

GE-537

Pro'sKit®

Joysticks

Robotic Arm 八方全能遊戲搖桿



Assembly & Instruction
Manual
組裝說明手冊

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八方全能遊戲搖桿 Joysticks Robotic Arm

產品介紹 Product Introduction

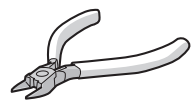
玩膩一般的機械手臂了嗎？那就來試試新款的八方全能遊戲搖桿吧！經由孩子們最熟悉的遊戲搖桿操控手臂，4軸控制作動8個方向，操作直覺、輕輕鬆鬆就能上手。可以兩爪握持，也可以變化成四爪夾持，在家也能體驗夾娃娃機的樂趣。親手為自己打造專屬的八方全能遊戲搖桿吧！
Looking for a unique robotic arm with exclusive features? This innovative arm is easily operated by two joysticks to control the 4 axes in 8 different directions, simultaneously. The Robotic Arm has interchangeable 2-claw and 4-claw grippers so you can grab a whole range of different objects. This STEM educational robotic arm is worth recommending!



警告 Warning

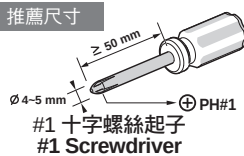
- 1.本玩具內含小物件，請勿讓三歲以下孩童取得，以免放入口中造成窒息。
Choking hazard - Small parts. Not for children under 3 years.
- 2.兒童使用剪切工具時，請家長指導使用方式，並請在家長監督下使用，以免發生意外。
Adult supervision is recommended when children use scissors.
- 3.為避免嬰兒或兒童產生窒息的危險，請於拆卸後立即將塑膠袋銷毀或遠離嬰兒及兒童。
To avoid danger of suffocation, keep the plastic bag away from babies and children.

自備工具 Tools You May Need



斜口鉗
Diagonal Cutter

推薦尺寸



#1 十字螺絲起子
#1 Screwdriver



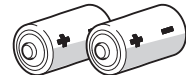
紙杯子
Cup



衛生紙
Tissue Paper



棉花棒
Cotton swab



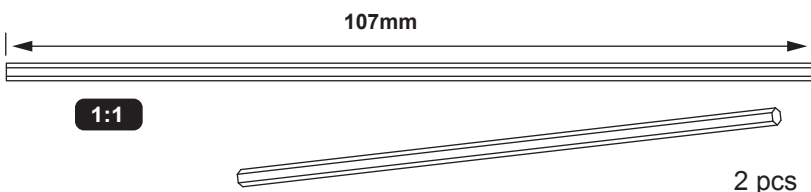
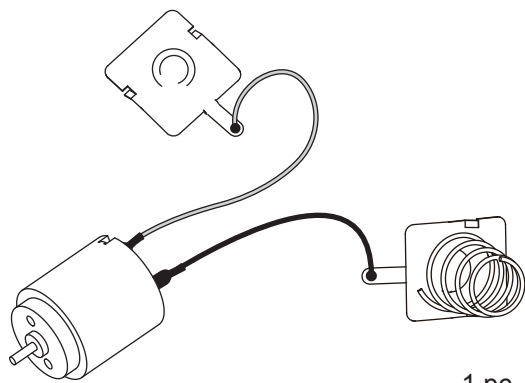
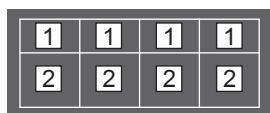
1號電池(D)x2
Battery(D) x 2

請使用
鹼性電池
(出貨不含)
Alkaline
batteries are
recommended

零件清單 Mechanical Parts List

！部分零件含有銳利的邊緣及尖角，組裝時請注意 Product contains functional edges and sharp points.

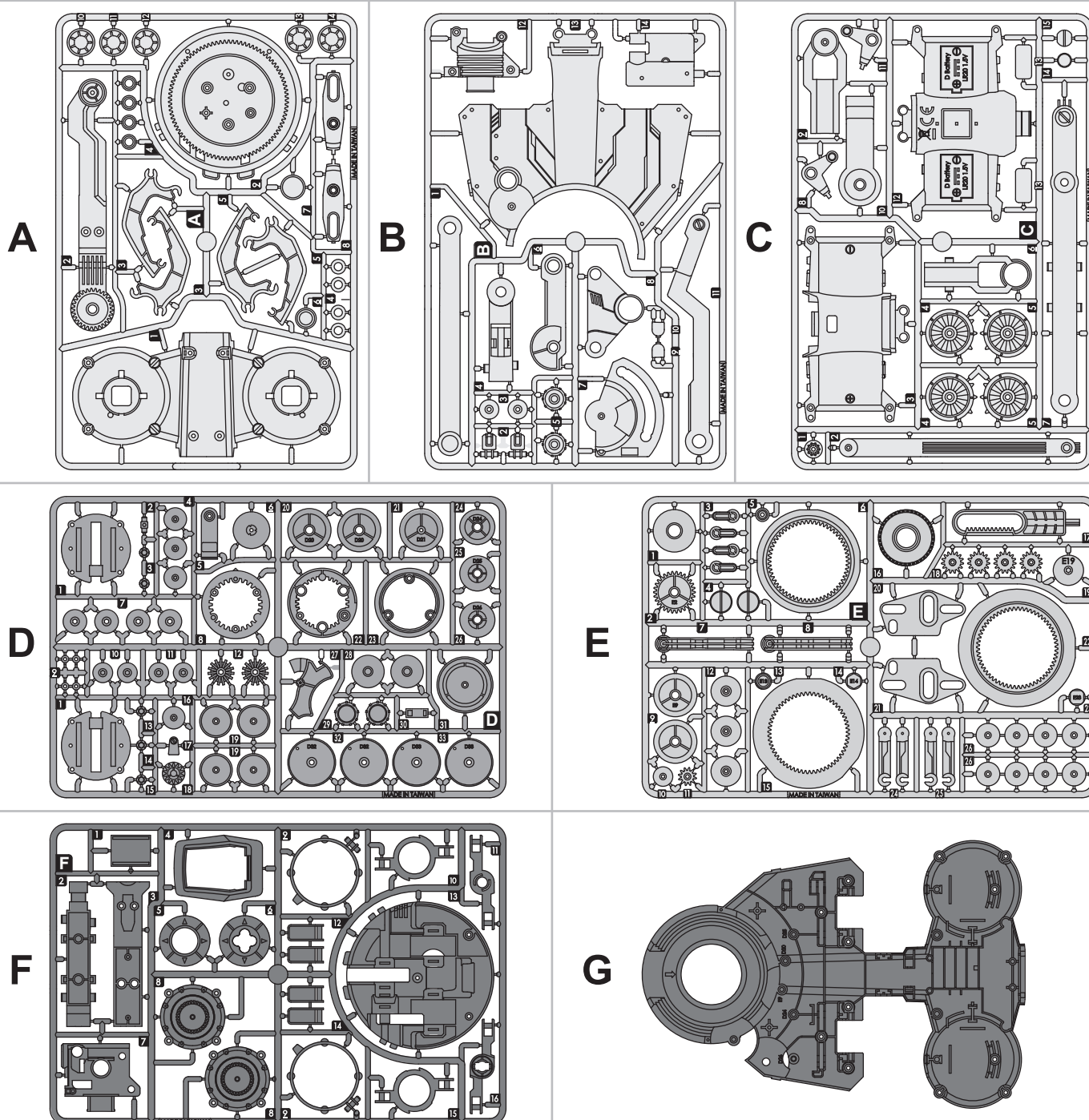
P1	自攻螺絲 Tapping Screw	P2	小齒輪(白色) Pinion Gear (White)	P3	蝸輪(白色) Worm Gear (White)	P4	齒輪(白色) Gear 36/10T(White)
	 55 pcs	 1 pc	 4 pcs	 1 pc			
P5	齒輪(灰色) Gear 32/10T (Gray)	P6	齒輪(藍色) Gear 32T (Blue)	P7	齒輪(橘色) Gear 36T (Orange)	P8	出力齒輪(黑色) Output Gear 10T (Black)
	 3 pcs	 3 pcs	 1 pc	 2 pcs			
P9	出力齒輪(白色) Output Gear 10T (White)	P10	彈片 Spring	P11	襯套 2mm Bushing 2mm	P12	襯套 3mm Bushing 3mm
	 2 pcs	 4 pcs	 5 pcs	 8 pcs			
P13	圓軸 Round Shaft	P14	圓軸 Round Shaft	P15	圓軸 Round Shaft		
	 1:1 13 pcs	 1:1 3 pcs	 1:1 4 pcs				
P16	六角軸(短) Hex Shaft (Short1)	P17	六角軸(短) Hex Shaft (Short2)	P18	六角軸(中) Hex Shaft (Middle)		
	 1:1 4 pcs	 1:1 4 pcs	 1:1 2 pcs				

P19 六角軸(長) Hex Shaft (Long)  107mm 1:1 2 pcs		P22 電池彈片端子組 Battery Terminal with Wire  1 pc
P20 泡棉(黑) Sponge (Black)  1 pc	P21 油包 Oil Bag  1 pc	

塑膠模型零件 Plastic Parts

! 此產品為模型組件拆封修剪或包裝不完整，恕不退換
Cut goods cut are not returnable.

! 請依照組裝步驟將所需的零件剪下，以免組裝時造成零件混淆
Cut off the plastic parts when they are required. Do not cut them in advance.



務必注意
Must-know

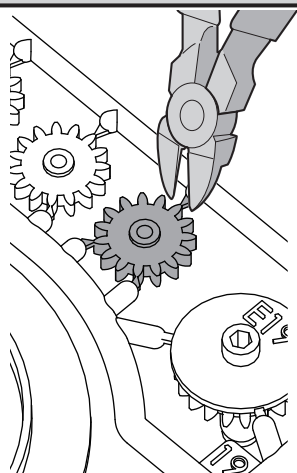


小技巧提醒 Read It Before Assembly

在開始組裝前，請仔細閱讀以下說明

Please read through and follow the tips below before assembly.

去除毛邊 Remove burrs



毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

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burrs

毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

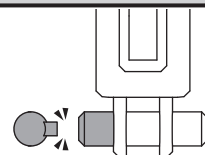
毛邊
Unnecessary
burrs

毛邊
Unnecessary
burrs

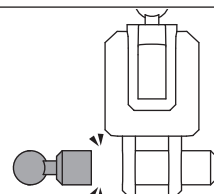
毛邊
Unnecessary
burrs



正確
Correct



錯誤
Incorrect



請勿過度剪切非毛邊的塑膠零件，以免組裝不確實，導致運作不良

Trim off the burrs ONLY. Do not trim off the protrusion belonged to original plastic parts. All features of parts should be kept completely.

零件剪下時請將毛邊剪切乾淨，以免產生間隙導致運作不良

It happens a lot some burrs are left at the edge of plastic parts after cutting them off.

Make sure the burrs are completely removed to avoid operation malfunction.

緊固螺絲 Fasten tapping screws



請使用正確的起子頭型(#1)，依照下面的步驟將螺絲鎖緊

Use corresponding (size-compatible) screwdriver. By following steps below, you can fasten the tapping screws perfectly.

將起子頭對準螺絲
Put the screwdriver towards the top of screws.

- (1) 開始擰轉
- (2) 鎖固感越來越緊繃
- (3) 繼續擰轉

- (1) Screw in
- (2) Feel the tension getting higher
- (3) Keep screwing

重複動作直到無法再擰動螺絲為止

Repeat until screws are tightly fastened.



請務必將螺絲確實鎖緊至底
Please lock screws all the way down to the bottom. If they are not fastened tightly enough, parts may come off. The product may consequently not work.



正確
Correct



錯誤
Incorrect



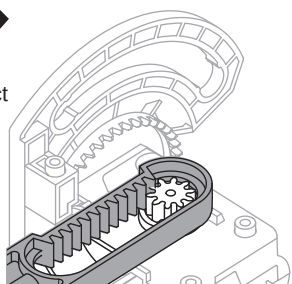
模型形狀、組裝方向與位置注意事項 Shape, assembly direction and position of parts

部份零件外觀相似，切勿混淆。請務必依照說明書指示的方向與位置進行組裝

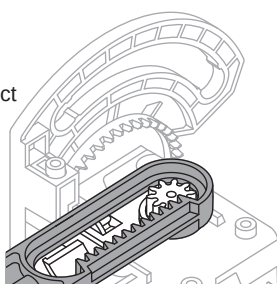
Some parts may look quite similar. They should be assembled in the designated direction and position shown in manual.



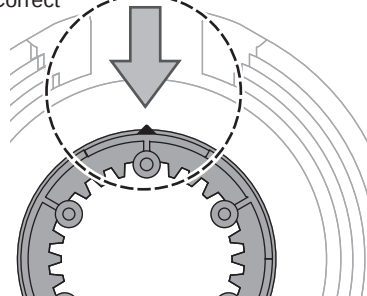
正確
Correct



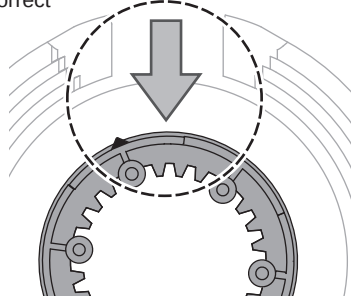
錯誤
Incorrect



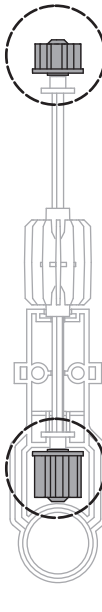
正確
Correct



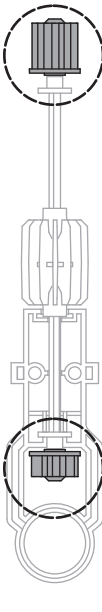
錯誤
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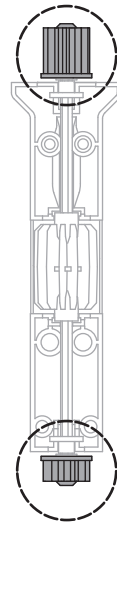
正確
Correct



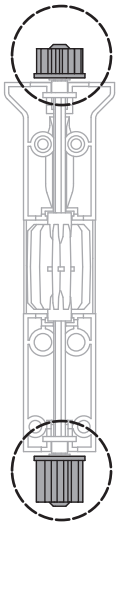
錯誤
Incorrect



正確
Correct



錯誤
Incorrect



抹油方式 How to Oil The Parts

衛生紙
Tissue Paper

P21

紙杯子
Cup

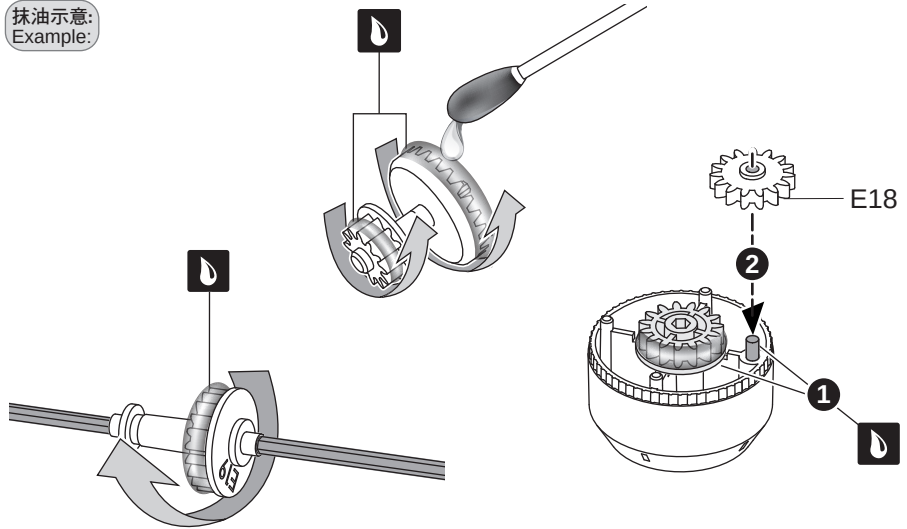
棉花棒
Cotton Swab

 = 抹油
Apply Oil

注意：出現此圖  代表零件需抹油
Note : Oil the parts when  appears.

! 請勿將液壓油抹到非指示抹油處
Do not oil outside the shadow as shown below.

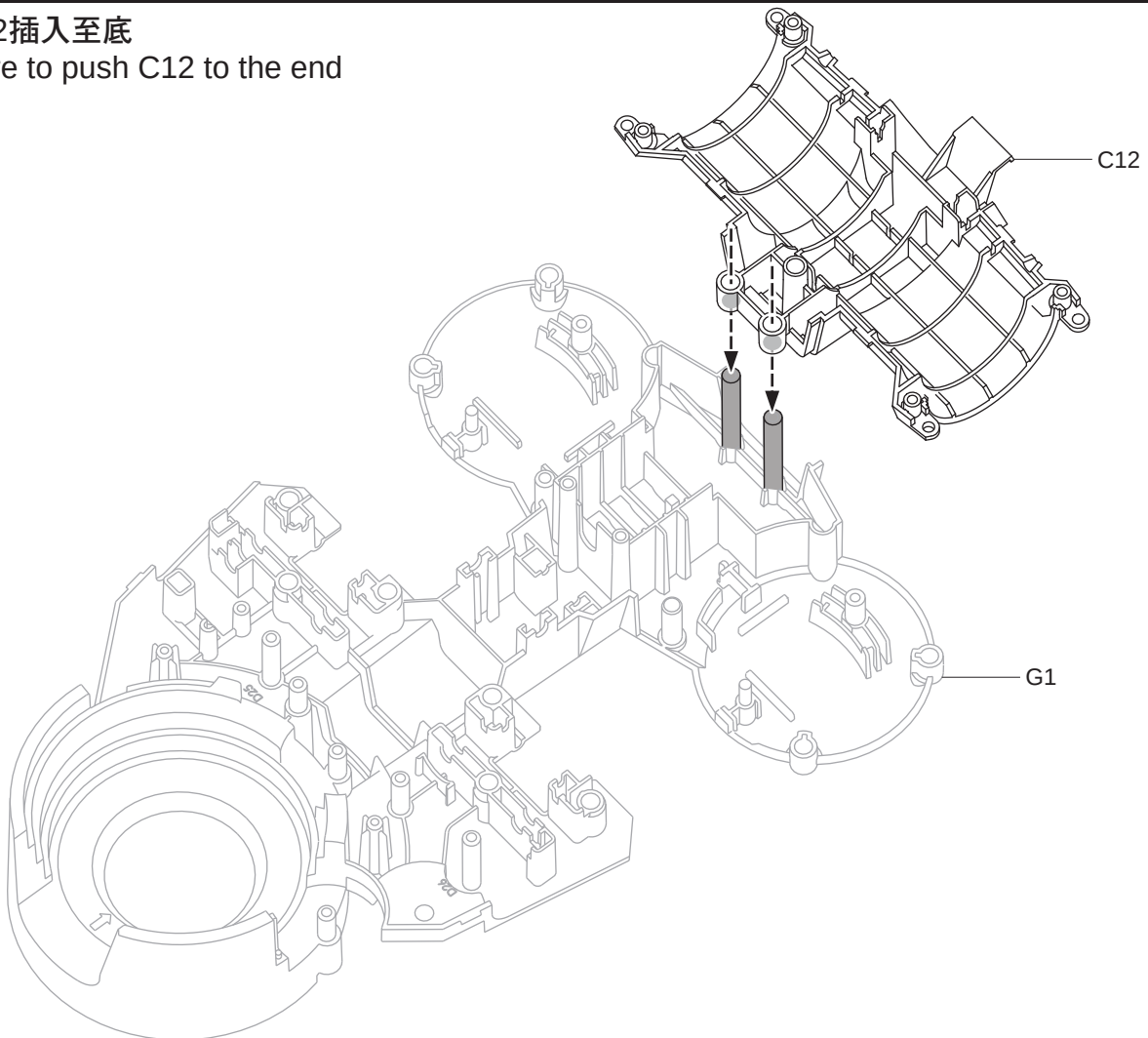
抹油示意：
Example:



組裝說明 Mechanical Assembly

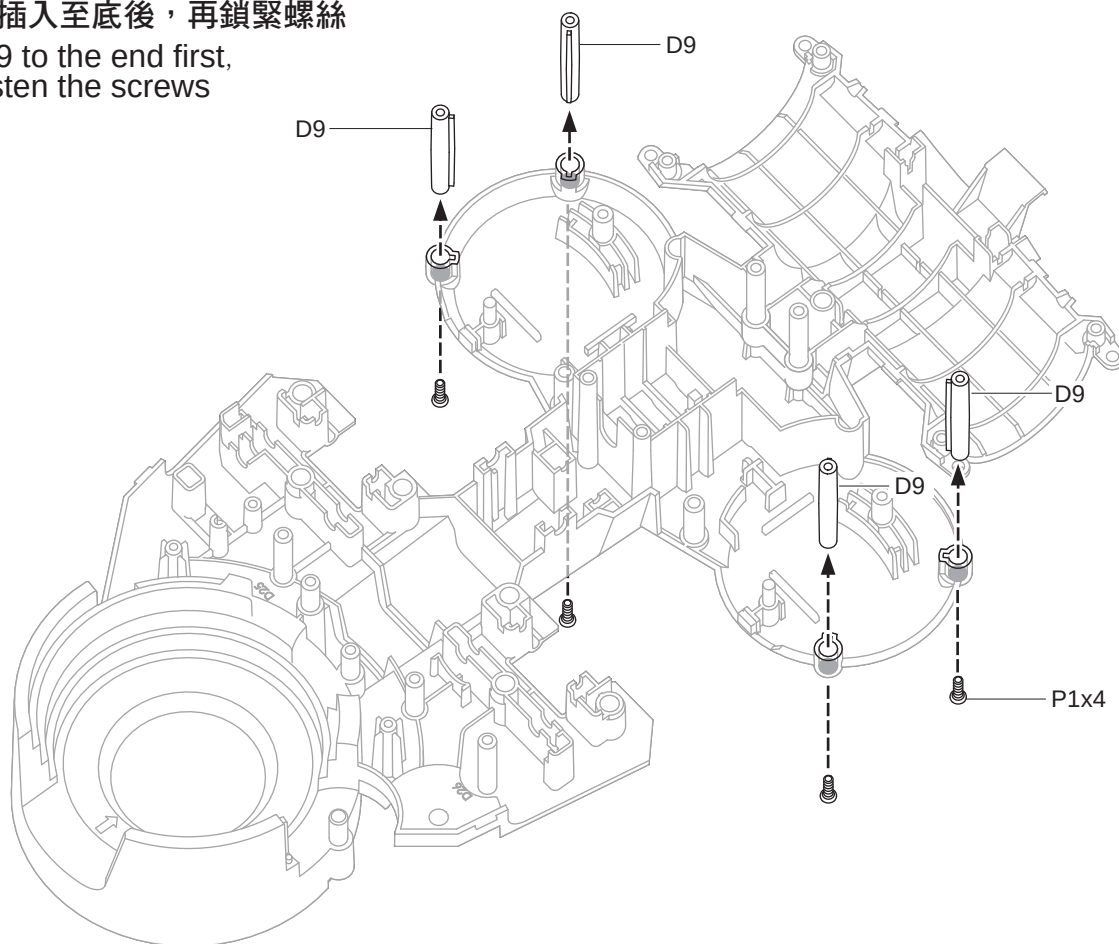
電池盒組裝 Battery Module Assembly

- 1 將C12插入至底
Ensure to push C12 to the end



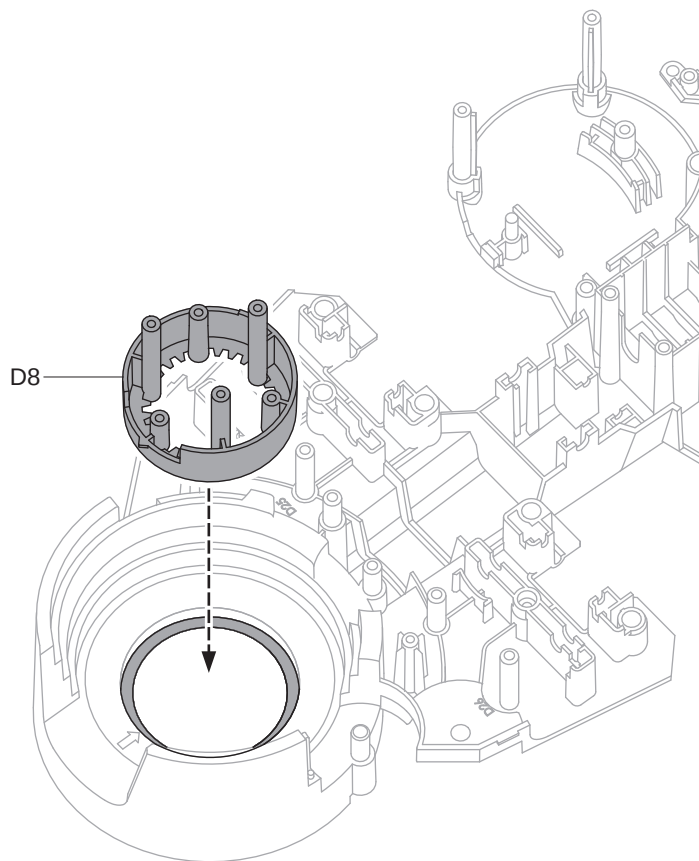
2 先將D9插入至底後，再鎖緊螺絲

Push D9 to the end first,
then fasten the screws

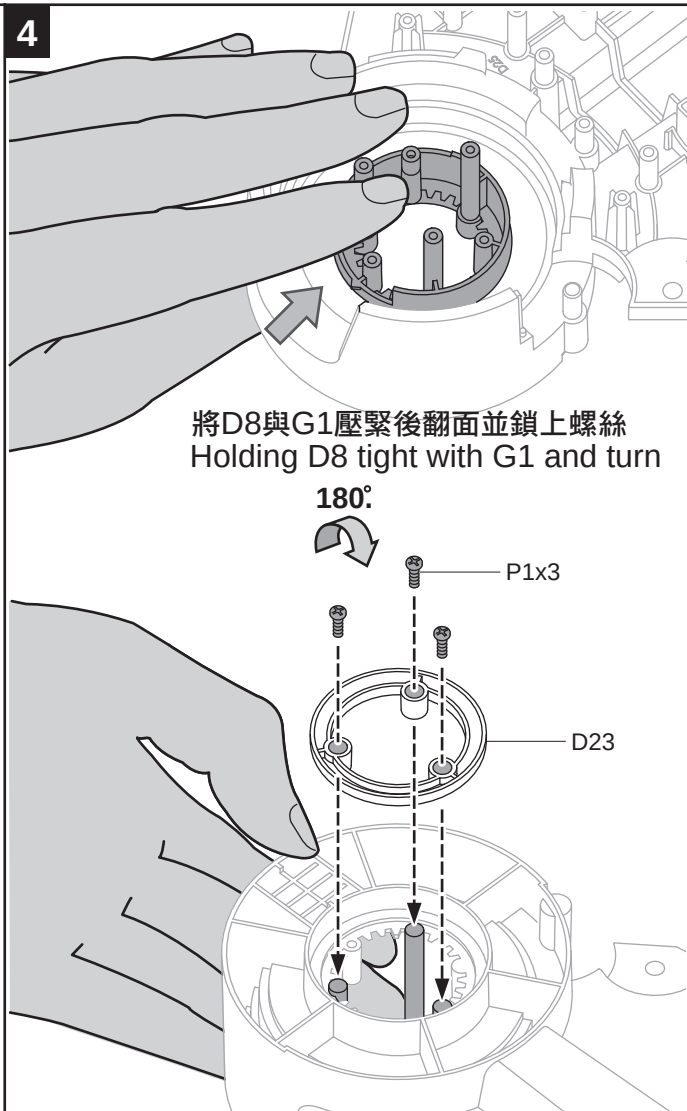


3 請確認D8缺口需朝向箭頭方向

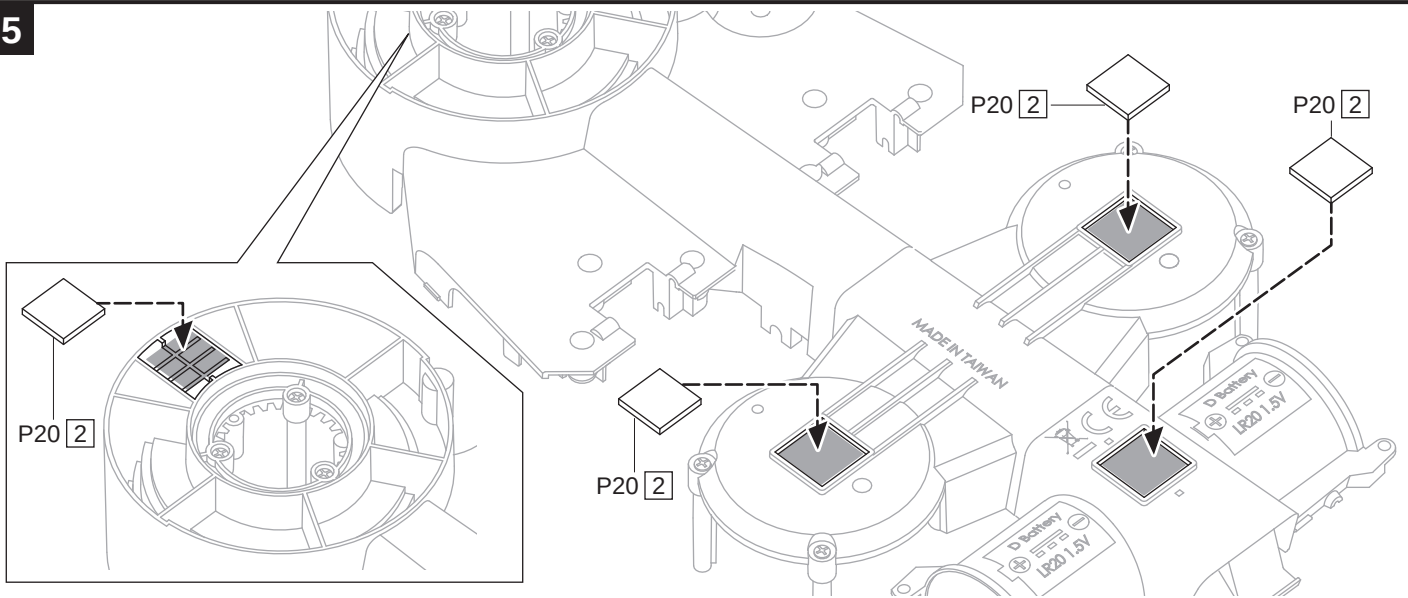
Ensure the right direction of D8



4

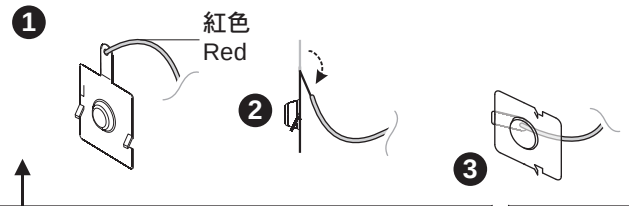


5

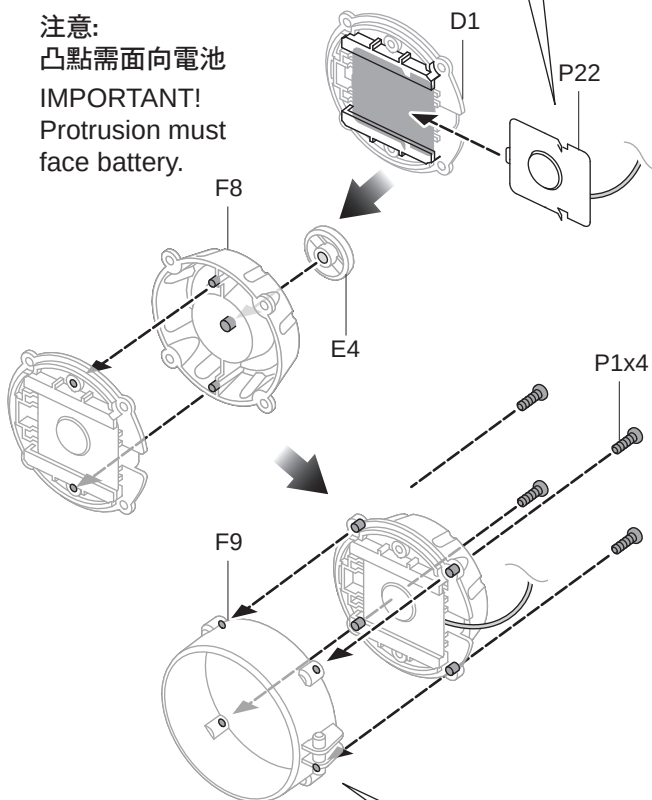


6

請將鐵片凸起處向後折 Fold back the lobe

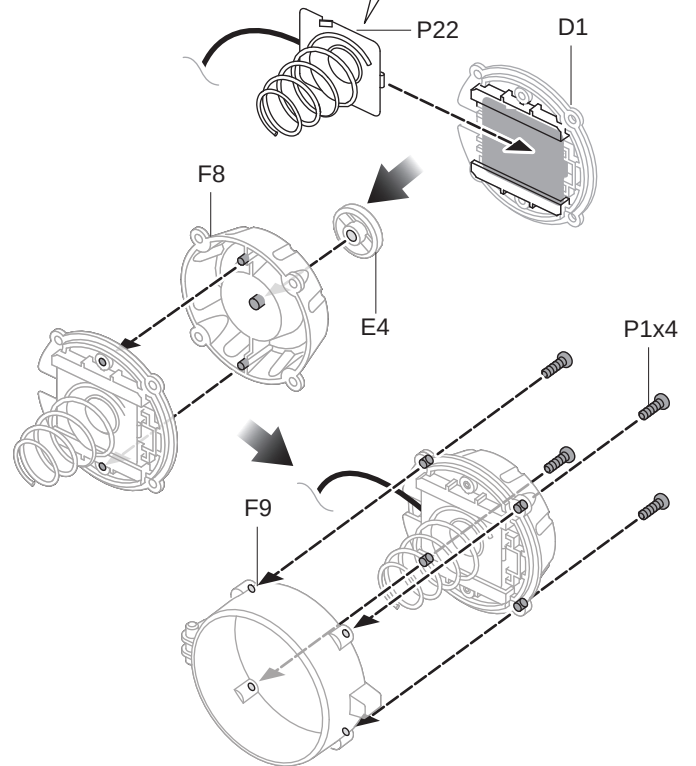
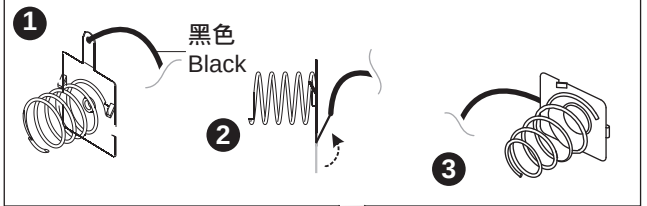


注意:
凸點需面向電池
IMPORTANT!
Protrusion must
face battery.



