

GE-730

Pro'sKit®

SPIRAL SPRING science kit

三合一英倫發條時鐘先生



Assembly & Instruction Manual 組裝說明手冊

產品介紹 Product Introduction

你玩過發條車嗎?那你知道發條車是如何驅動的呢?爸爸的機械錶總有滴答、滴答的聲音又是怎麼來的呢?這些秘密就藏在彈簧裡 - 在發條裝置的中心設有一個螺旋彈簧,當我們旋緊這彈簧時,同時也是在儲存動能,而一旦釋放被旋緊的彈簧,動能也將被釋放並驅動裝置!

Have you ever wondered the power source of a wind-up car? Where does the clock ticking sound of dad's mechanical watch come from? The secret lies in the mainspring. Centered on the clockwork there is a spiral torsion spring. We can store the energy by winding it tightly, and then release it to trigger the inner mechanical operation. When the spiral spring is totally untwisted, the operation then stops. The mainspring of this 3-in-1 science kit is the first one in the world made of plastic, instead of metal. Unlike metal springs usually hidden in gearboxes for safety concern, this plastic one is safe enough to be completely exposed even with its highest running speed, giving kids great opportunity to explore the fascinating clockwork mechanism.

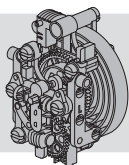
不須馬達、不用電池,就連螺絲也不需要,只要一把斜口鉗,利用你的巧手與觀察力,你會發現這組套可以拼裝、拆裝再拼裝成3種造型-發條機器人、跑跑發條車、滴答計時器。旋緊彈簧後釋放,跑跑發條車將出乎你意料之外地馳騁14公尺,讓你想輸都難!呆萌可愛的發條機器人,走起路來雖然搖搖擺擺,但旋緊一次發條再釋放動力,他可是可以前進50公分呢!蛋糕需要烤多久才好?最愛的電視節目再六分鐘就要開始,將GE-730組成六分鐘滴答計時器,再也不用愁了!

This kit can be disassembled and reassembled into 3 styles: car, robot, and timer. Car: wind-up tightly and then release. The car will run at full speed surprisingly up to 14 meters. Show your friend how fast it can go. Lose a race game? Not a chance! Robot: the spiral spring works with high-speed escapement, providing the robot steady power to walk 50 centimeters. Waddling around with his quirky face, you will find him as the funniest and most hilarious buddy ever! Timer: the spiral spring works with low-speed escapement, performing as a 6 minute countdown timer with ticking sound. Check out when the chocolate cake in oven will be ready, or your favorite TV show is coming up? This helpful device won't let you miss any fun in your life! The innovative science kit is amazingly easy to assemble and more importantly- environmental friendly. No motor, no battery, even no screw required, the only thing you need is a diagonal cutter to help you build up the entire piece.

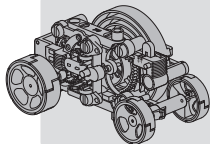
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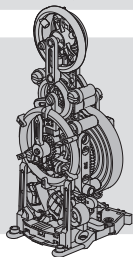
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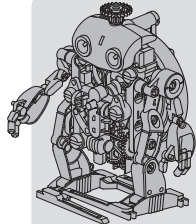
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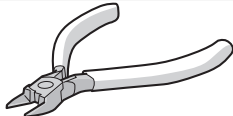
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警告
Warning

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

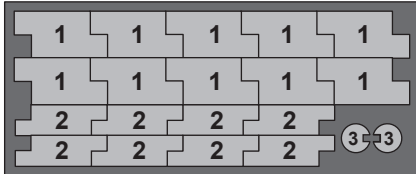
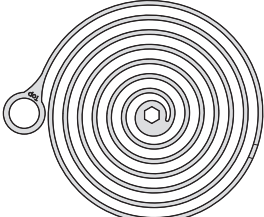
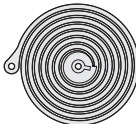


斜口鉗(實工型號: PM-200 或 PM-202)
Diagonal Cutter

零件清單 Mechanical Parts List



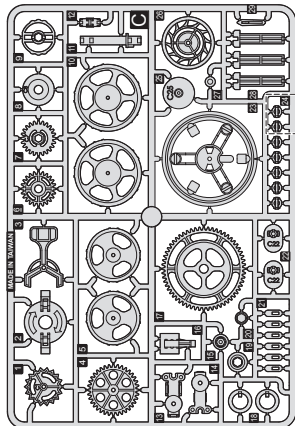
部分產品含有銳利邊角，組裝時請特別注意
Product contains functional edges and sharp points.

