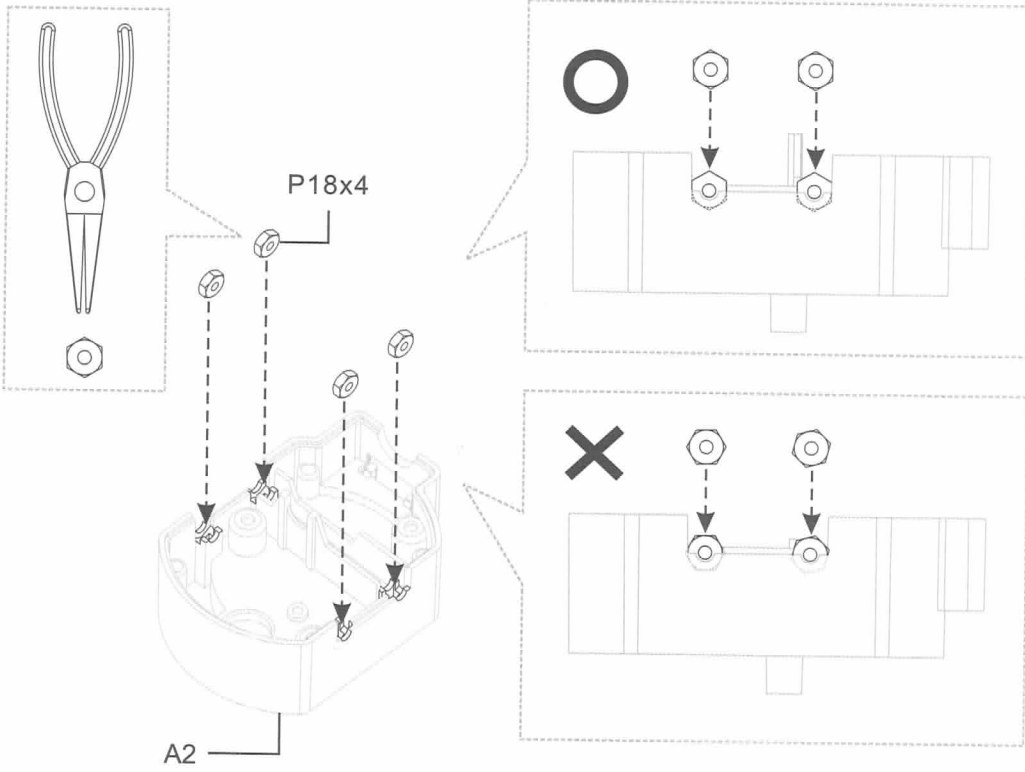


2

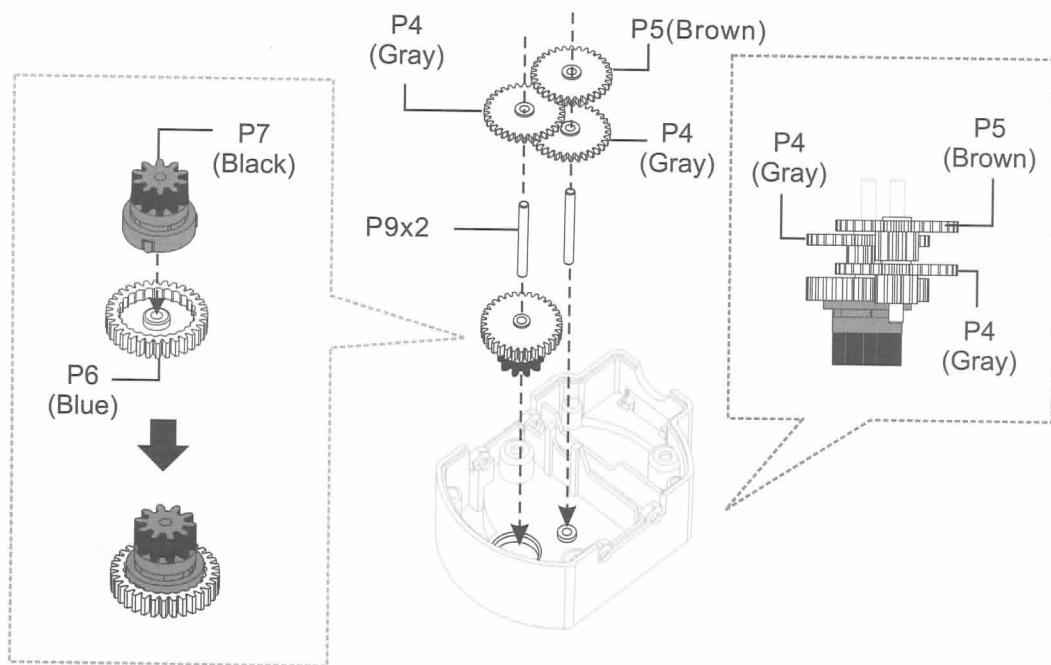


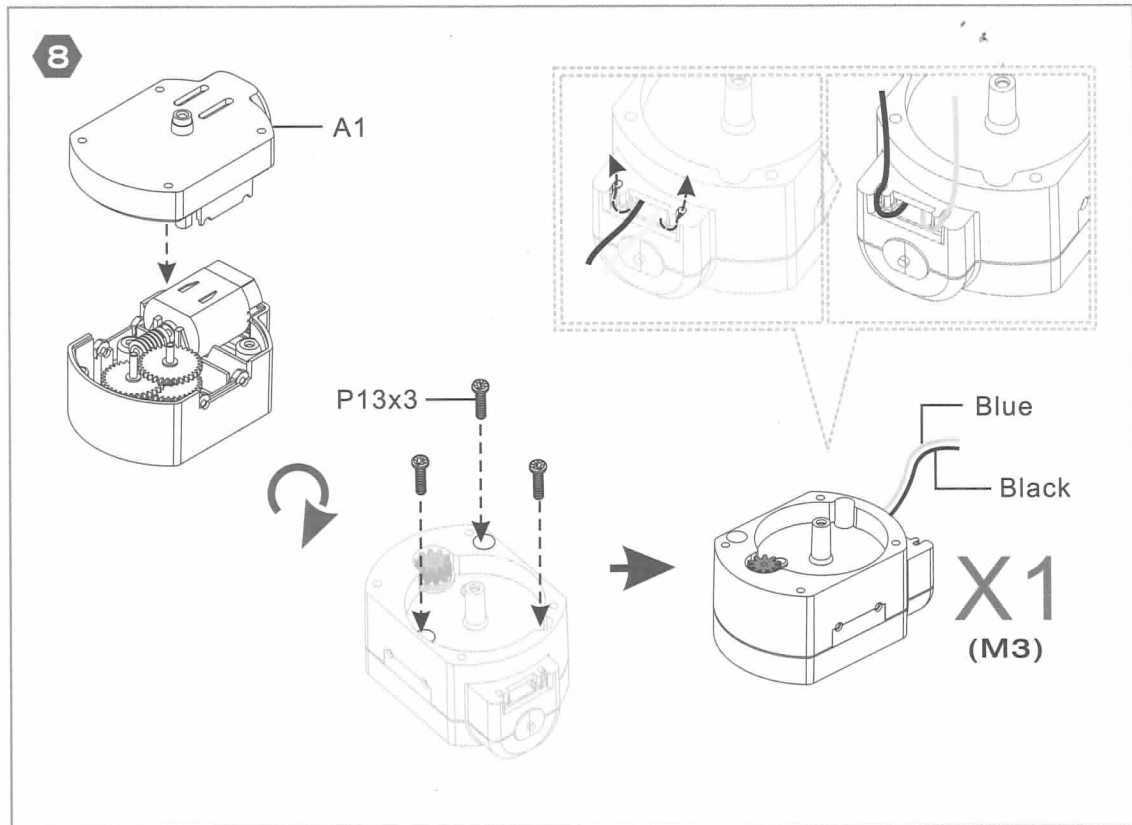
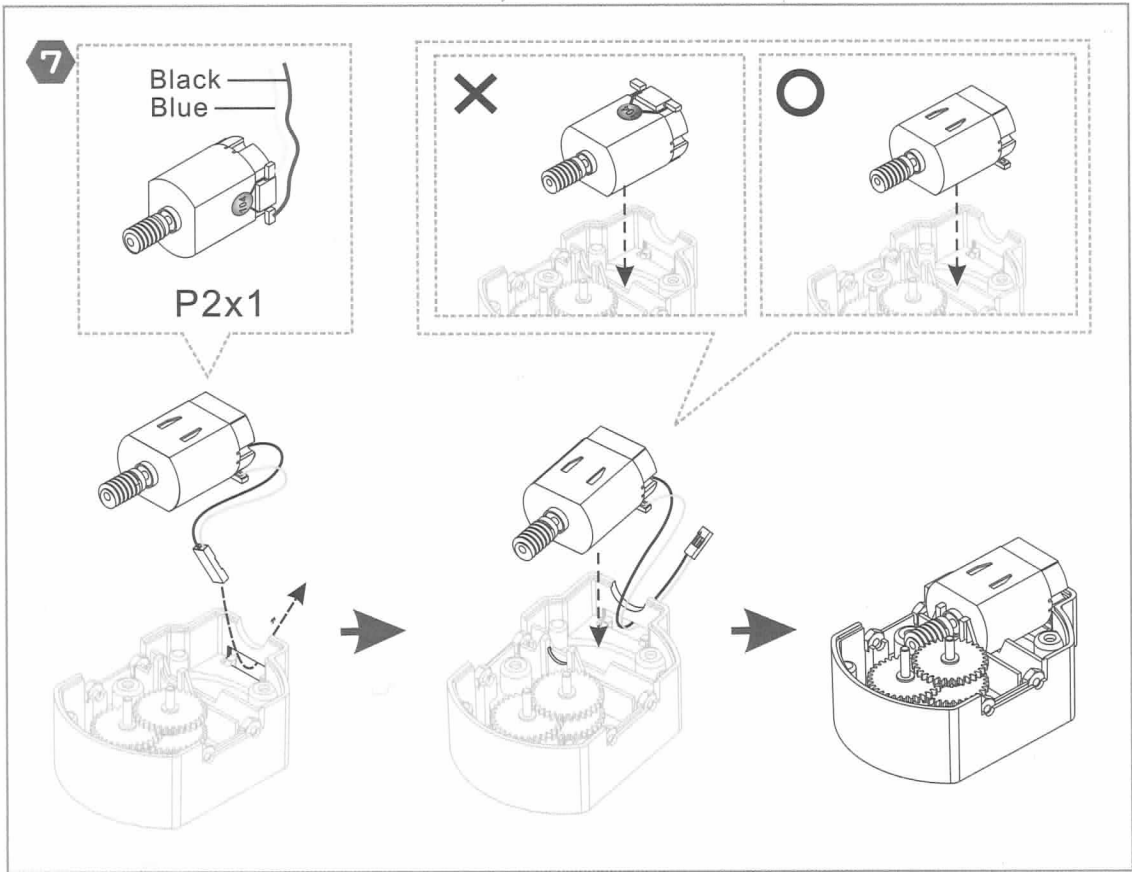


5 Gearbox Assembly For M3

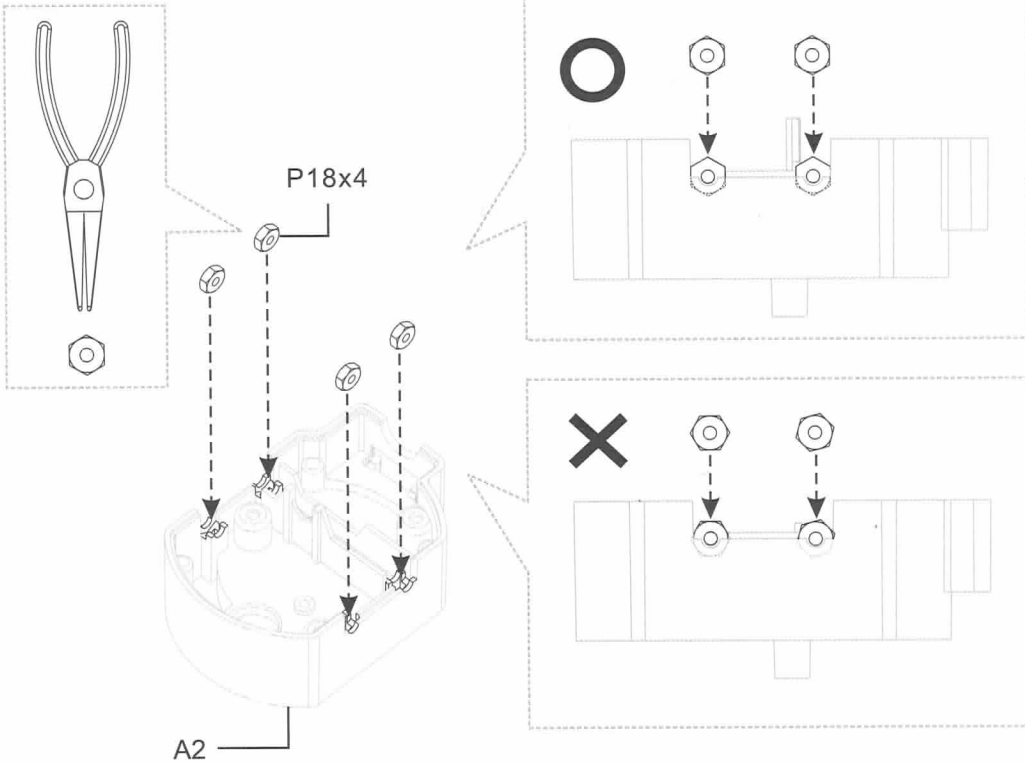


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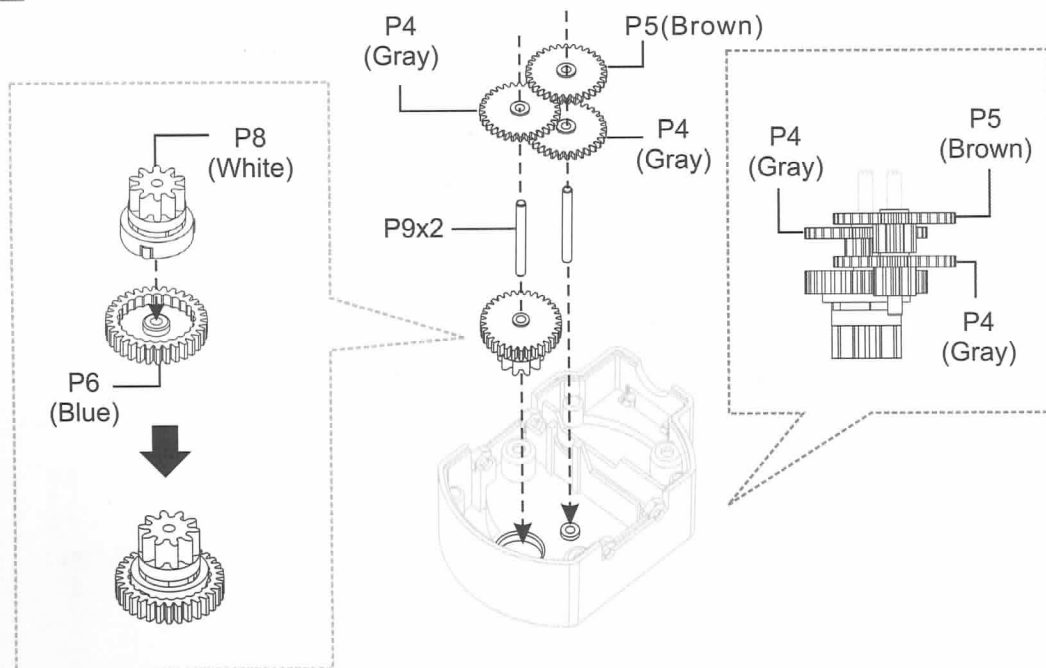