7

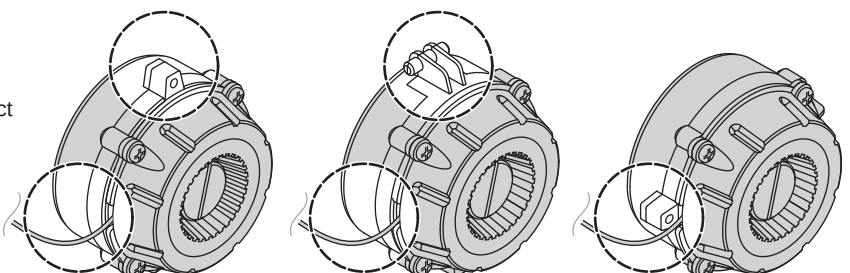
請將鐵片凸起處向後折 Fold back the lobe



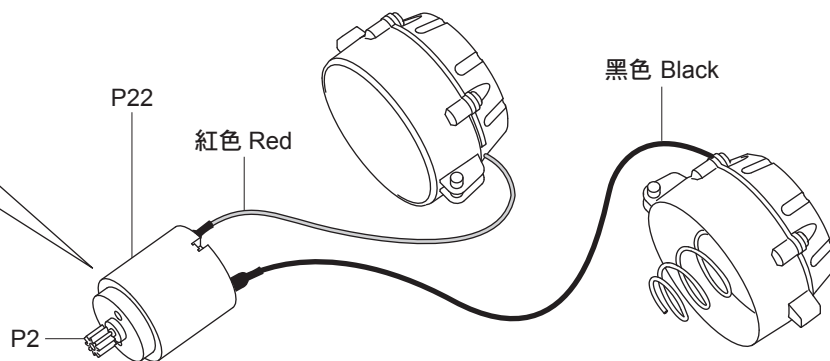
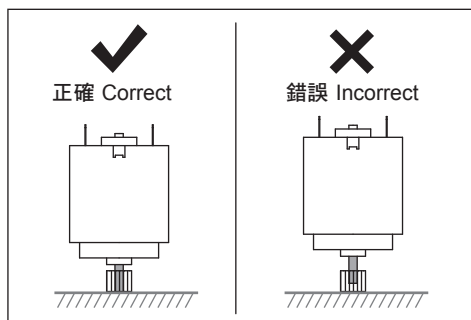
正確
Correct



錯誤
Incorrect



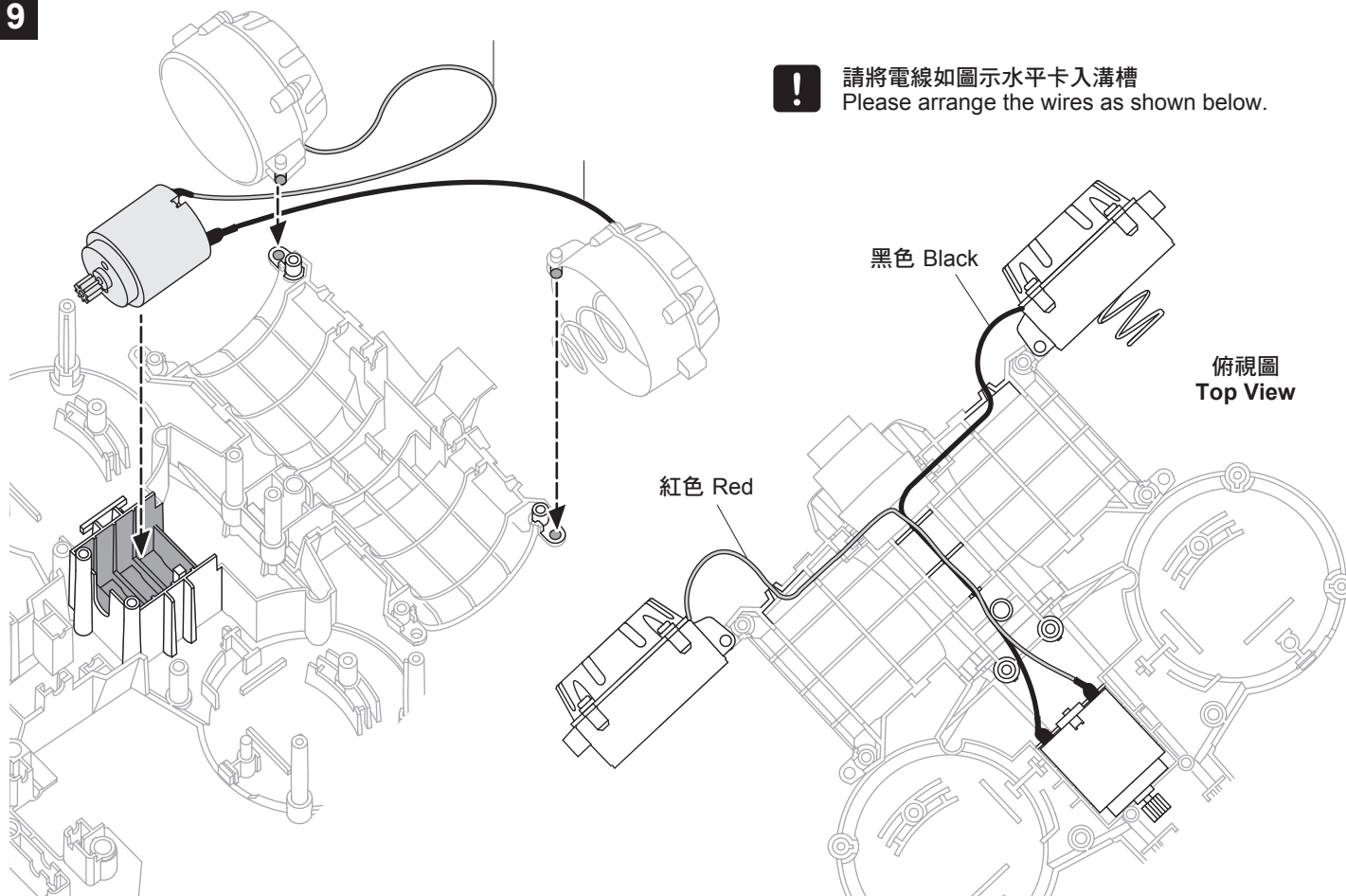
8



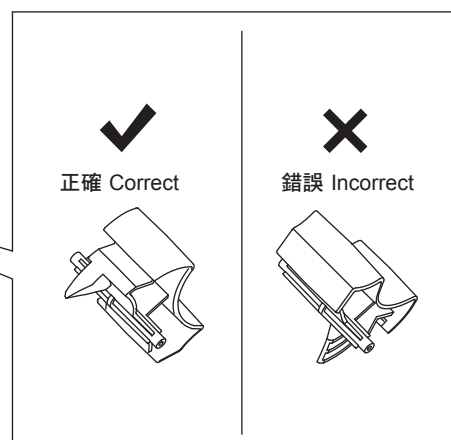
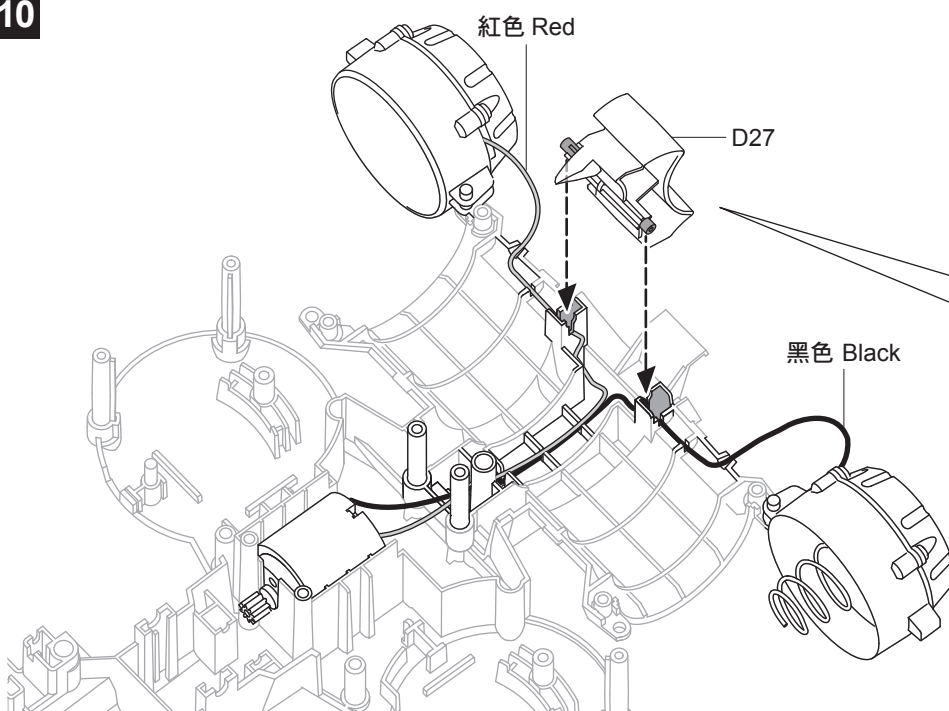
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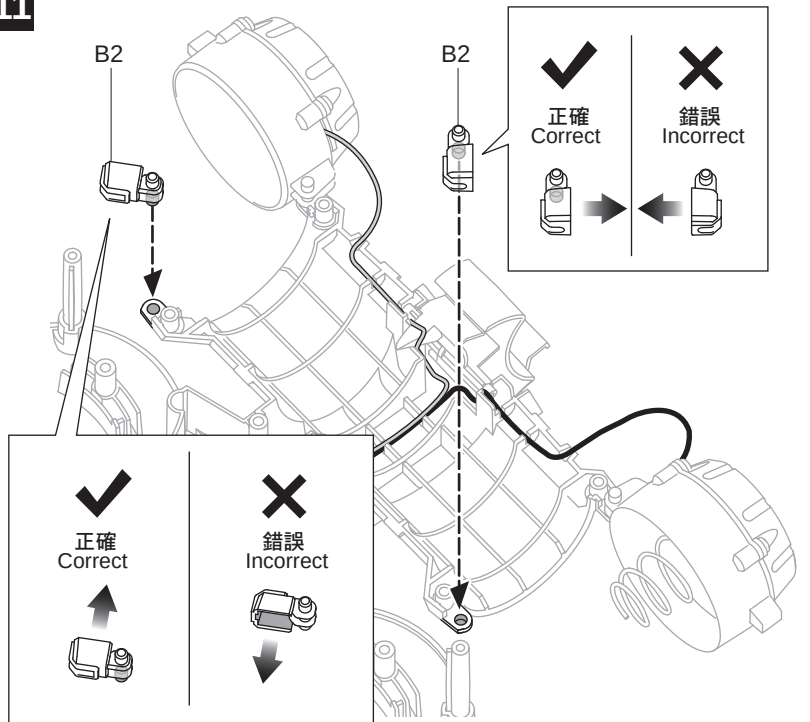
請將電線如圖示水平卡入溝槽
Please arrange the wires as shown below.



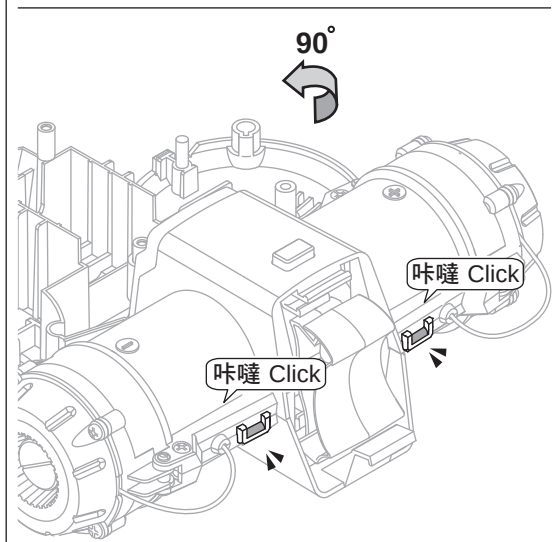
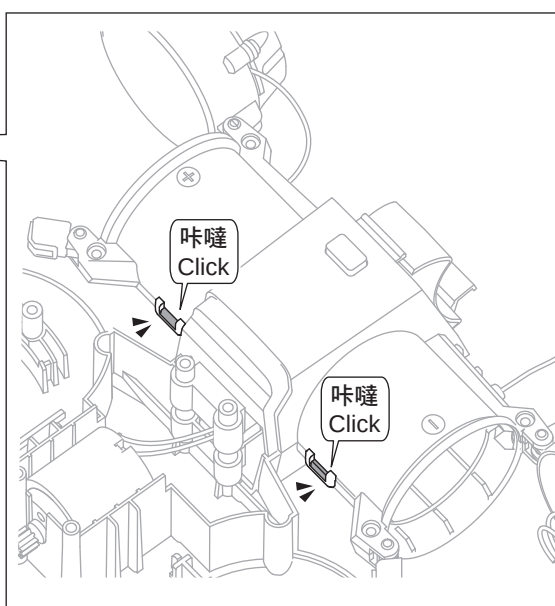
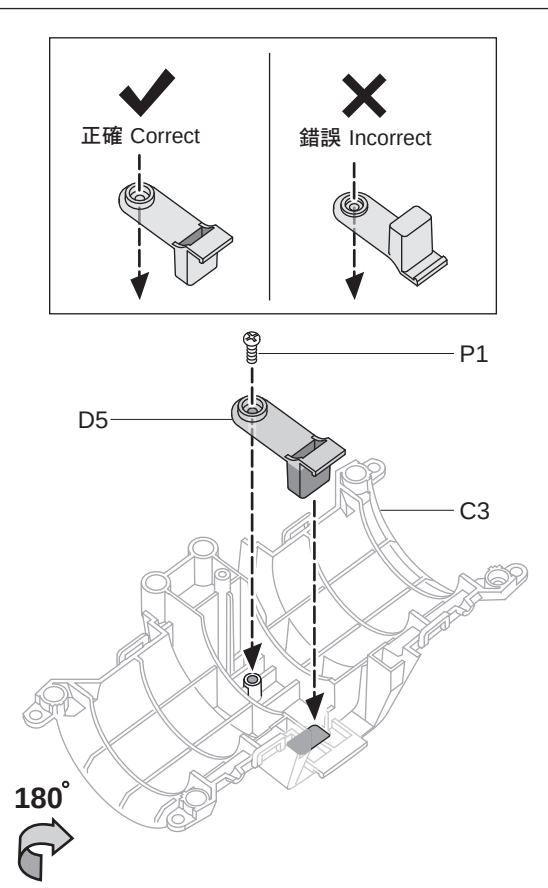
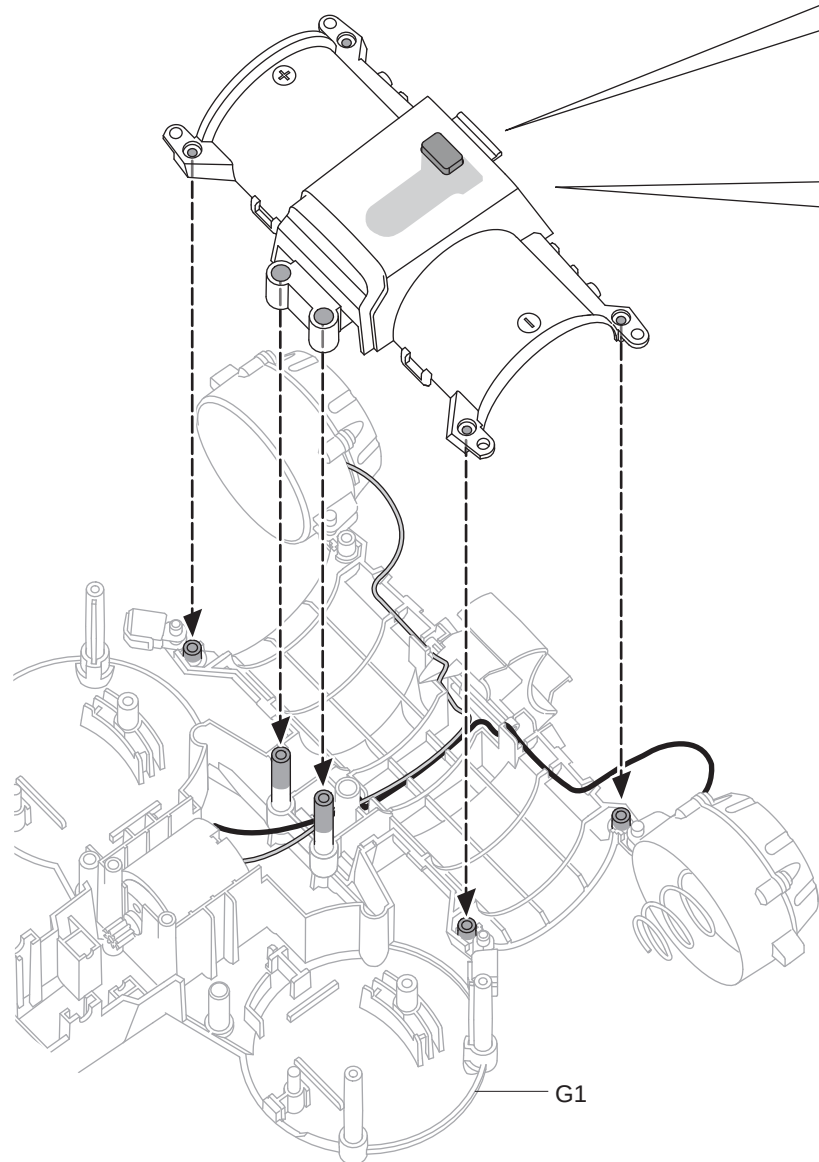
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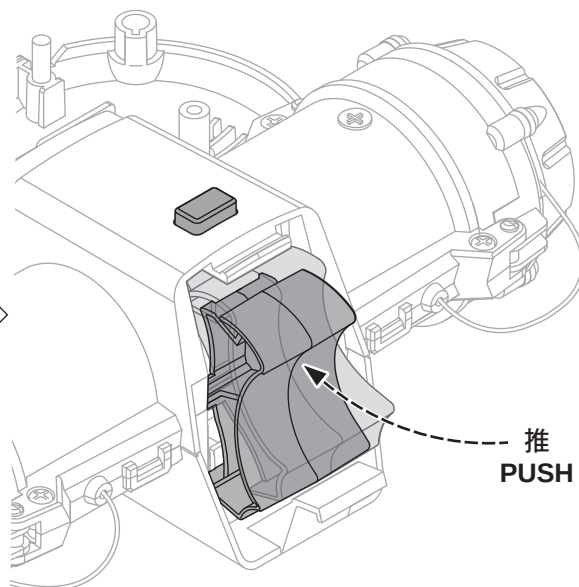
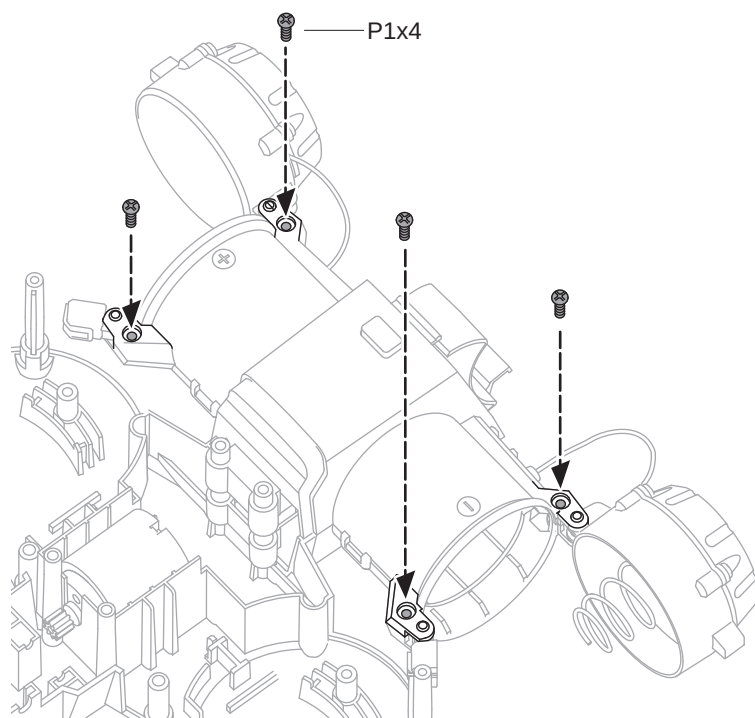
11



12 將C3蓋上G1前，請先將D5鎖至C3
Ensure to fasten D5 to C3 first

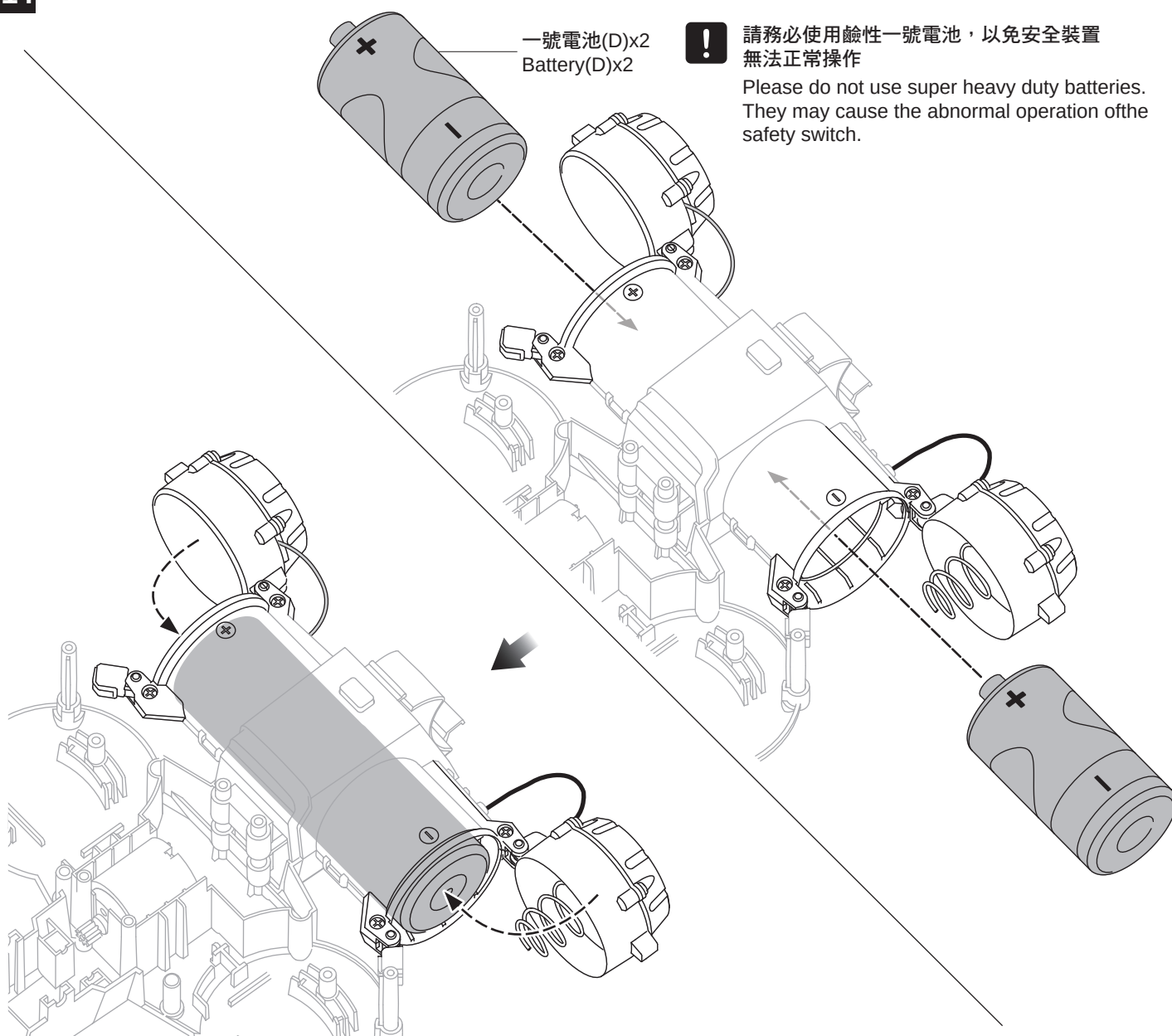


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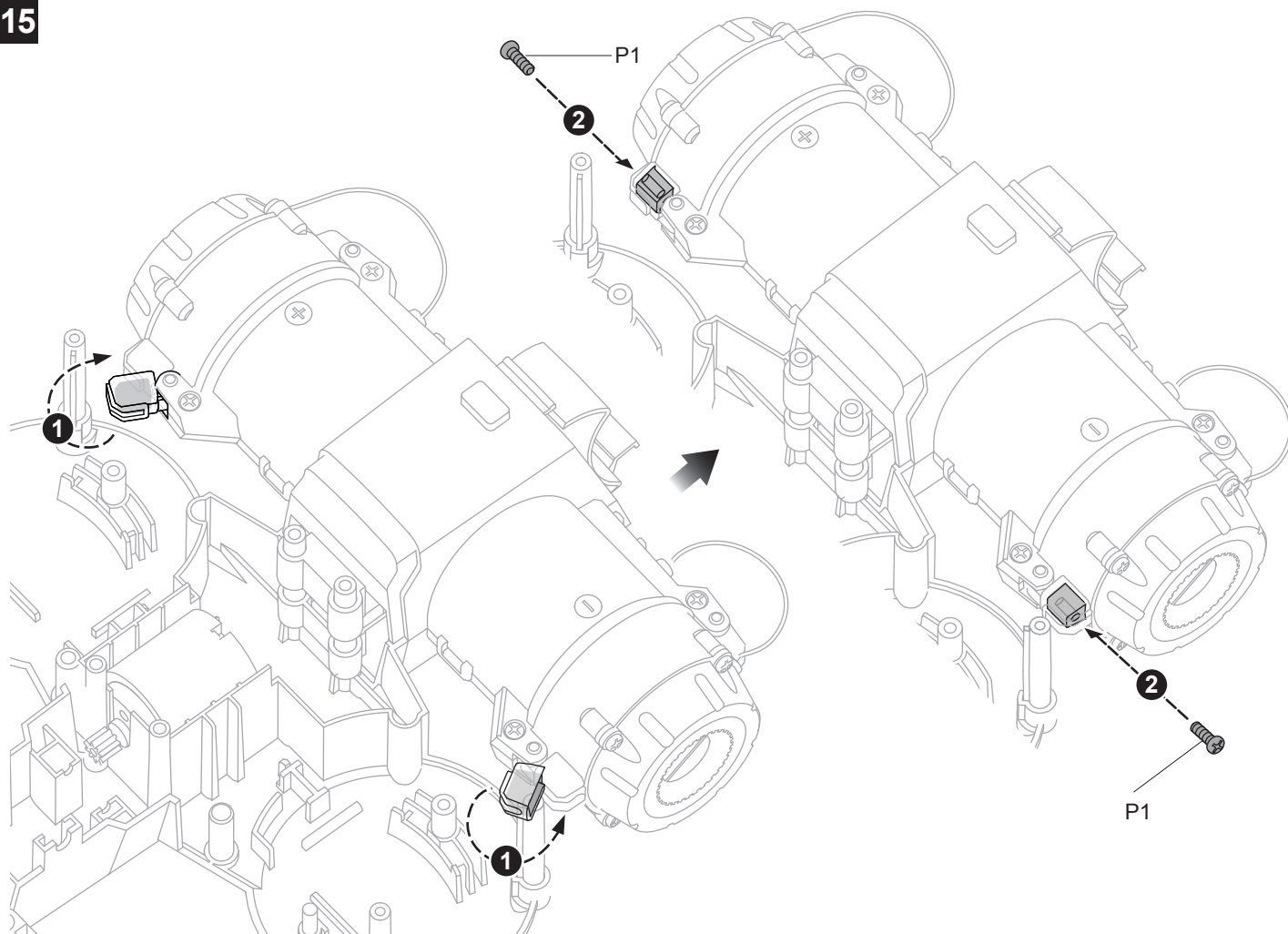


! 請如圖示預先按下開關以切斷電源
Please power off the device in advance as illustrated.

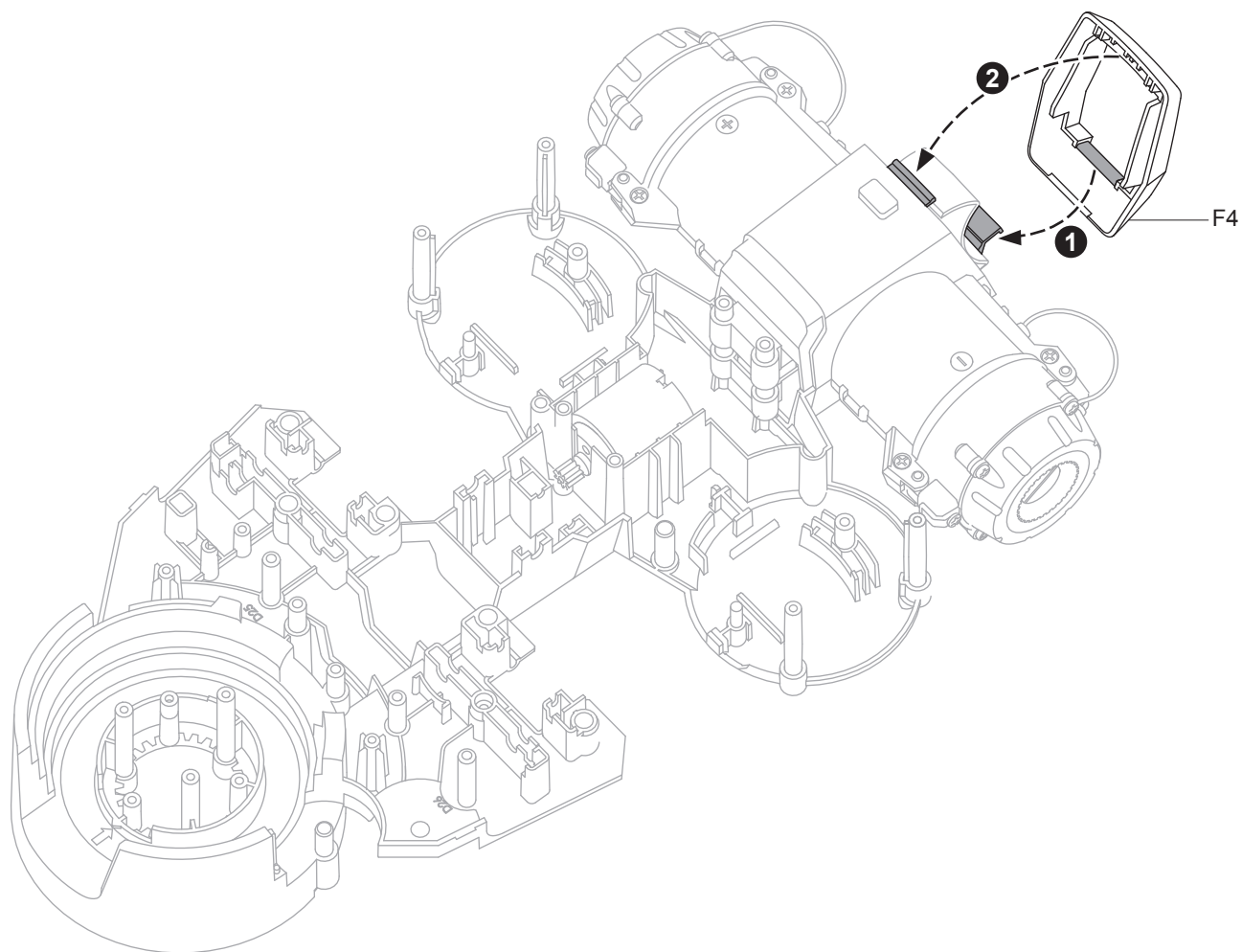
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15

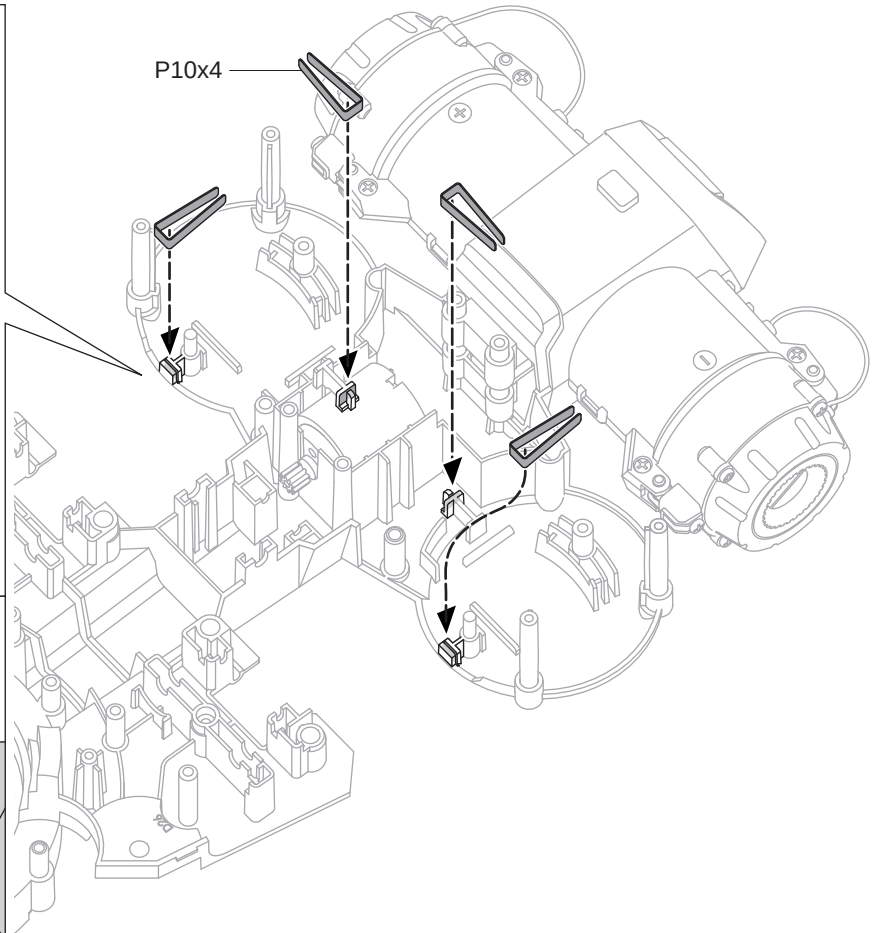
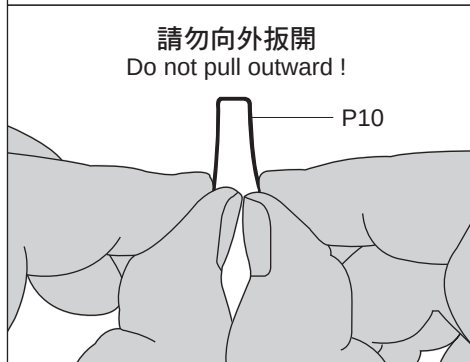
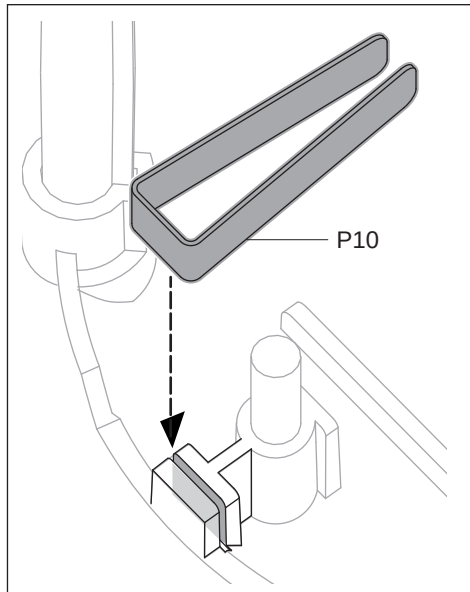