P1	圓軸(極短) Round Shaft (Small)	P2	圓軸(短) Round Shaft (Short)		
 1:1 1 pc		 1:1 4 pcs			
P3	圓軸(中) Round Shaft (Medium)	P4	圓軸(長) Round Shaft (Long)		
 1:1 5 pcs		 1:1 1 pc			
P5	六角軸(短) Hex Shaft (Short)	P7	泡棉貼 Sponge		
 1:1 1 pc		請保留泡棉貼之夾鏈袋(編號P10)，以作為收納其他小零件之用 Please keep the bag for Sponge. It will be used later to keep the other small parts. The bag is numbered P10.			
P6	六角軸(長) Hex Shaft (Long)				
 1:1 1 pc					
P8	螺旋彈簧 Spiral Spring	P9	游絲 Hairspring	P10	夾鏈袋 Zipper Bag
					

塑膠模型零件 Plastic Parts

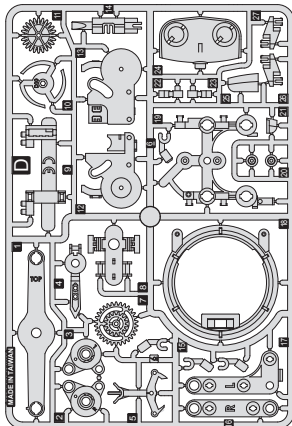
! 請依照組裝步驟將所需的零件剪下，事先全數剪下會在組裝時造成混淆。
Cut the plastic parts when they are required. Do not cut them in advance.

C 黃色 (Yellow)

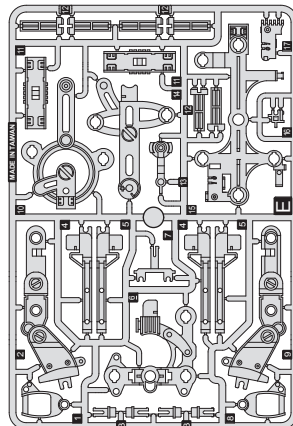


請注意: C24為備品
Please note C24 is a spare part.

D 藍色 (Blue)



E 白色 (White)



組裝前需知
Must-know

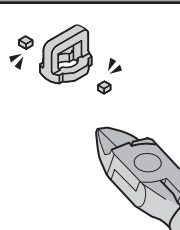
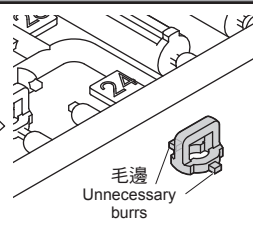
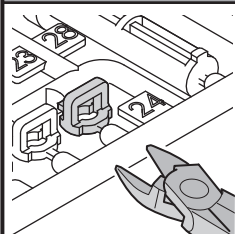


組裝注意事項 Read It Before Assembly

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



✓
正確
Correct



✗
錯誤
Incorrect

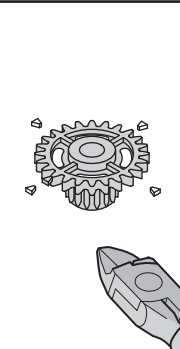
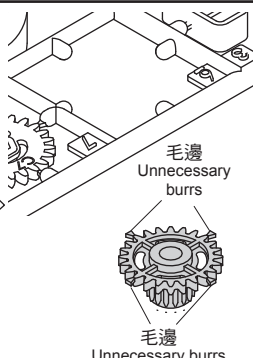
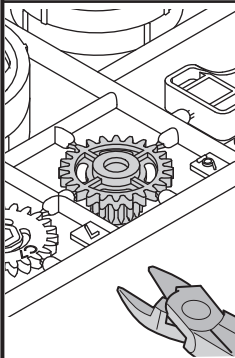