9 Gearbox Assembly For M2

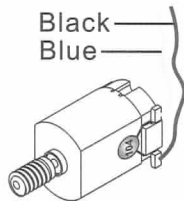


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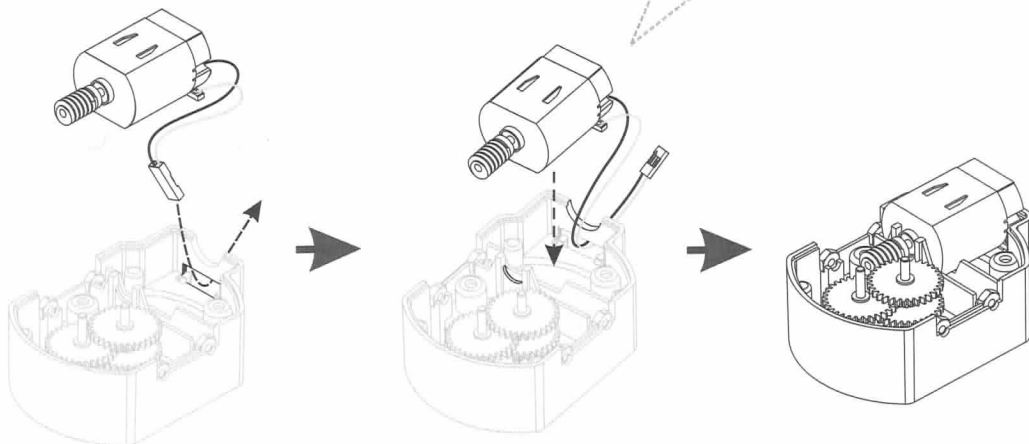
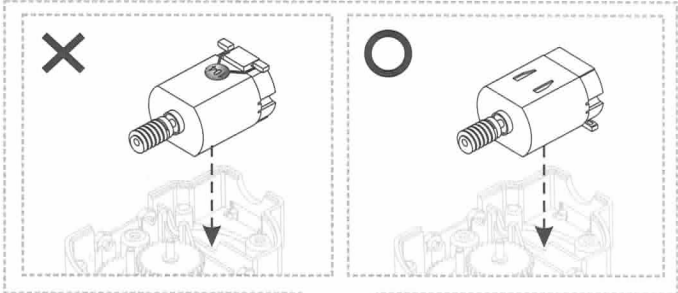


11

Black
Blue

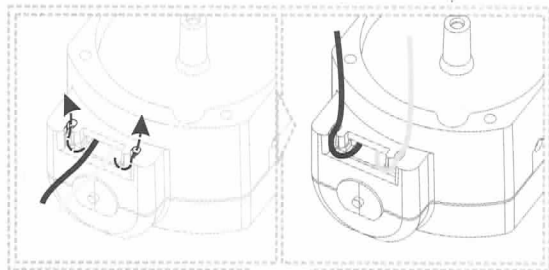
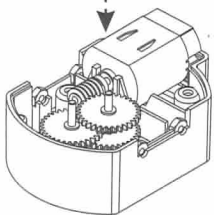
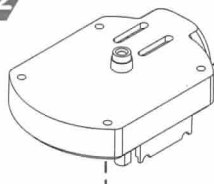


P2x1

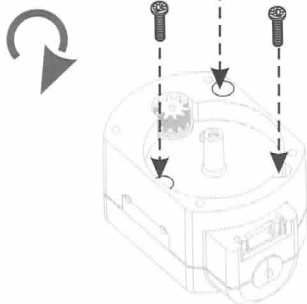


12

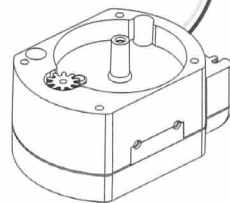
A1



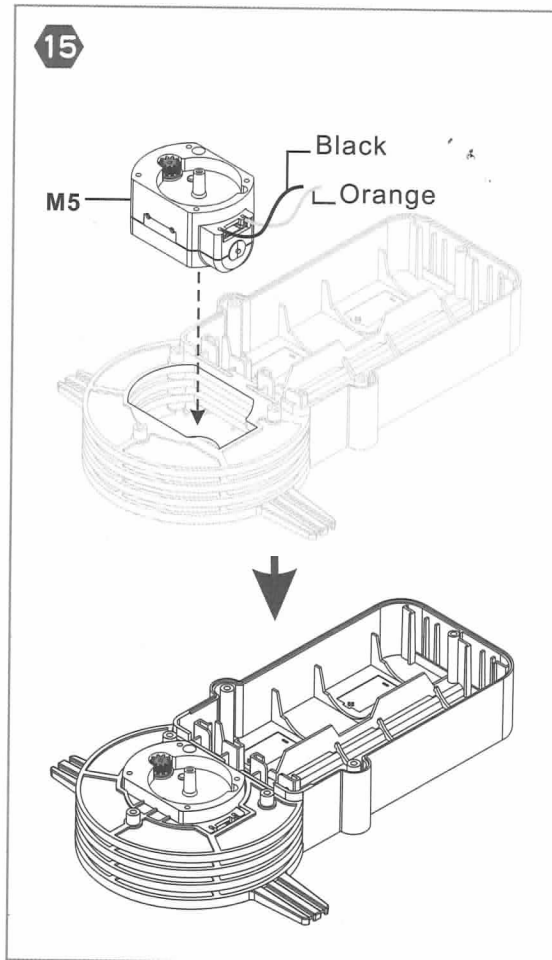
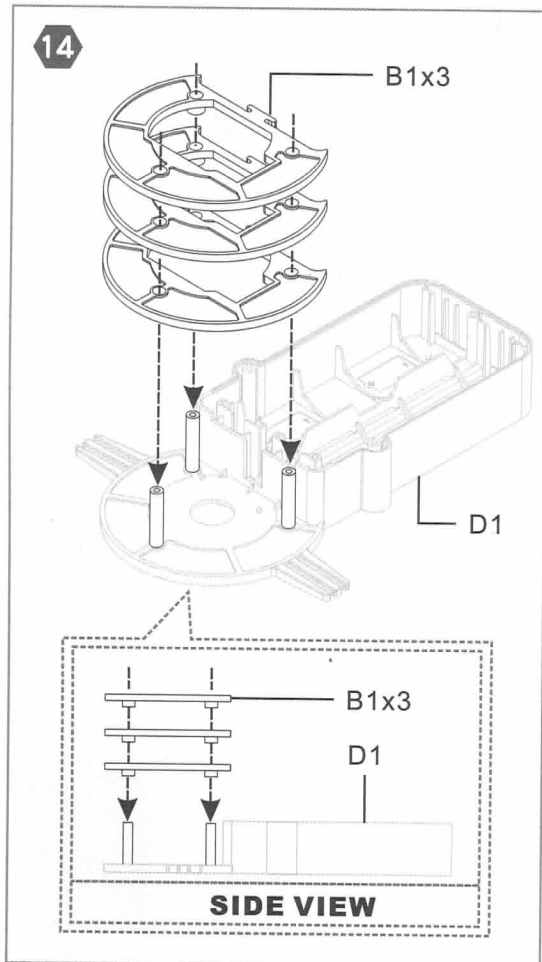
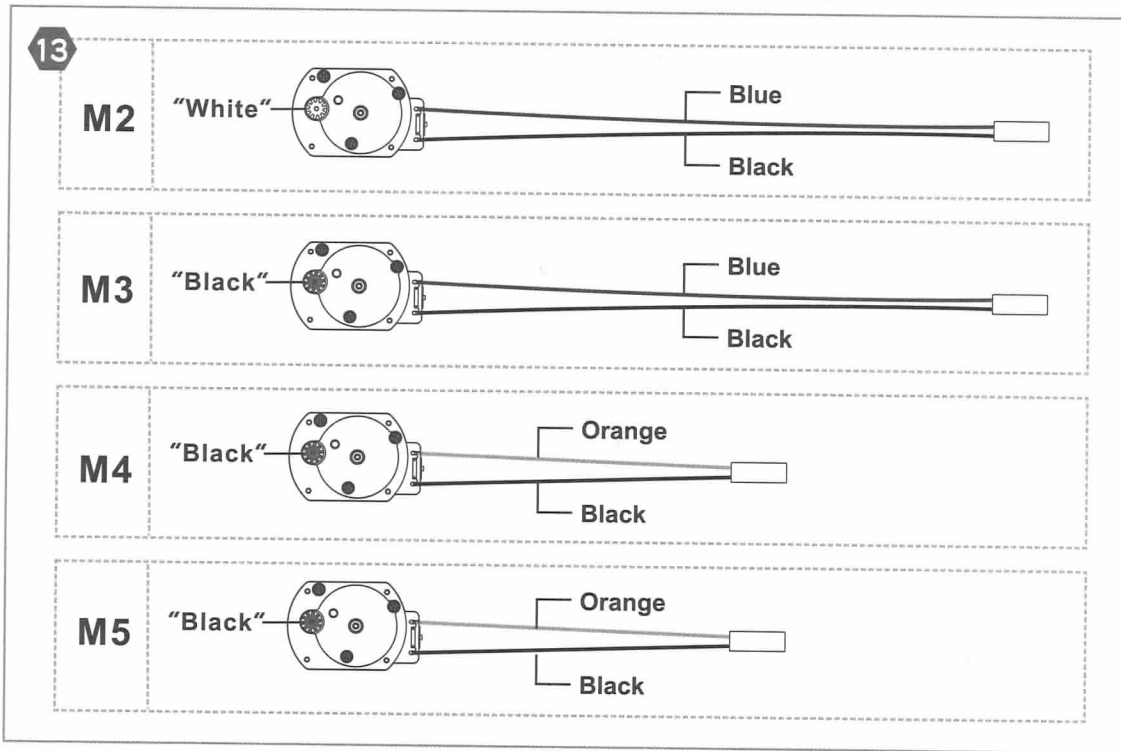
P13x3



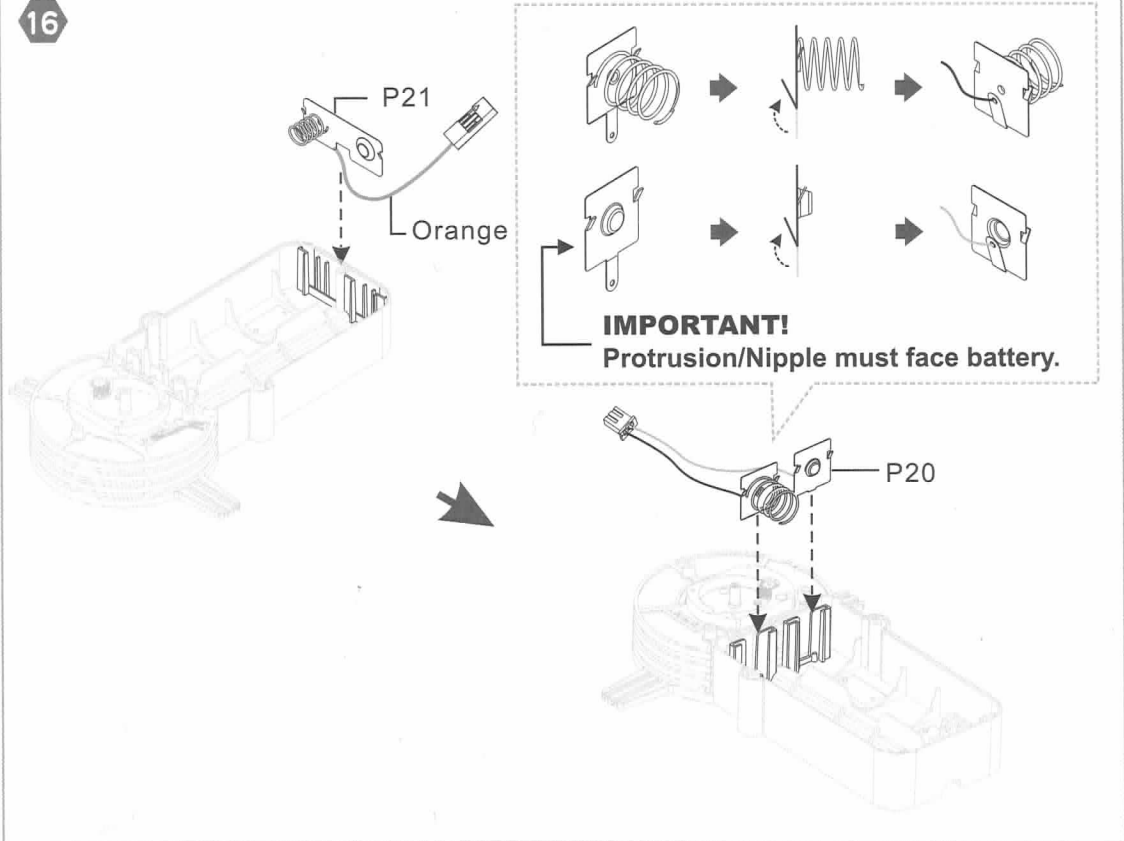
Blue
Black



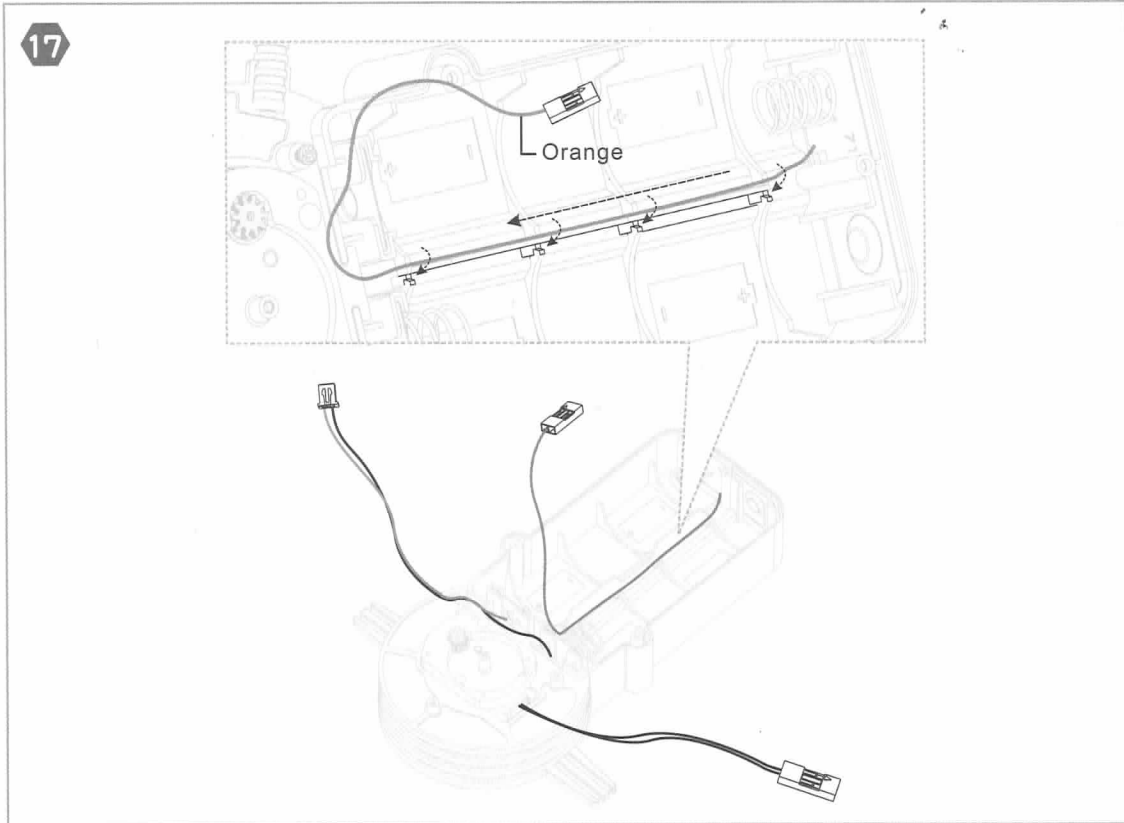
X1
(M2)