16

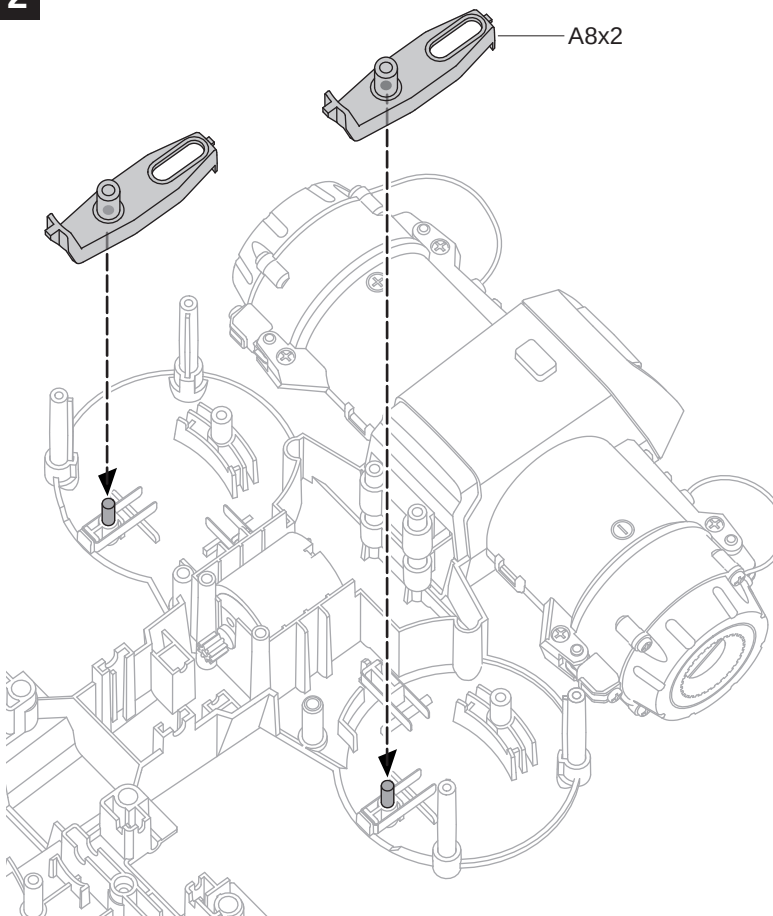


底座齒輪箱組裝 Base Gearbox Assembly

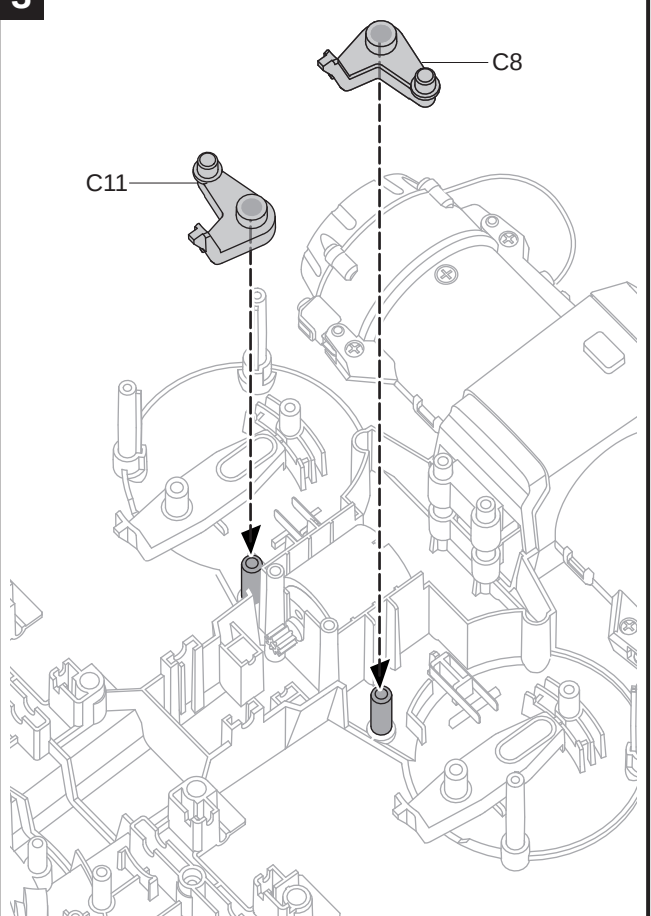
1



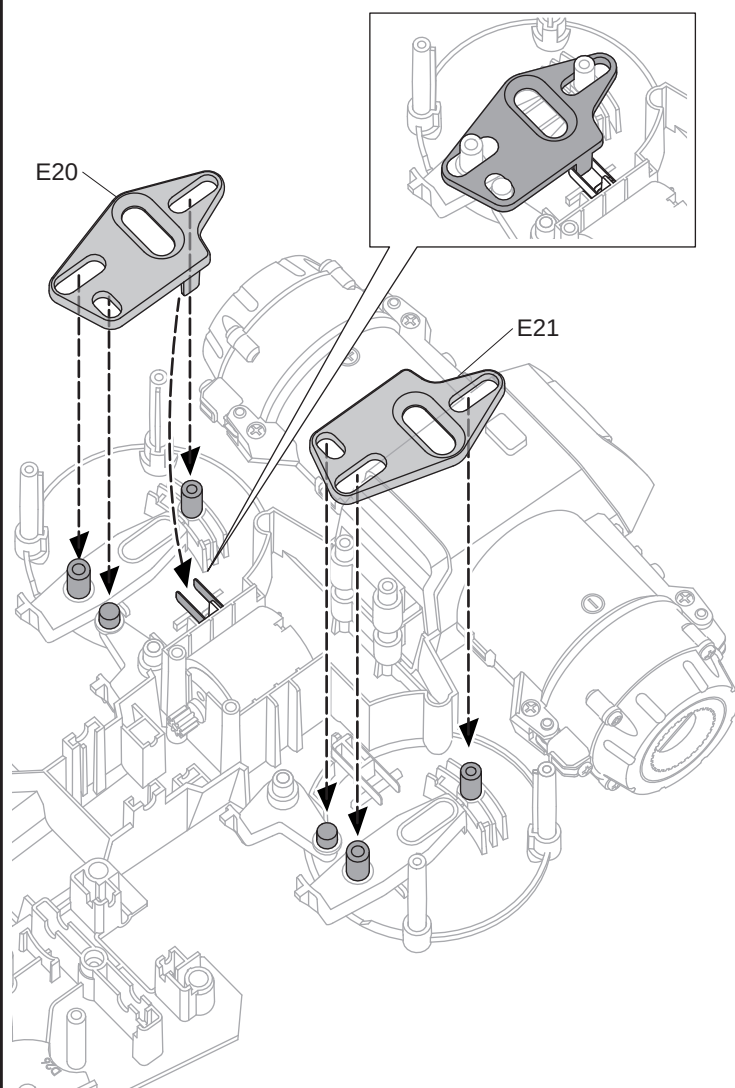
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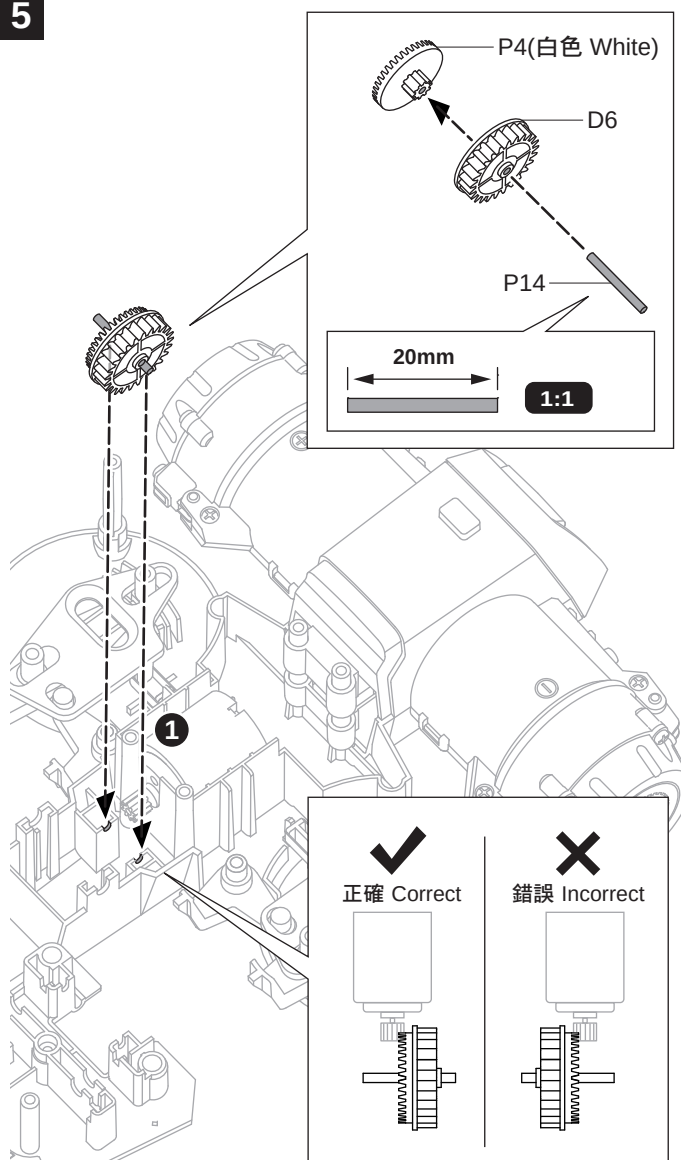
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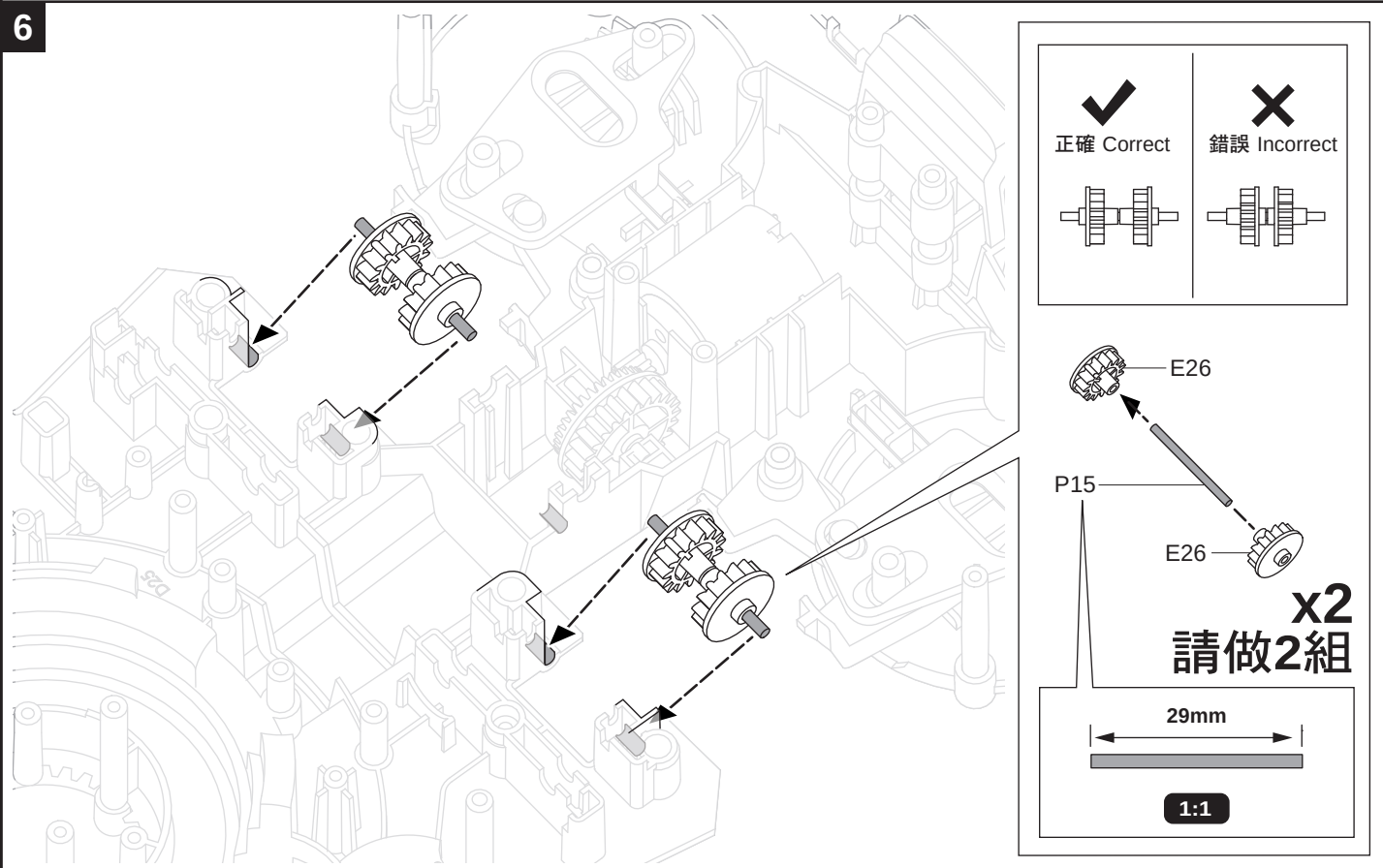
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5



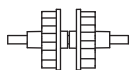
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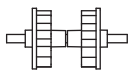
7



正確 Correct



錯誤 Incorrect



E26

P15

E26

x2
請做2組

29mm

1:1

8



3

D24



3

D25

2

2

1

9

推
PUSH

E14

1

P3

P17

P11

P11

D19

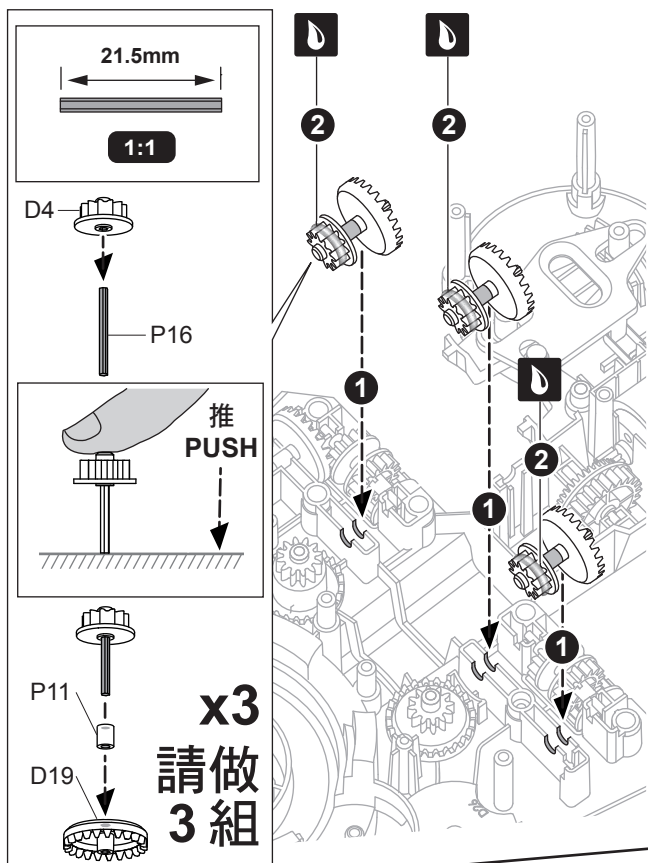
29mm

1:1

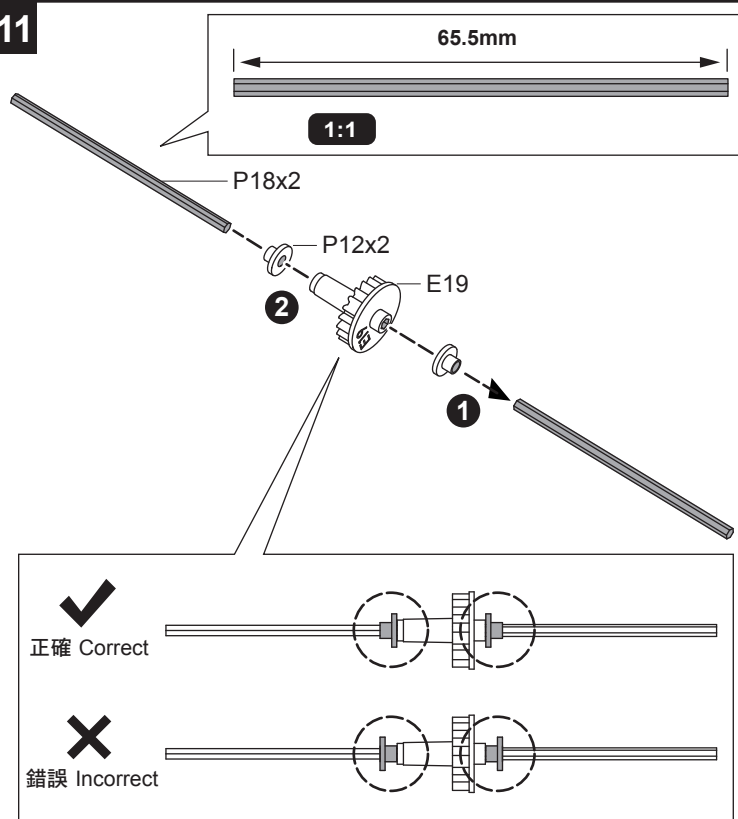
2

3

10

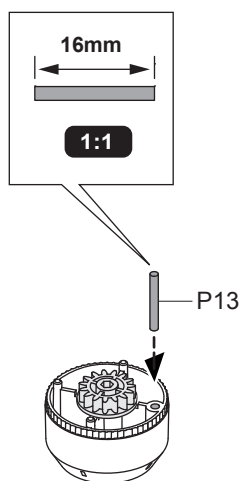
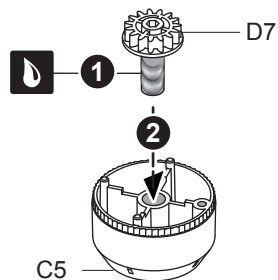


11



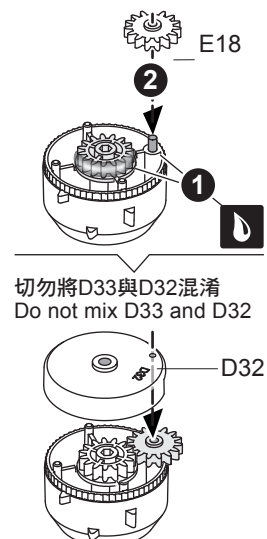
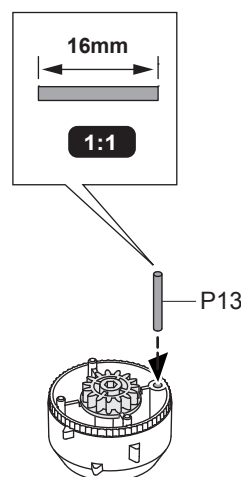
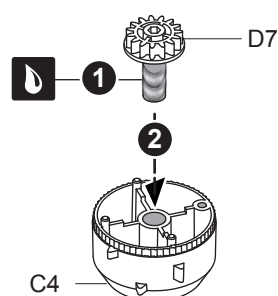
12

⚠
執行此步驟前，務必將D7先上油
Please ensure D7 is fully applied
with oil. Do not leave D7 dry
before moving to next step.



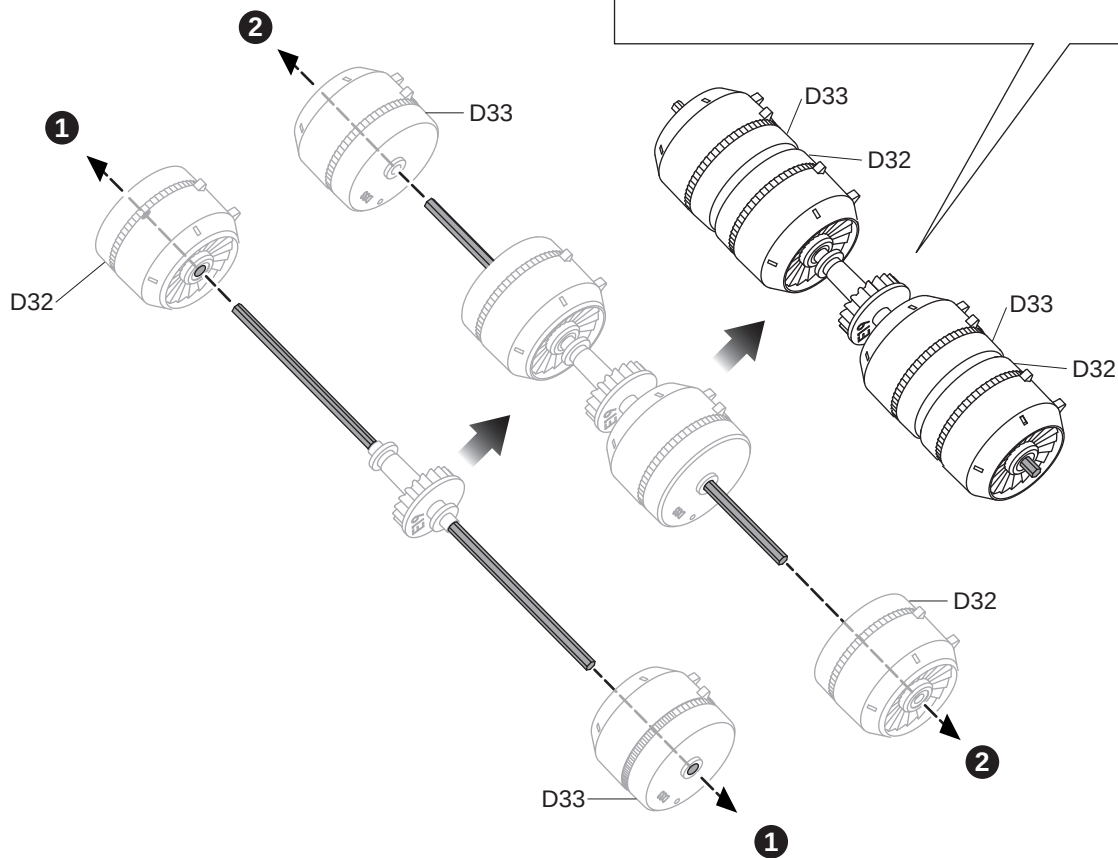
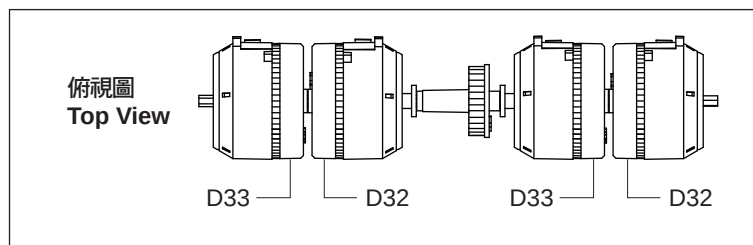
x2
請做2組

⚠
執行此步驟前，務必將D7先上油
Please ensure D7 is fully applied
with oil. Do not leave D7 dry
before moving to next step.

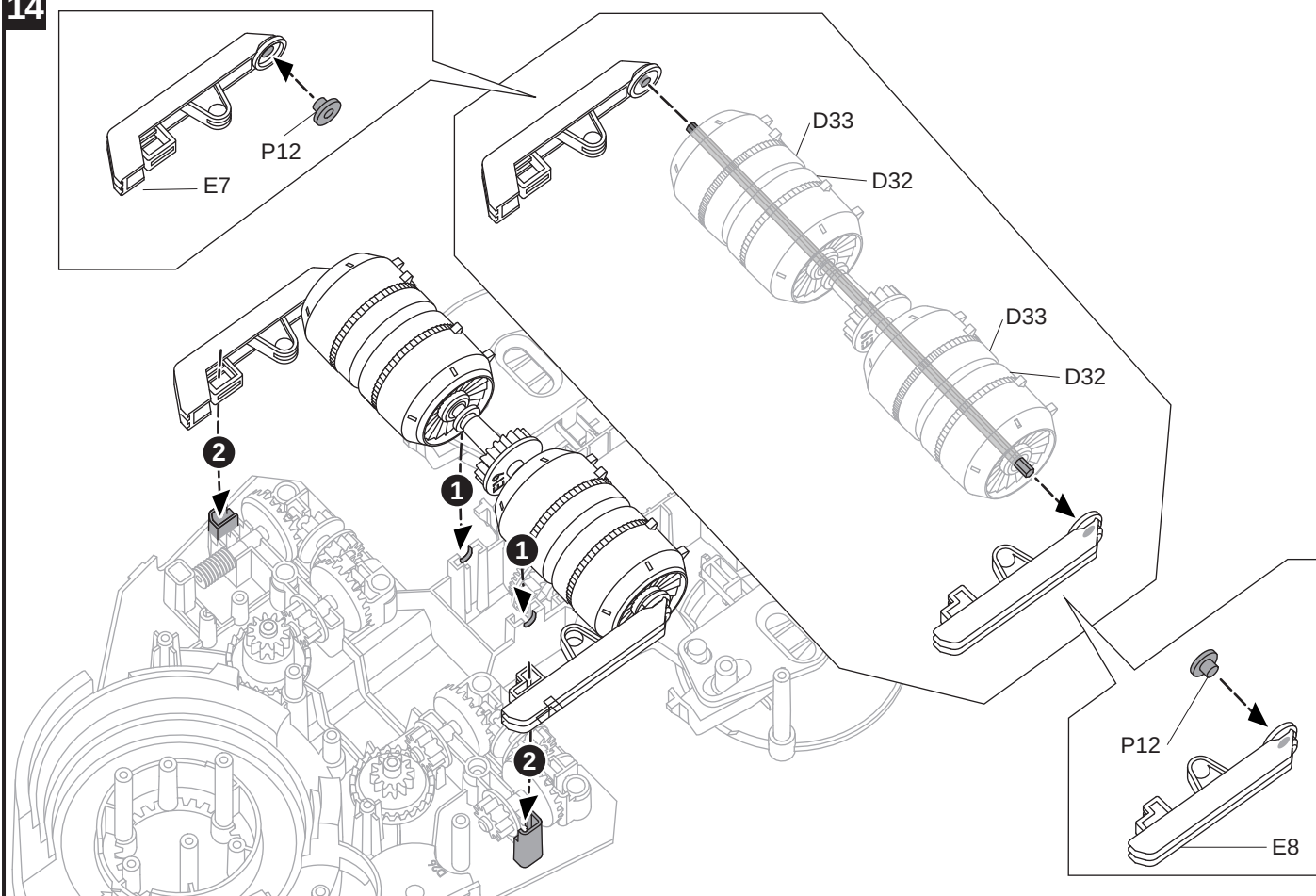


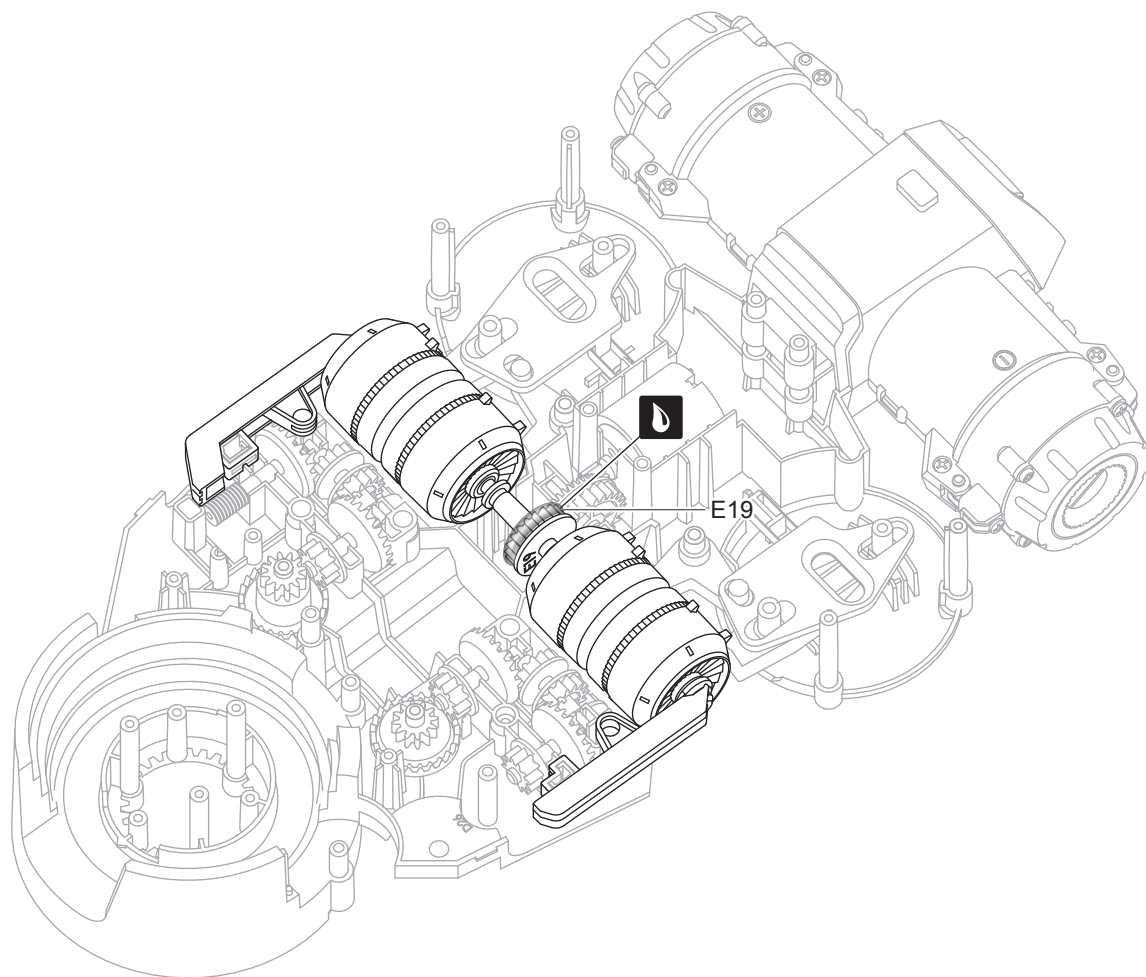
x2
請做2組

13 請注意D33、D32組裝方向務必正確
Ensure the direction of D33 and D32

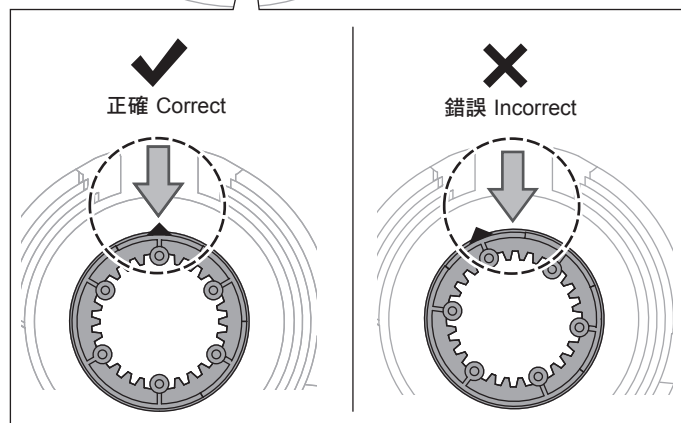
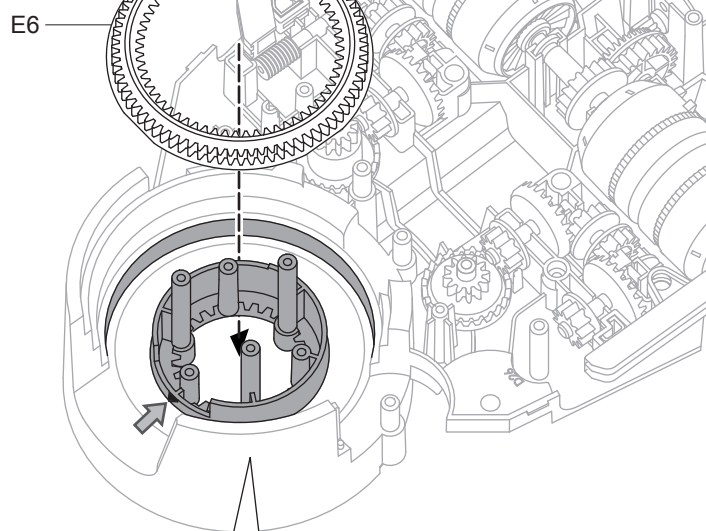


14

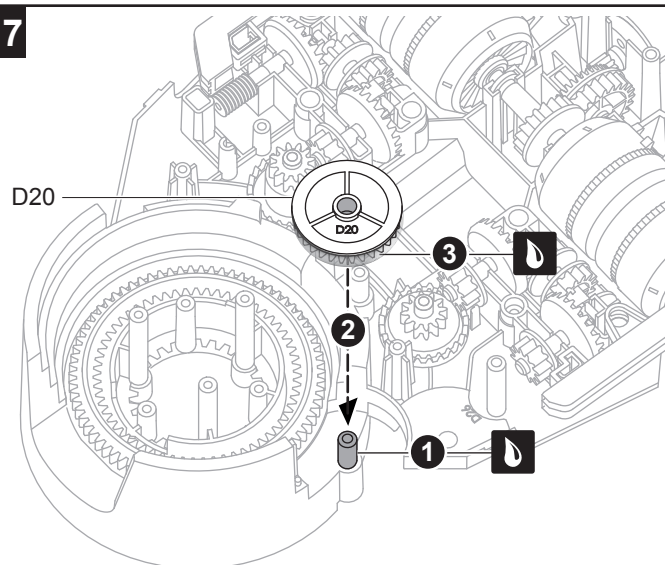




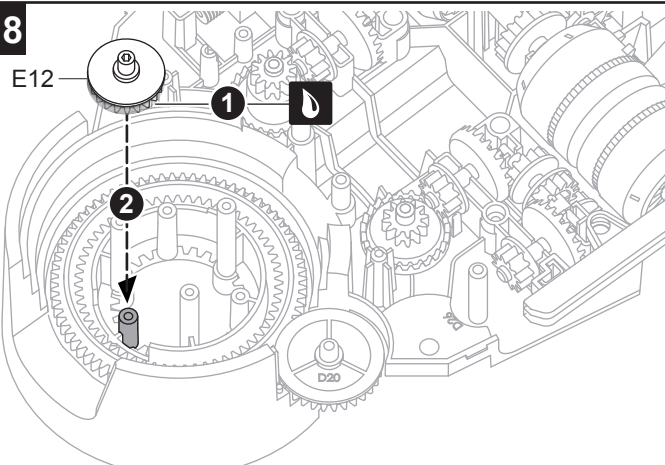
16 請確認D8缺口需朝向箭頭方向
Ensure the right direction of D8



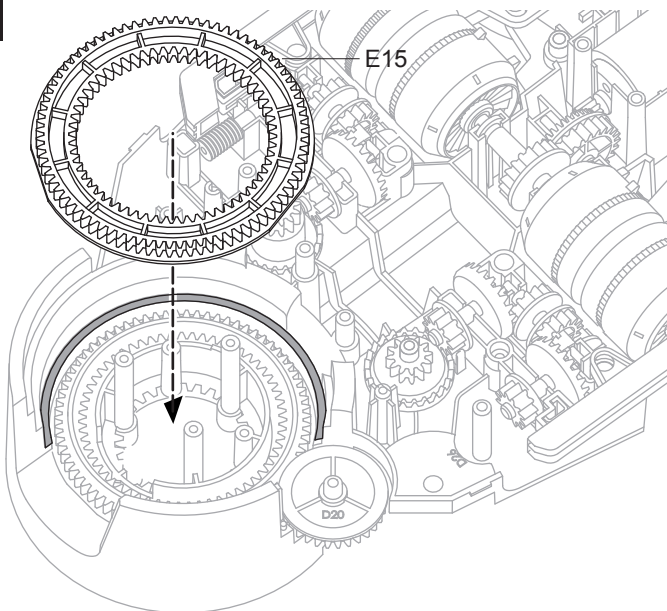
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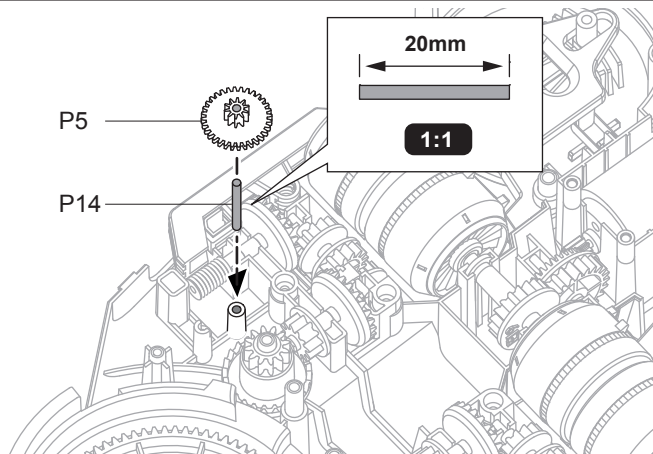
18