✗
錯誤
Incorrect



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

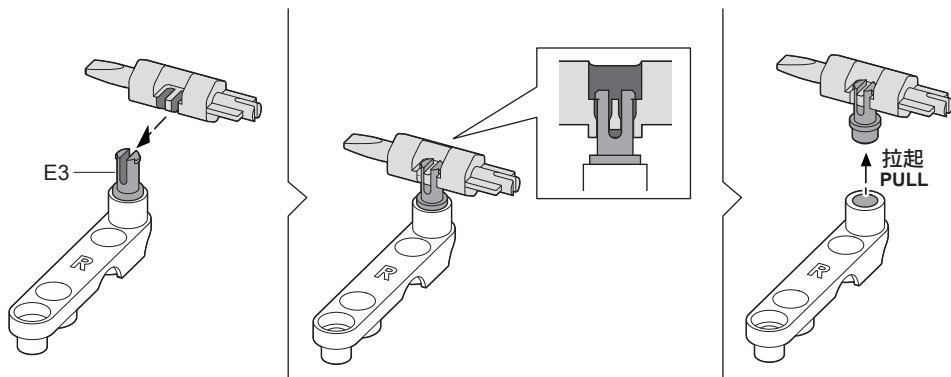
Trim off the burrs ONLY. Do not trim off the protrusion belonged to original plastic parts.
All features of parts should be kept completely.



D14使用方式 Function of D14

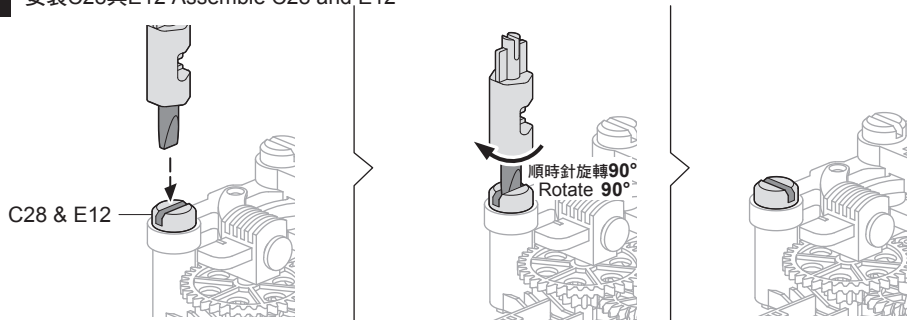


使用中間(如圖圈起處)拉起E3
Use the middle part to pull E3

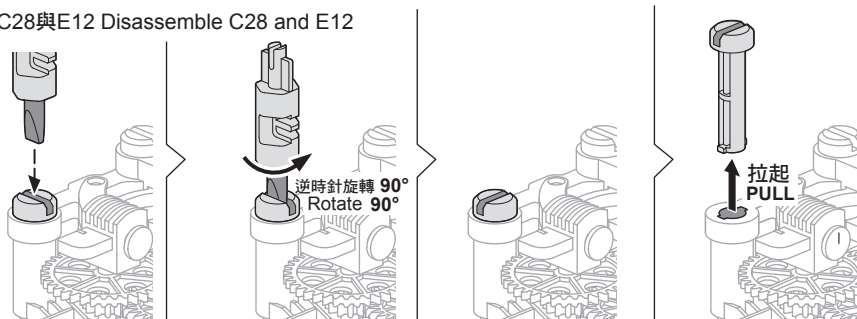


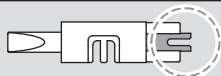
使用D14一字端安裝/卸除C28與E12
Use the tip to rotate C28 & E12

1 安裝C28與E12 Assemble C28 and E12



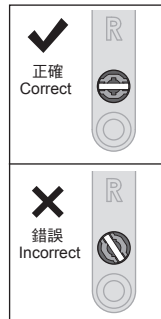
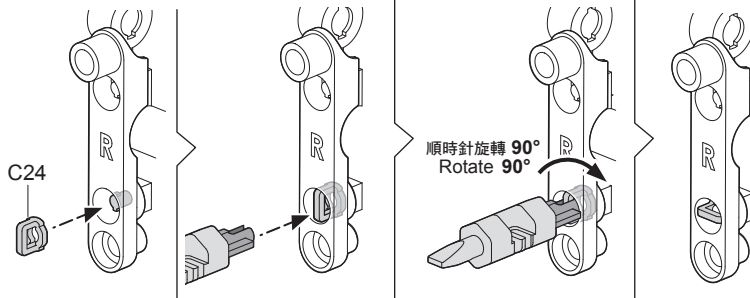
2 卸除C28與E12 Disassemble C28 and E12