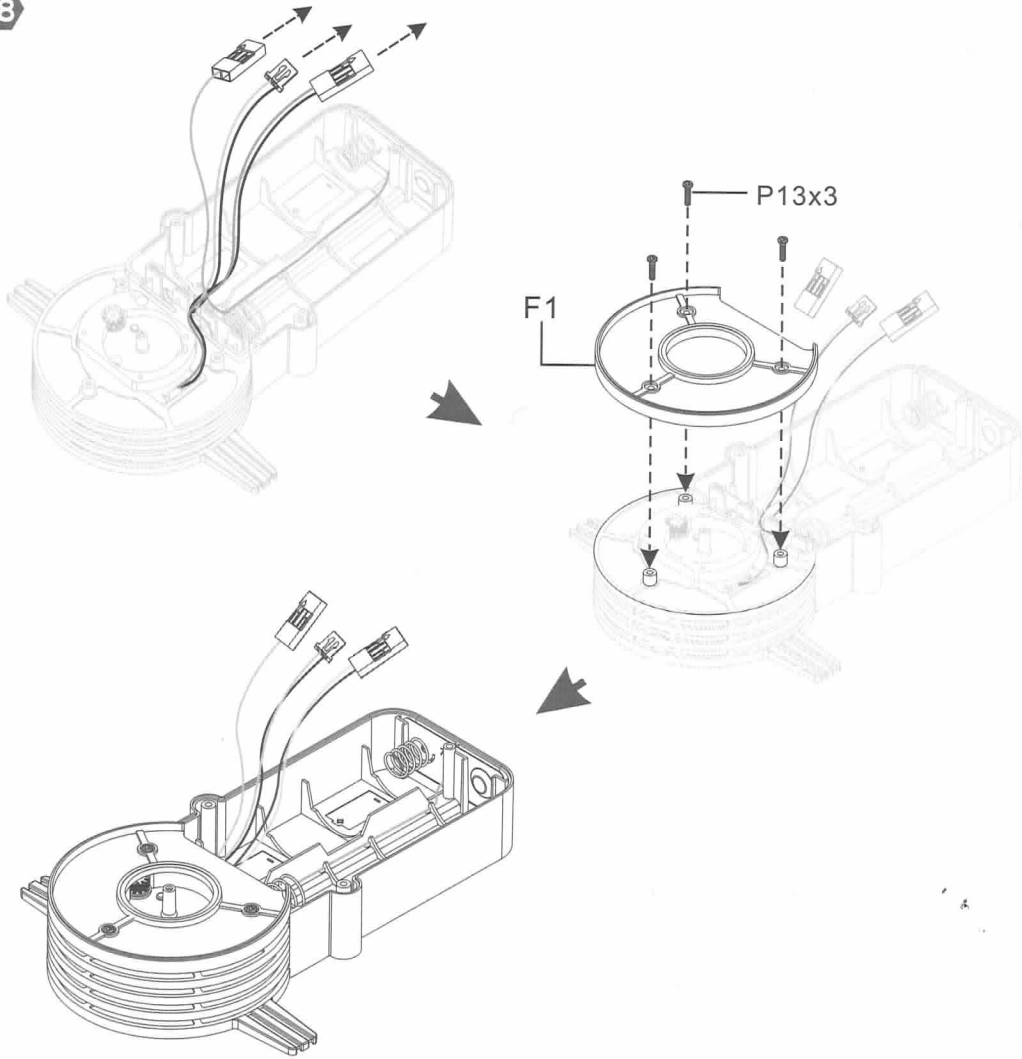
16



17

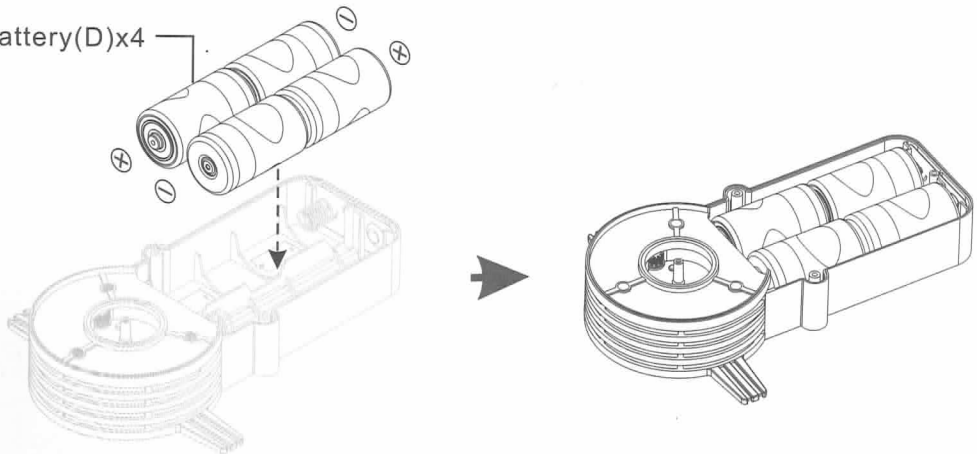


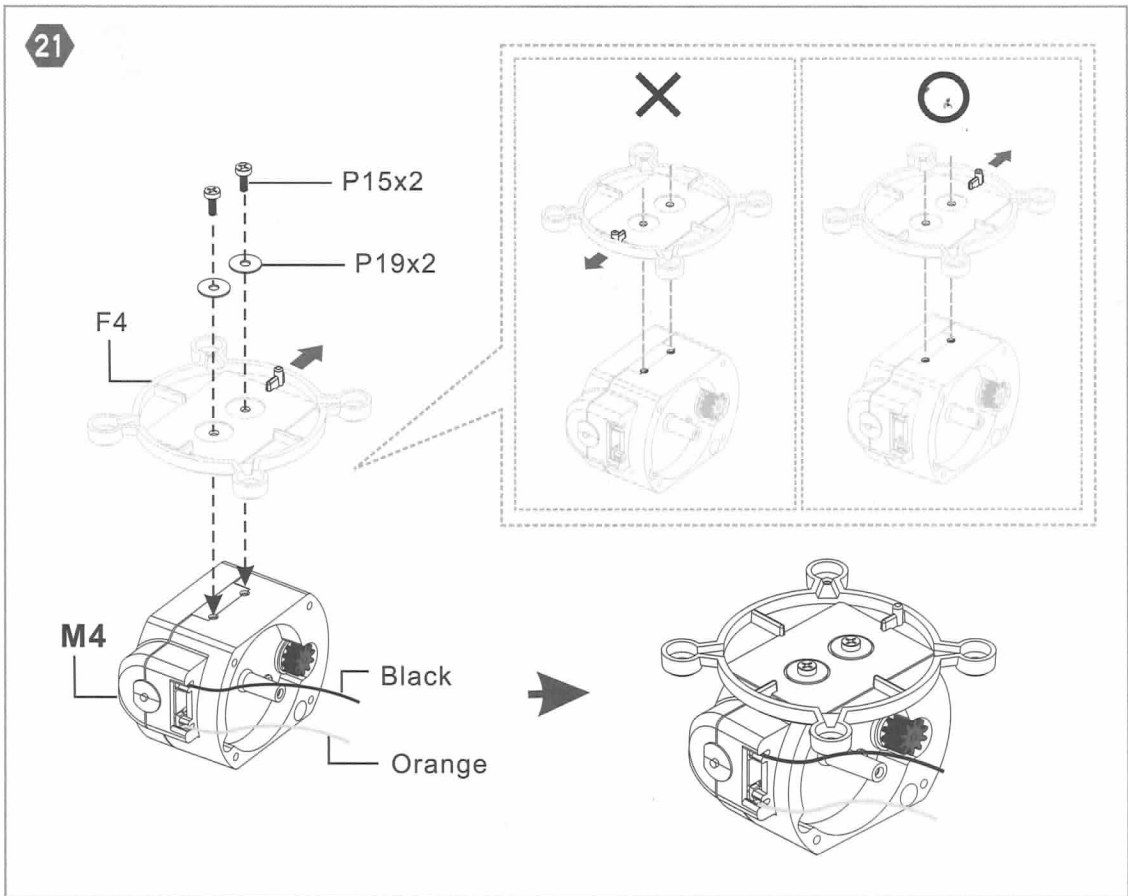
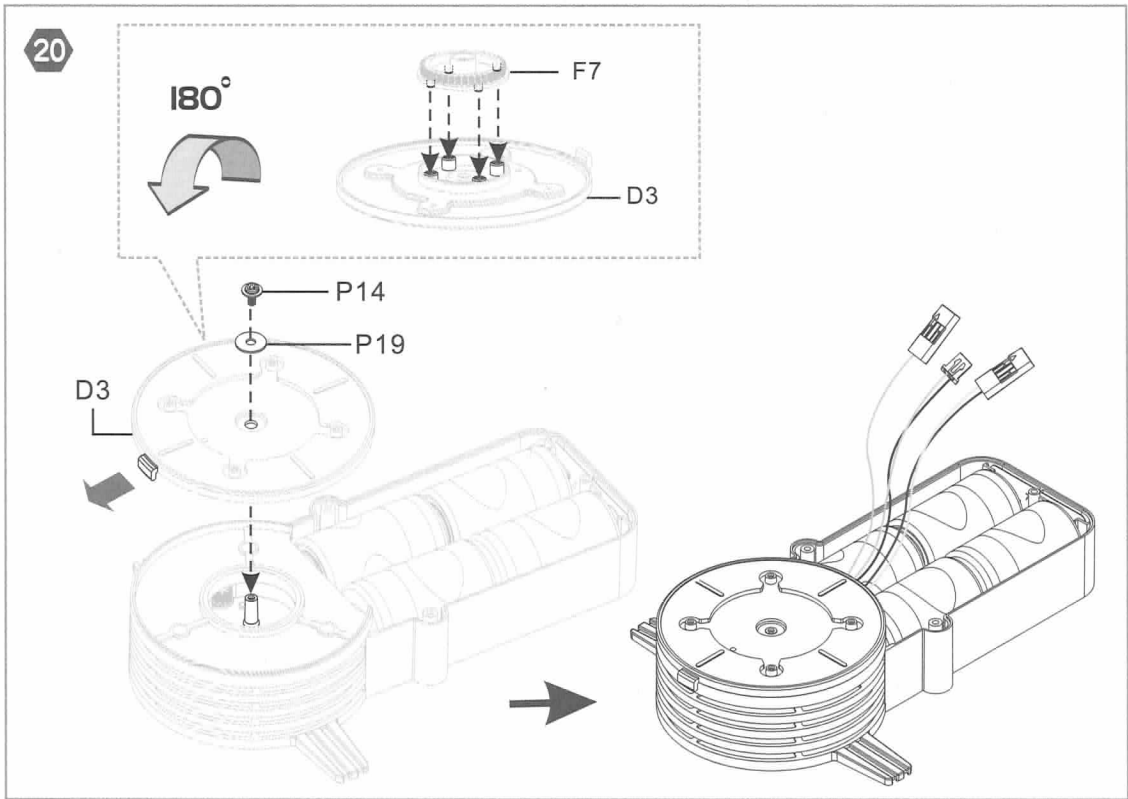
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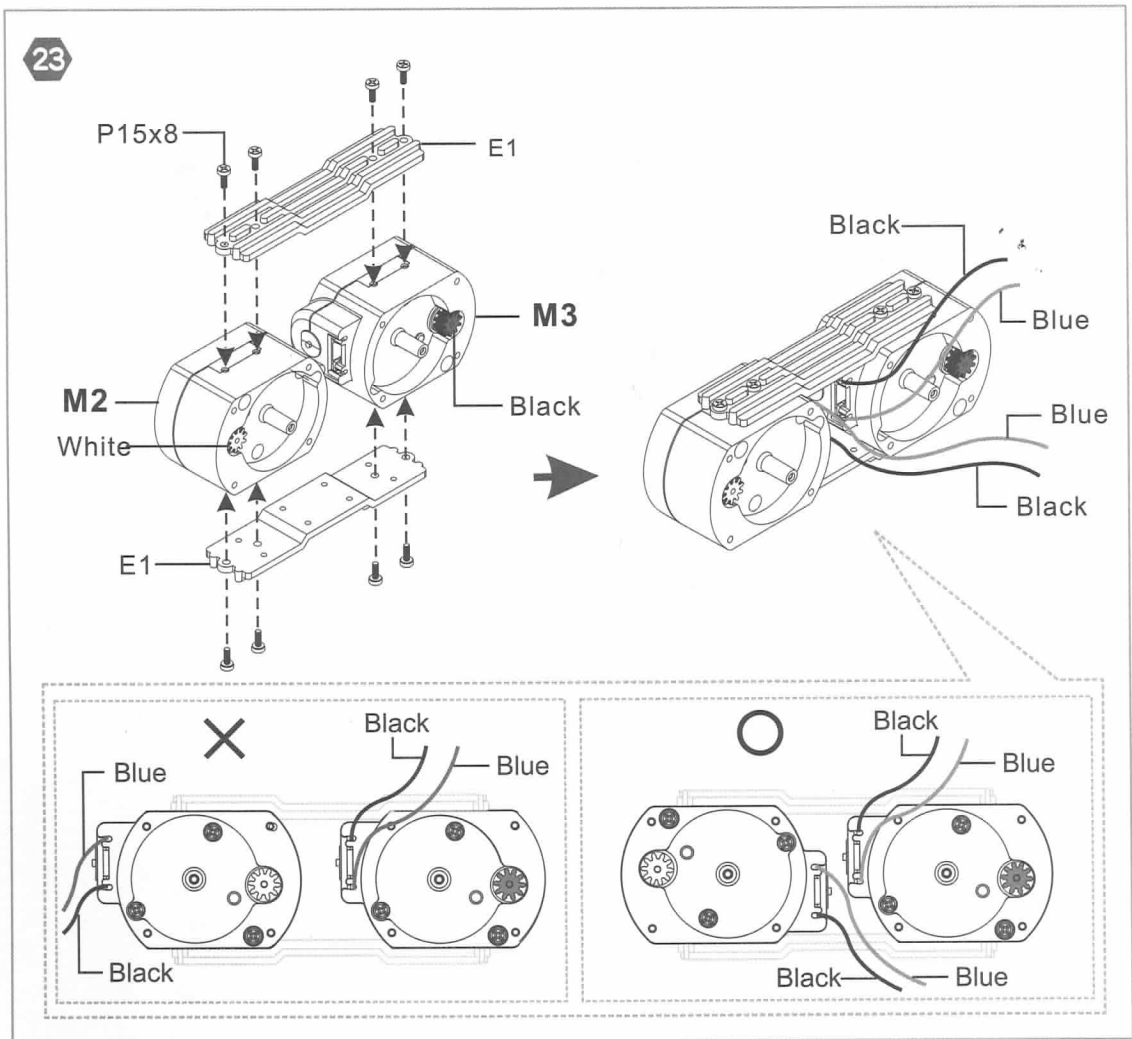
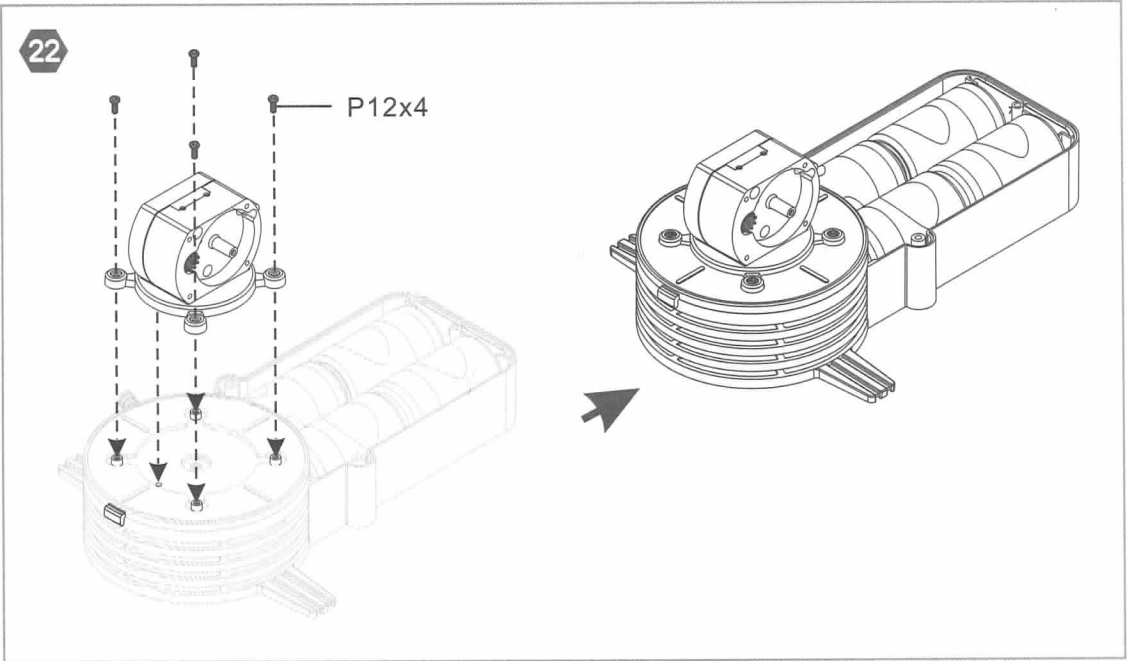