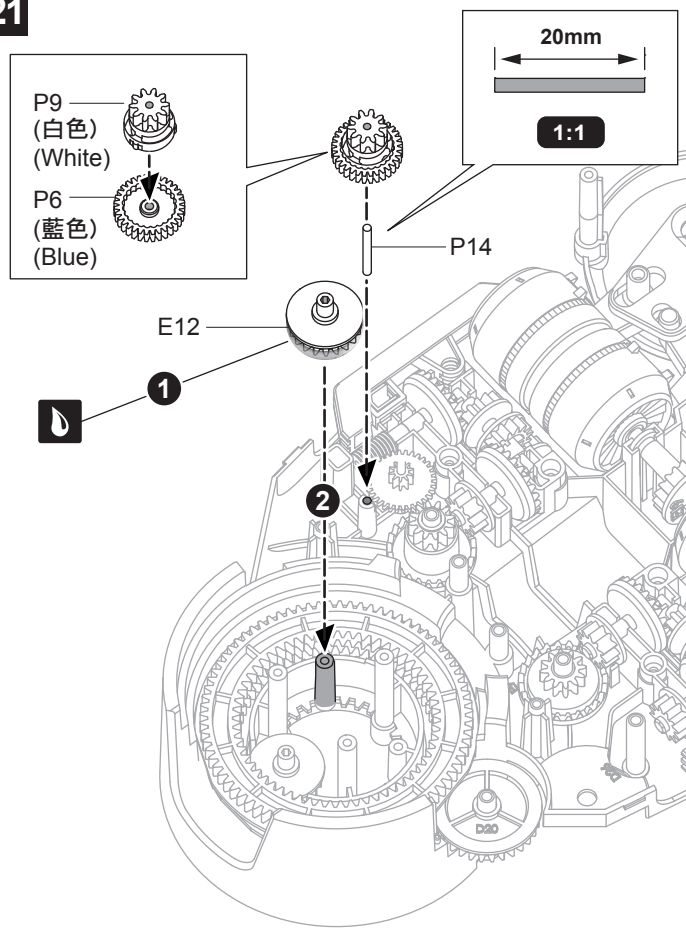
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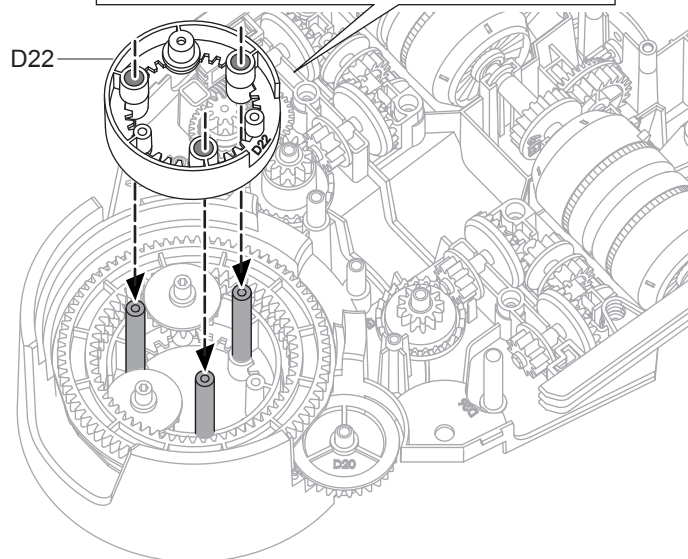
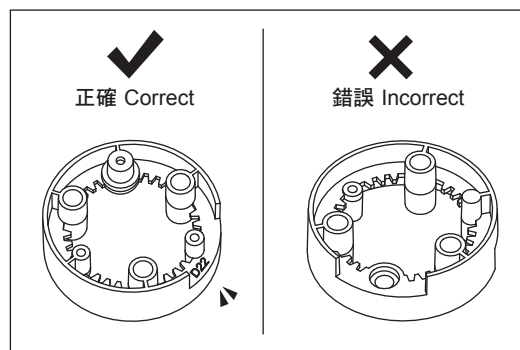
20



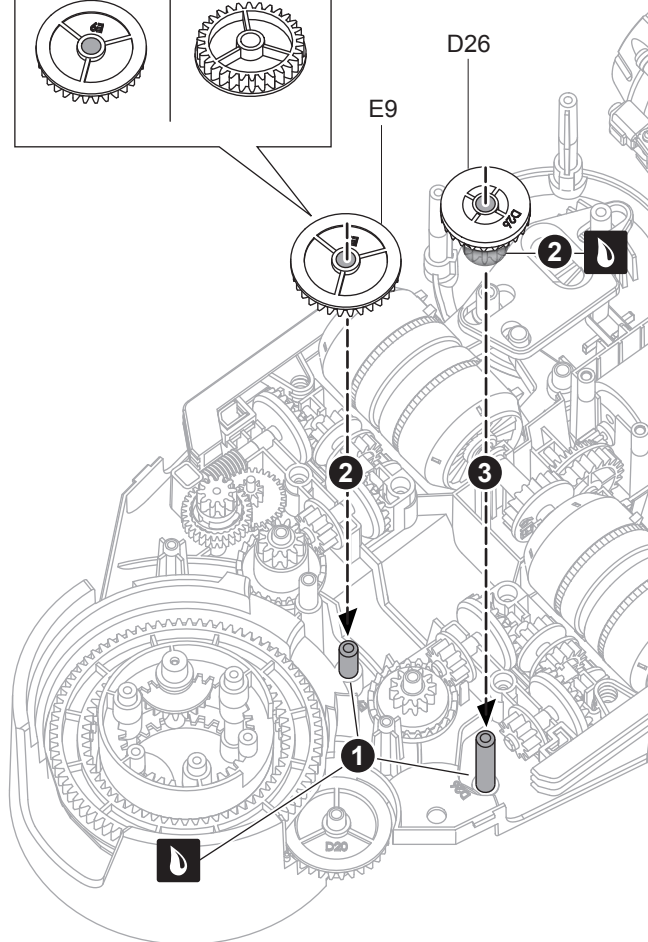
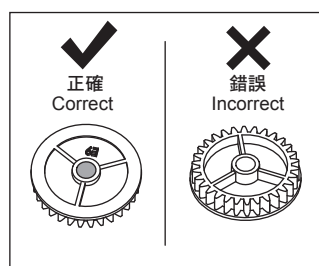
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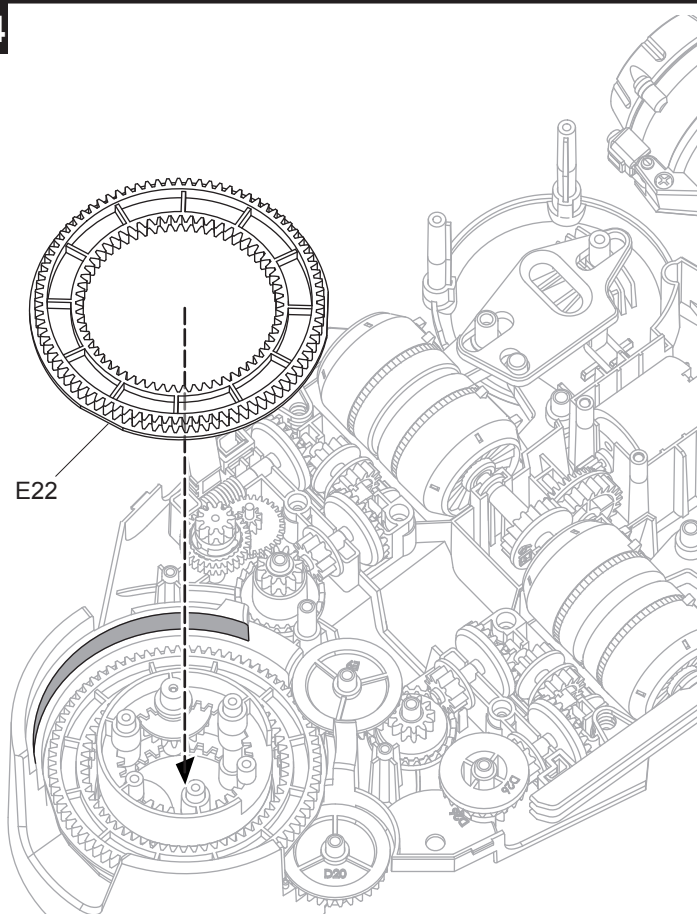
22



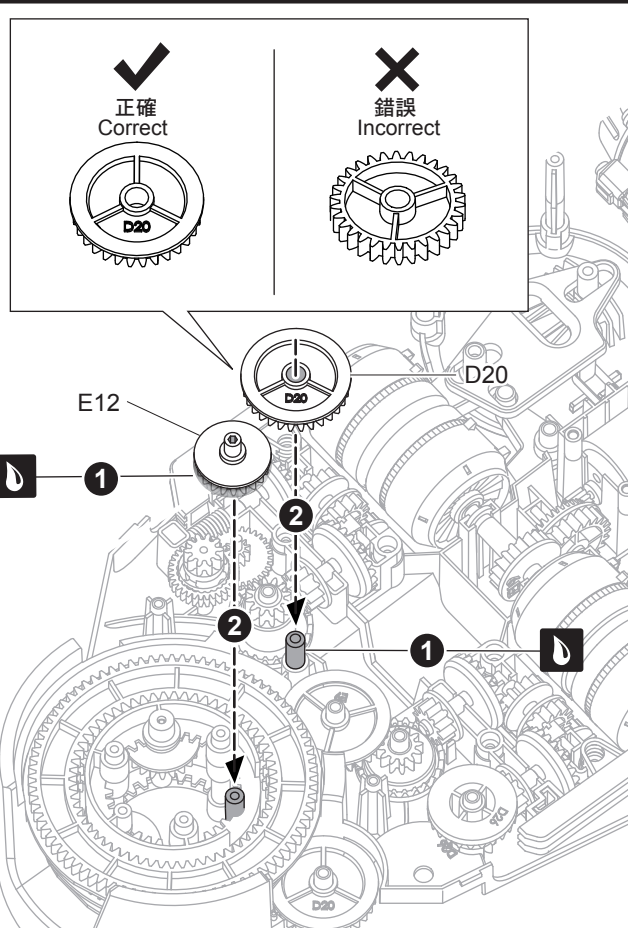
23



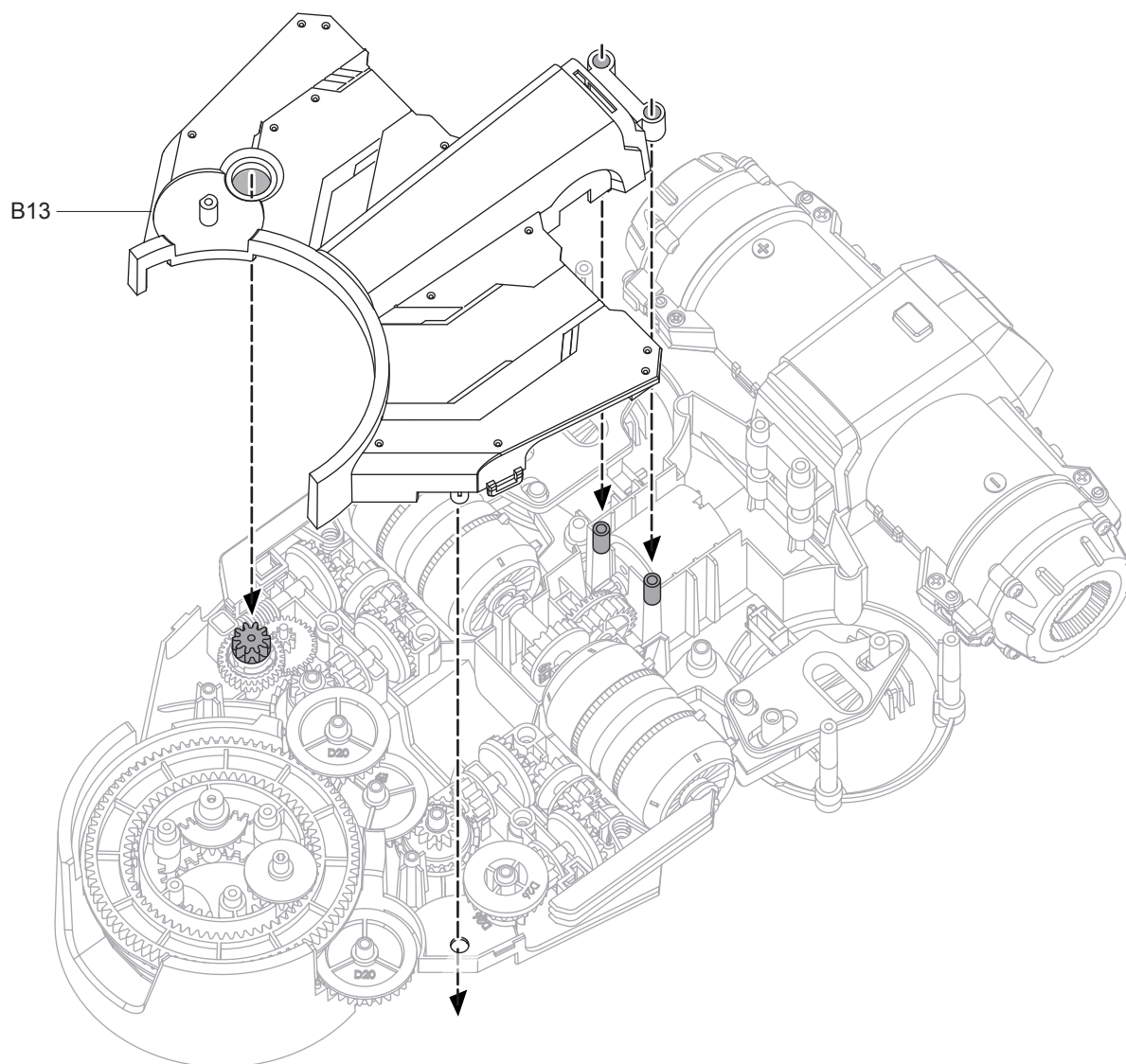
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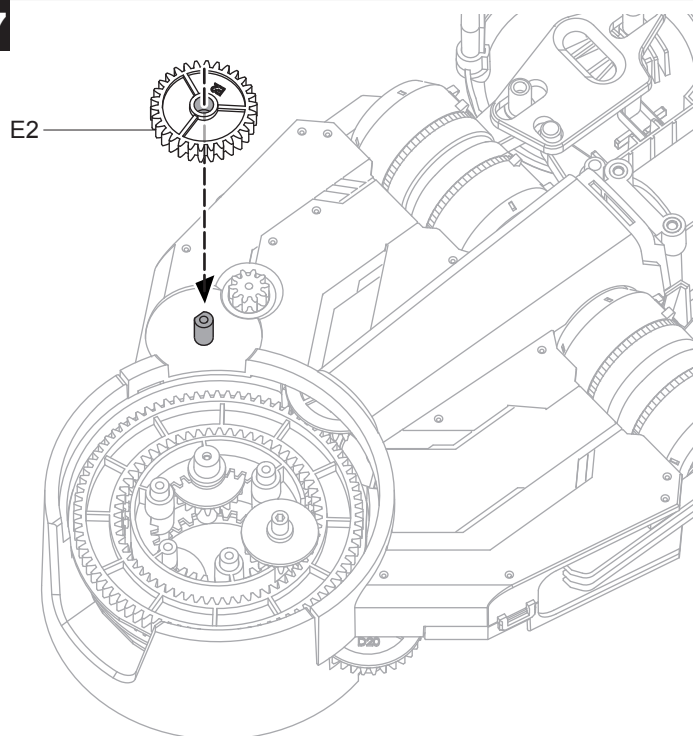
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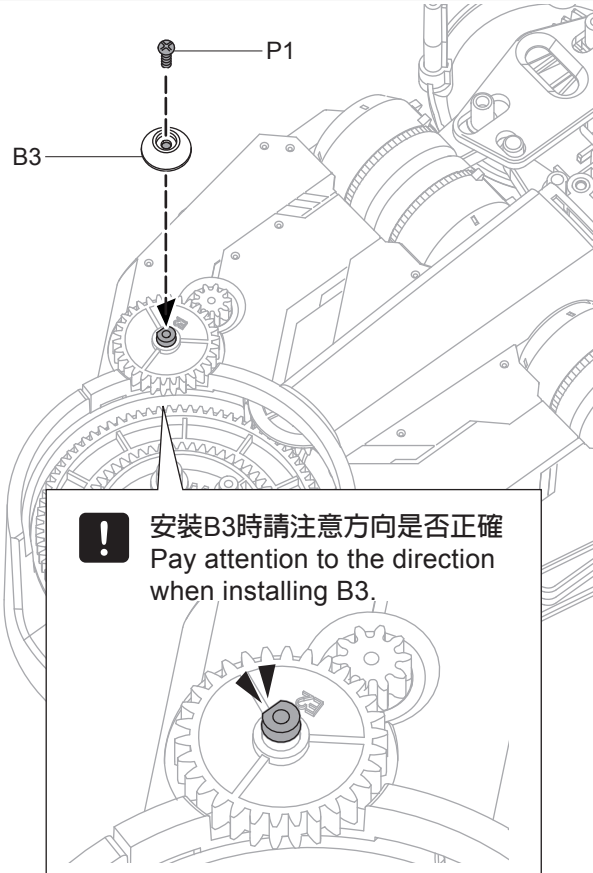
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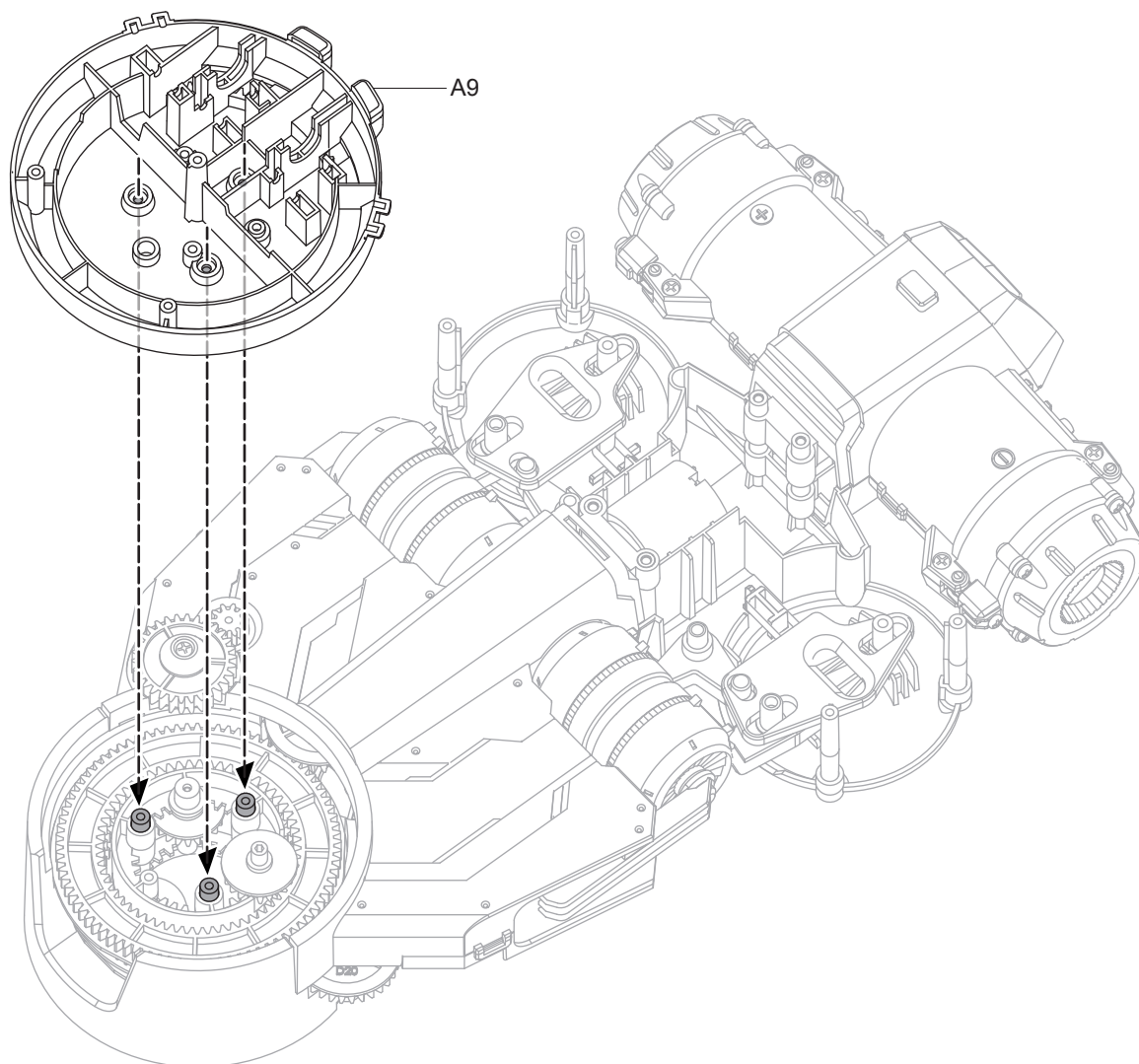
27



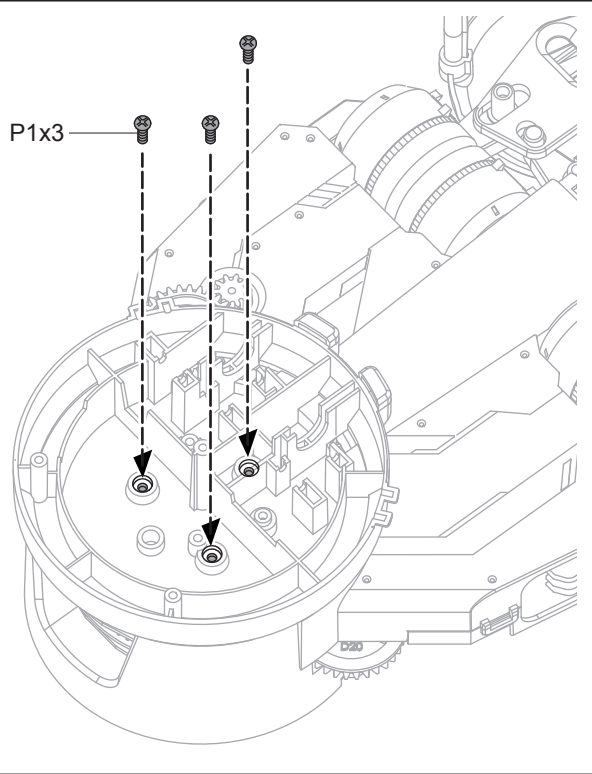
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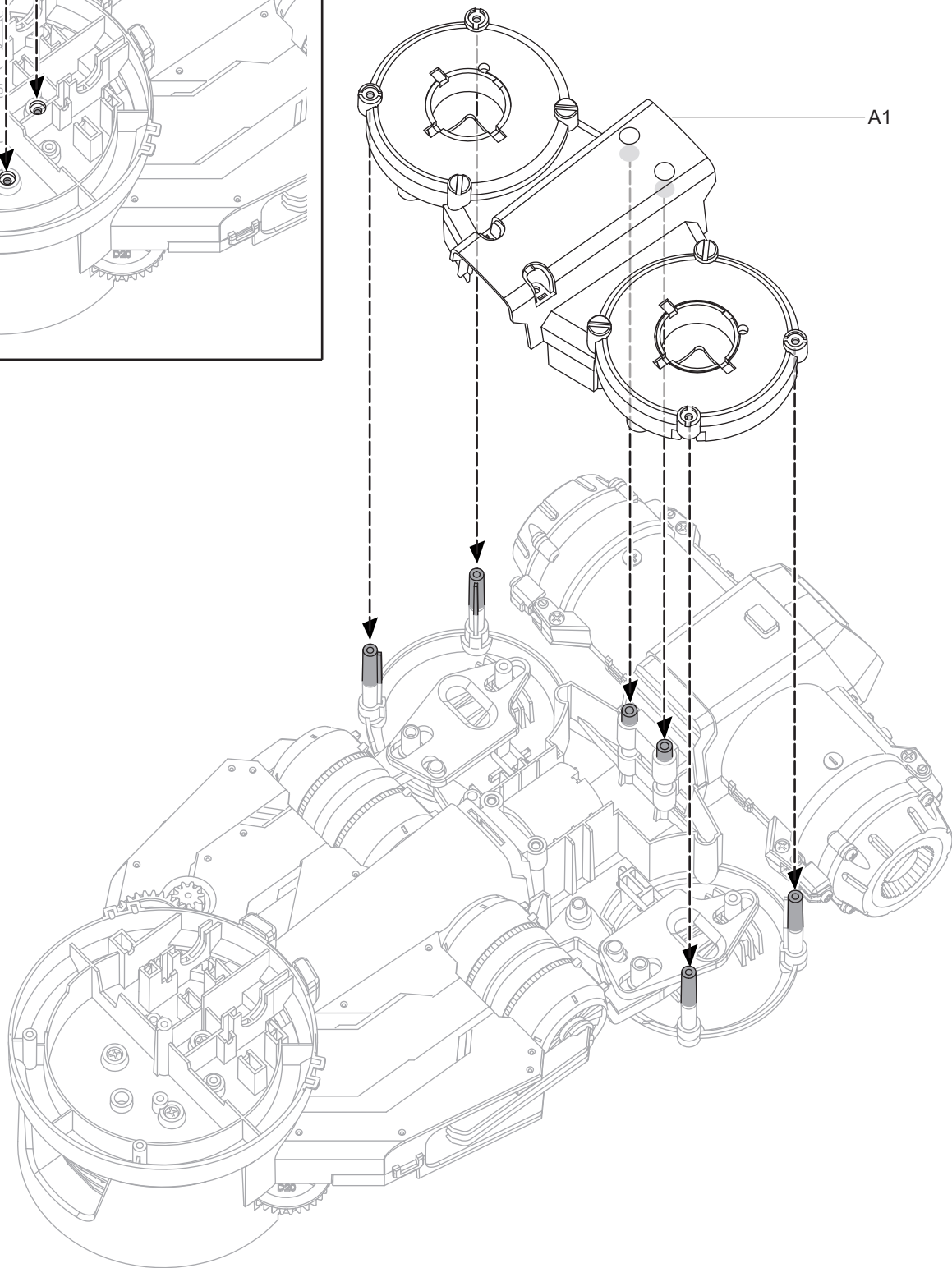
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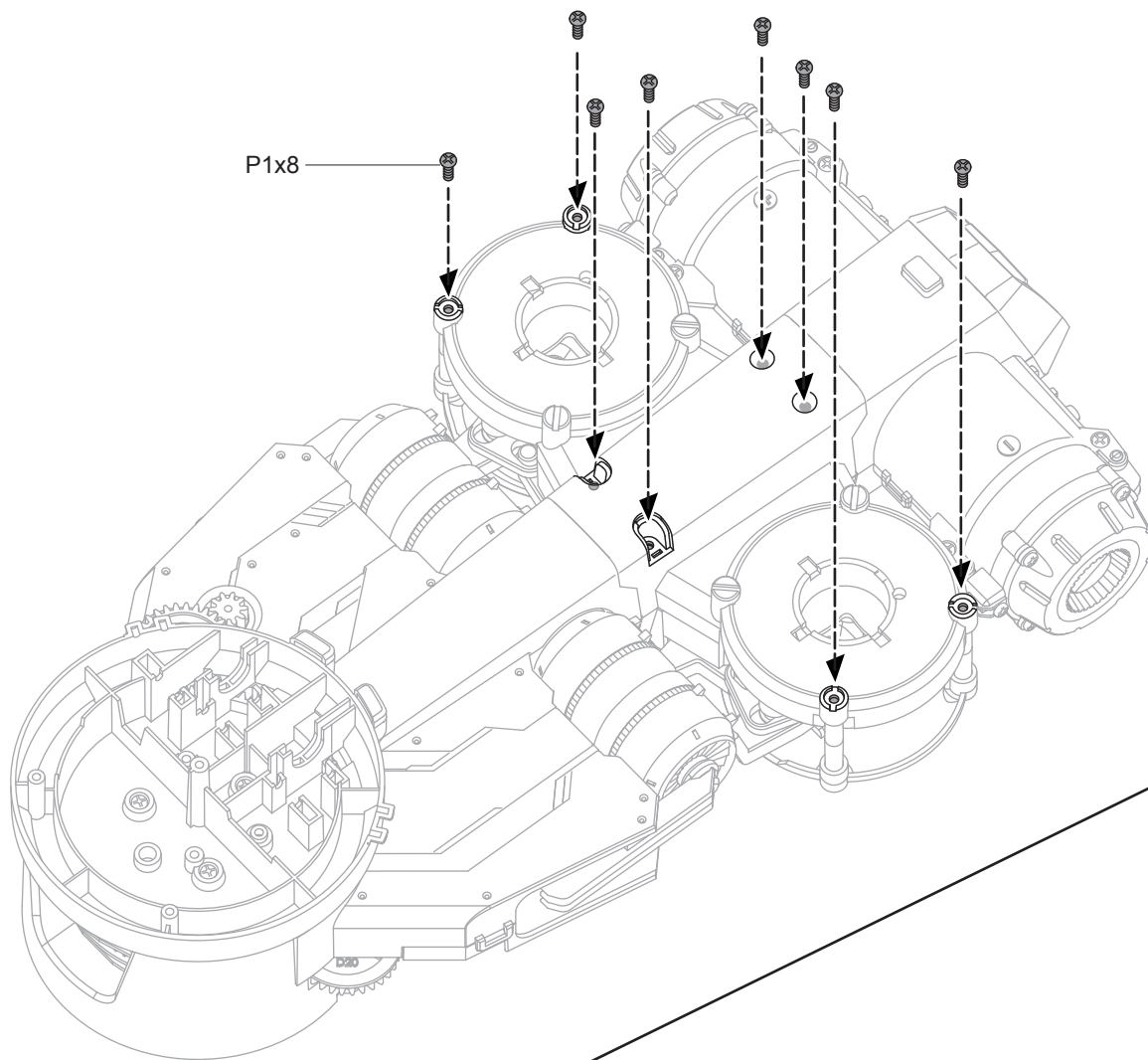
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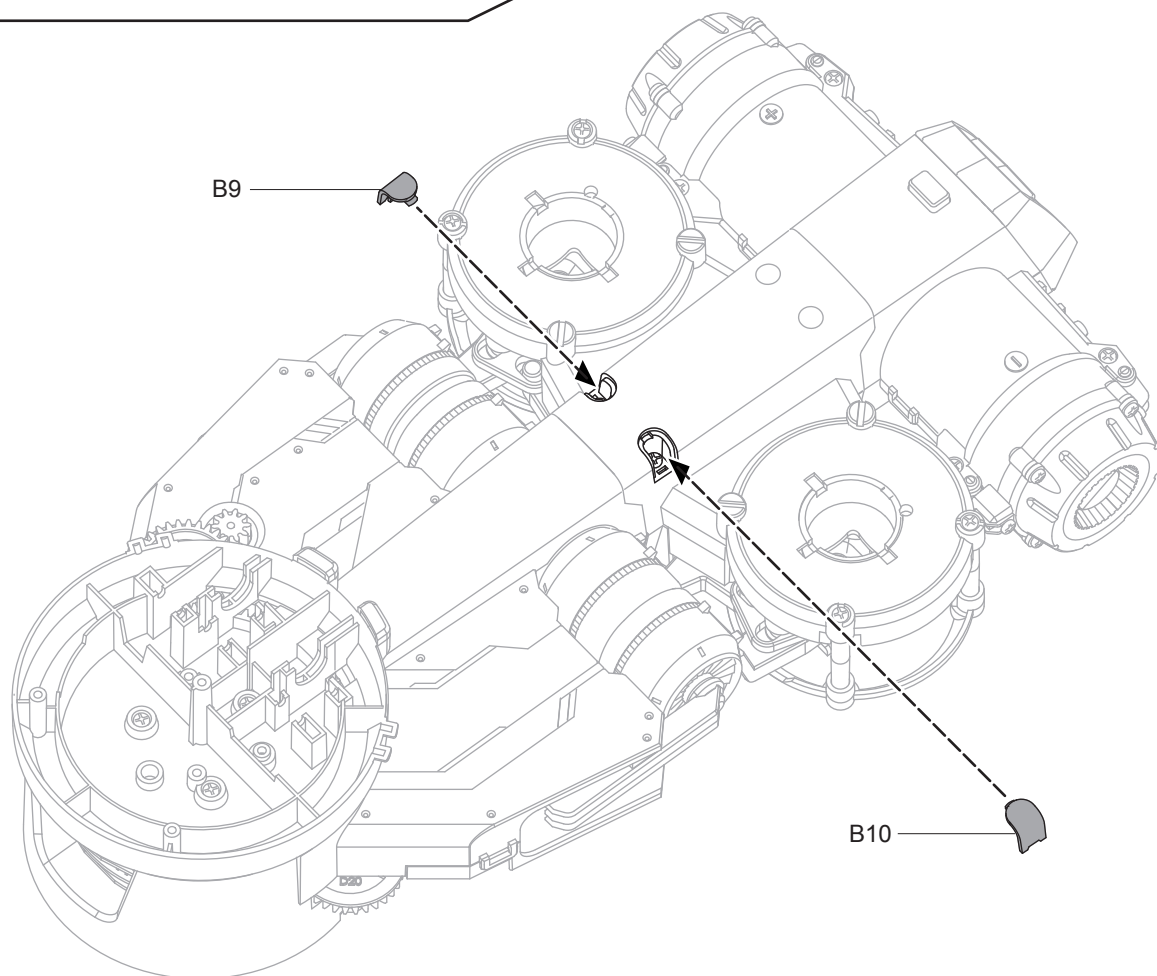
31