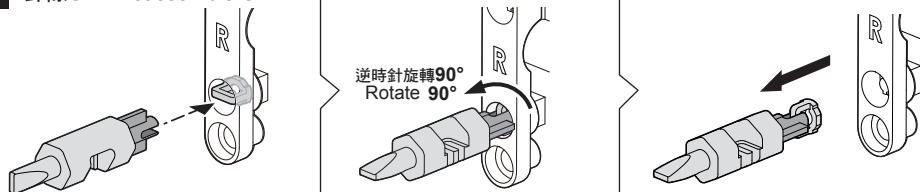


使用D14開口端安裝/卸除C24
Use the tail to rotate C24

1 安裝C24 Assemble C24



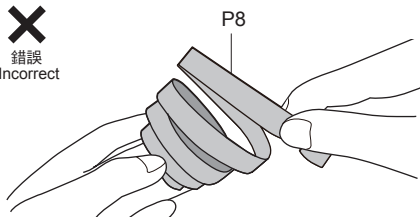
2 卸除C24 Disassemble C24



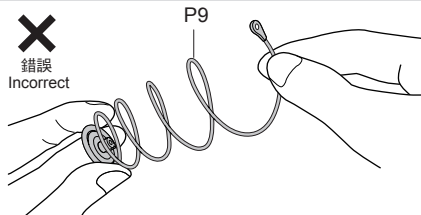
注意事項 Warning



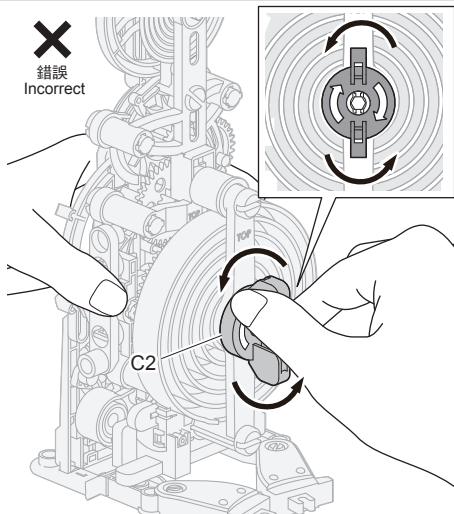
請勿過度拉拔螺旋彈簧，以免造成損壞
Do not pull hard. It may break P8.



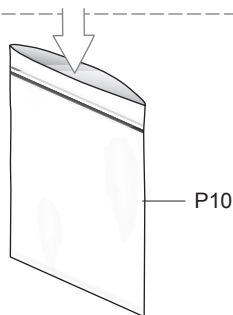
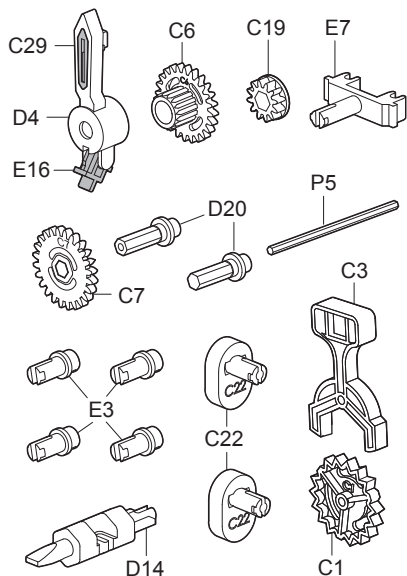
請勿過度拉拔游絲，以免造成損壞
Do not pull hard. It may break P9.