19

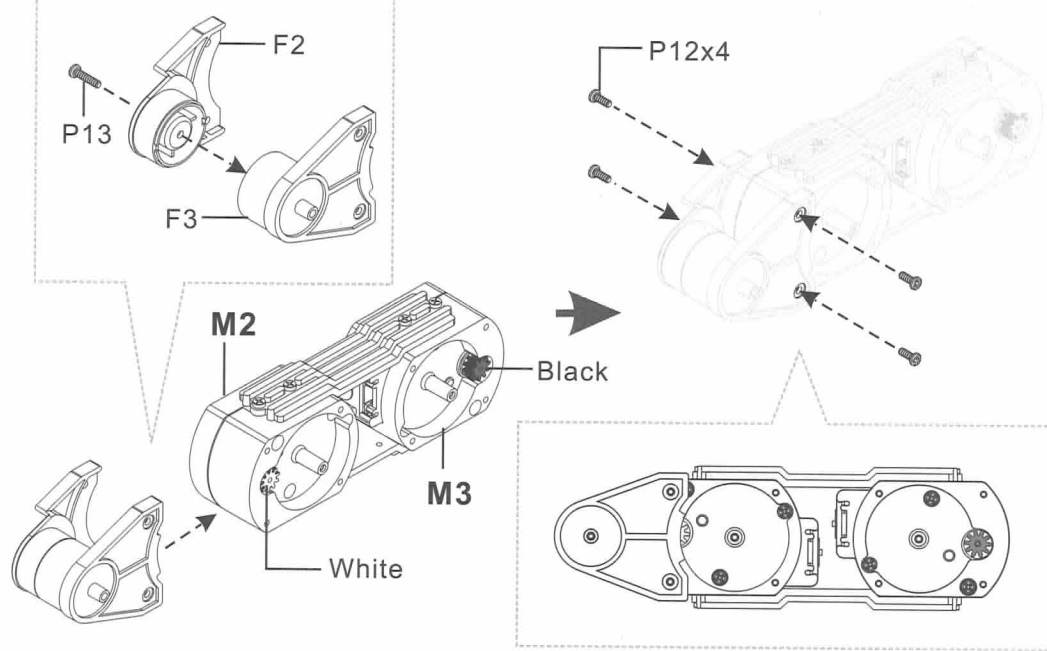
Battery(D)x4



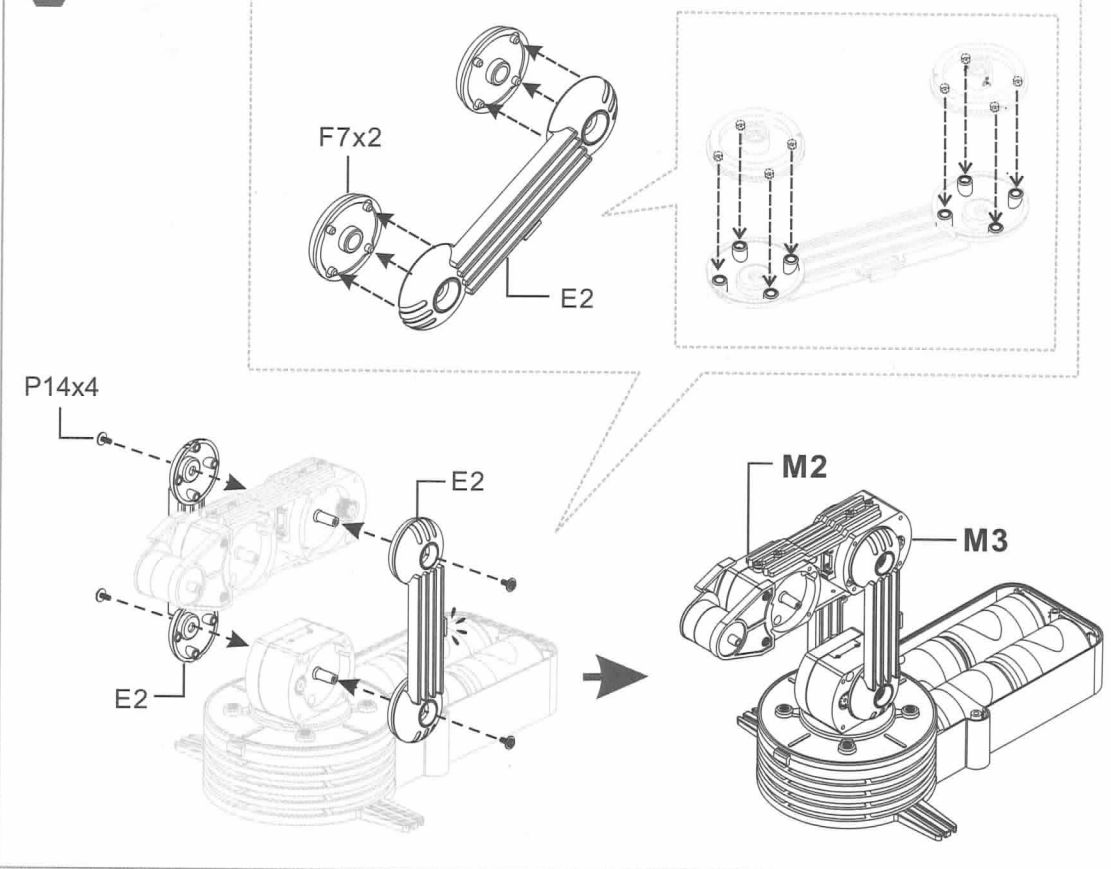




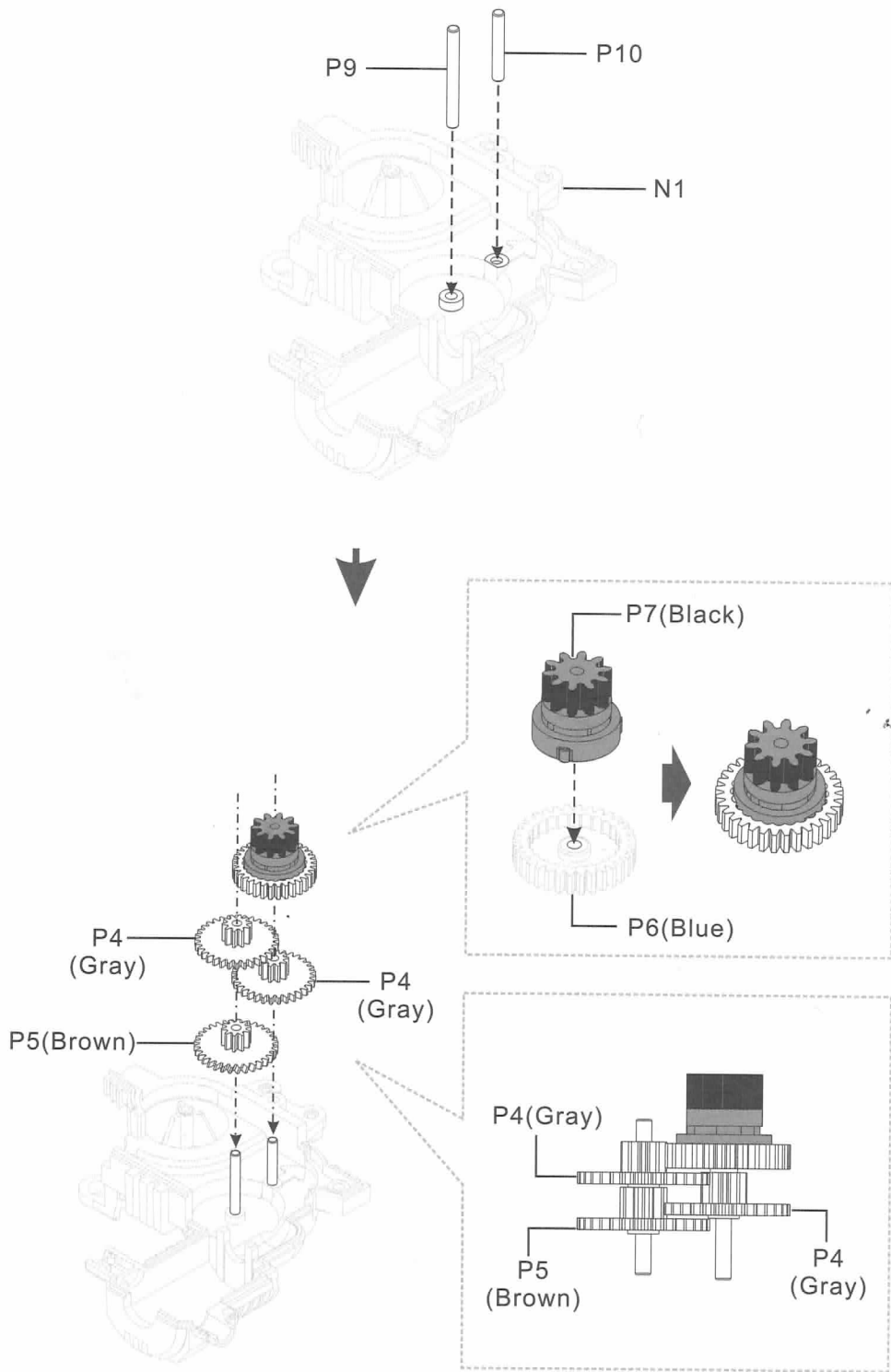
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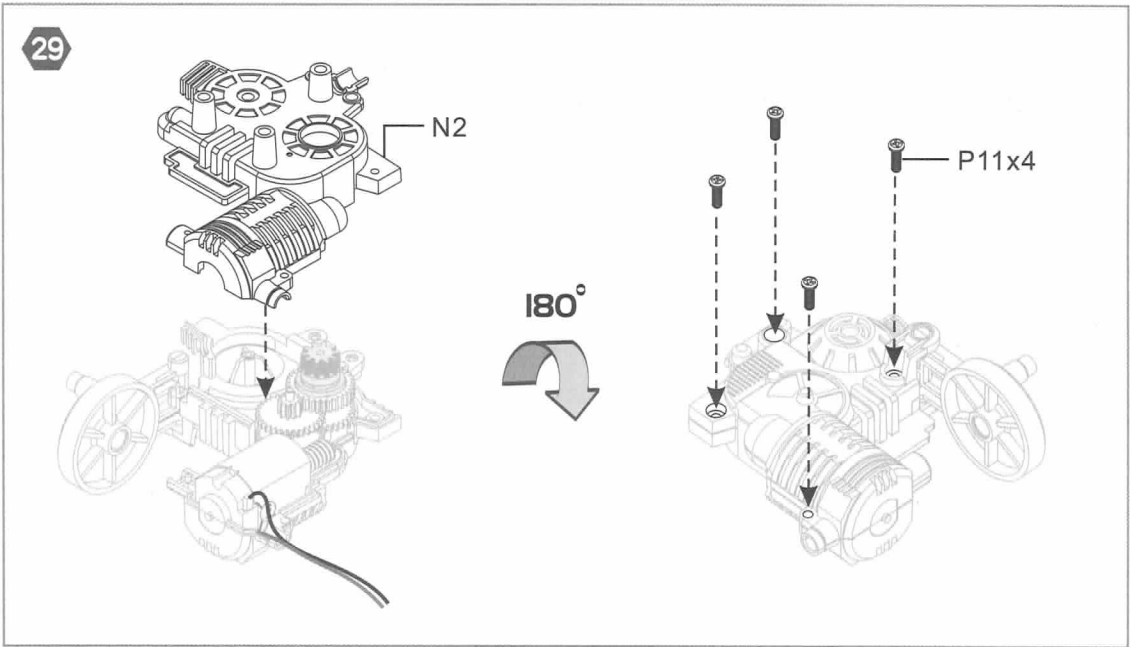
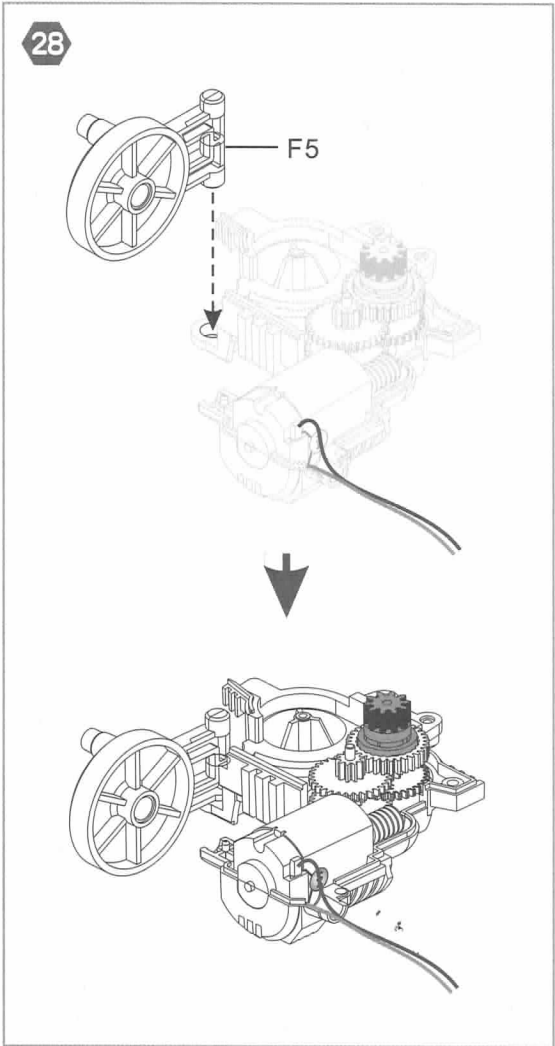
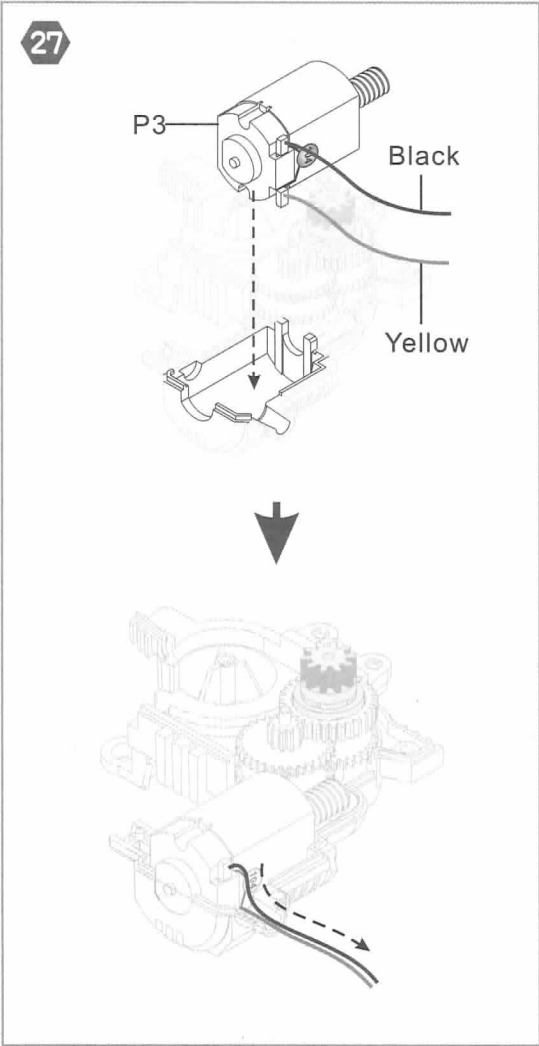


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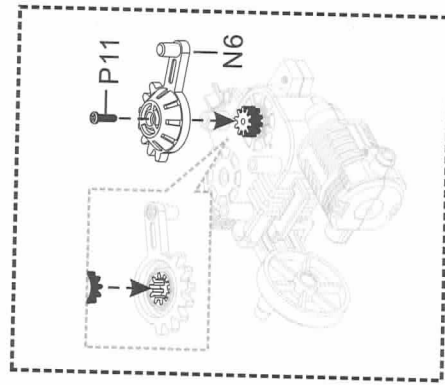
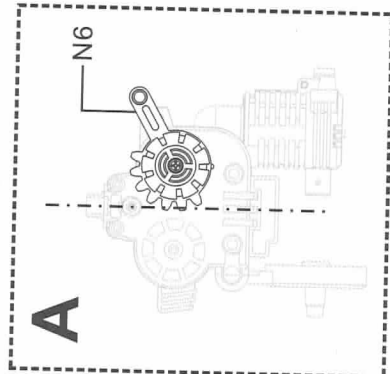