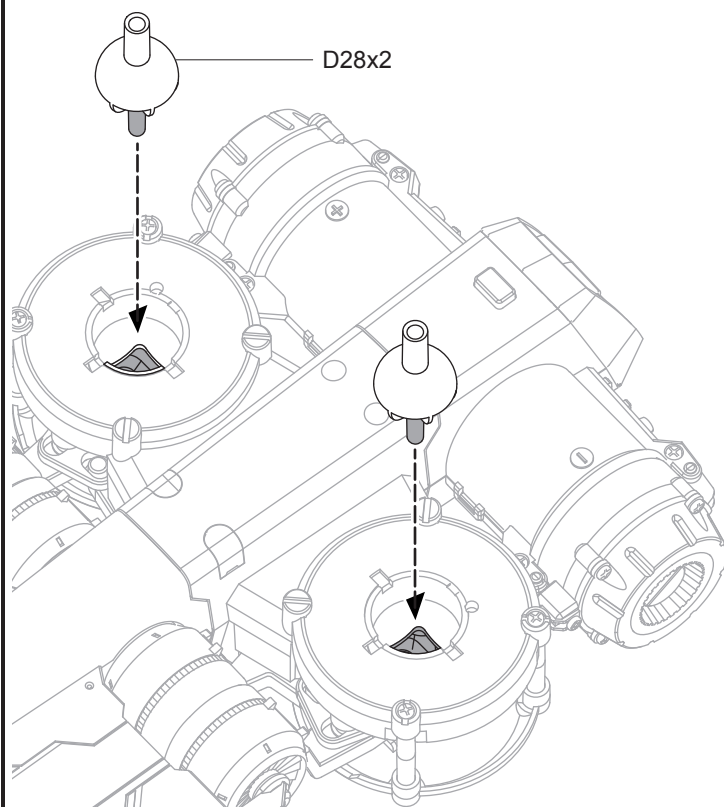
32



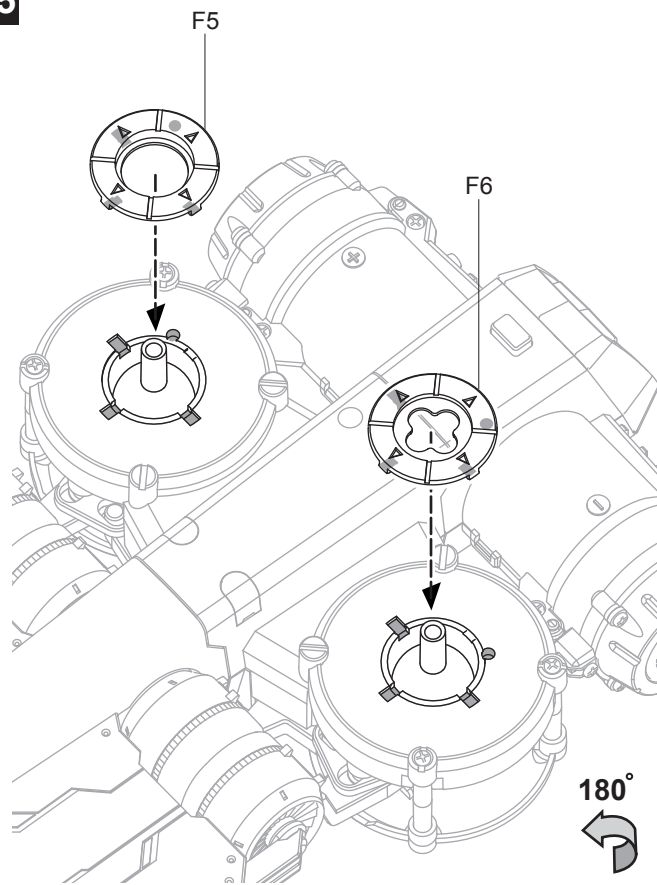
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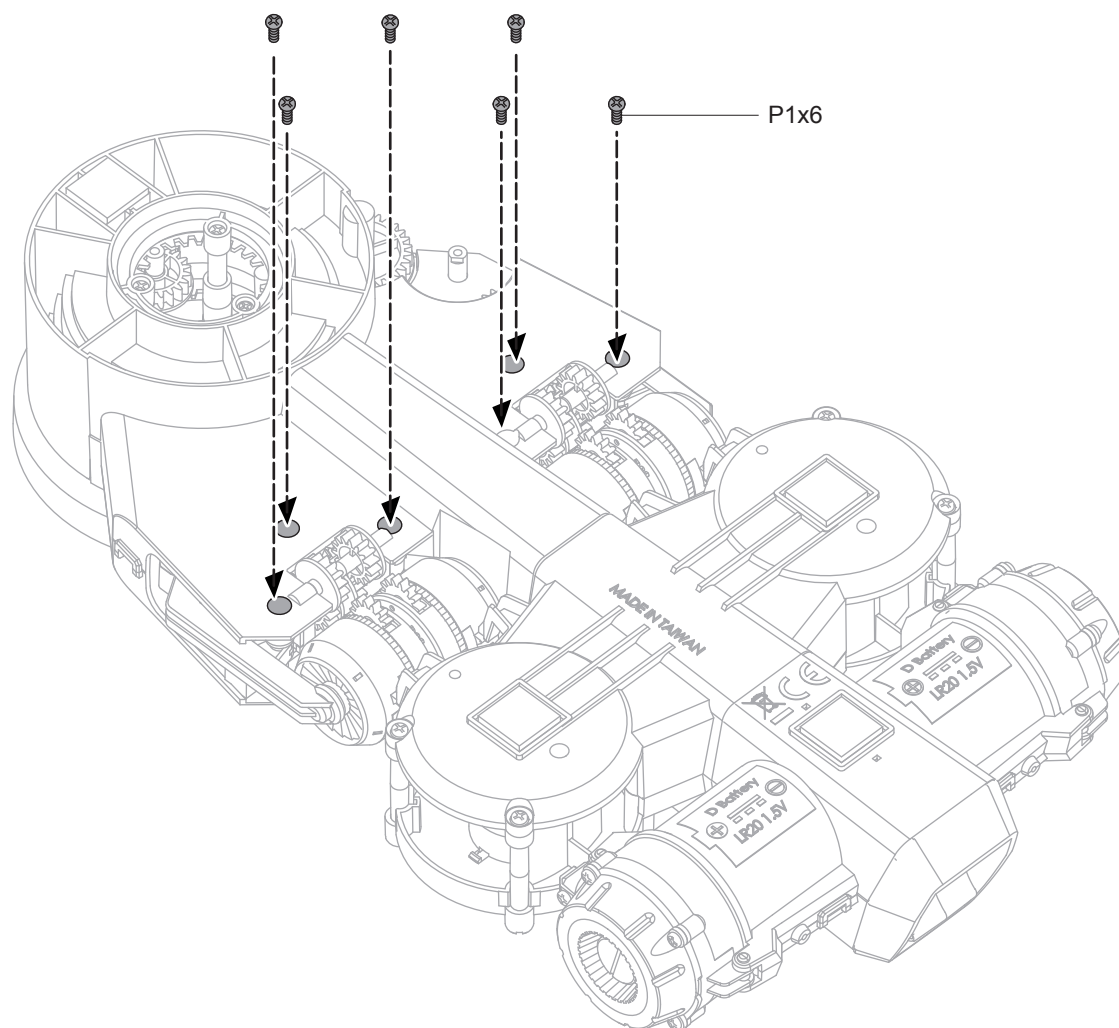
34



35



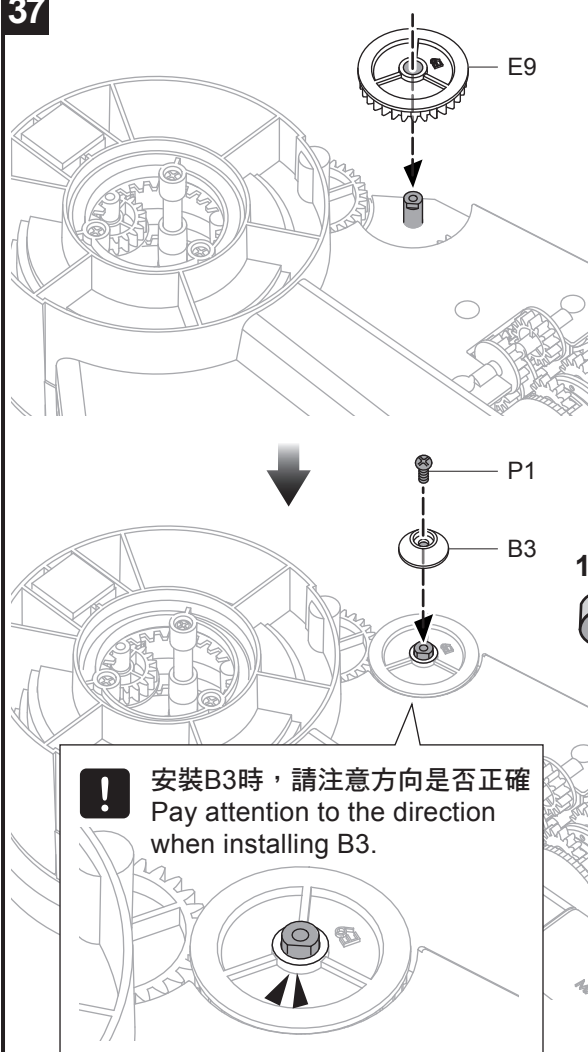
36



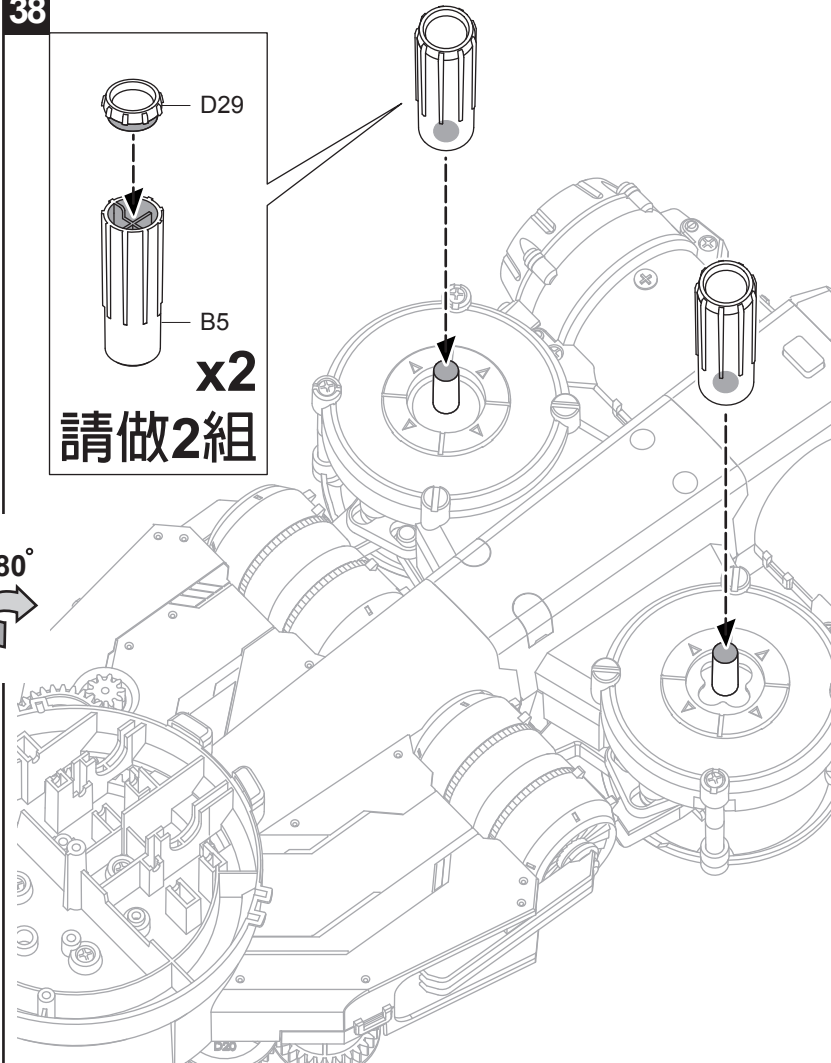
翻面時請注意勿觸碰並開啟安全裝置

Please do not falsely trigger the safety lock when flipping the base over.

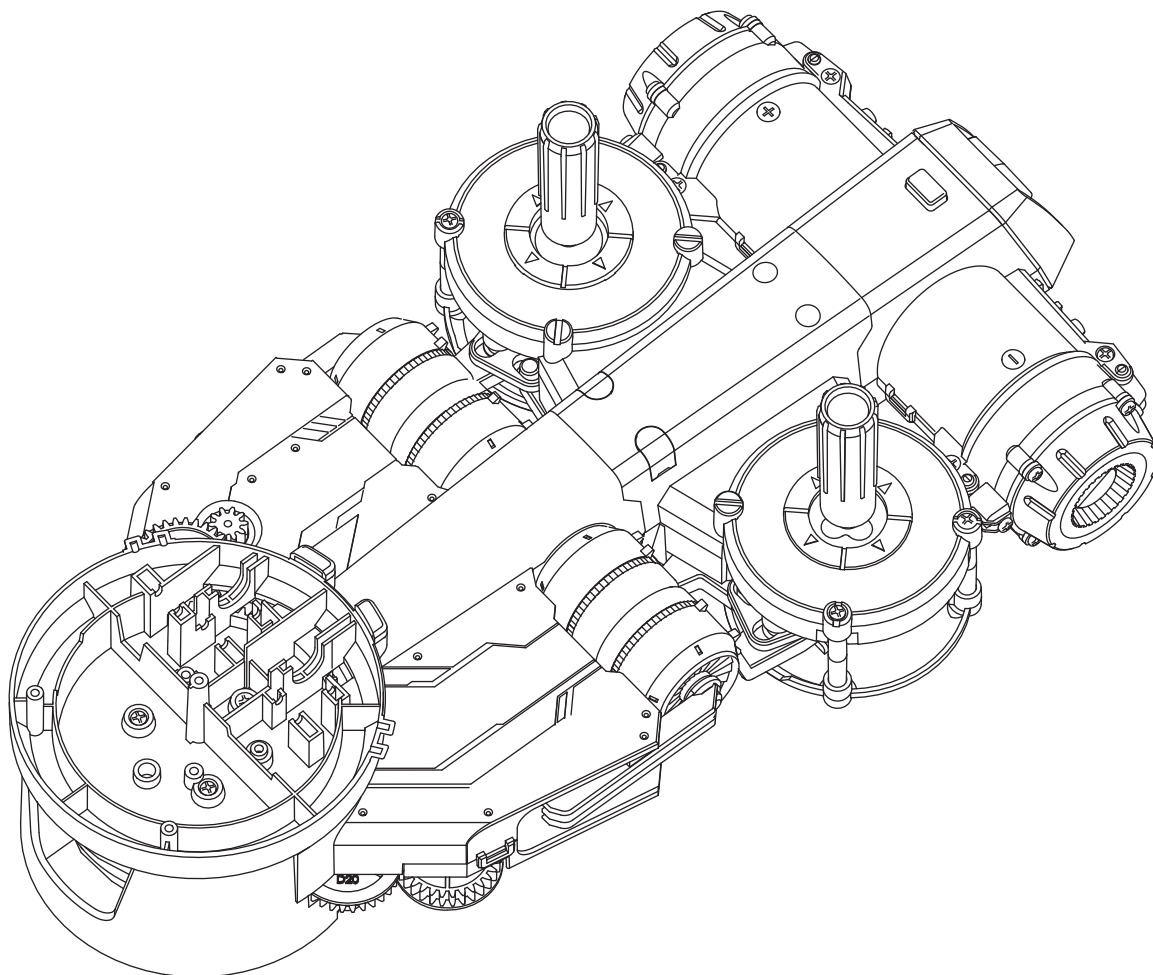
37

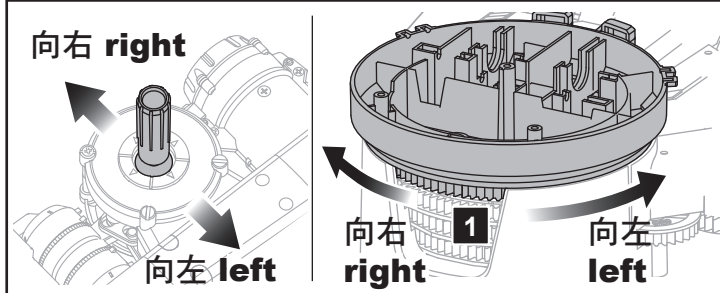
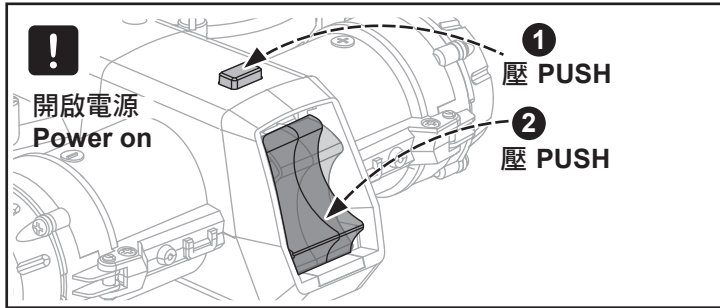


38

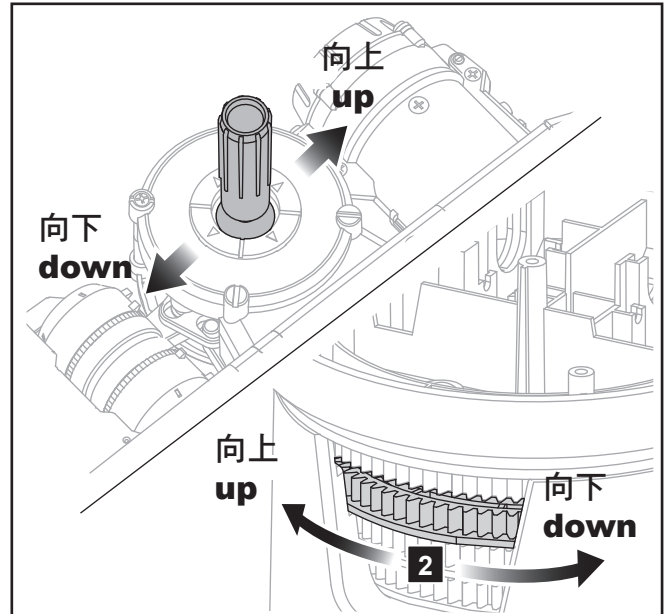


39

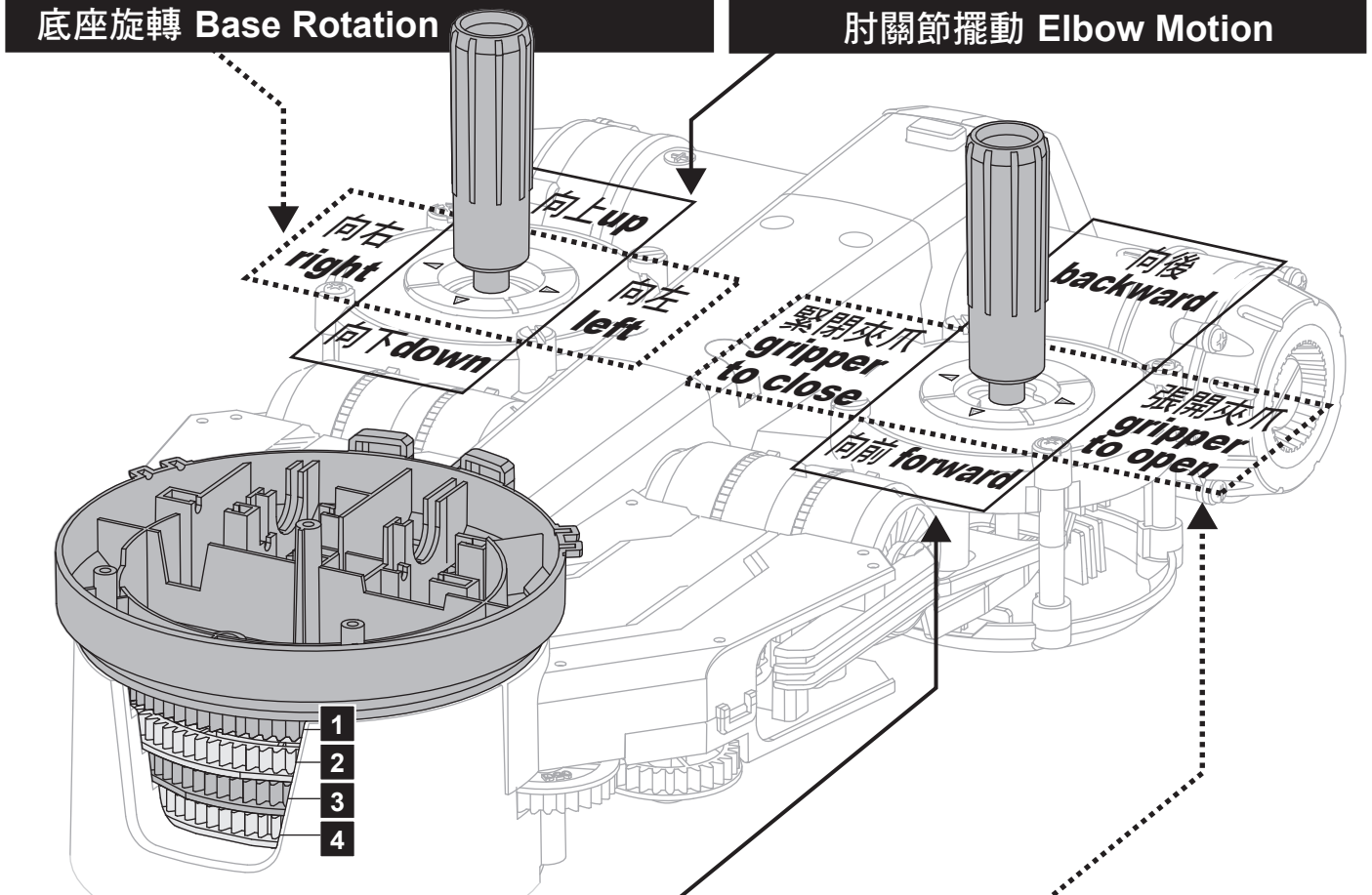




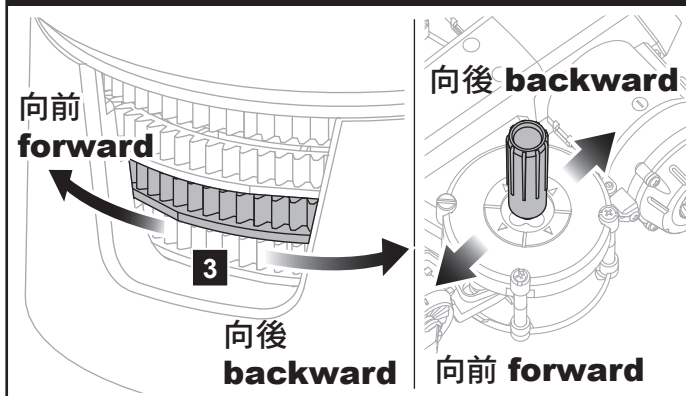
底座旋轉 Base Rotation



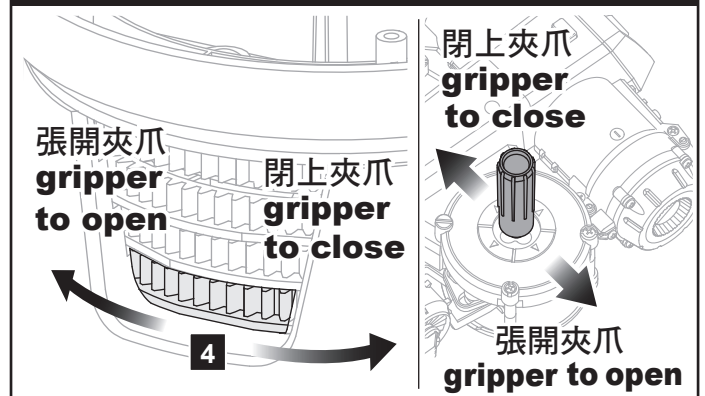
肘關節擺動 Elbow Motion



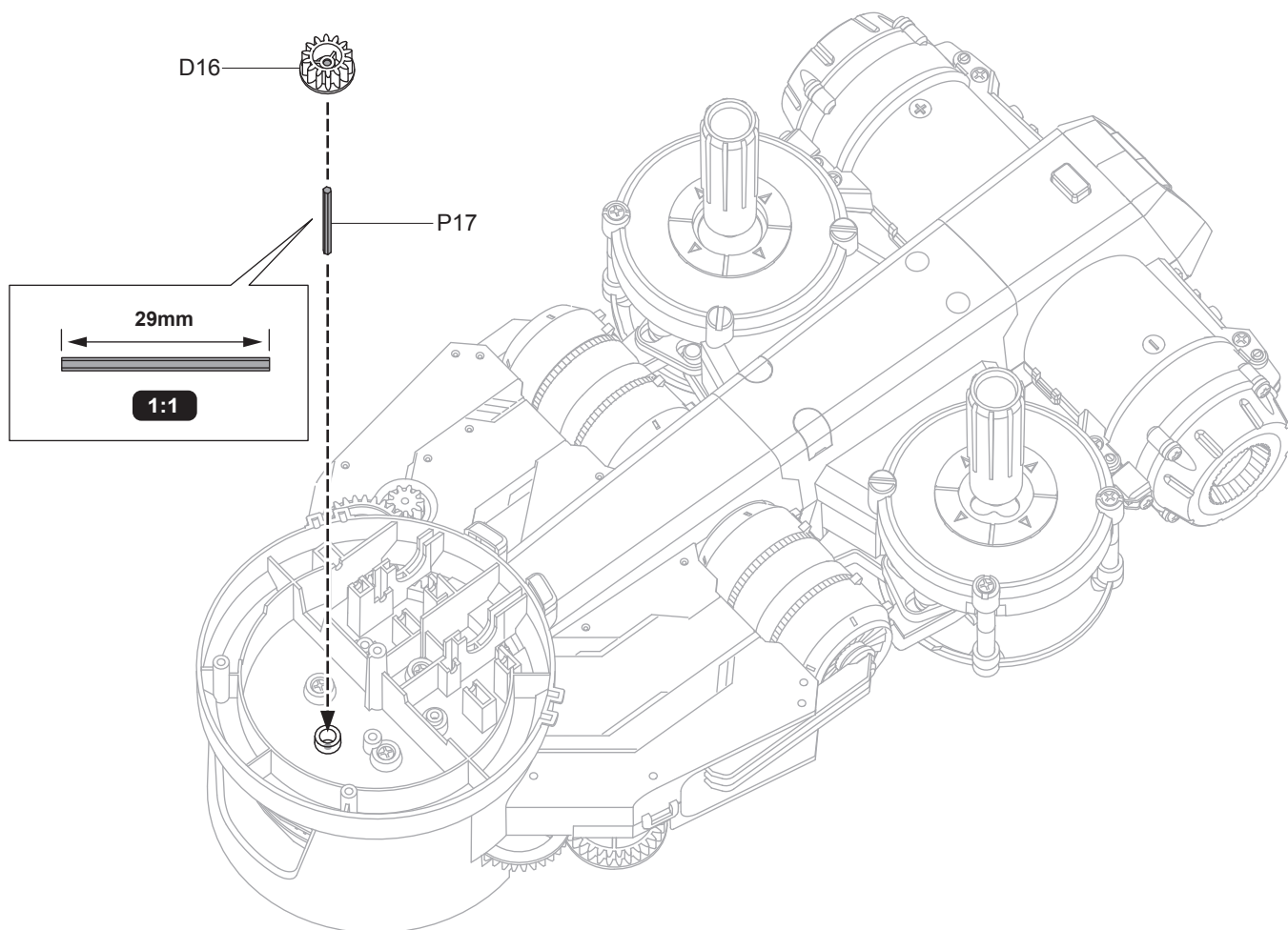
腕關節擺動 Gripper Shoulder Motion



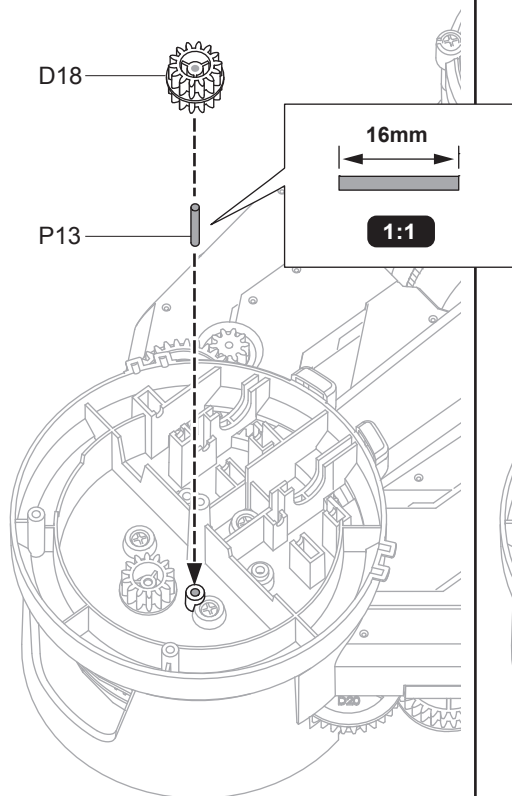
夾爪動作 Gripper



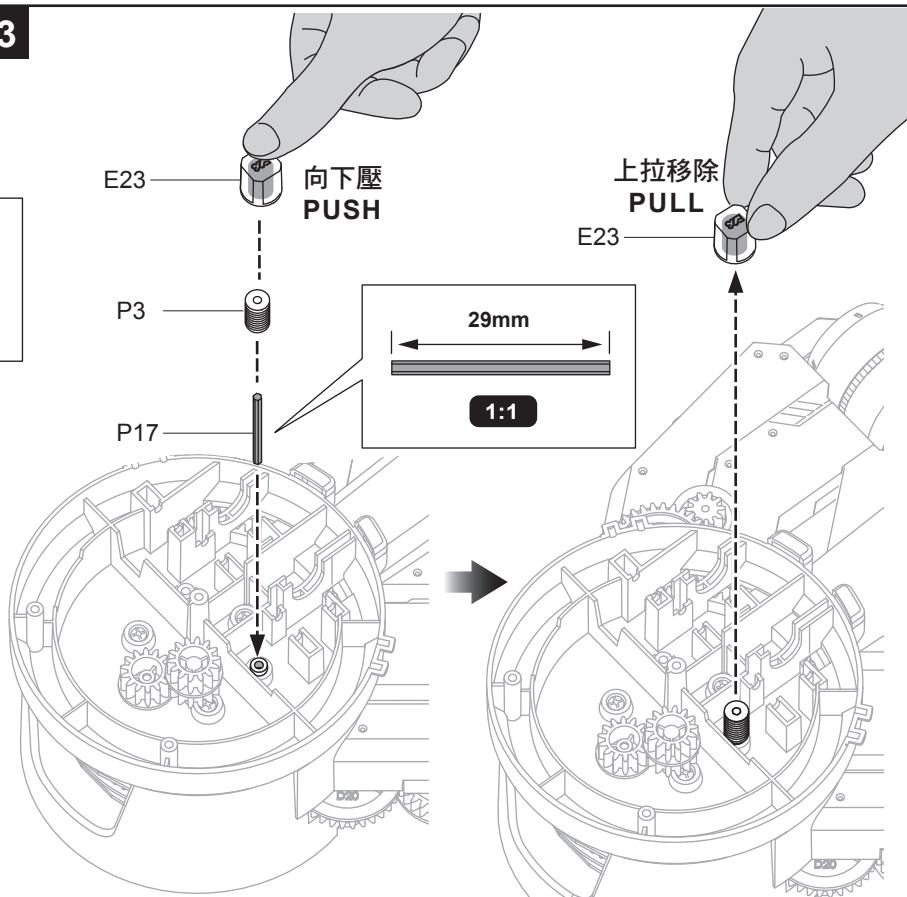
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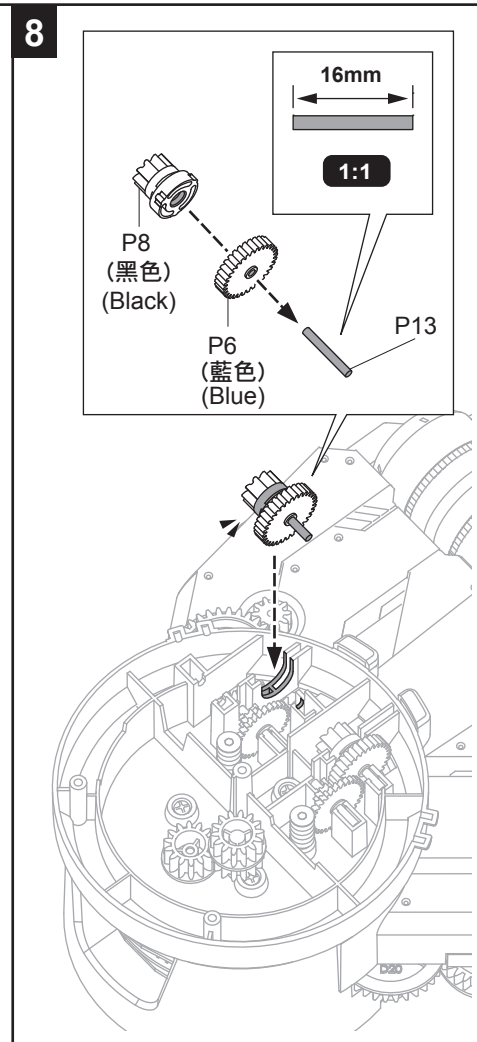
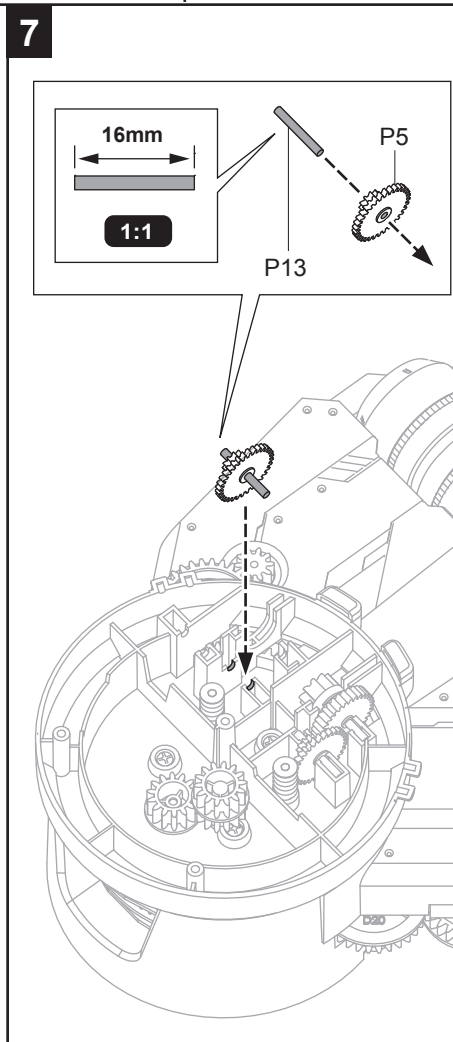
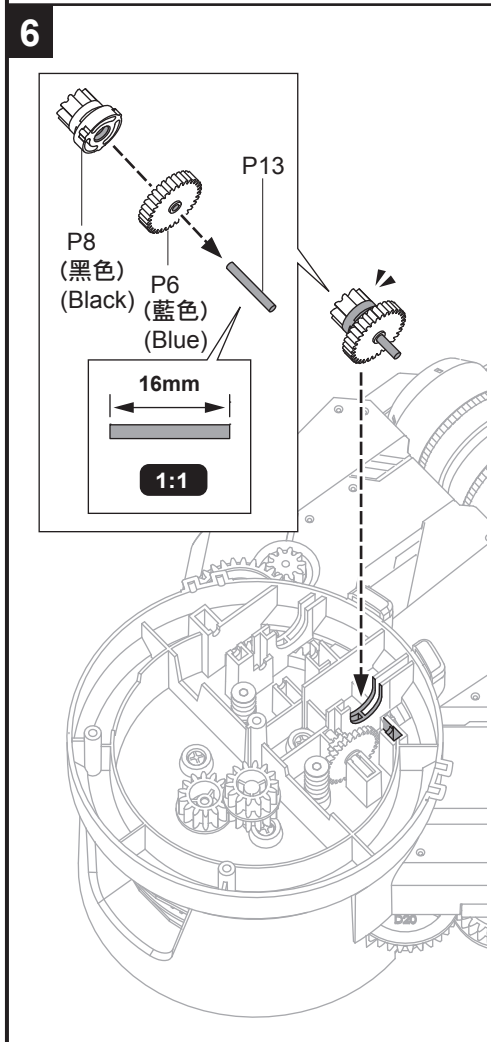
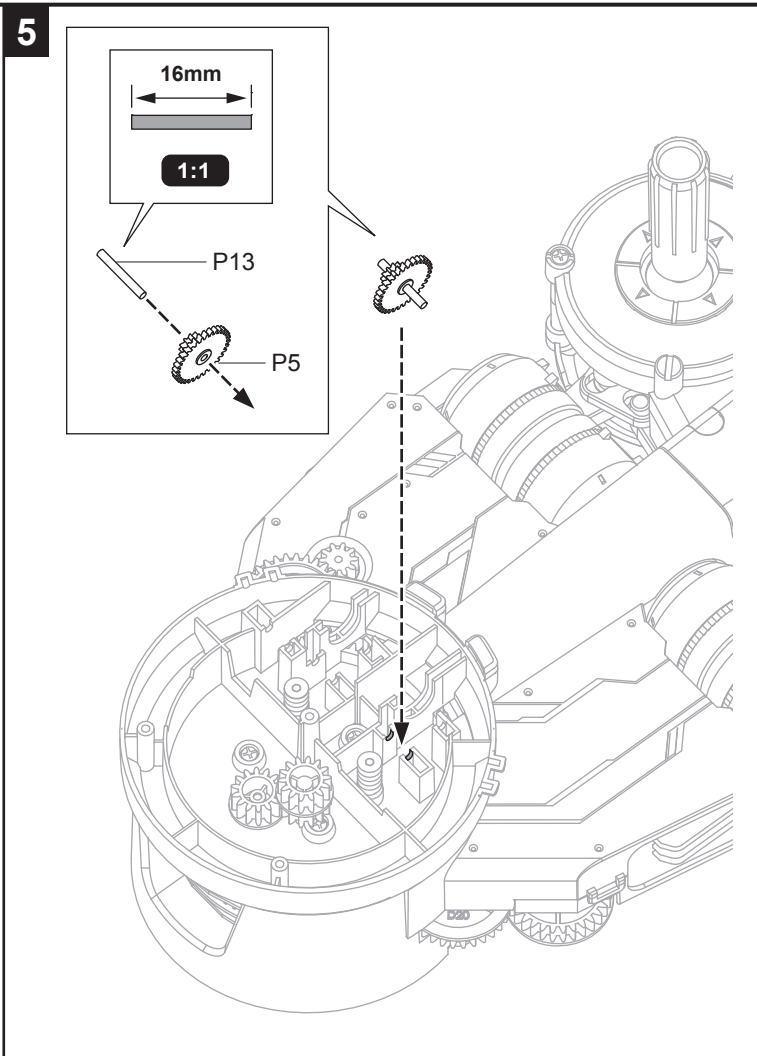
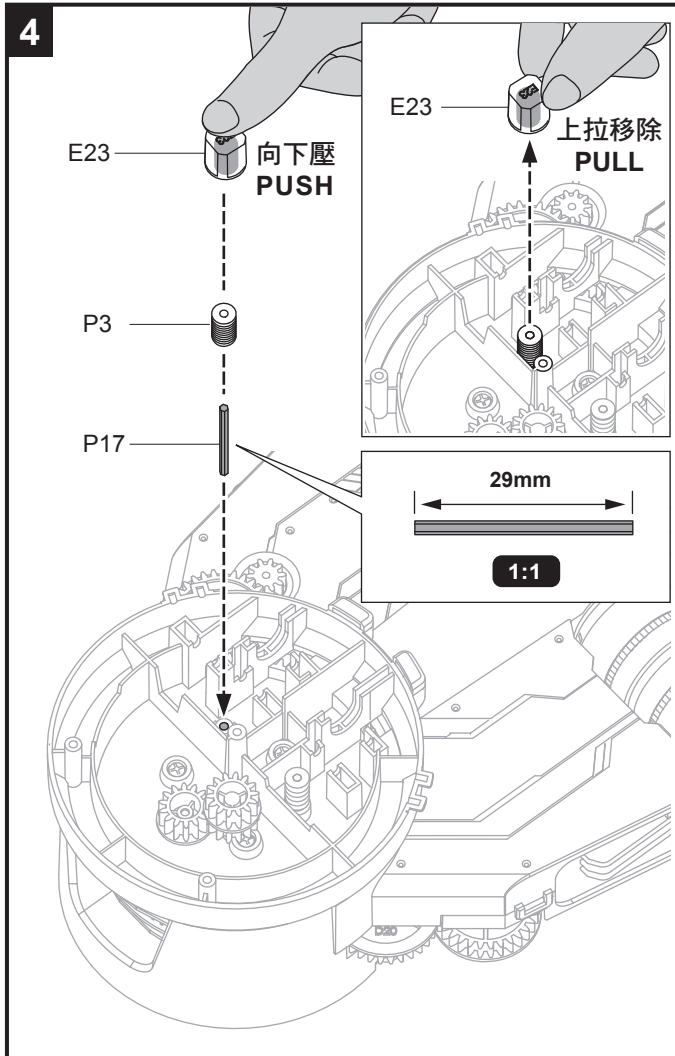