26 Gearbox Assembly For Gripper (M1)





Step 1

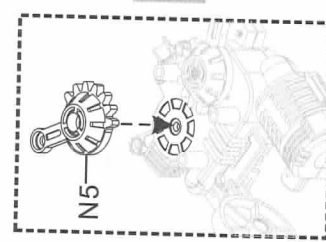
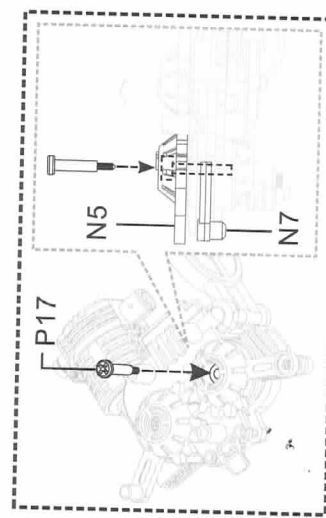
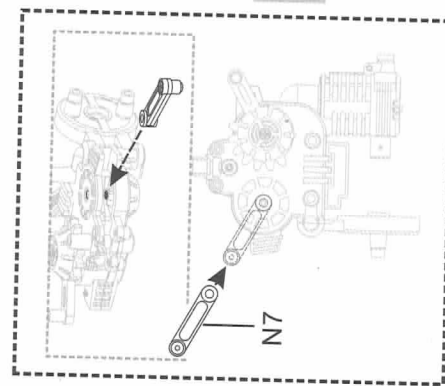
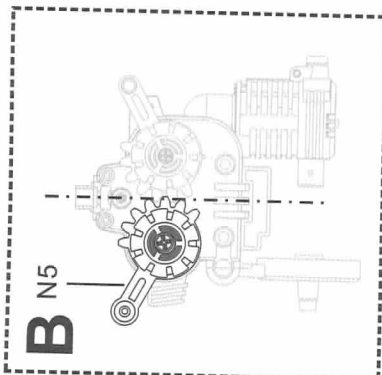


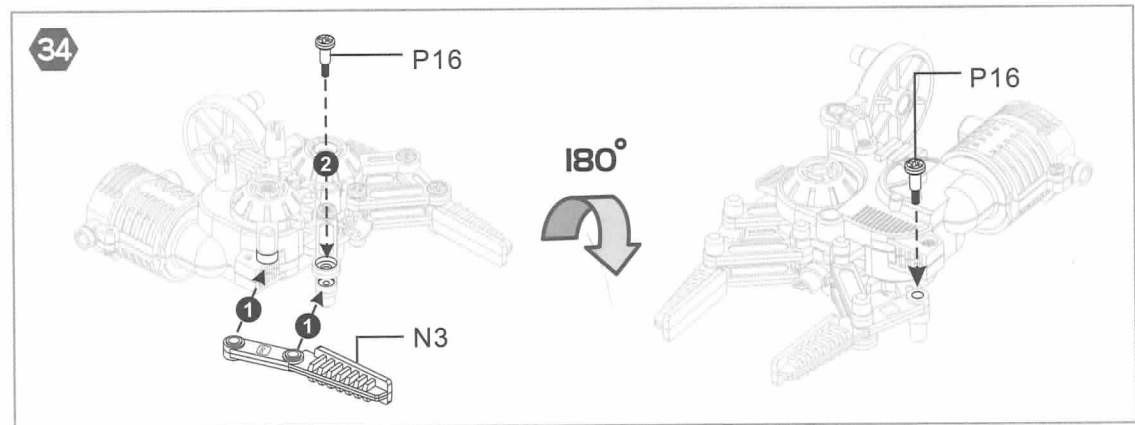
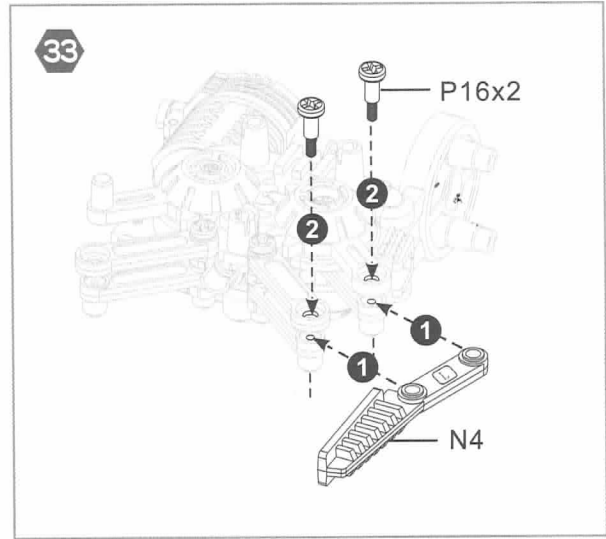
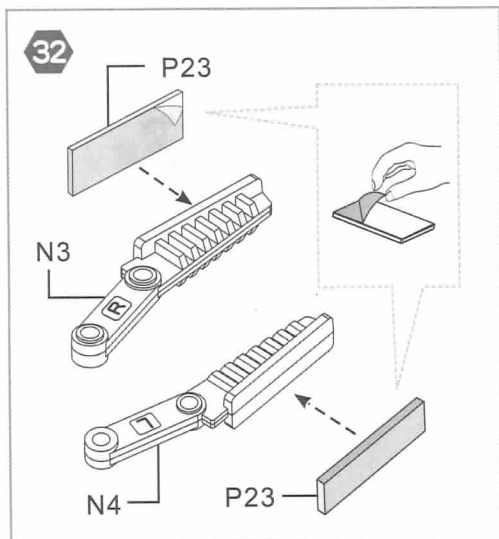
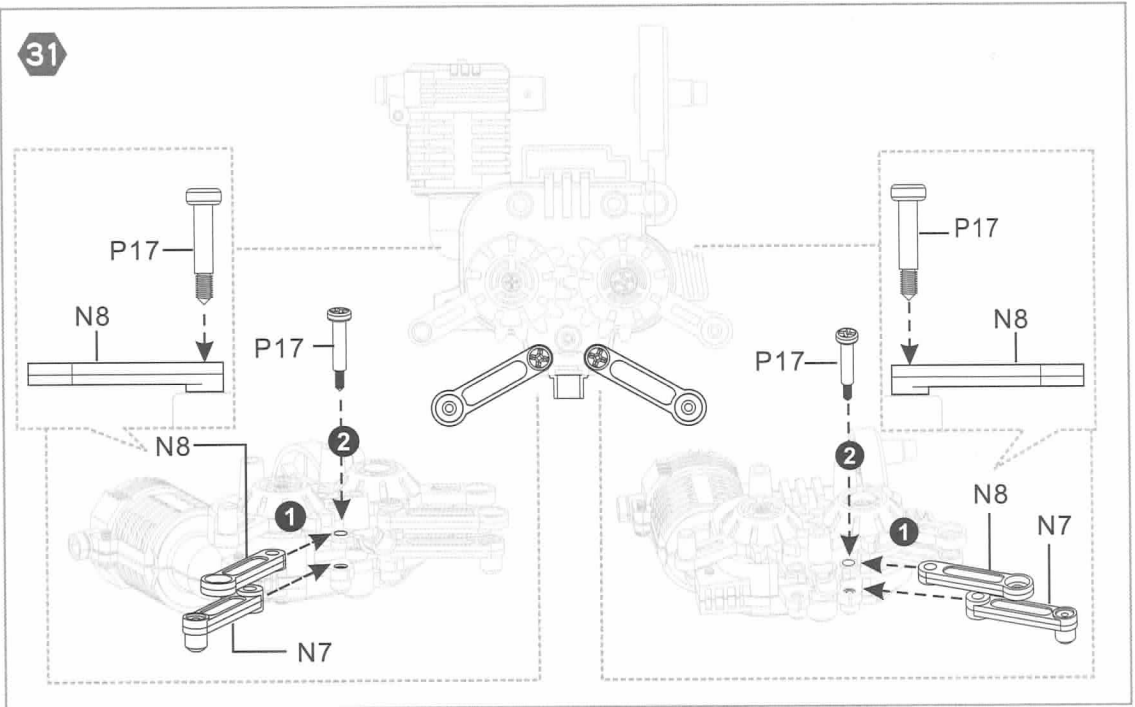
Important!

A diagram showing two gears, A and B, on a shaft. A dashed vertical line represents the central axis. Curved arrows labeled A and B indicate the required alignment of the gears relative to this axis.

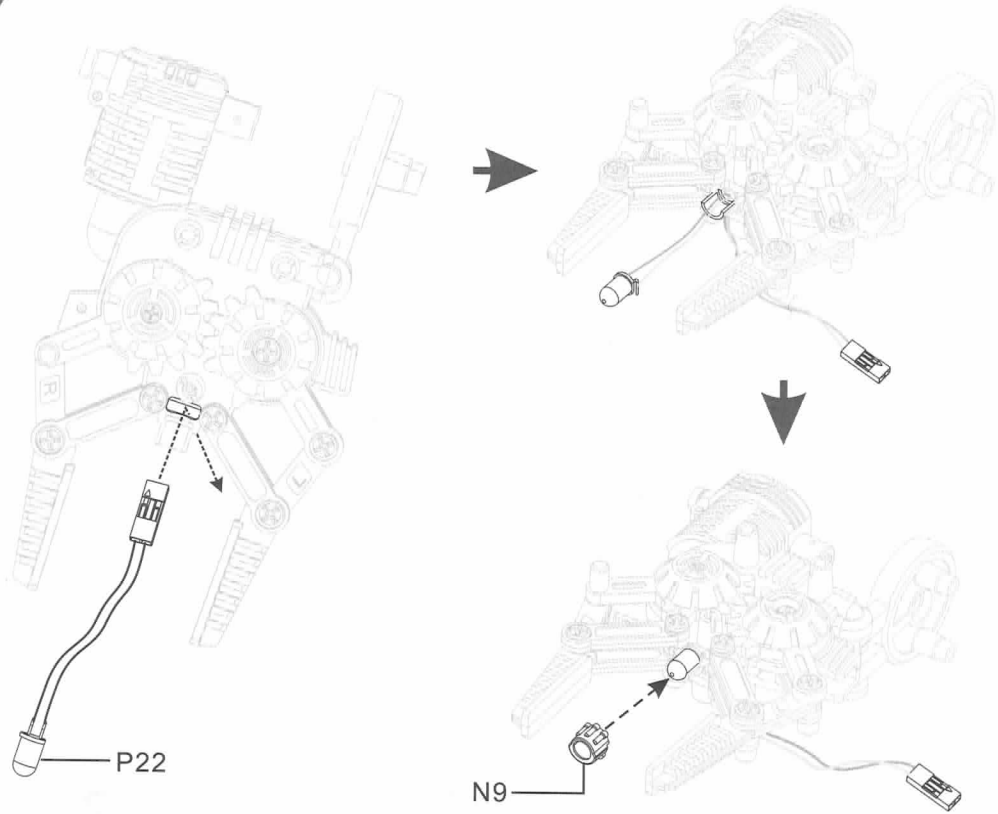
A and B must be same distance to the central.

Step 2

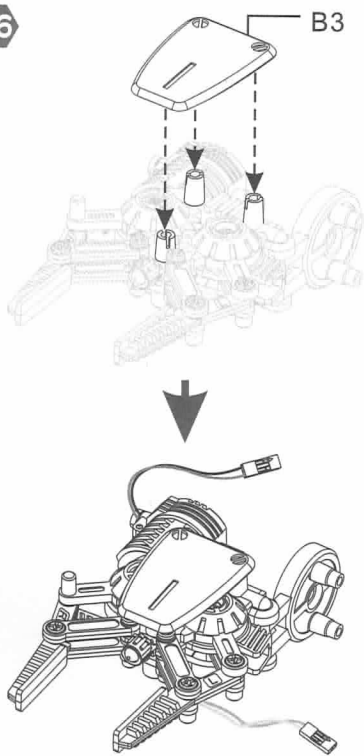




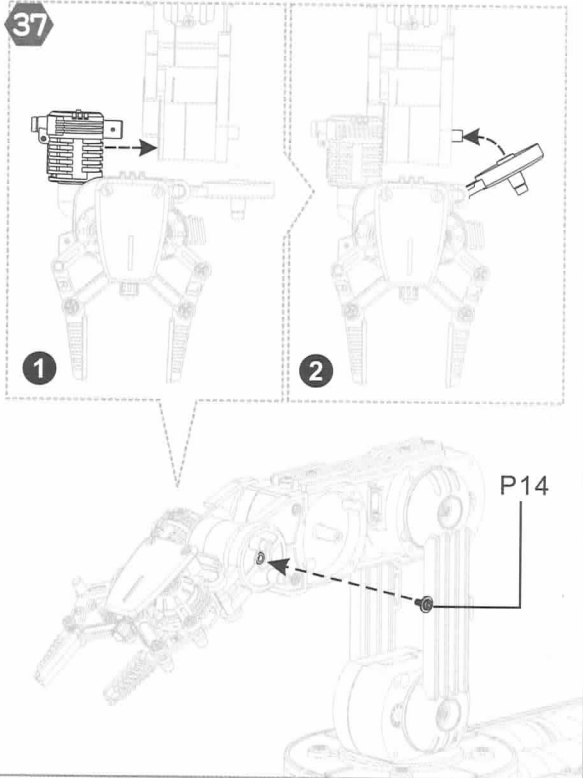
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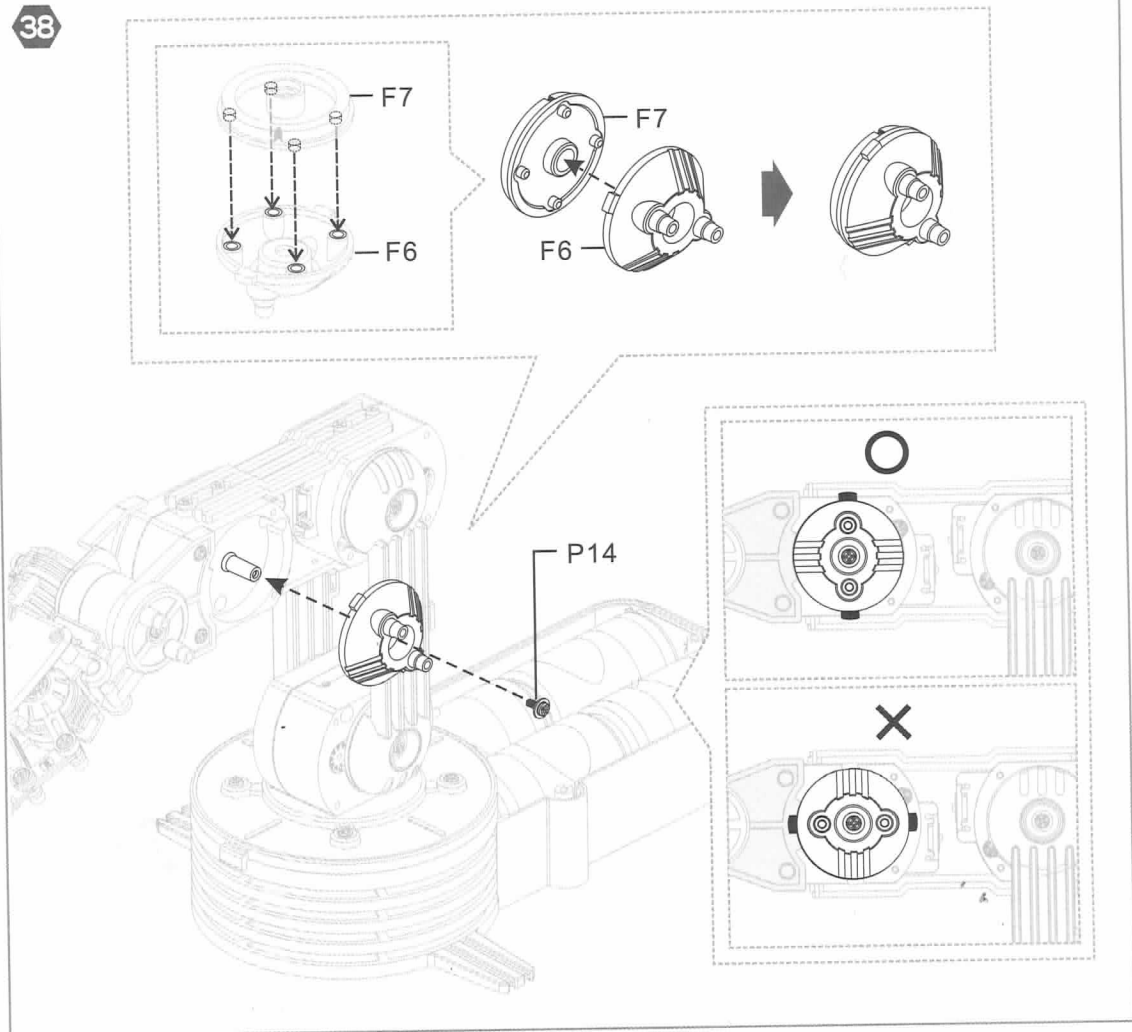
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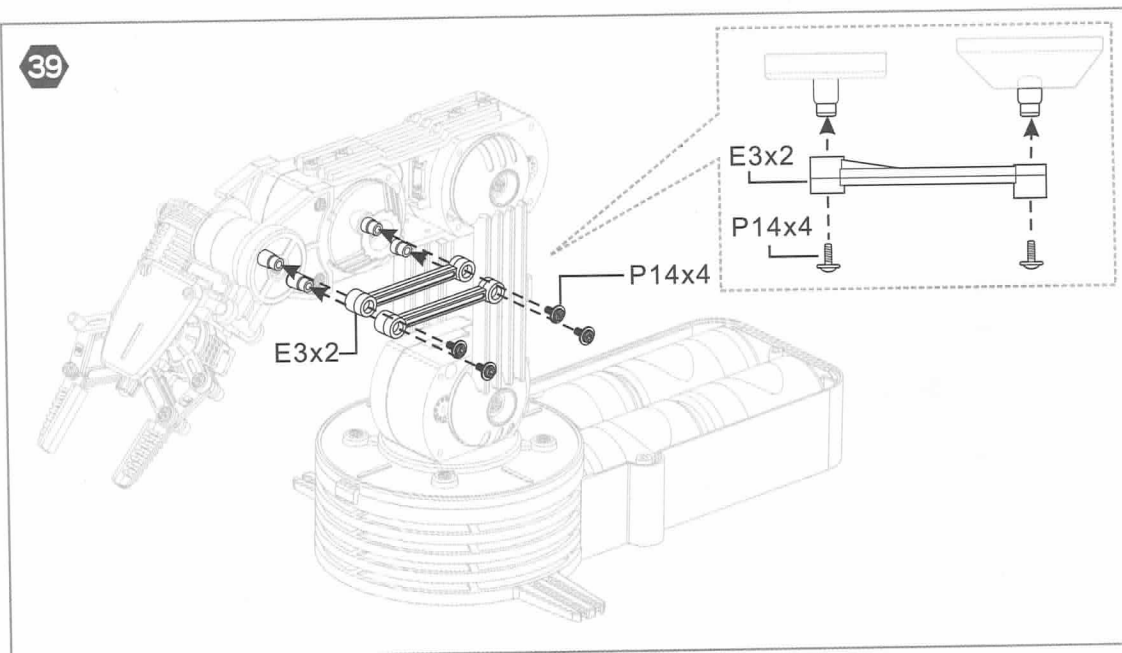
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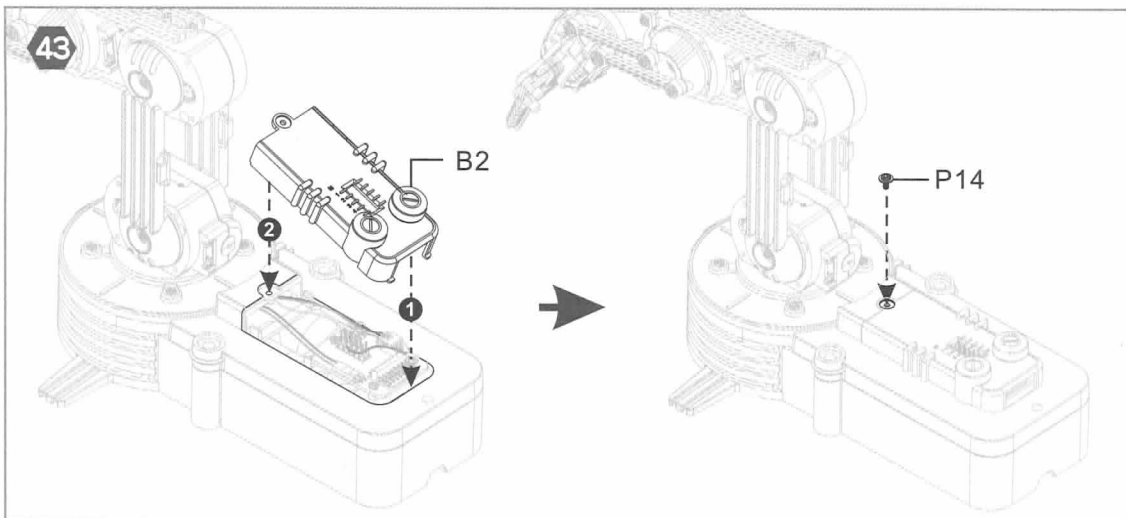
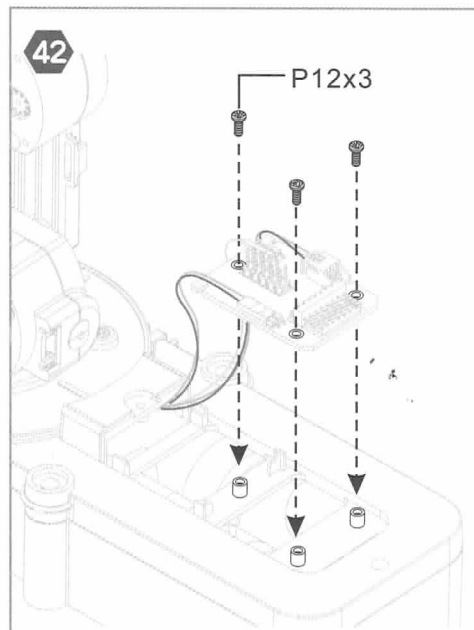
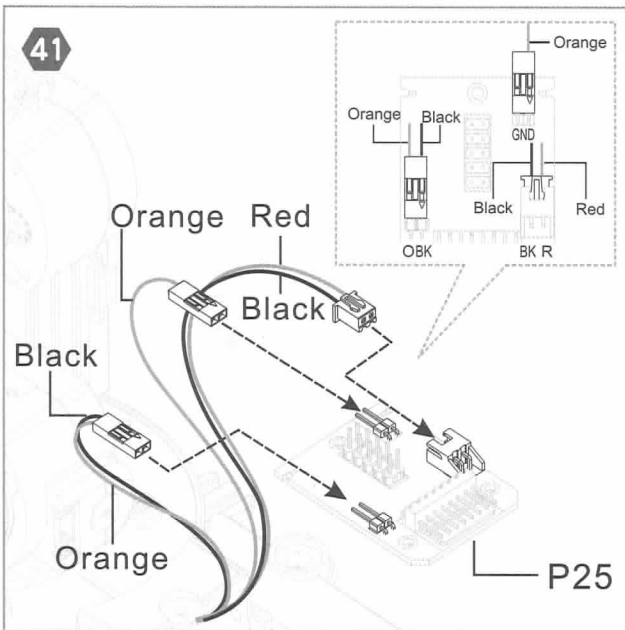
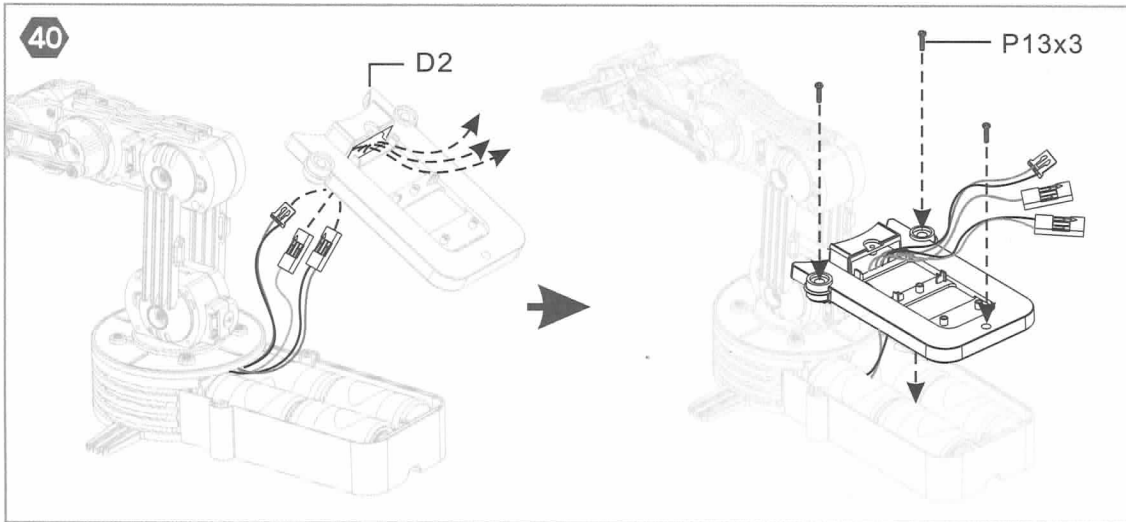


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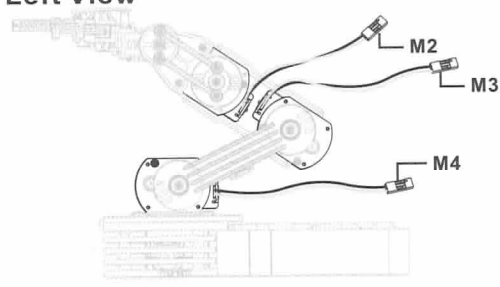
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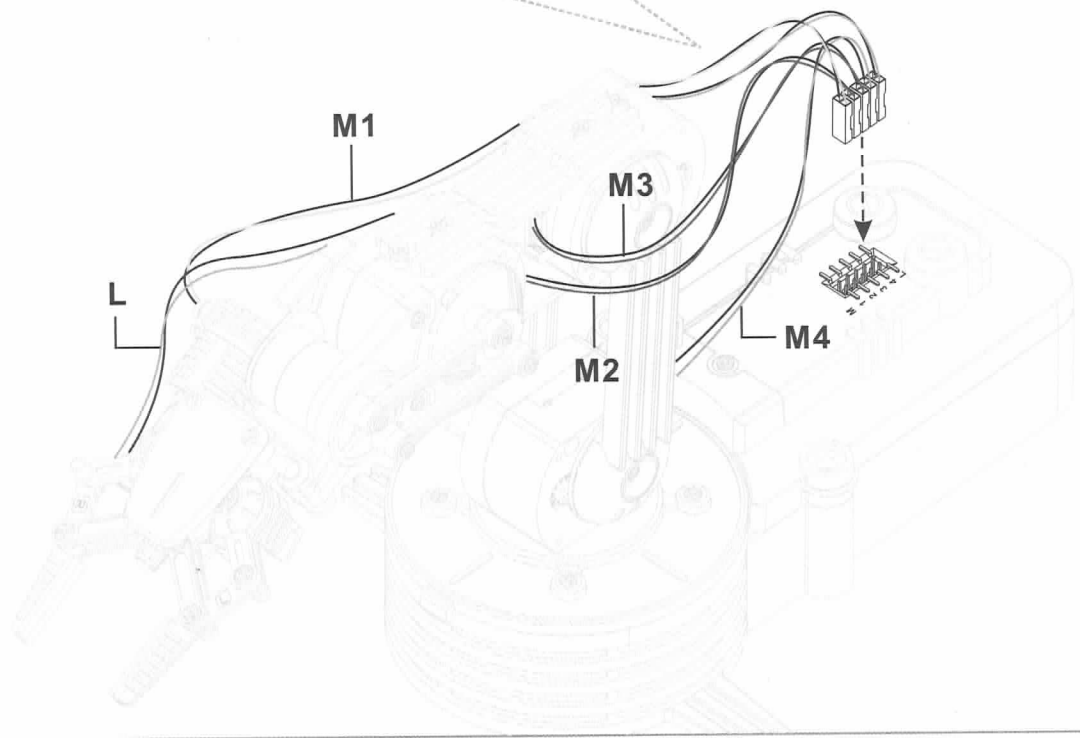
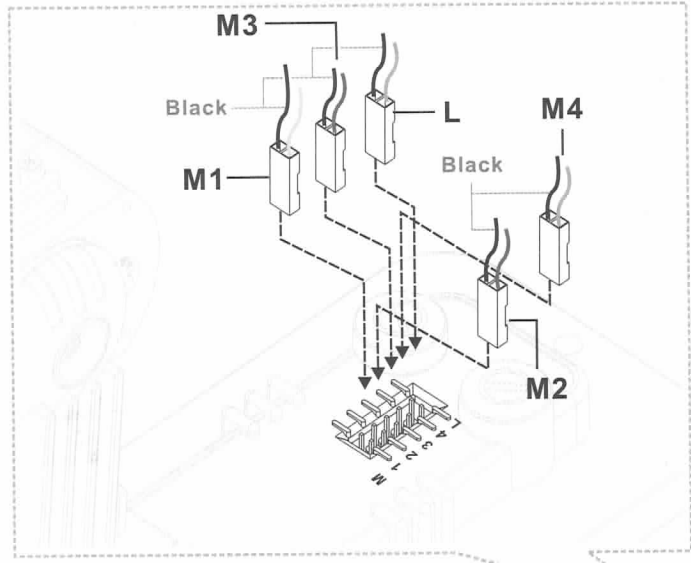
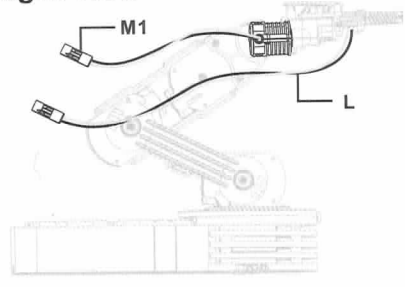


44 Wiring

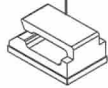
Left View



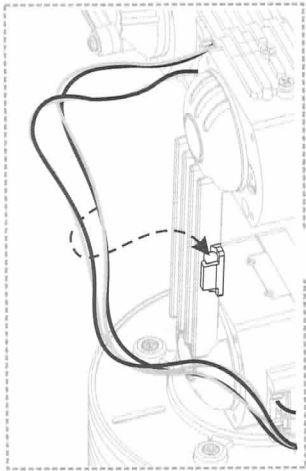
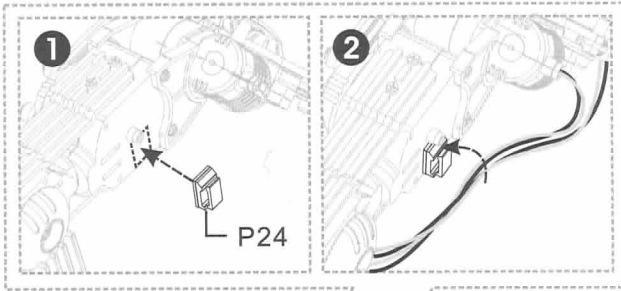
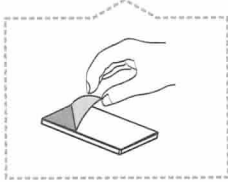
Right View