2

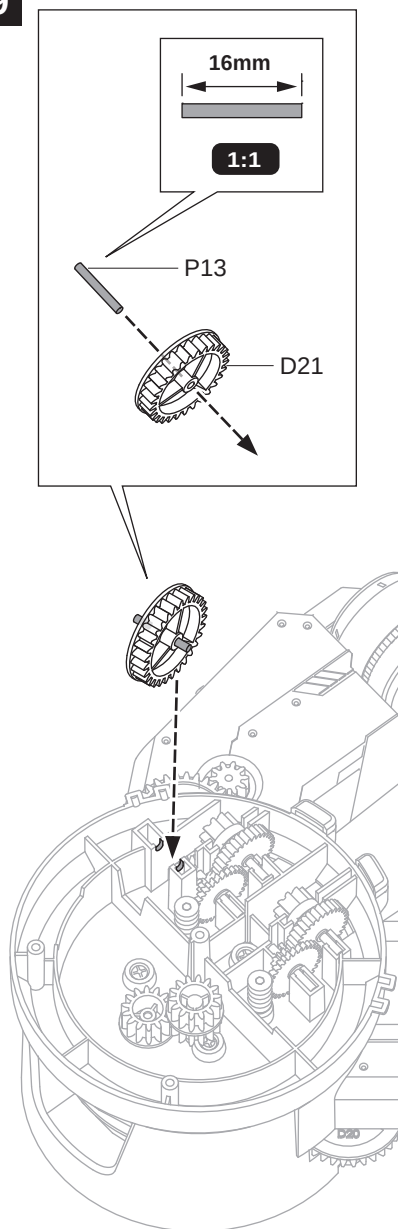


3

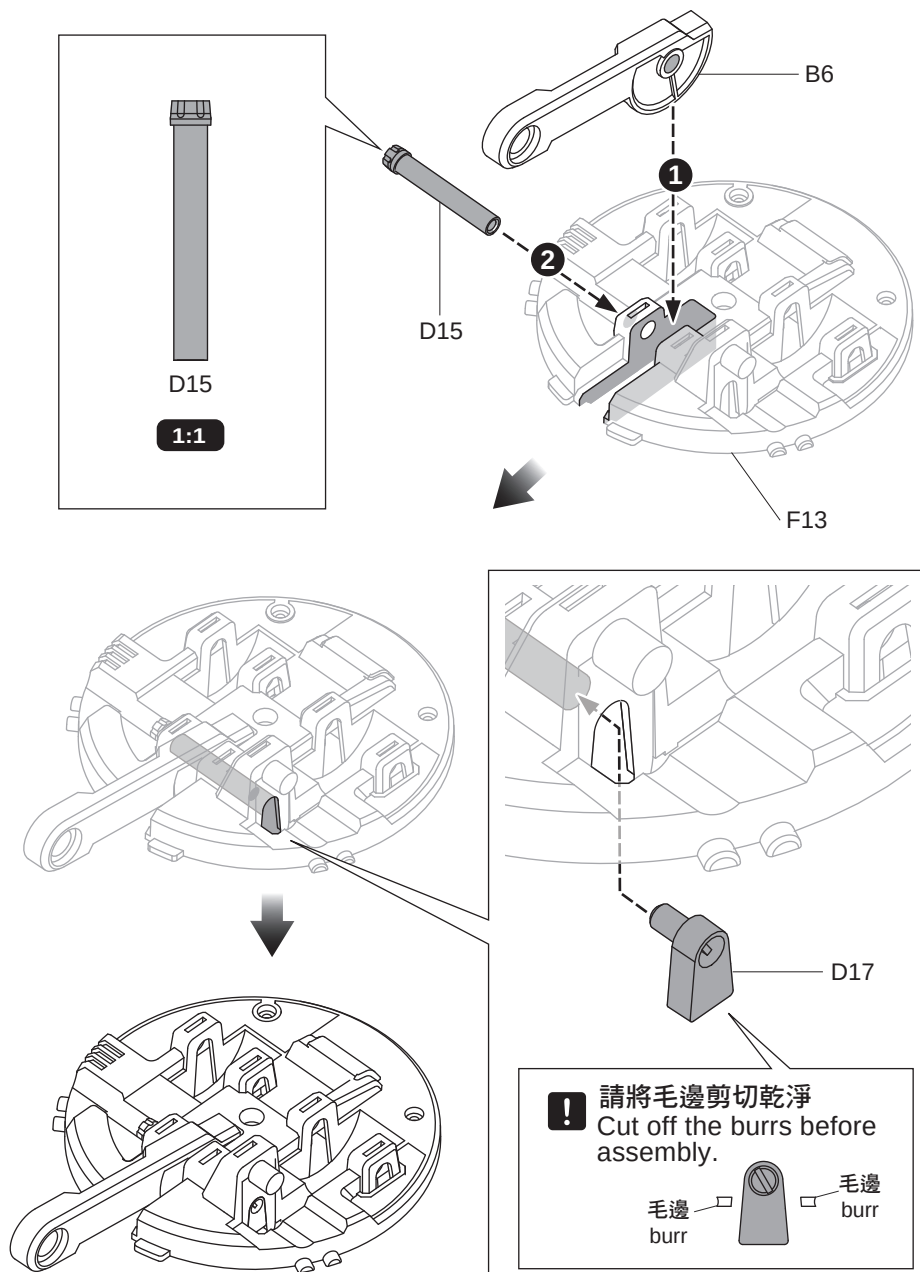




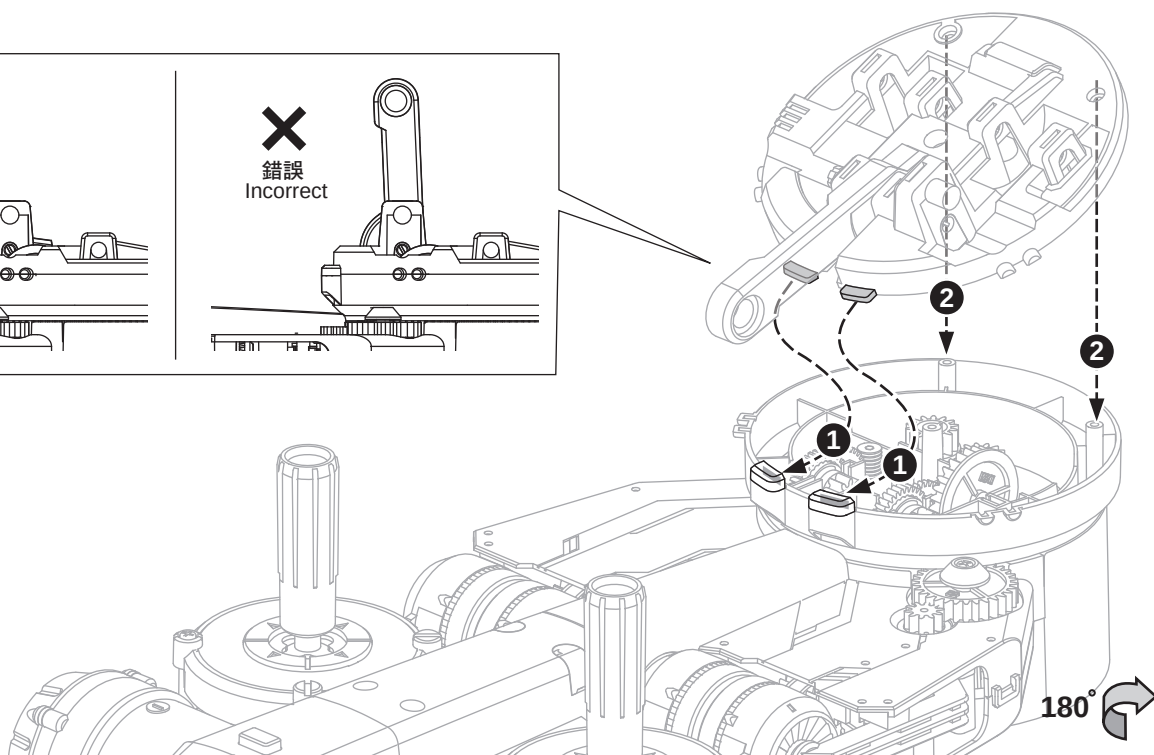
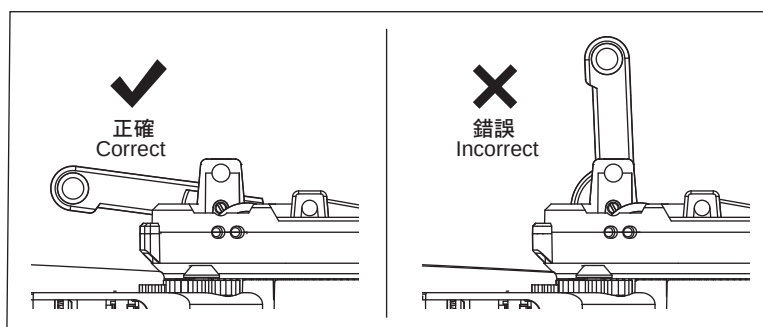
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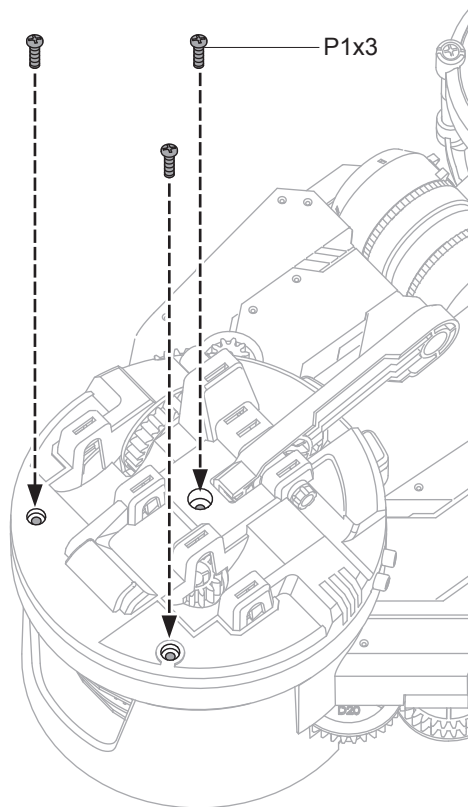
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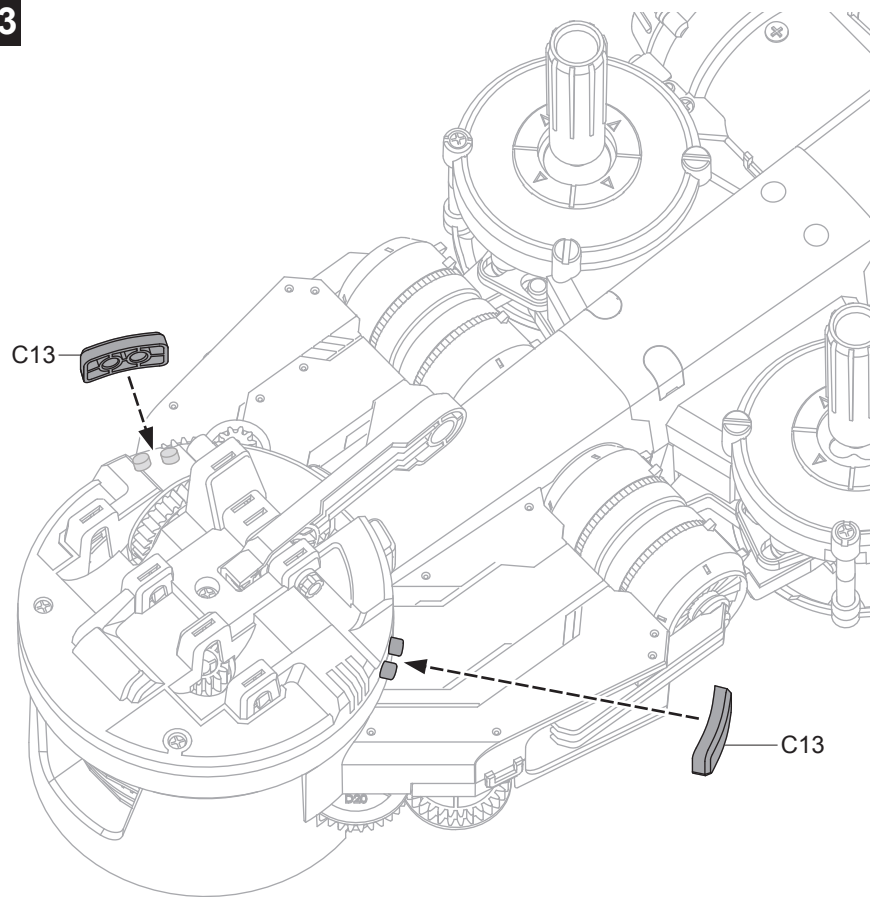
11



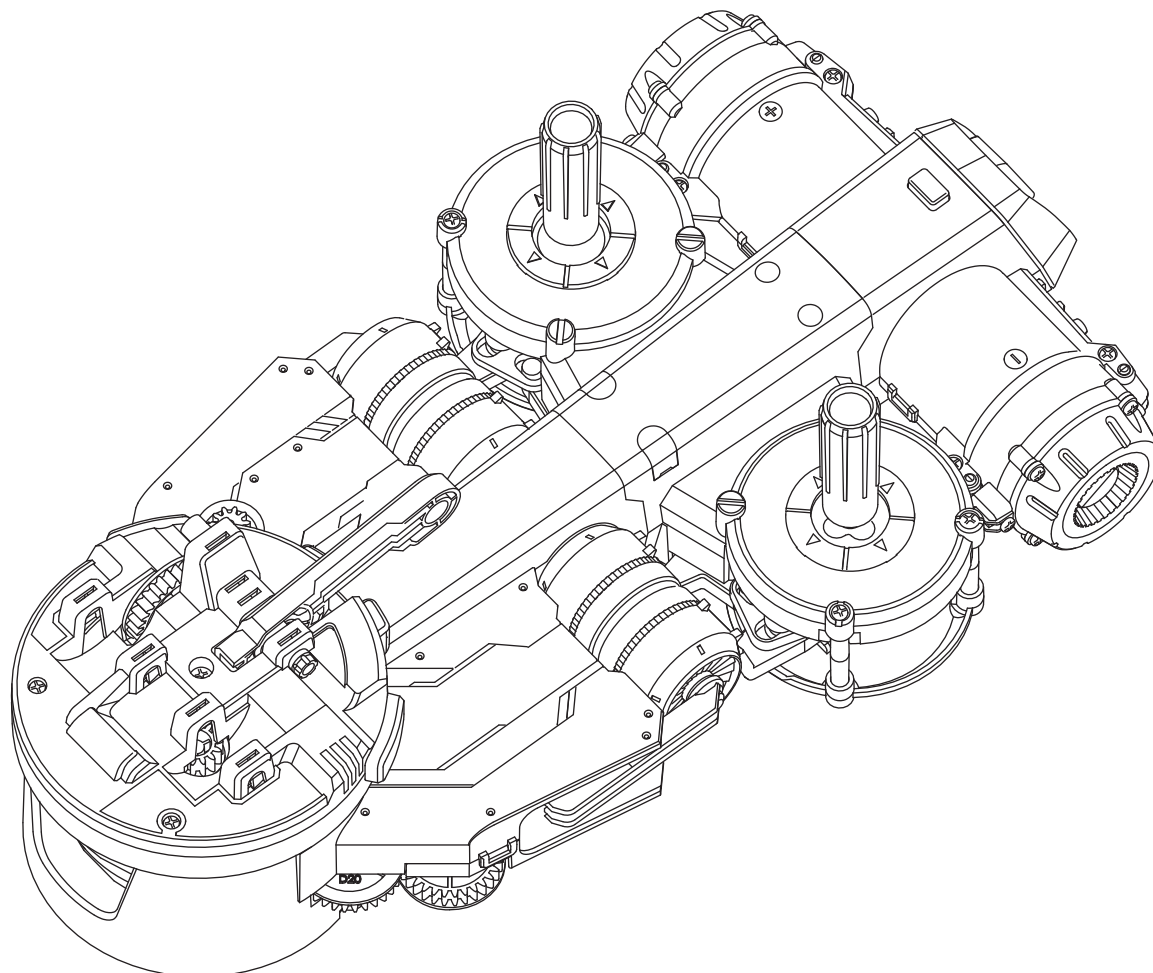
12



13

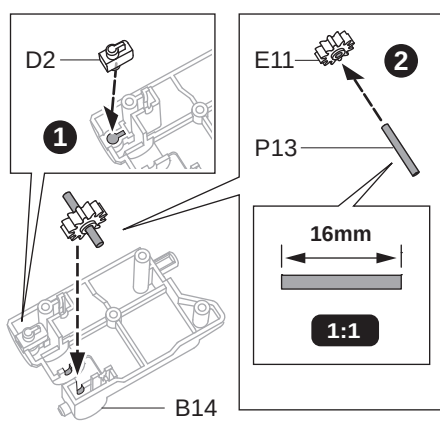


14

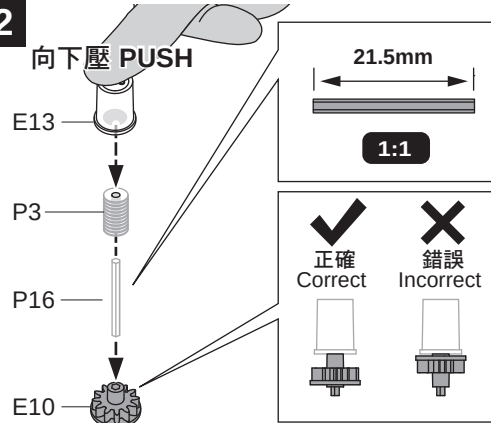


夾爪組裝 Gripper Assembly

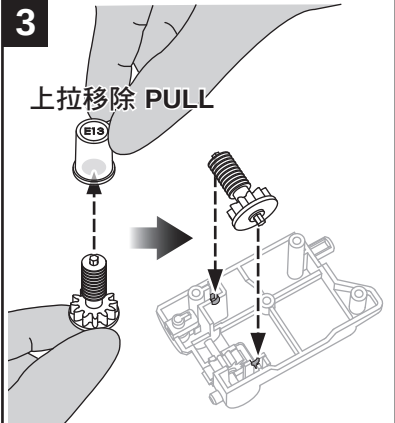
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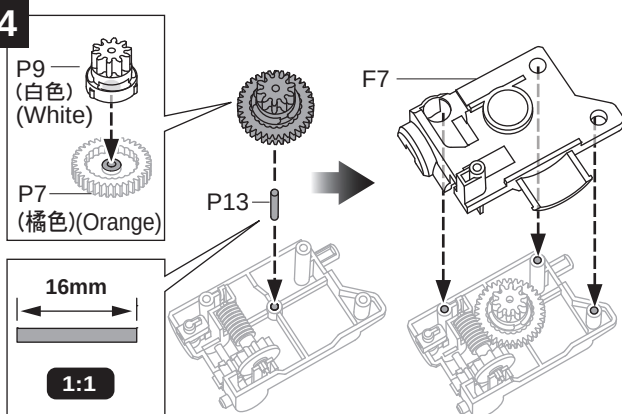
2



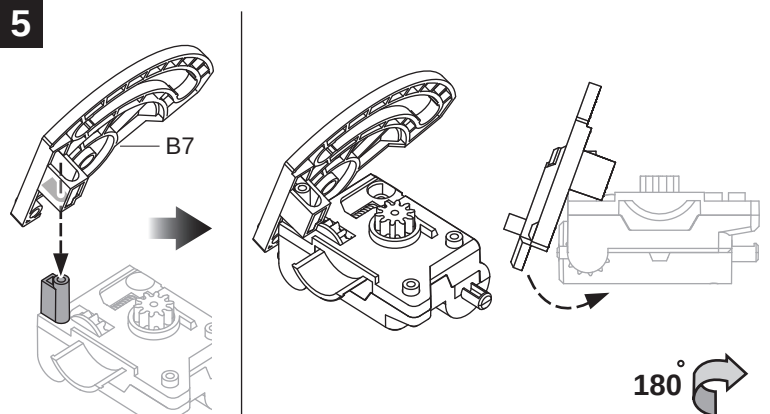
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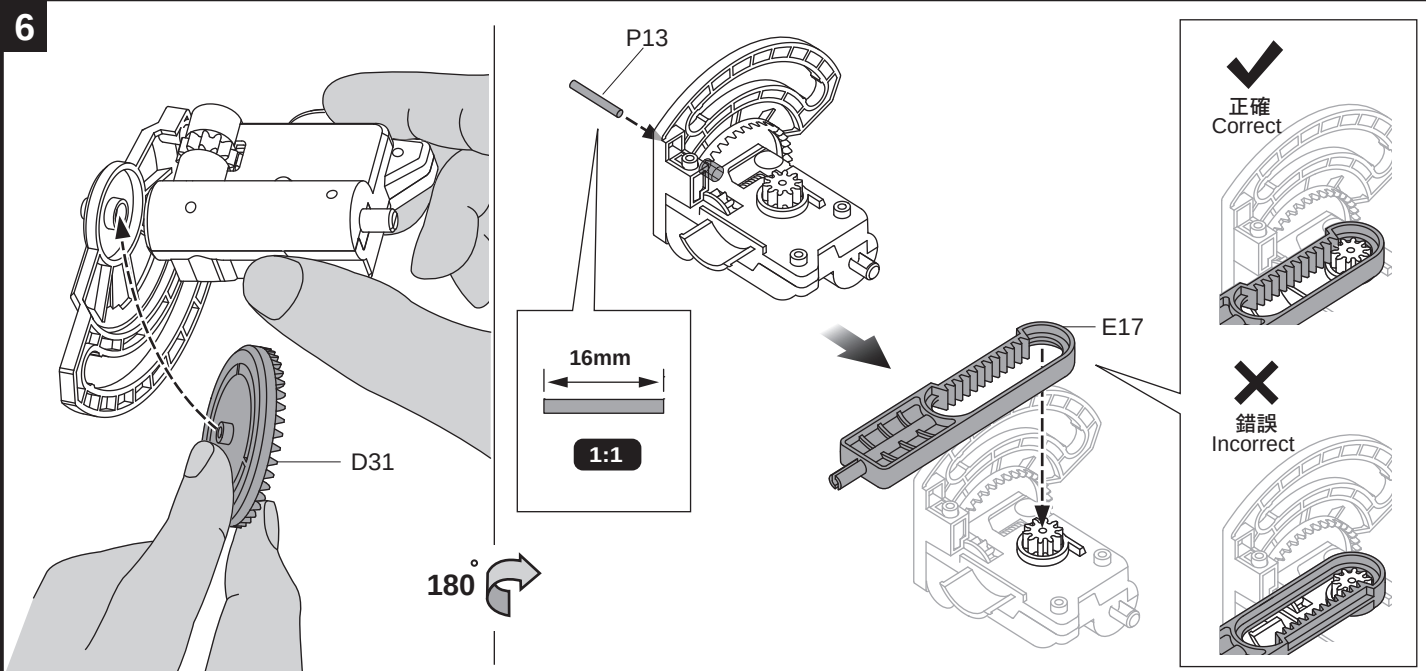
4



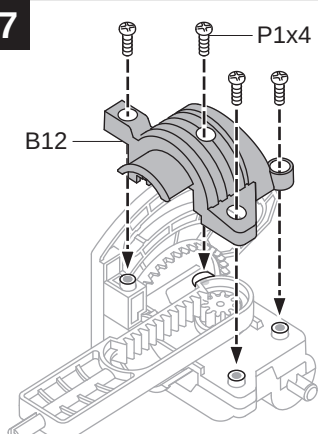
5



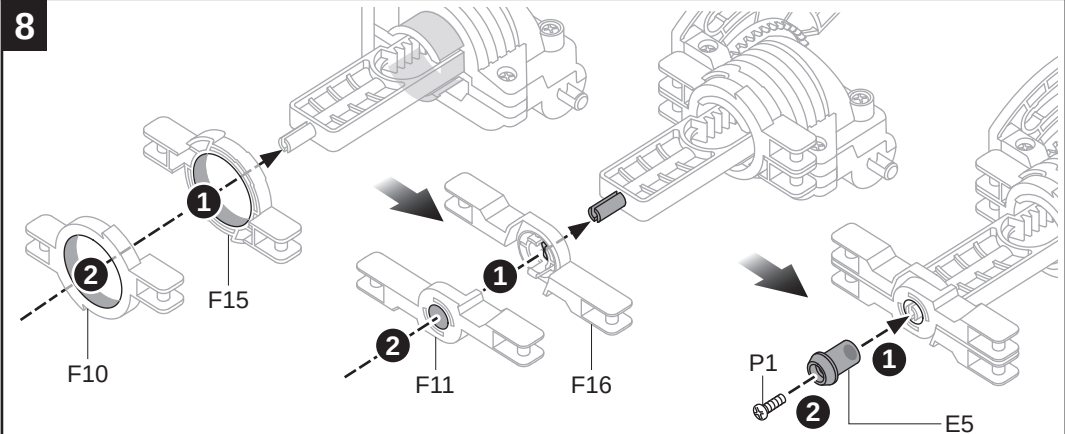
6



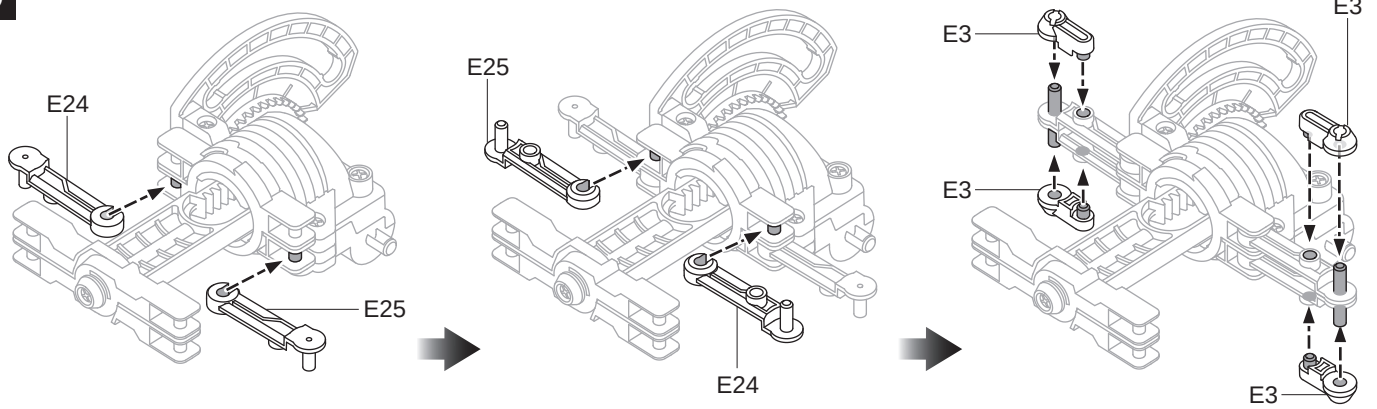
7



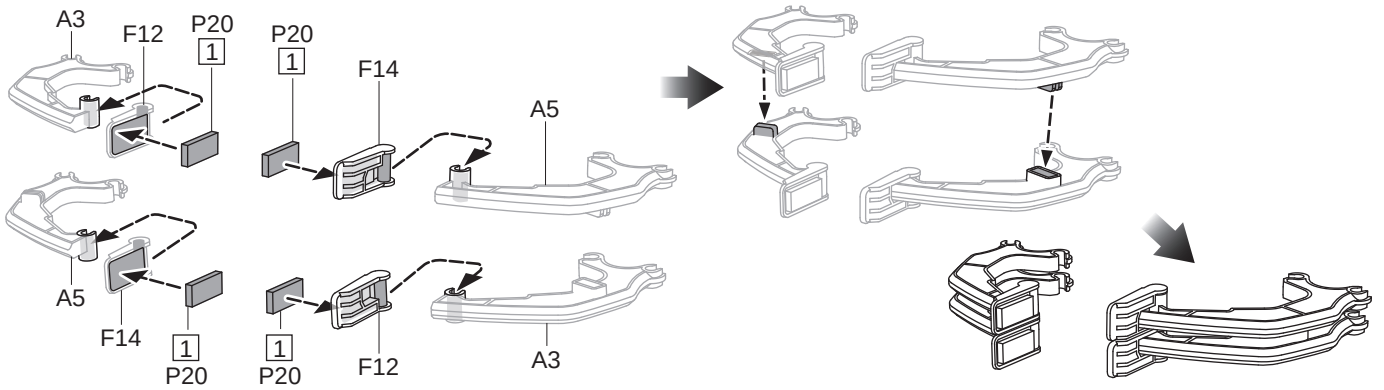
8



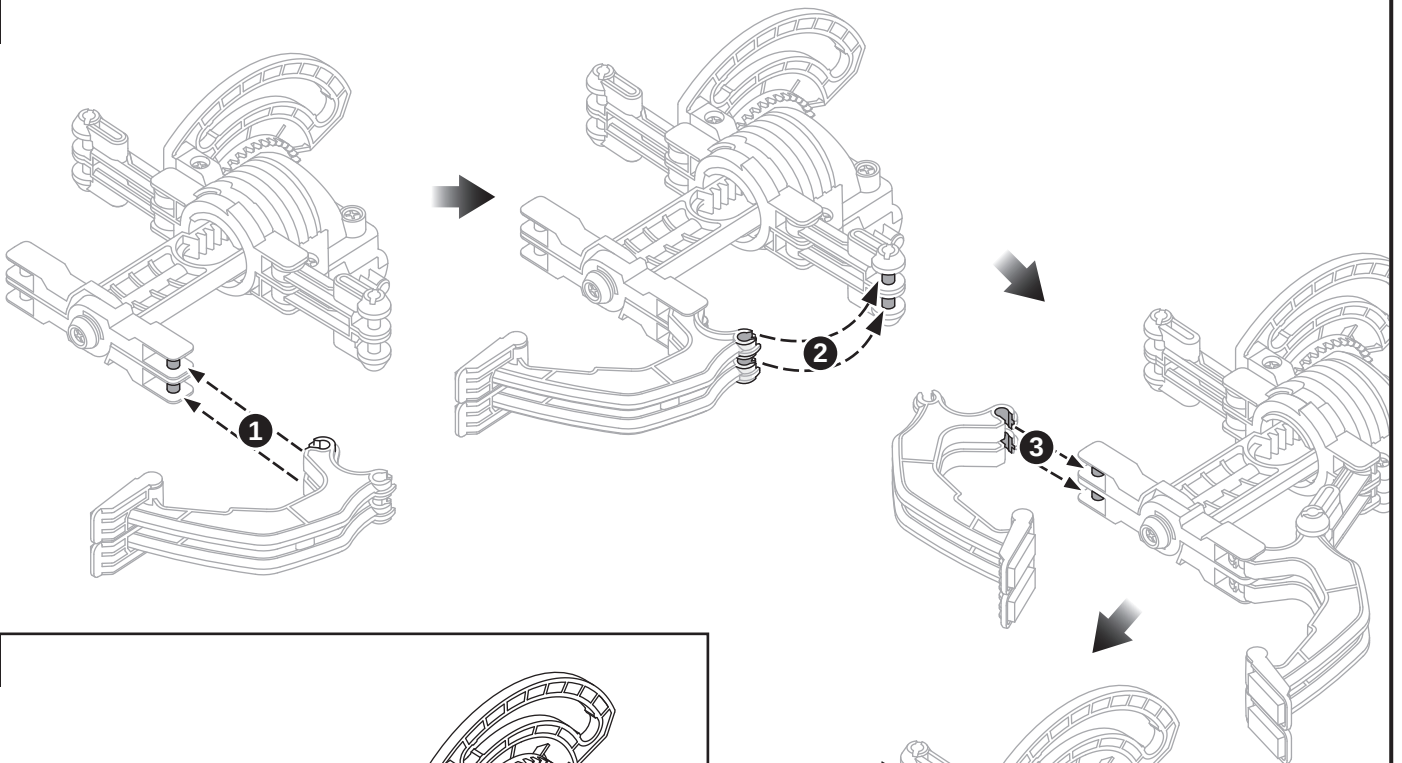
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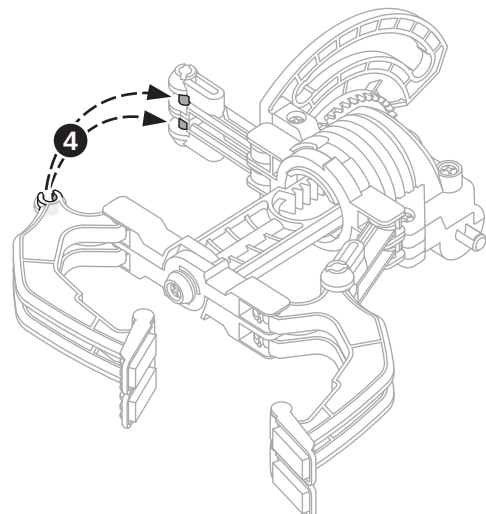
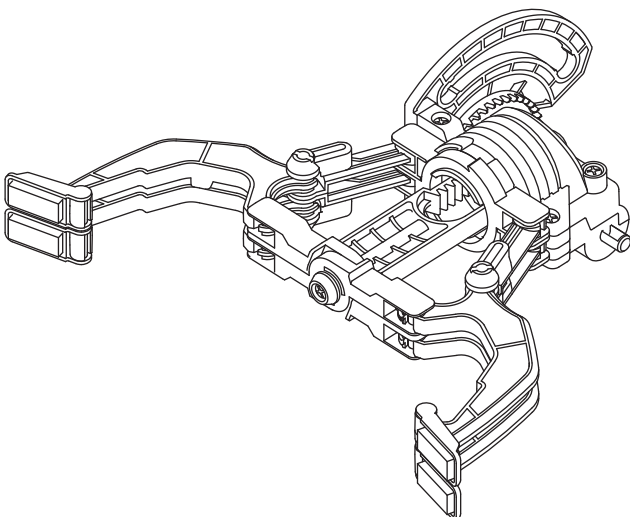
10



11

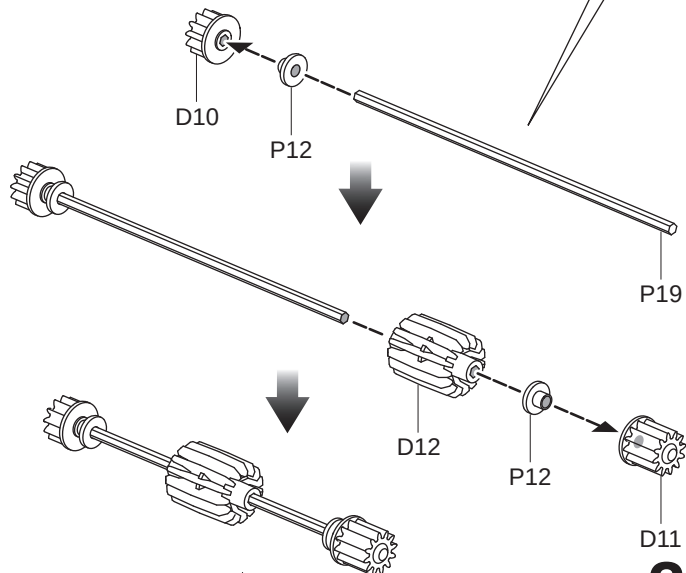
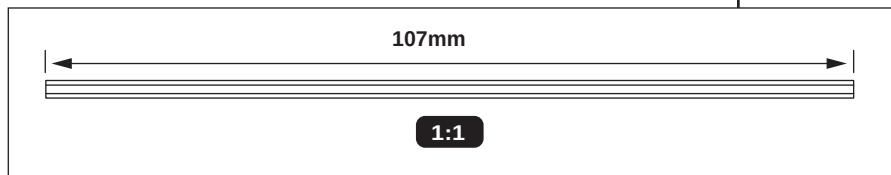


12



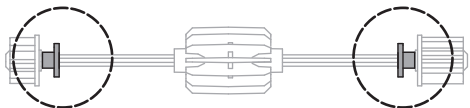
手臂組裝 Arm Assembly

1

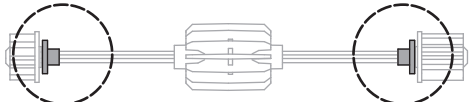


x2
請做2組

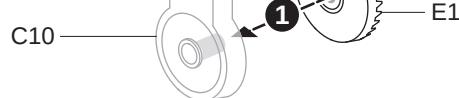
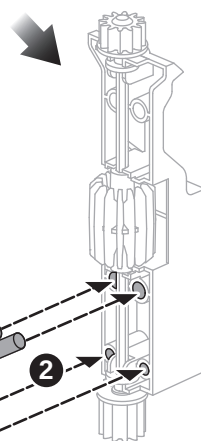
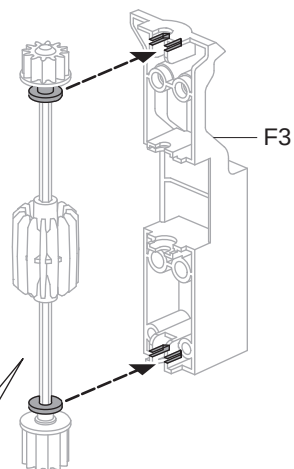
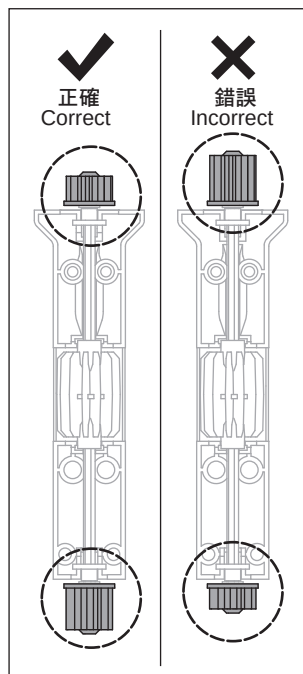
✓
正確
Correct



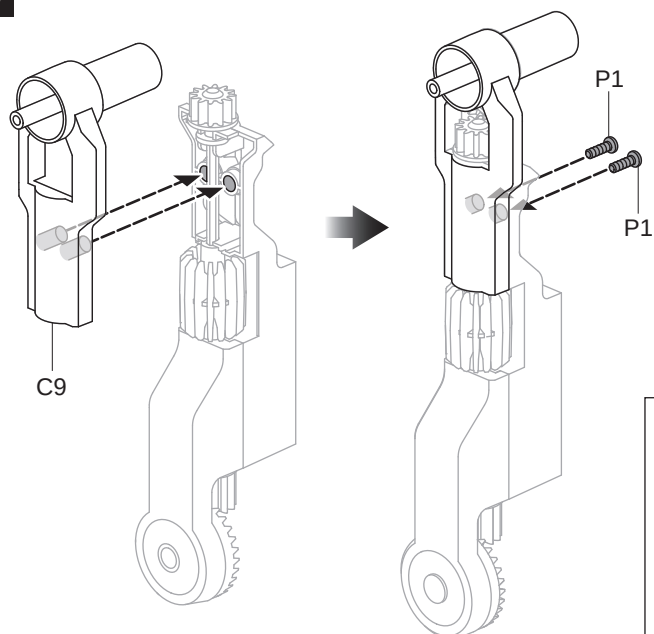
✗
錯誤
Incorrect



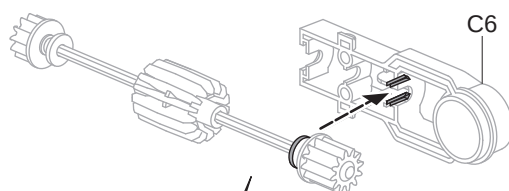
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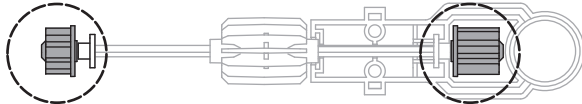
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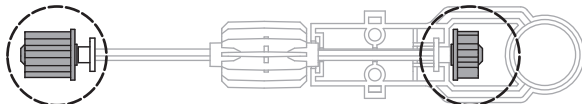
4



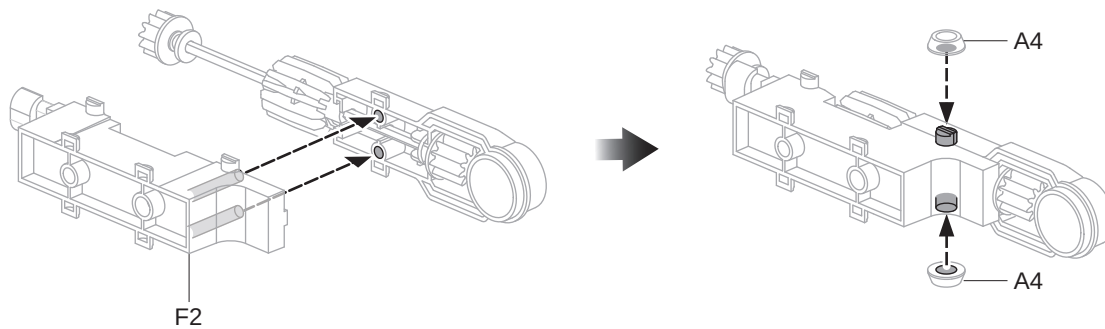
✓
正確
Correct



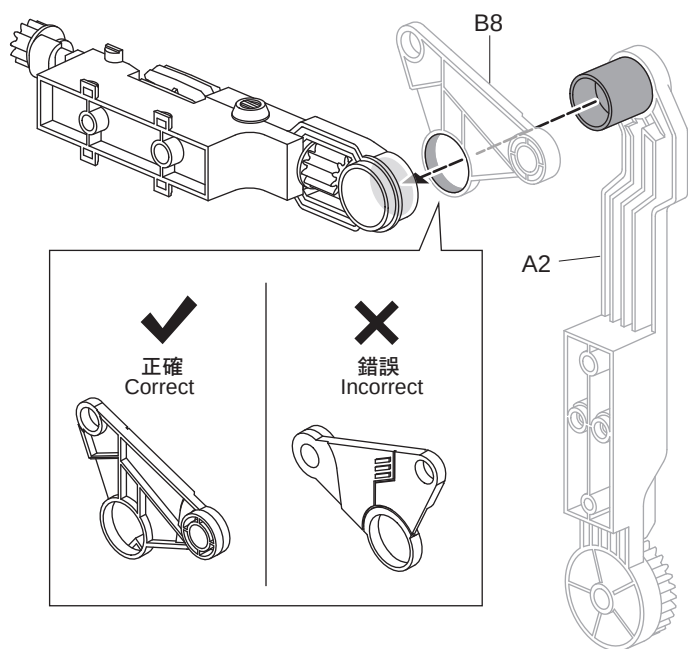
✗
錯誤
Incorrect



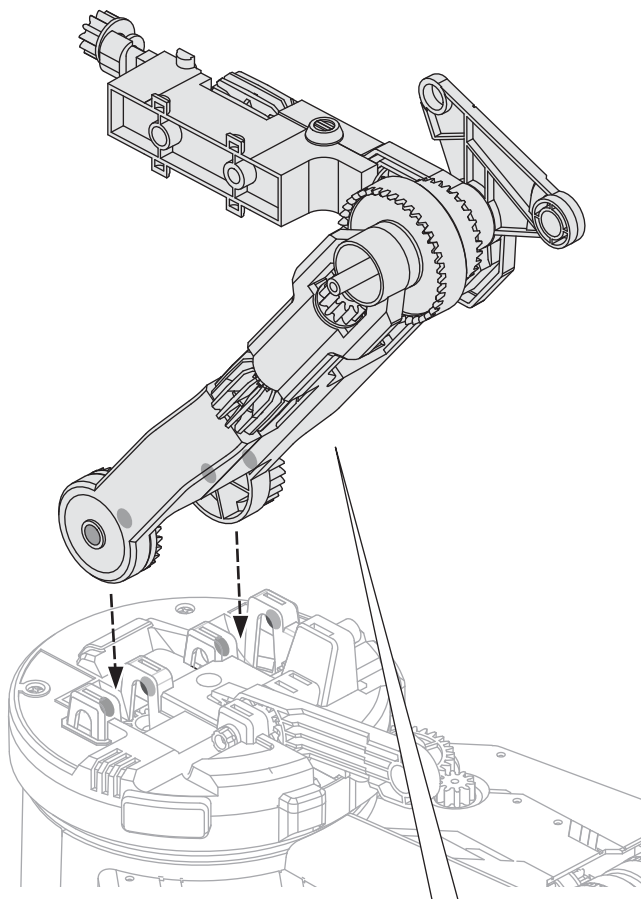
5



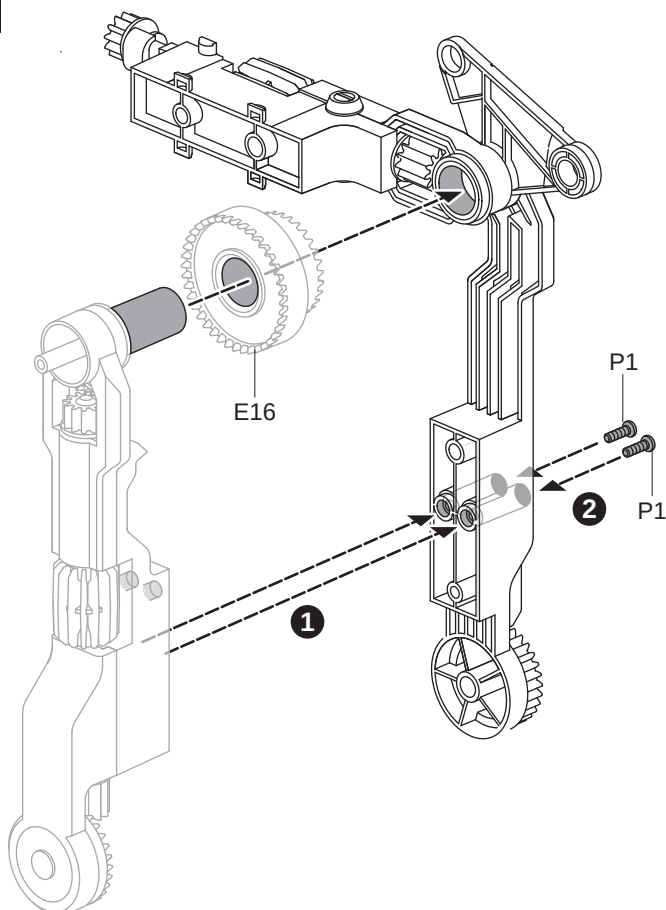
6



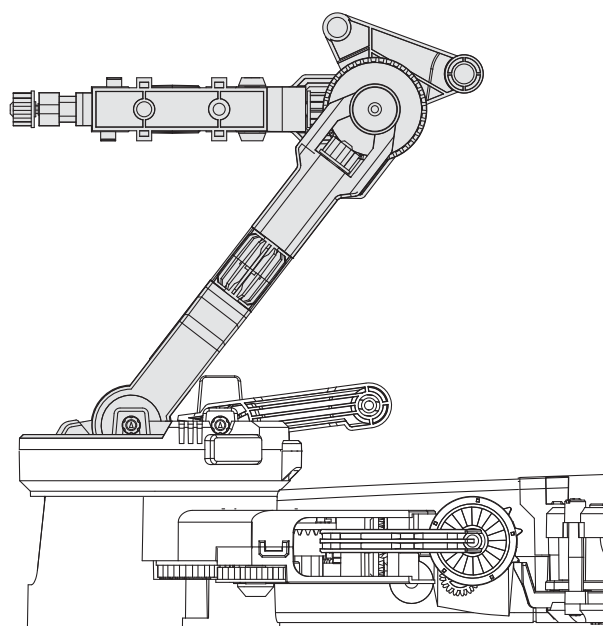
8



7

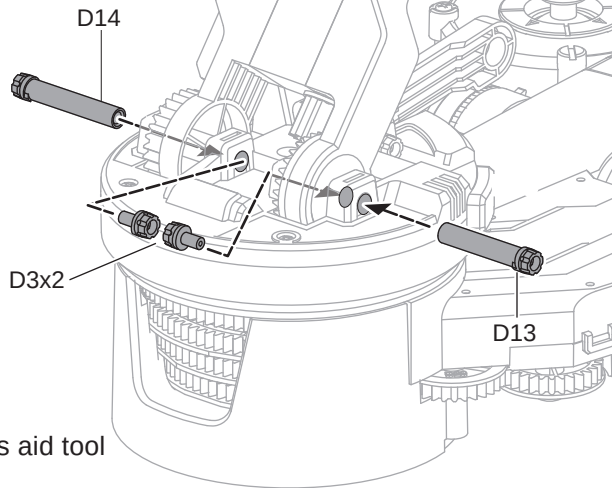
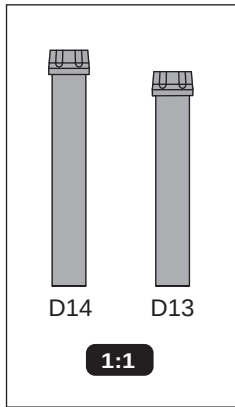


側視圖
Side View



各部件組合 Final Combination

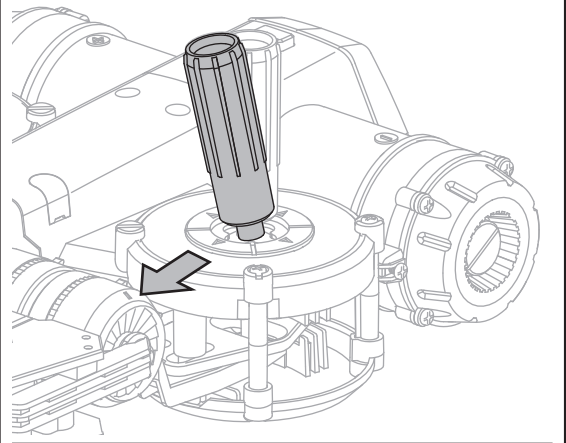
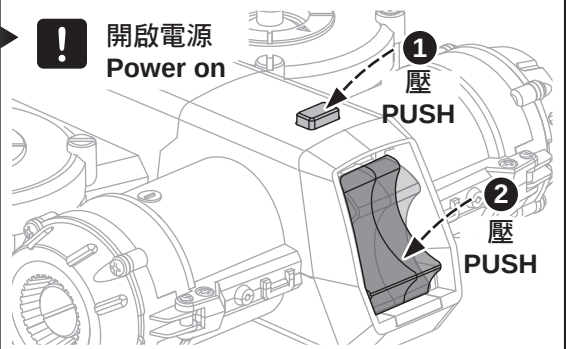
1



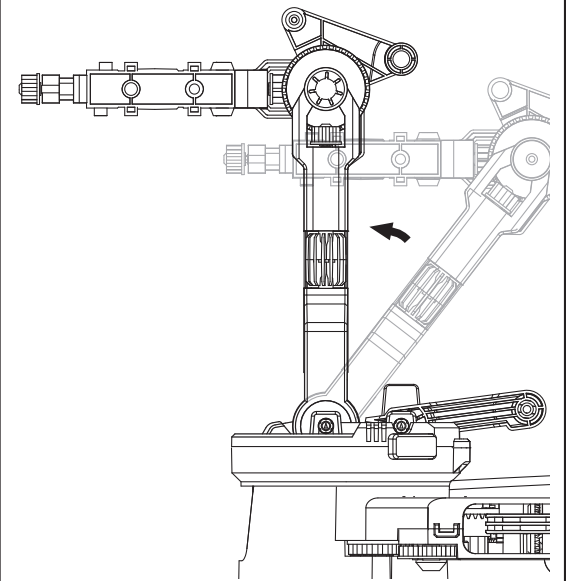
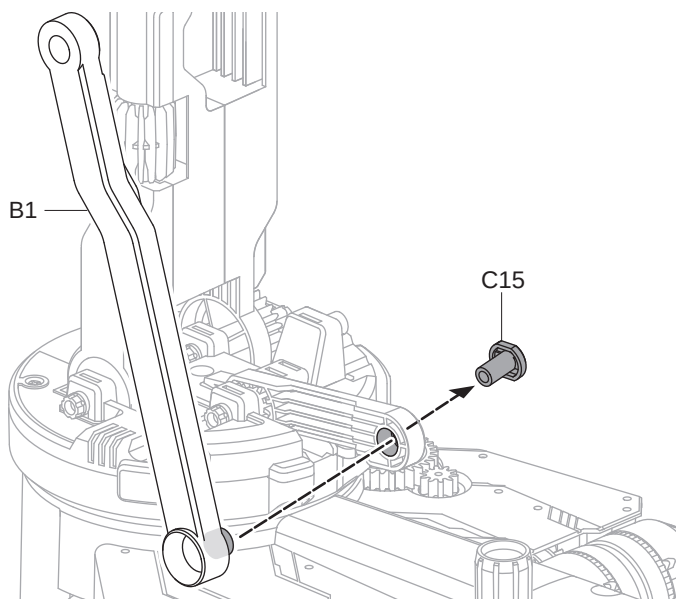
! 使用鑷子協助，
將較容易組裝
Use tweezers as aid tool

前推搖桿讓手臂與底座呈垂直方向
Push the joystick forward and make the arm a vertical position on the base.

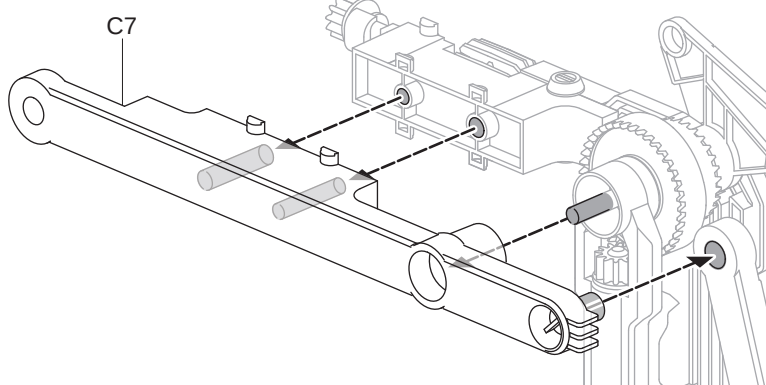
! 開啟電源
Power on



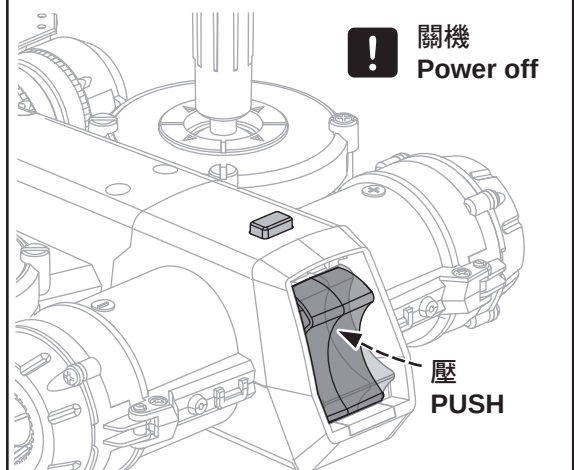
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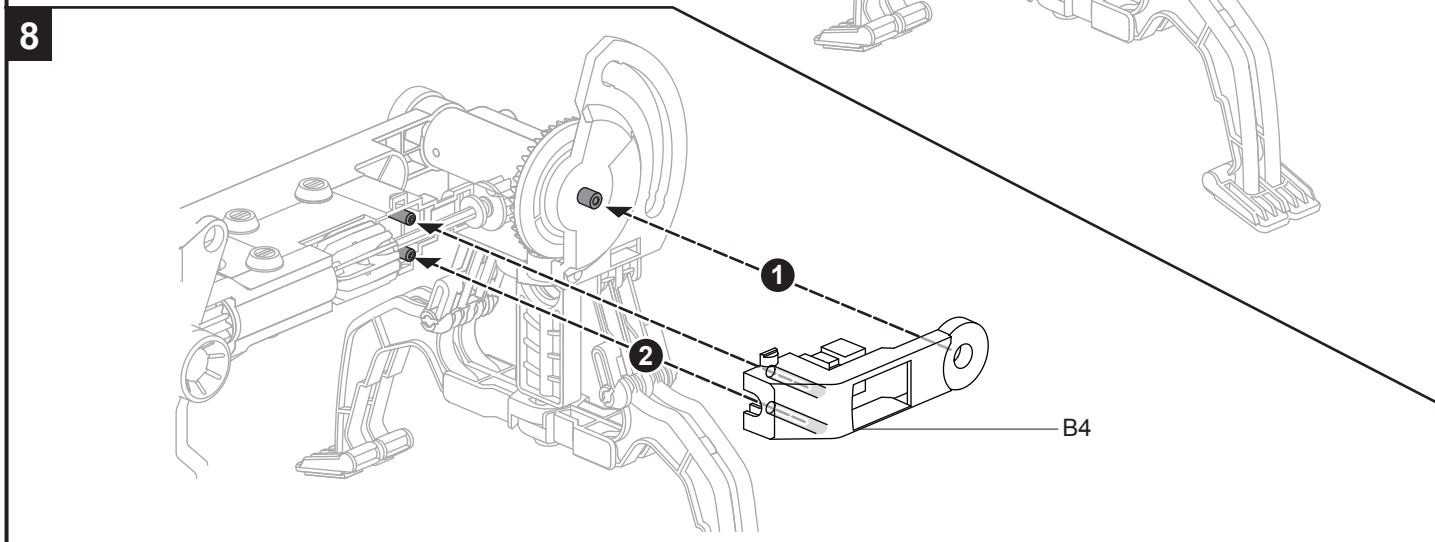
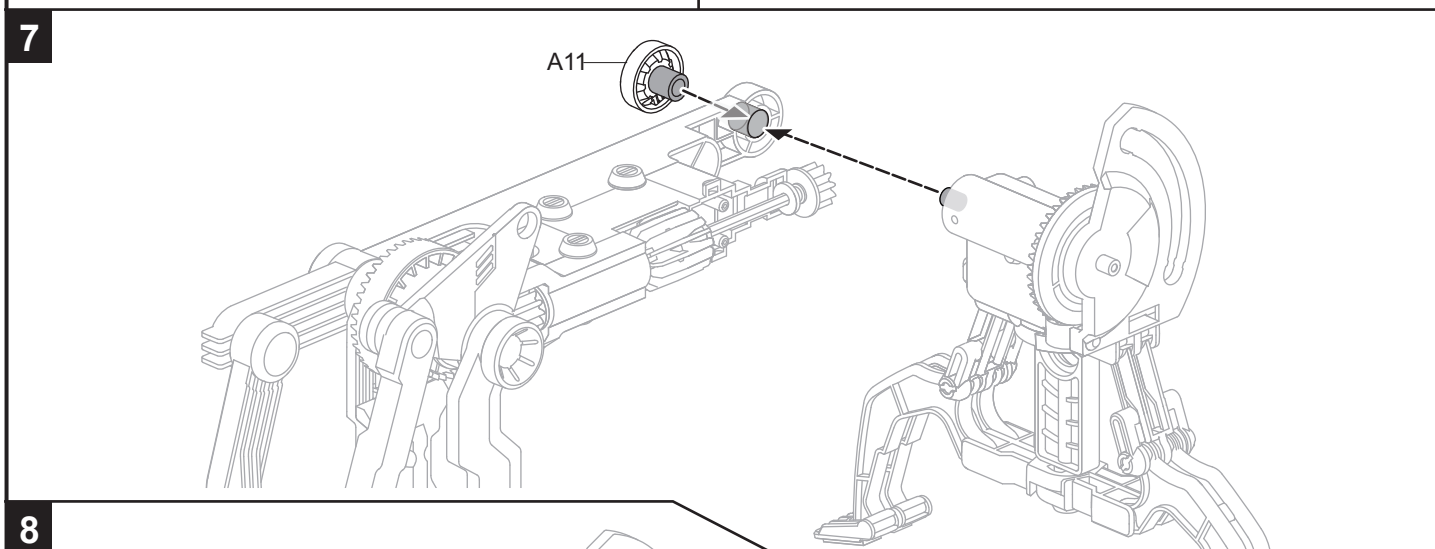
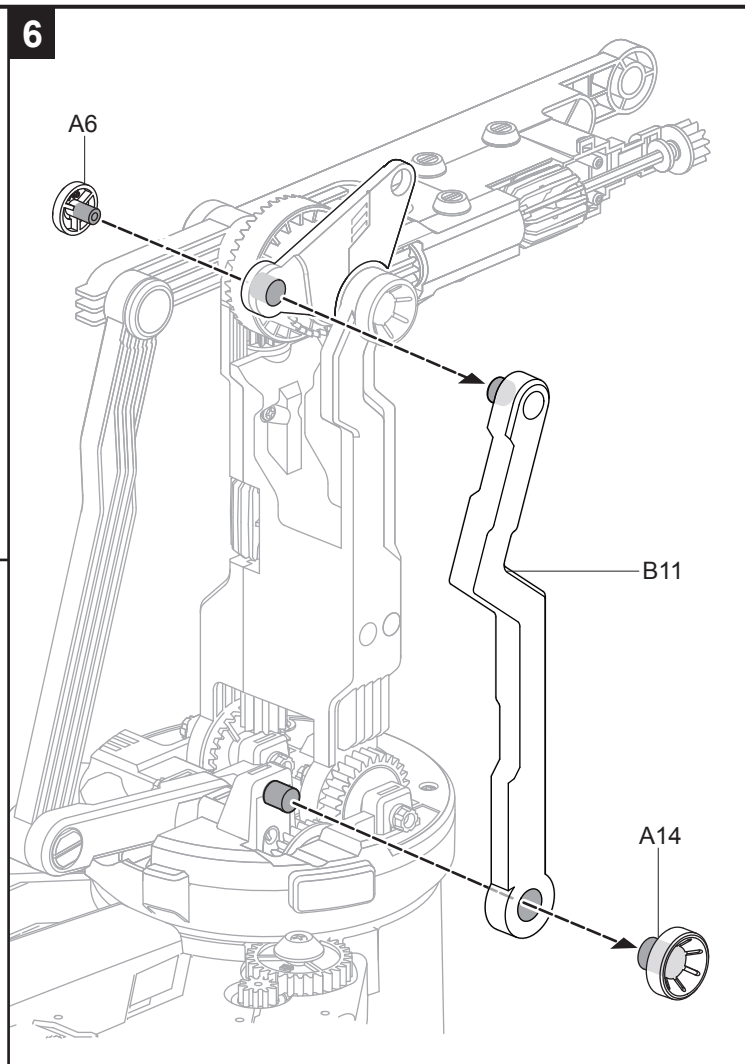
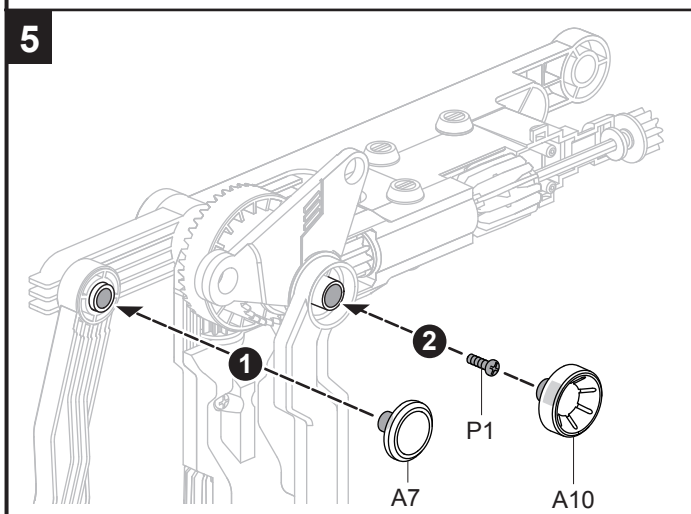
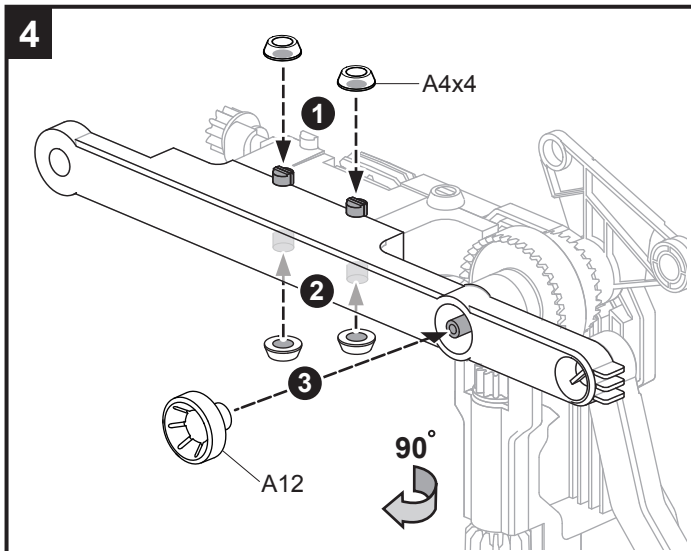