P24

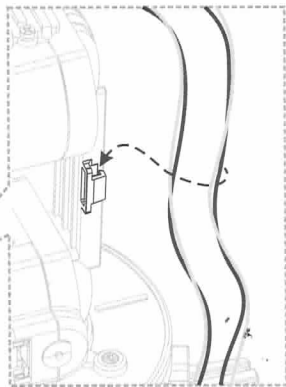


X3



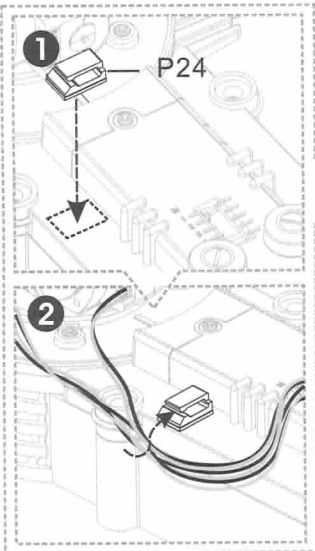
M2

M3



L

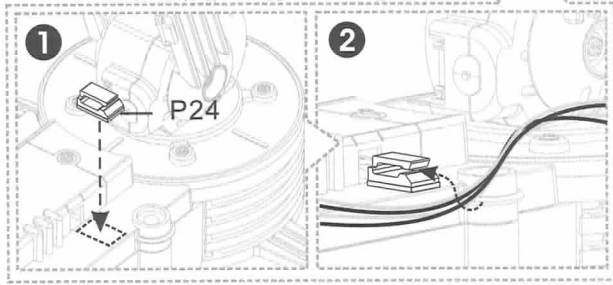
M1



1

P24

2

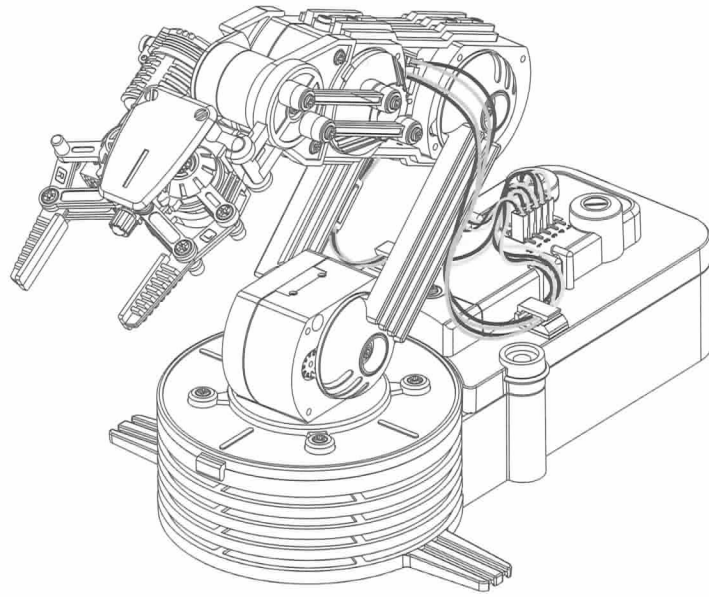


1

P24

2

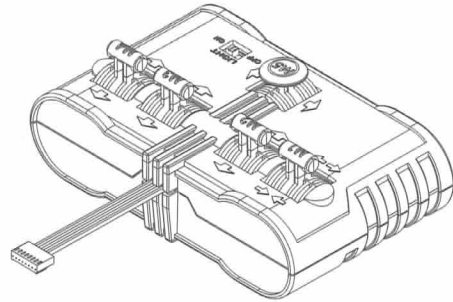
46 Finished Product



Wired Control Box

1 Product Introduction:

Using five levers to control the Robot Arm moves up and down, left and right, another on-off switch to control the search light. Connect with main unit by a 100cm flat cable.



2 Tools You May Need:

Long Nose Pliers



Diagonal Cutter



Screwdriver



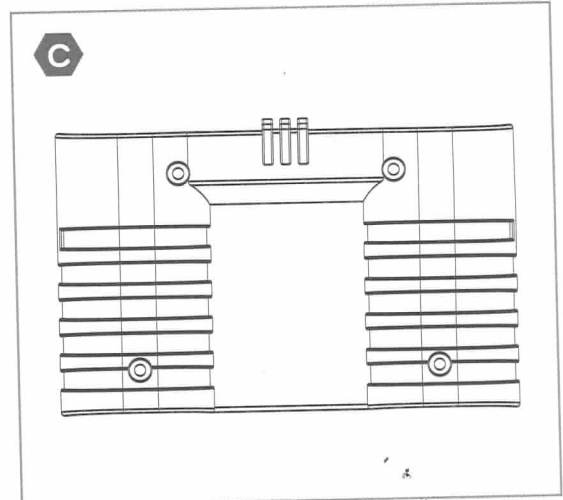
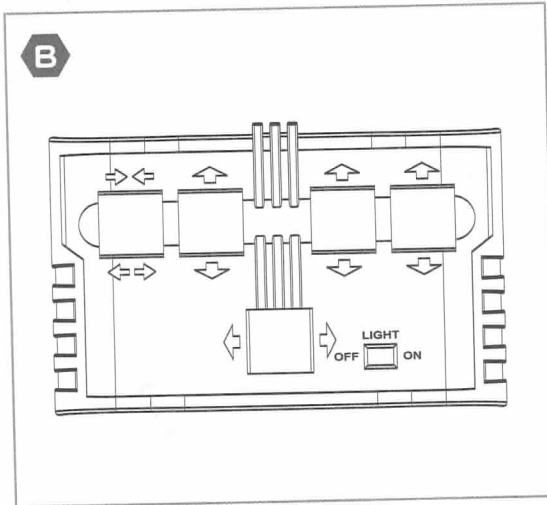
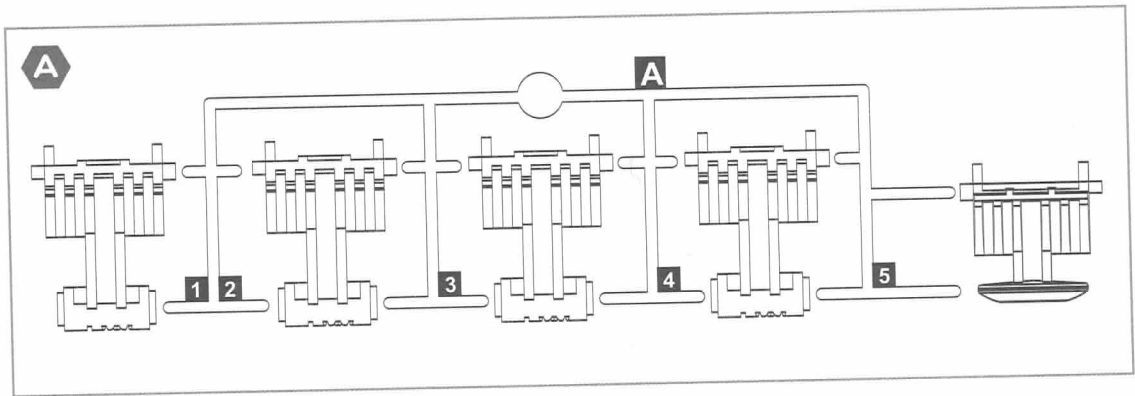
3 Mechanical Parts List:

P1	Metal Plate
	Qty
	5

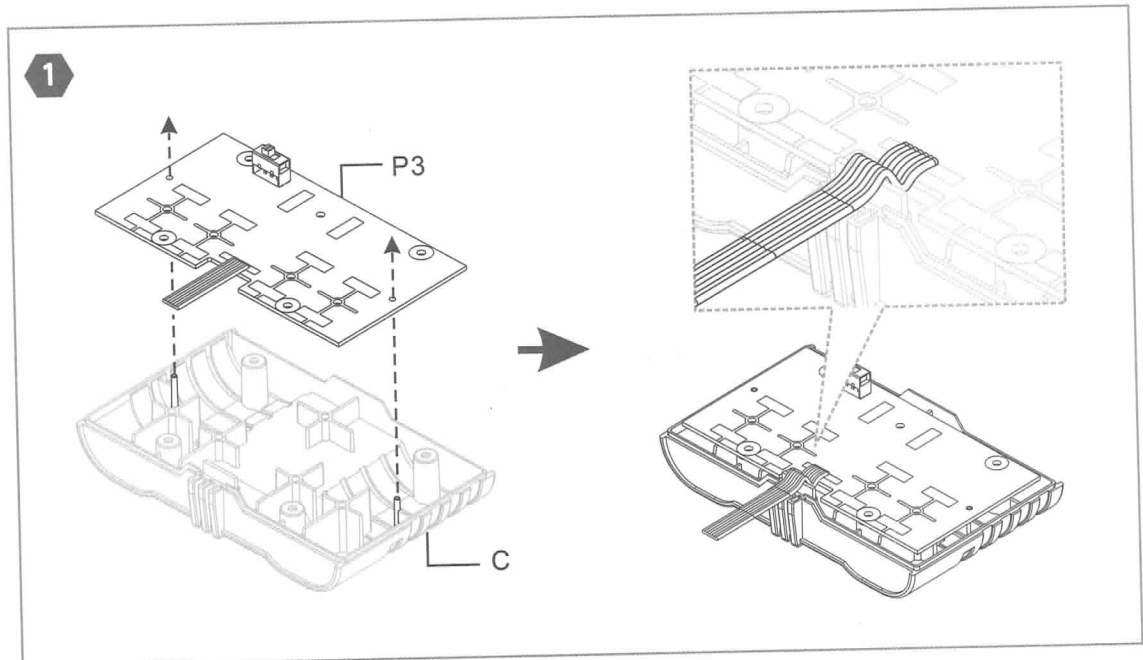
P2	Tapping Screw
	Qty
	9 (3x10)

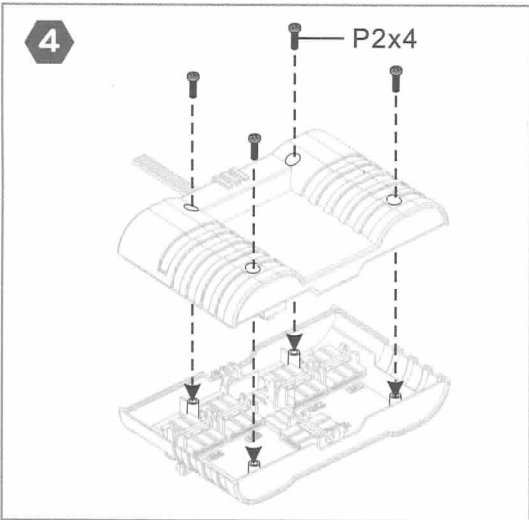
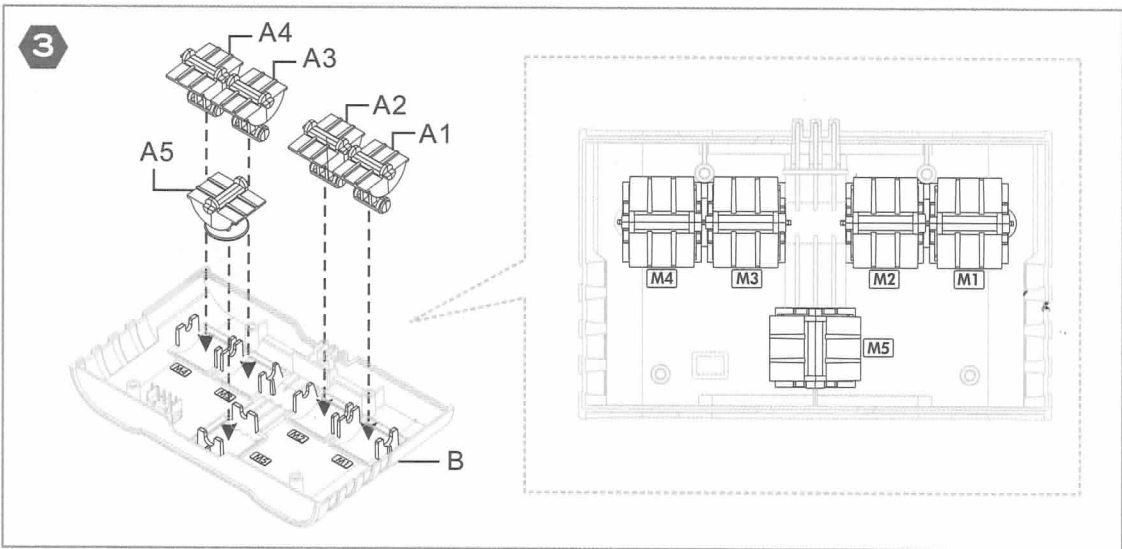
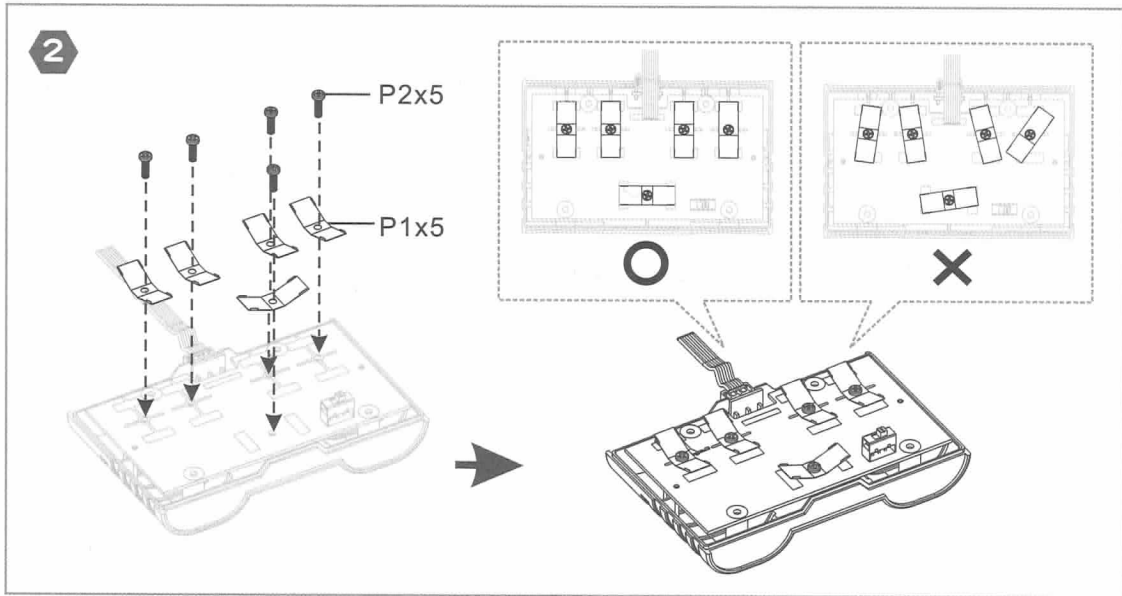
P3	PC Board
	Qty
	1

4 Plastic Parts :

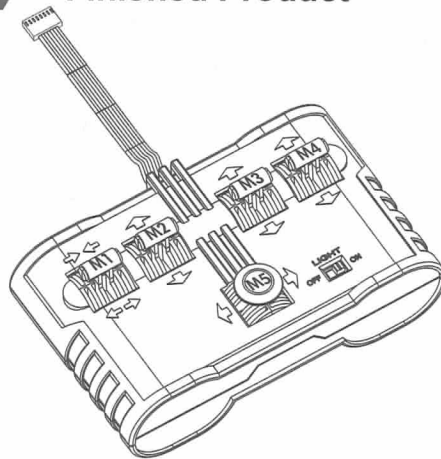


5 Mechanical Assembly:

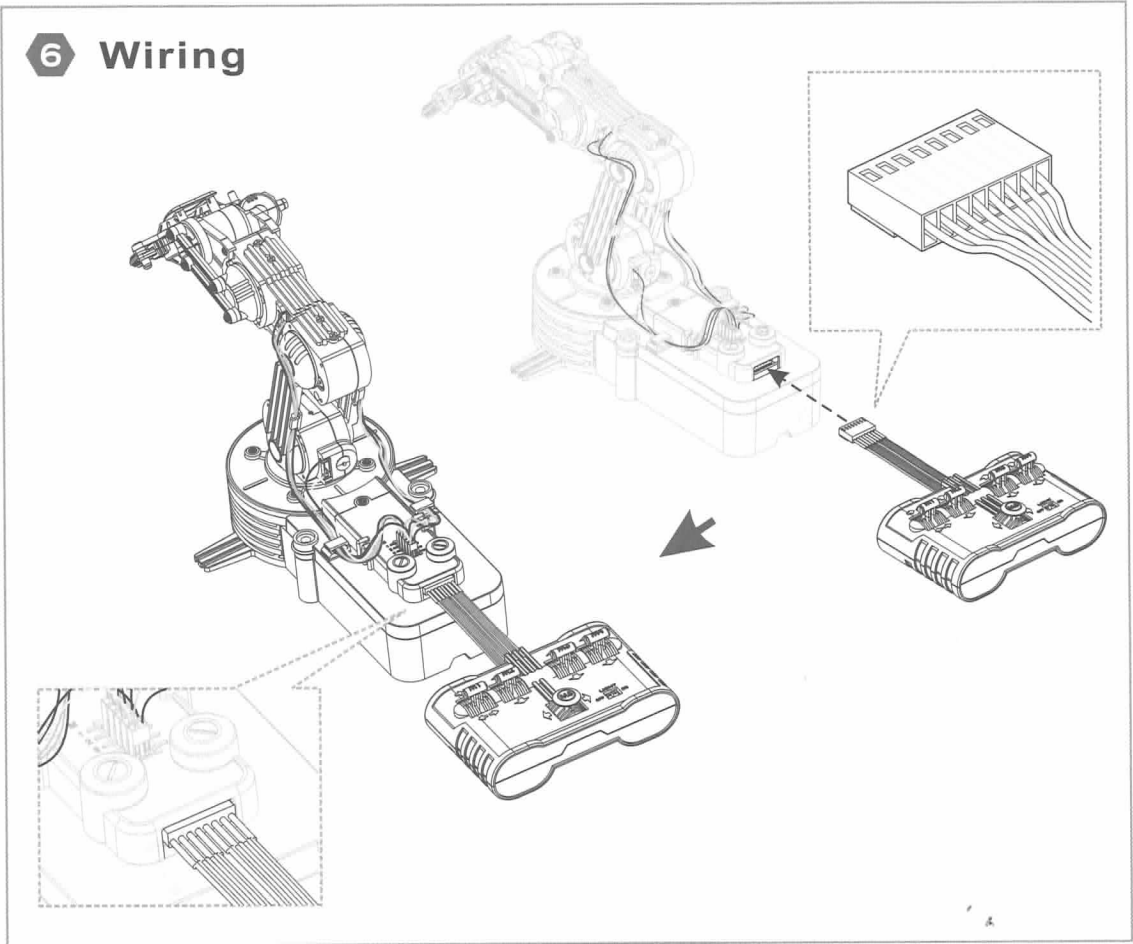




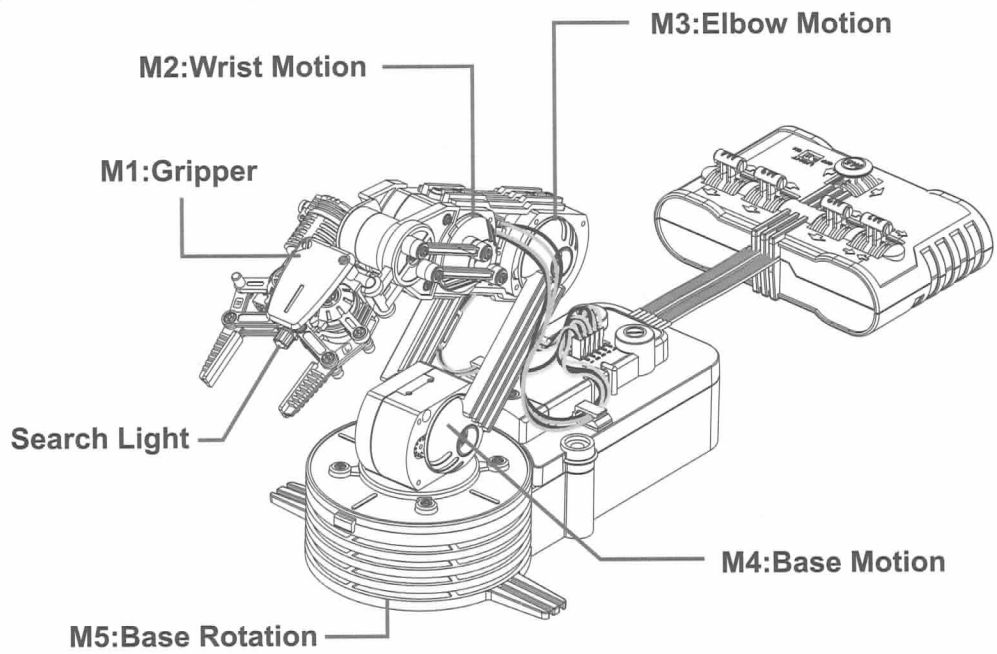
5 Finished Product



6 Wiring

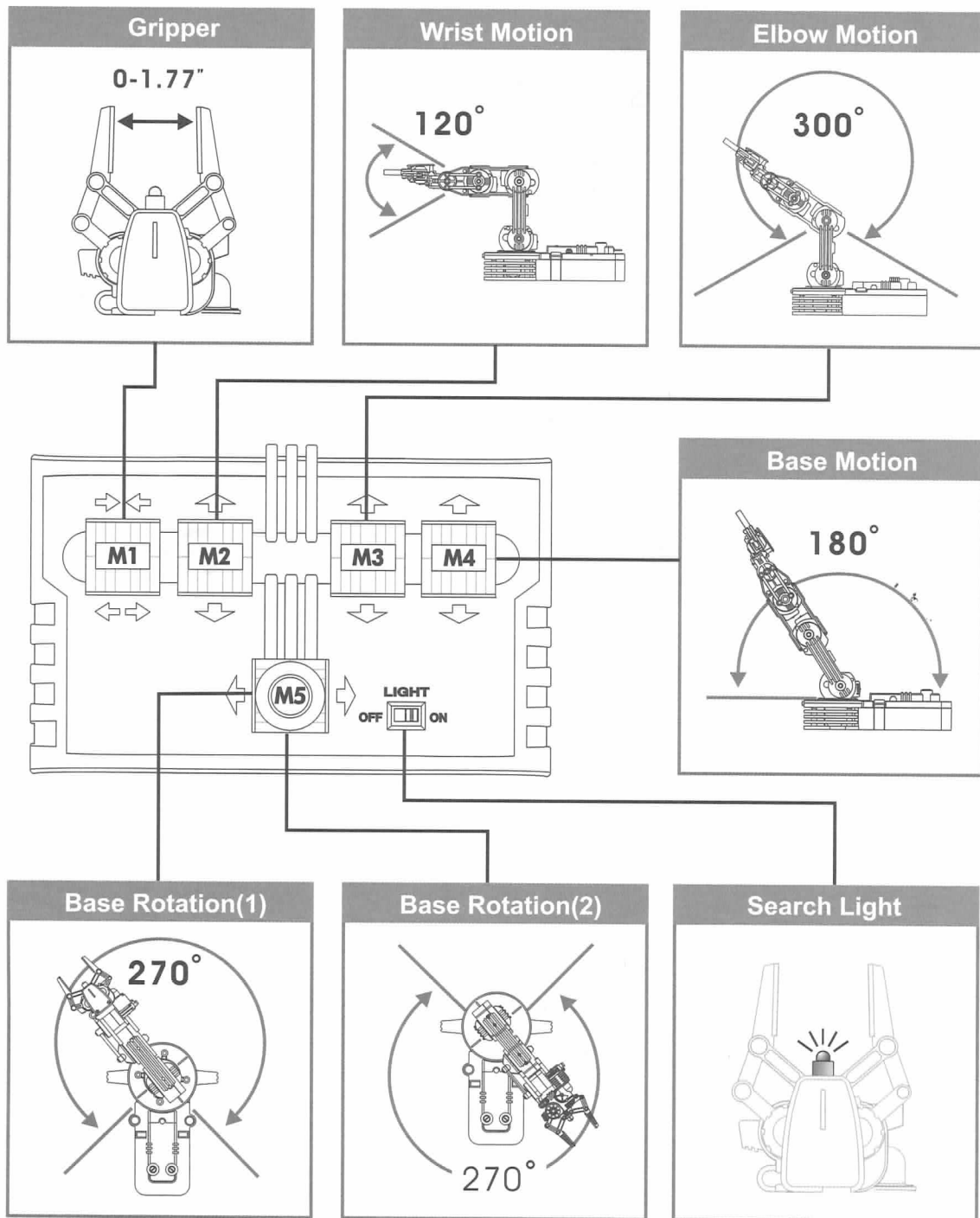


7 Finished Product

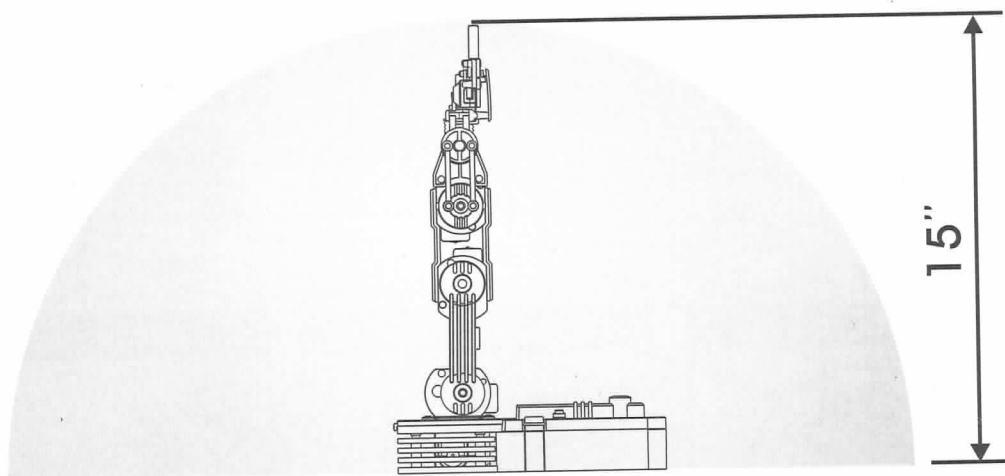
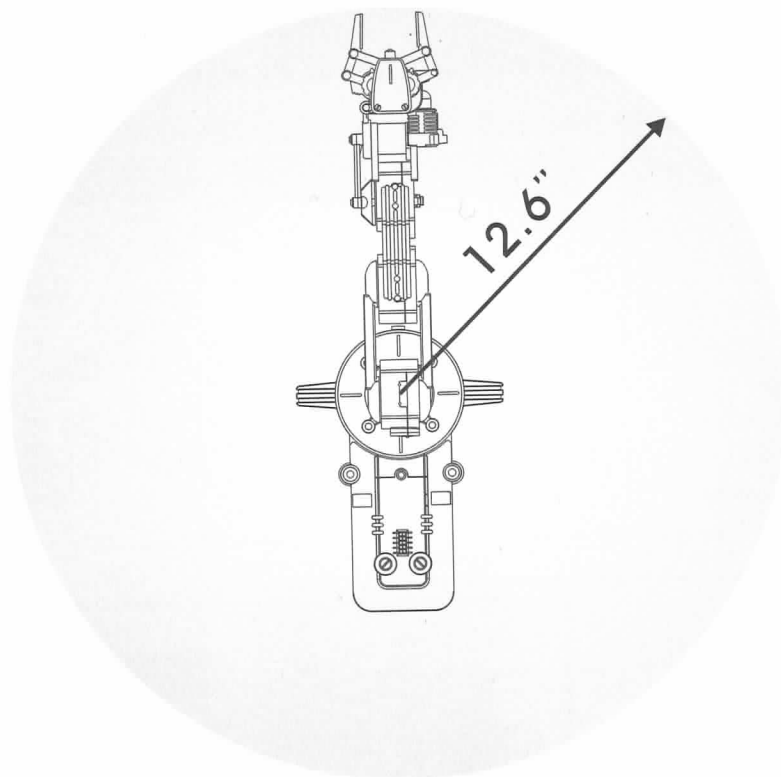


How it works:

1. Push any lever on the wired controller to start operation.
2. The different 12 movements of the Robot Arm as shown below:



3. Working area:

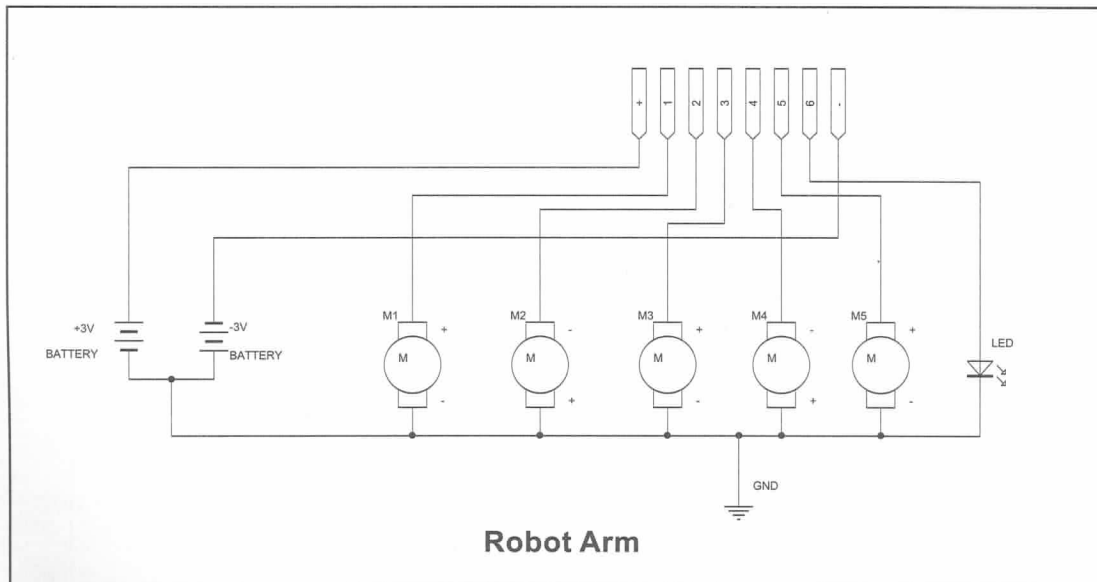
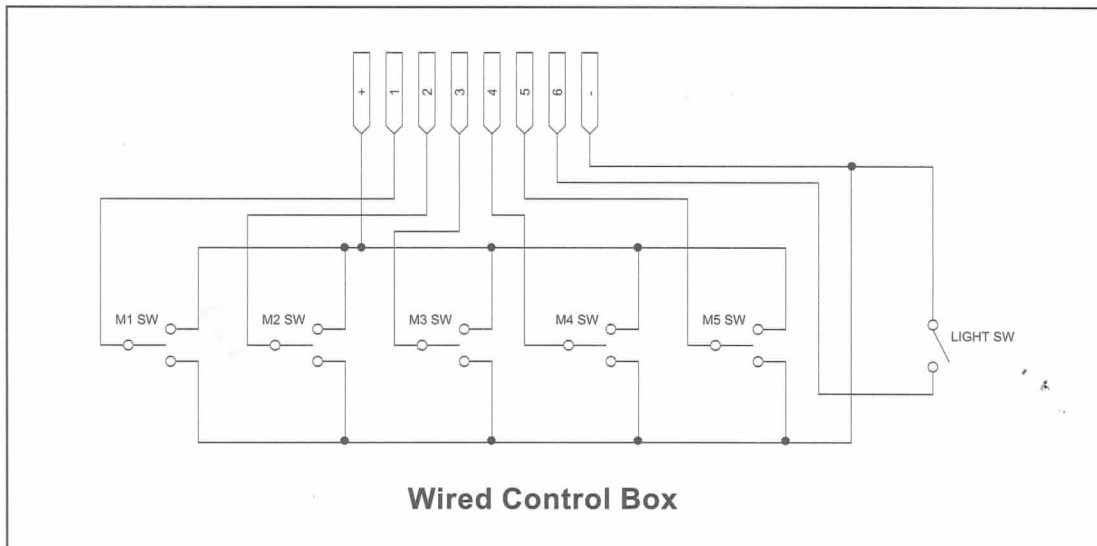


4. All the five gearboxes equipped with safety gear, when the arm open, close, up or lower to the maximum position, and user keeps pushing the buttons, the safety gear will start to work to protect the gearbox and make 'da, da, da...' sound.
5. To extend the life of gearbox, release the buttons once you hear the safety gear emit 'da, da, da' sound.

Trouble shooting:

1. Ensure all wirings are correct.(Please refer 41 44 on page 23,24)
2. If the Robot Arm does not have any response to the wired controller, please check if the 'BATTERY' and 'GND' connectors are in right position, and also if the batteries are placed in correct polarity.(Please refer 19 on page 13)
- 3.If the Robot Arm moves wrong direction, please check if wiring of M1, M2, M3, M4, M5 are reversed.(Please refer 41 44 on page 23,24)
- 4.If the searchlight does not light, please check if the 'L' connector is correct.
(Please refer 41 44 on page 23,24)

Circuit diagram:



- Removal and replacement of batteries should be carried out by an adult or under adult supervision.
- Do not attempt to recharge non-rechargeable batteries. Rechargeable batteries must be removed from the toy before recharging.
- Avoid short circuiting the contacts in the battery compartment or the battery terminals.
- Remove exhausted batteries from the product to avoid leakage.
- Do not mix used batteries and new batteries or batteries of different types.
- Use of rechargeable batteries or mercury oxide batteries are not recommended for this product.

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