3

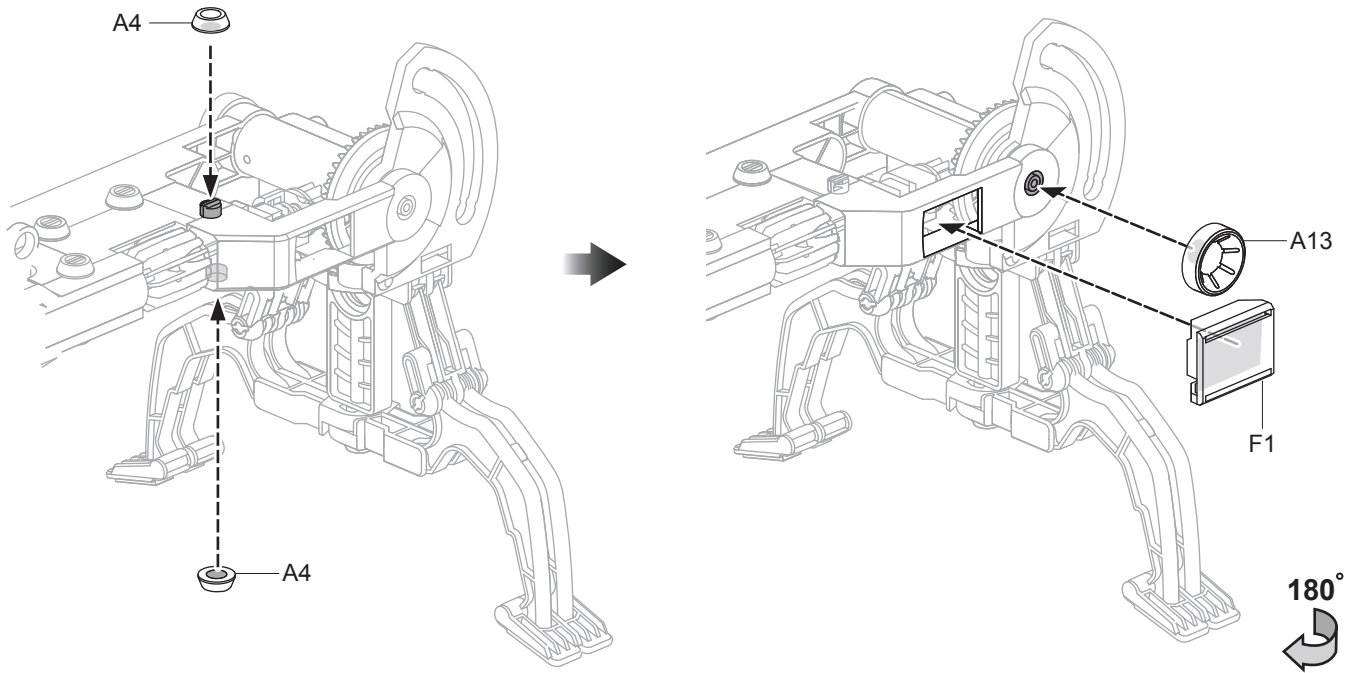


! 關機
Power off

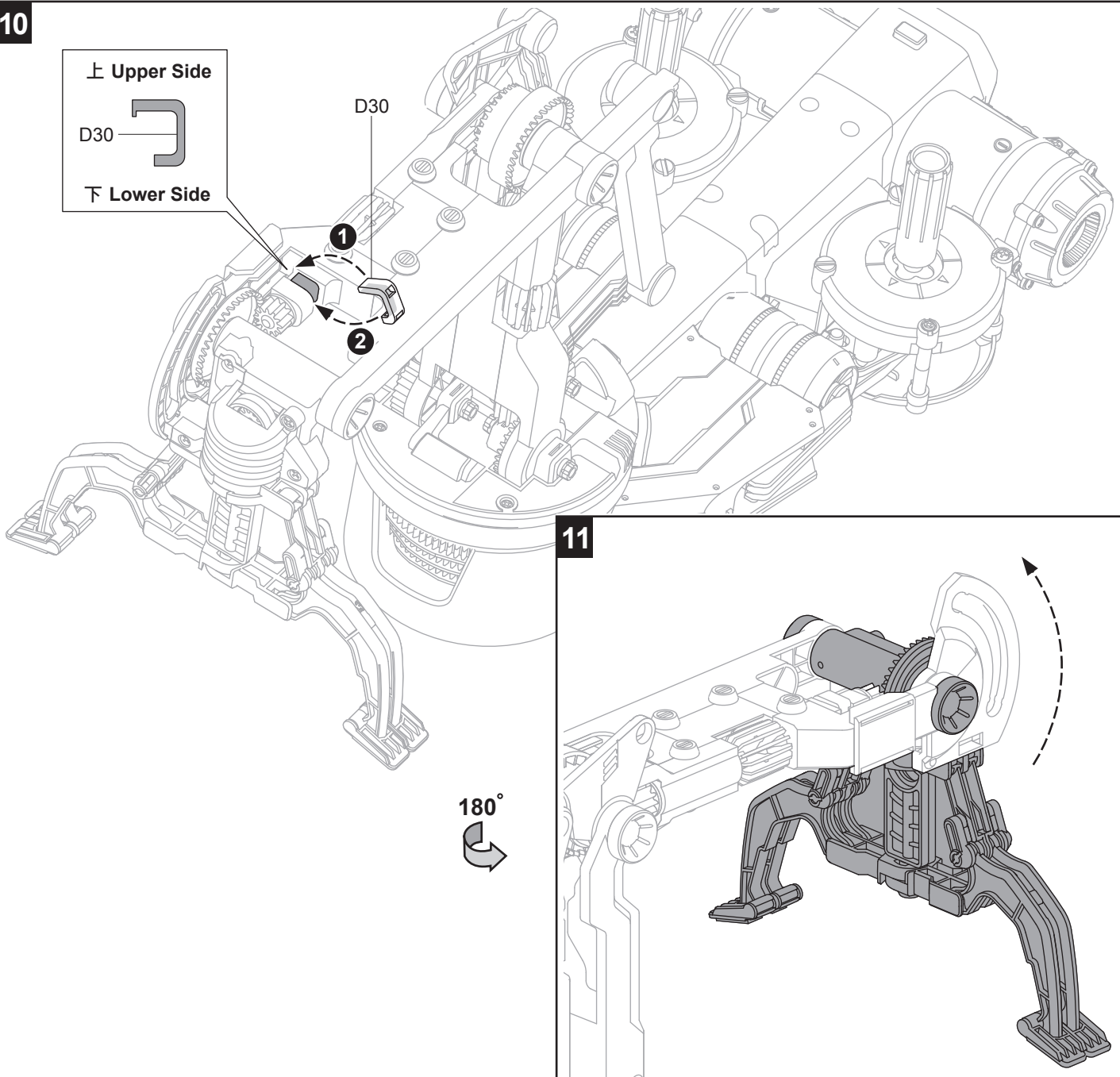




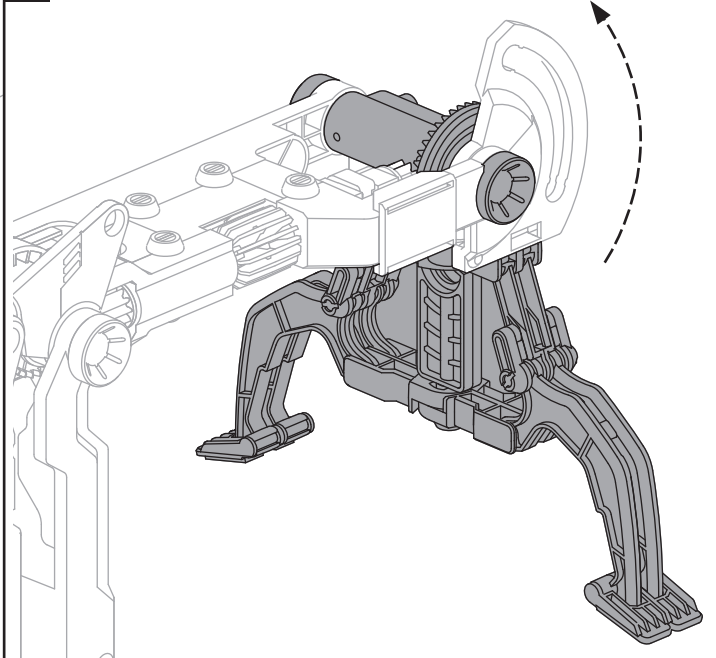
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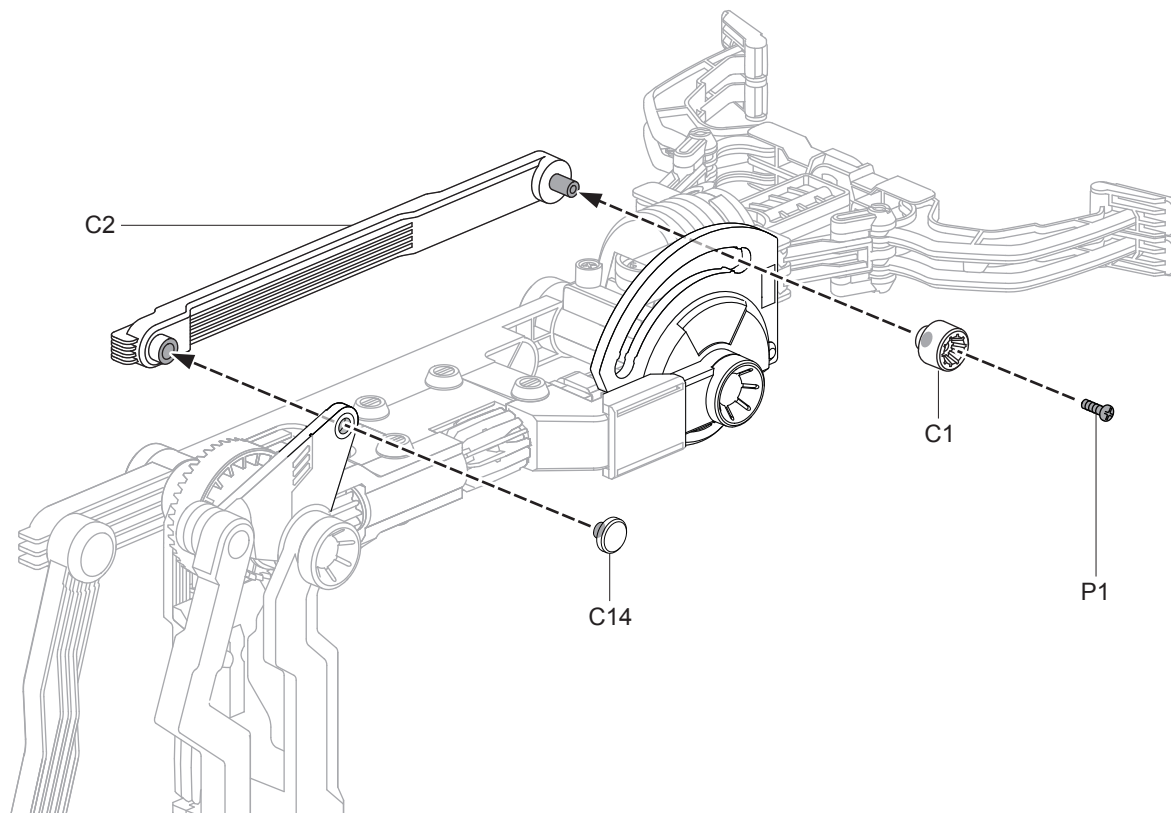
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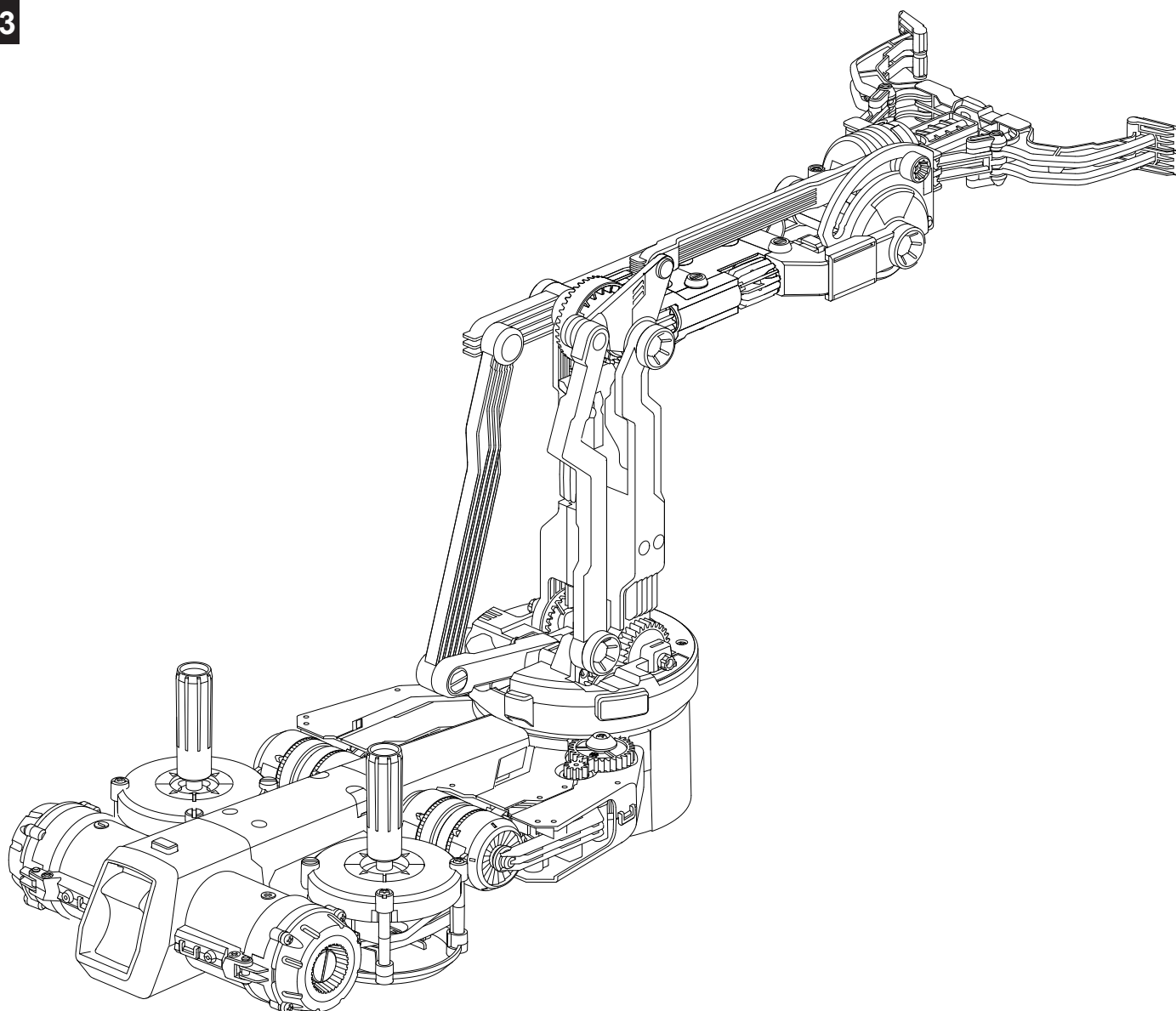
11



12



13

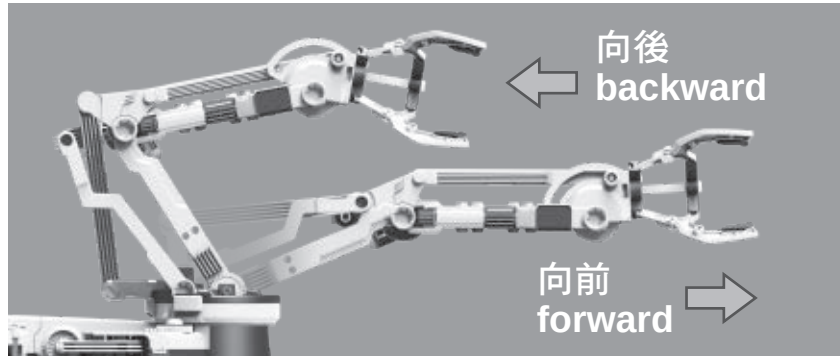
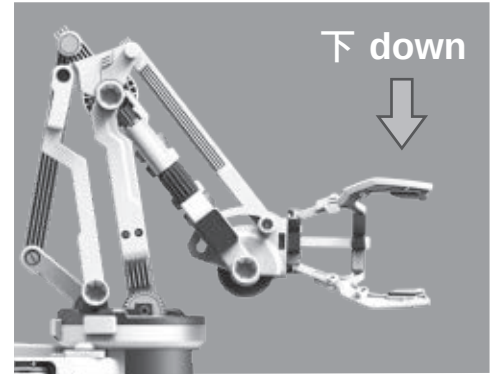
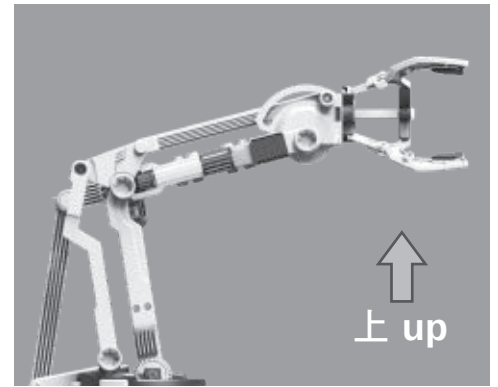
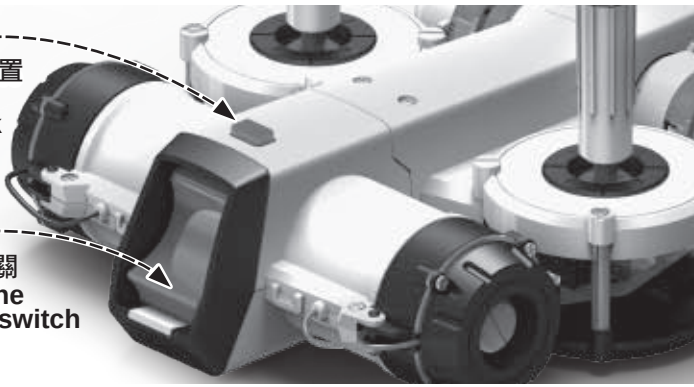


操作方式 How to Play



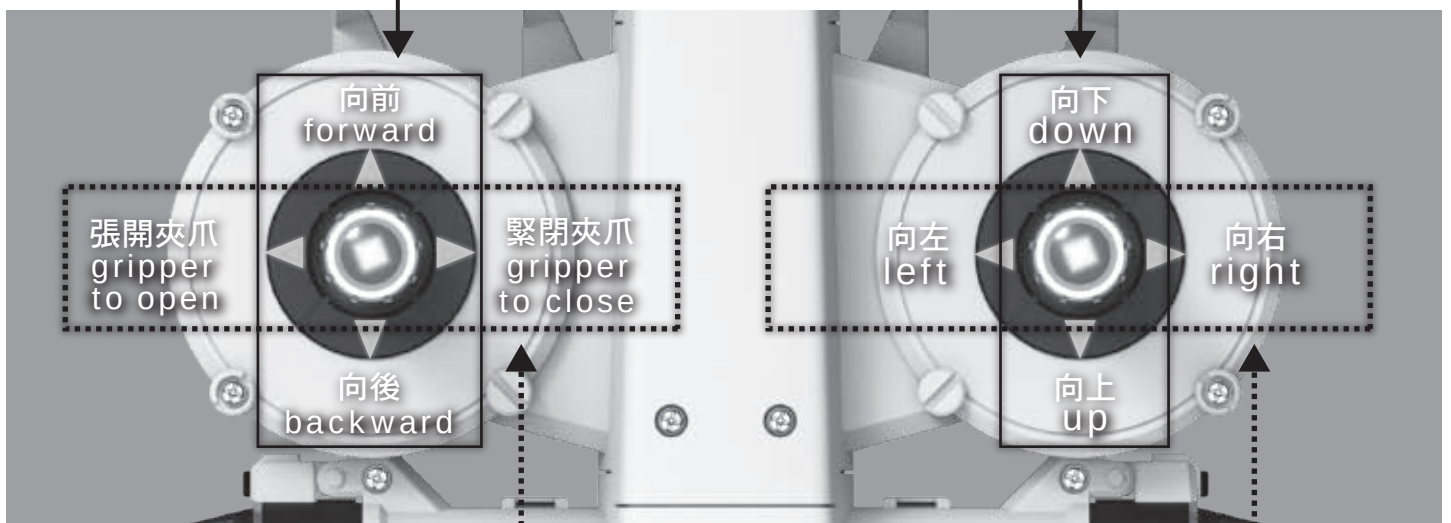
1
按下安全裝置
Push the
safety lock

2
按下開關
Push the
power switch



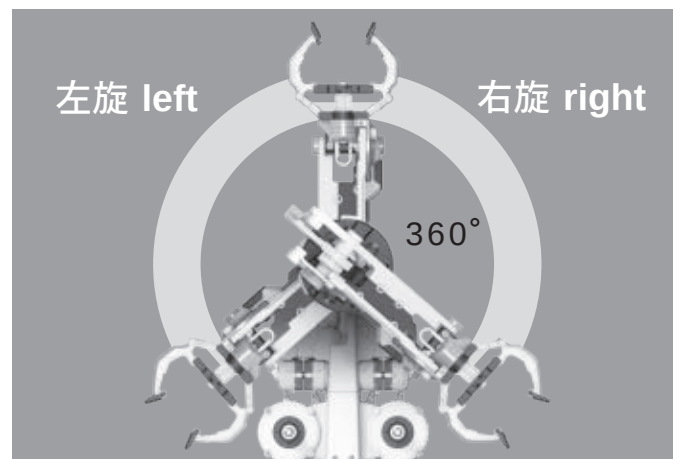
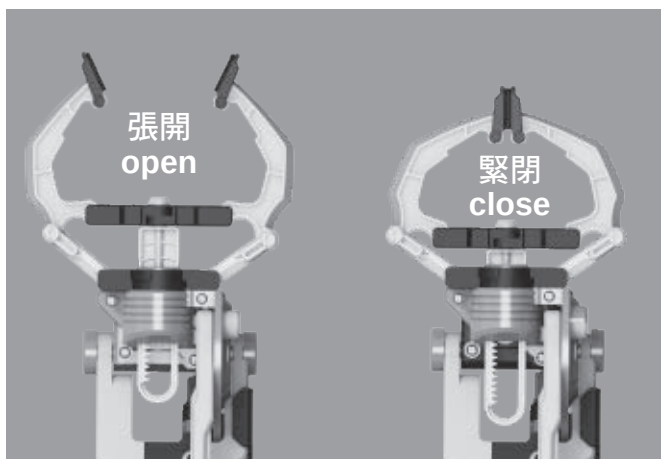
1 腕關節擺動 Shoulder Motion

2 肘關節擺動 Elbow Motion

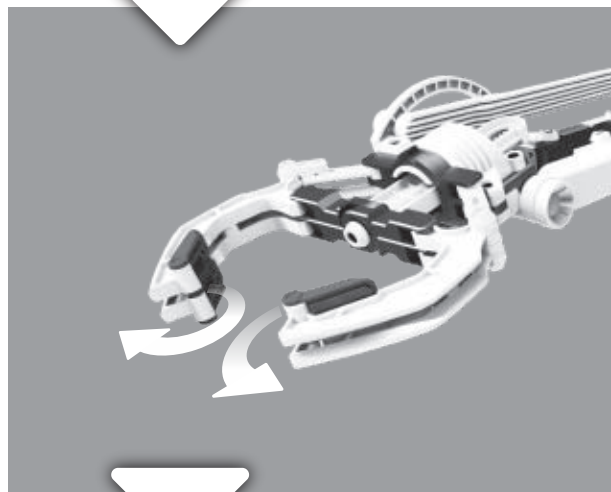
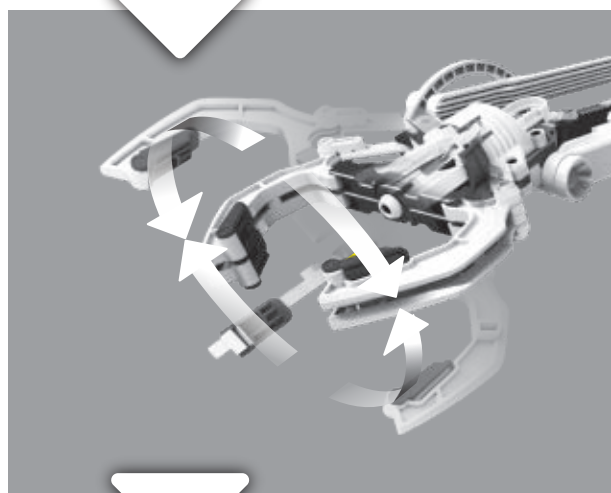
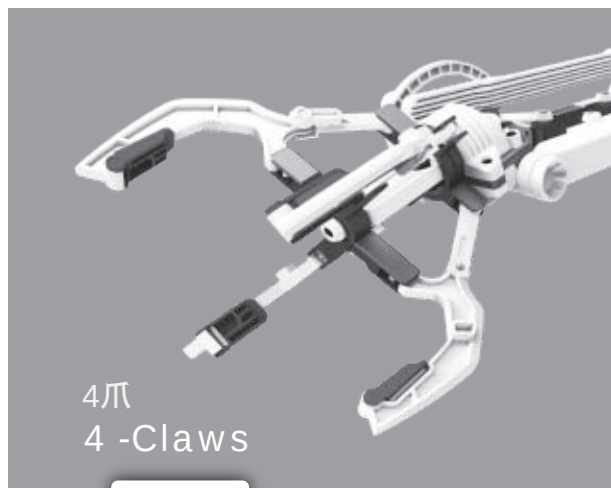


3 夾爪 Gripper.....

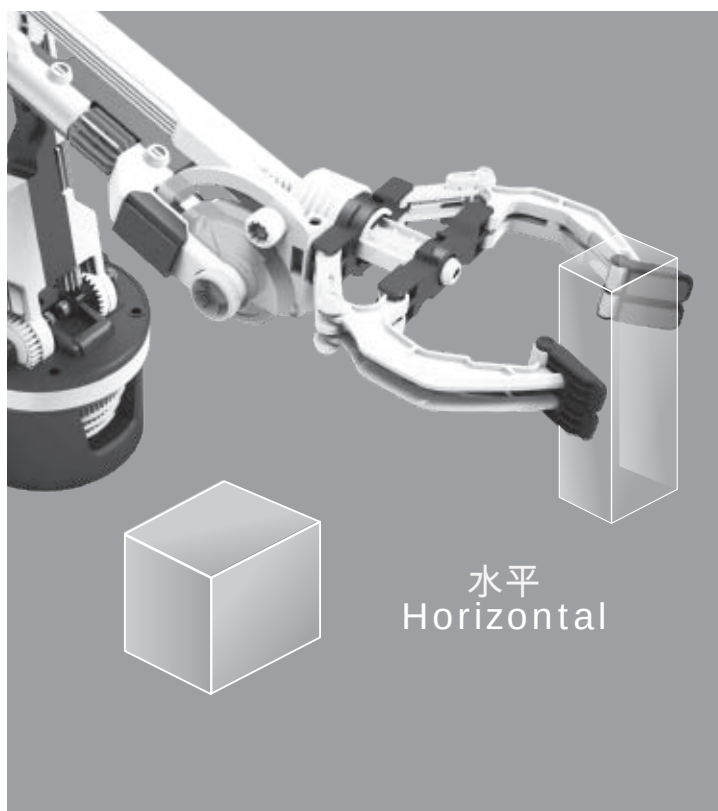
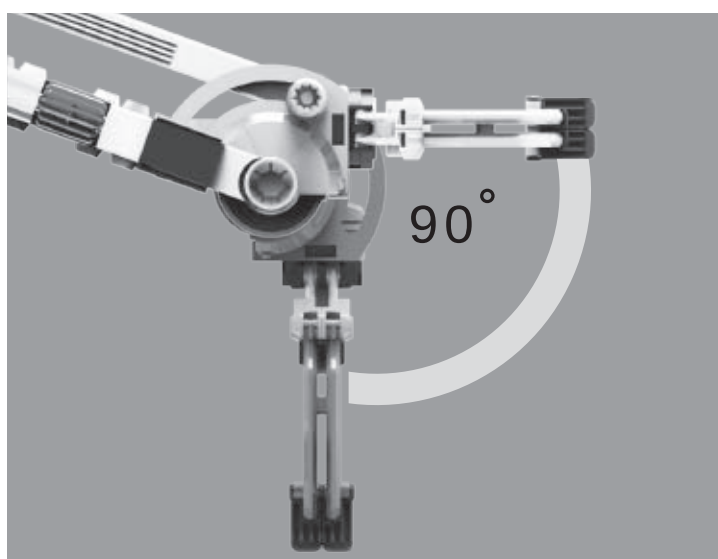
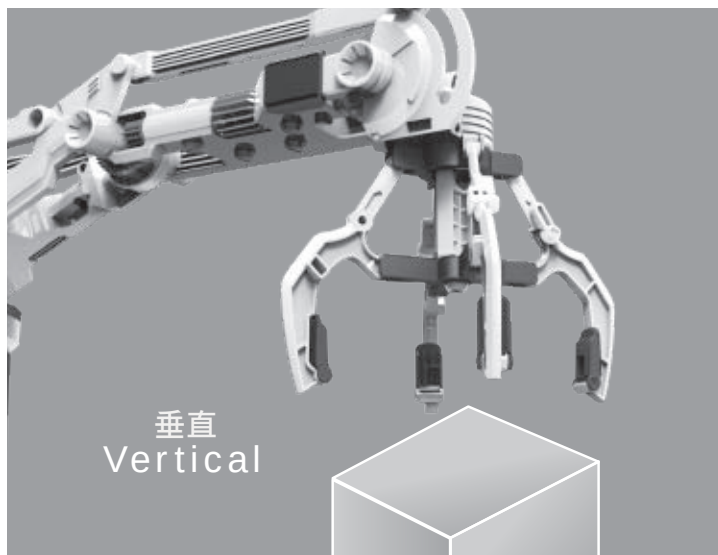
4 底座旋轉 Base Rotation.....



5 夾爪變換 Claw Modes

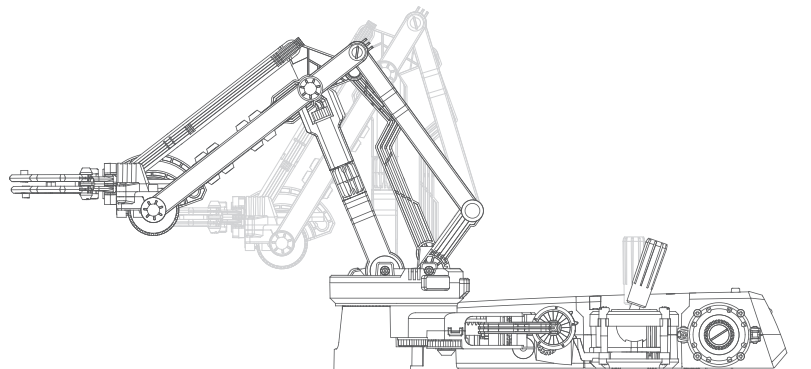


6 腕關節擺動 Rotatable Wrist



簡易故障排除 Trouble shooting

1. 請確認電池安裝位置是否正確(見第9頁, 步驟 **14**).
1. Be sure to install batteries with correct polarity. Please refer to page 9, step **14** .
2. 開啟電源後, 如機器未發出運轉聲, 請確認以下線路是否安裝正確.
a. 見第7頁, 步驟 **9** b. 見第10頁, 步驟 **15** .
2. After pressing the power switch, if the device doesn't make an operational sound, please check a. page 7, step **9** . b. page 10, step **15** .
3. 如電源開關無法按下, 請參照如下確認
3. If the power switch is not able to be pressed down, please check
 - a. 安全裝置是否同時按下.
a. If the safety lock was also pressed down simultaneously.
 - b. 開關是否安裝正確, 見第7頁, 步驟 **9**, **10** .
b. page 7, step **9**, **10** .
 - c. C3是否安裝正確, 見第8頁, 步驟 **12** .
c. page 8, step **12** .
4. 開啟電源後, 在未操作搖桿的狀況下, 如C04或C05不斷運轉, 請確認以下安裝是否正確
4. After powering on, if C04 or C05 runs non-stop before tilting joysticks, please check
 - a. 第21頁, 步驟 **32** b. 第22頁, 步驟 **36** .
a. page 21, step **32** b. page 22, step **36** .
5. 操作搖桿且機器也有運轉聲, 但C04或C05卻未運轉時, 請確認以下事項
5. If there is an operational sound when tilting joysticks but both C04 and C05 do not run, please check
 - a. 電力是否不足 b. E19安裝方向是否正確, 見第15頁, 步驟 **13** .
a. If batteries are running low. b. if the part E19 is assembled the other way around, please check page 15, step **13** .
6. 如搖桿未能回到起始位置, 請確認以下是否安裝正確
6. If joysticks do not go back to home position, please check
 - a. 第11頁, 步驟 **1** b. 第22頁, 步驟 **34** .
a. page 11, step **1** b. page 22, step **34** .
7. 如手臂未能依照搖桿操作方向正確動作, 請確認第15頁, 步驟 **13** 是否安裝正確
7. If joysticks trigger the arm moving in the wrong direction, please check page 15, step **13** .
8. 如手臂上、下、左、右無法正常動作, 請從齒輪可視窗觀察齒輪是否正常運轉
8. If joysticks doesn't trigger back/forward and up/down movement, please check the observation window to see if gears insides are running.
 - a. 如有正常運轉, 請確認第25~27頁, 步驟 **1** ~ **9** ; 第28頁, 步驟 **12** 是否安裝正確
a. If so, please check page 25 ~ page 27, step **1** ~ **9**, and then page 28, step **12** .
9. 如左邊遙桿無法操作夾爪時, 請確認第23頁, 步驟 **37** 是否安裝正確
9. If the left joystick does not trigger the grippers, please check page 23, step **37** .
10. 如夾爪朝相反方向動作時, 請確認第29頁, 步驟 **6** 是否安裝正確
10. If the left joystick triggers the grippers in the opposite way, please check page 29, step **6** .
11. 由於齒輪齒之間存在間隙, 當手臂移動到如下所示的位置時, 可能會發生瞬間位移, 此狀況屬正常現象, 無須擔心
11. When the arm moves to the position as illustrated below, an instantaneous displacement could occur, due to a clearance between mating gear teeth. It should be considered normal.



When ordering parts, please include the following

1. 請留下訂購人姓名、寄送地址、連絡電話、E-mail
Name, address (no P.O. Box), telephone number, and email address.
2. 請註明產品名稱、產品型號、零件名稱、零件型號以及數量
Model name and model number. Part number, part name, and quantity.
3. 如有任何需求，請洽您的經銷商
Please contact local distributor if any query.

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GE-537 八方全能遊戲搖桿 Joysticks Robotic Arm 零件表 Parts List

零件型號 Part Number	零件名稱 Part Name	數量 Qty
5GE-53700P1	自攻螺絲 Tapping Screw	
5GE-53700P2	小齒輪(白色) Pinion Gear (White)	
5GE-53700P3	蝸輪(白色) Worm Gear (White)	
5GE-53700P4	齒輪(白色) Gear 36/10T(White)	
5GE-53700P5	齒輪(灰色) Gear 32/10T (Gray)	
5GE-53700P6	齒輪(藍色) Gear 32T (Blue)	
5GE-53700P7	齒輪(橘色) Gear 36T (Orange)	
5GE-53700P8	出力齒輪(黑色) Output Gear 10T (Black)	
5GE-53700P9	出力齒輪(白色) Output Gear 10T (White)	
5GE-53700P10	彈片 Spring	
5GE-53700P11	襯套2mm Bushing 2mm	
5GE-53700P12	襯套3mm Bushing 3mm	
5GE-53700P13	圓軸 Round Shaft	
5GE-53700P14	圓軸 Round Shaft	
5GE-53700P15	圓軸 Round Shaft	
5GE-53700P16	六角軸(短) Hex Shaft (Short1)	
5GE-53700P17	六角軸(短) Hex Shaft (Short2)	
5GE-53700P18	六角軸(中) Hex Shaft (Middle)	
5GE-53700P19	六角軸(長) Hex Shaft (Long)	
5GE-53700P20	泡棉(黑) Sponge (Black)	
5GE-53700P21	油包 Oil Bag	
5GE-53700P22	電池彈片端子組 Battery Terminal with Wire	

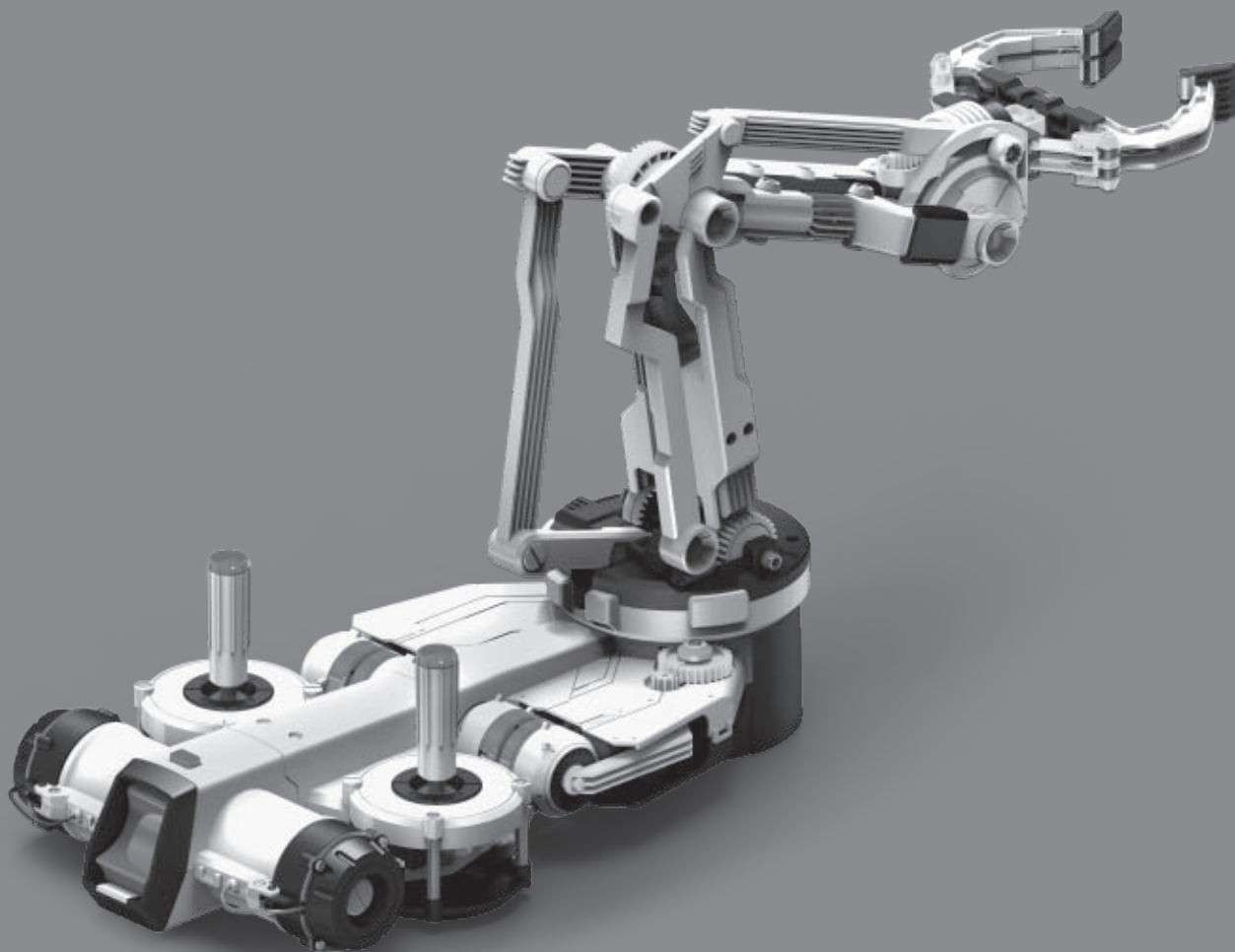


此產品為模型組件拆封修剪或包裝不完整，恕不退換
Goods cut are not returnable.



警告及注意事項

內含小零件，請勿讓三歲以下孩童使用，避免誤食危險。不可對着人臉和眼部衝撞，避免造成意外傷害。



- 電池移除或更換應由成人或在成人監督下進行。
Removal and replacement of batteries should be carried out by adult or under adult supervision.
- 請避免電池或電池連接器端子短路。
Avoid short circuiting the contacts in the battery compartment or the battery terminals.
- 電池長期不用或電力耗盡時請取出以避免電池漏液。
Remove exhausted batteries from the product to avoid leakage.
- 請勿混用新舊電池及不同廠牌、種類的電池，以免造成危險或電器損耗。
Do not mix used batteries and new batteries or batteries of different types.
- 請勿混合鹼性、碳鋅電池或充電電池使用。
Do not mix alkaline, standard (carbon-zinc), or rechargeable (nickel-cadmium) batteries.
- 電池放入前請先確認正確正負極性方向。
Batteries are to be inserted with the correct polarity.
- 請勿試圖對非充電電池進行充電。
Do not attempt to recharge non-rechargeable batteries.
- 充電電池應在成人監督下進行充電。
Rechargeable batteries are only to be charged under adult supervision.
- 充電前請將充電電池自玩具中取出。
Rechargeable batteries are to be removed from the toy before being charged.

Pro'sKit®

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