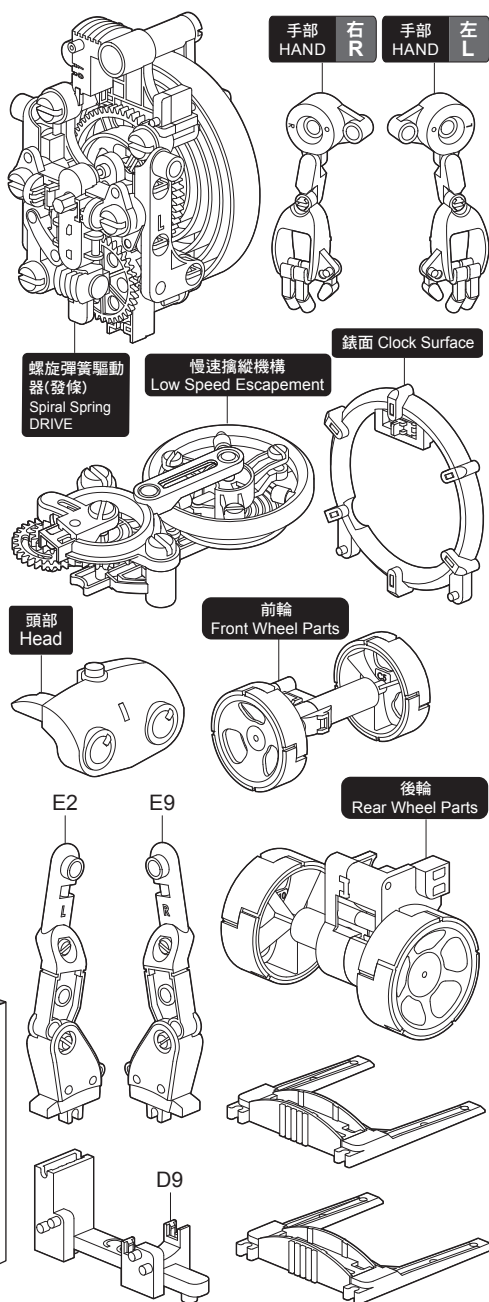
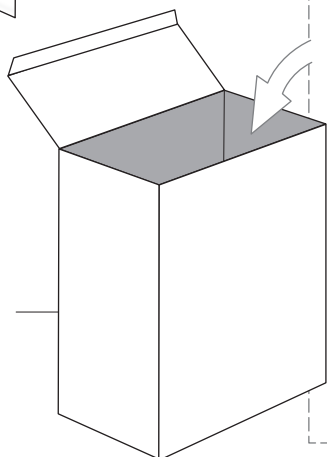
請勿逆時針旋轉C2
Do not rotate C2 counter-clockwise.



小零件收納技巧 Small Parts Bagging Tip

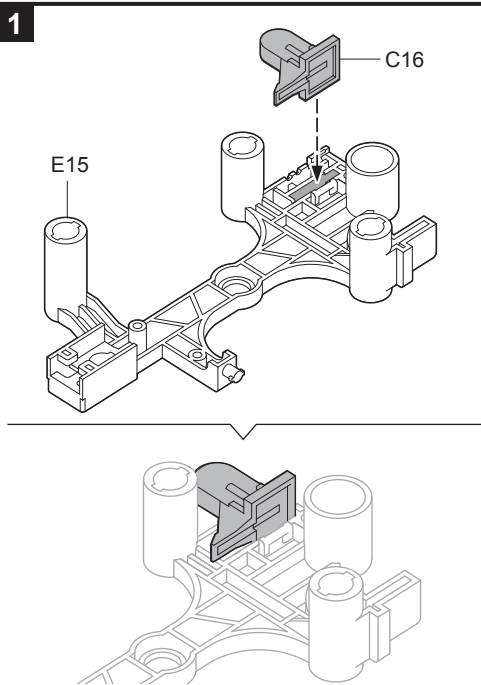


包裝外盒
Color Box

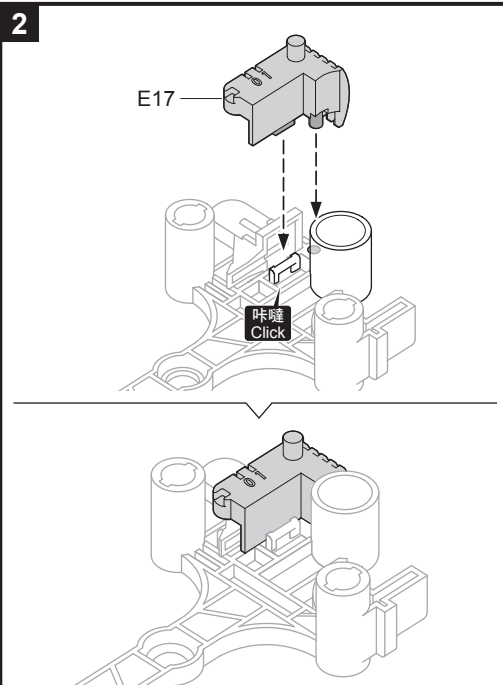


螺旋彈簧驅動器(發條)安裝 Spiral Spring Drive Assembly

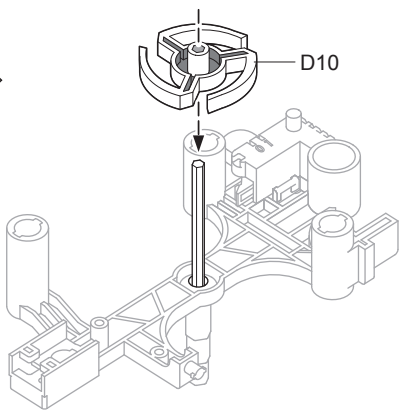
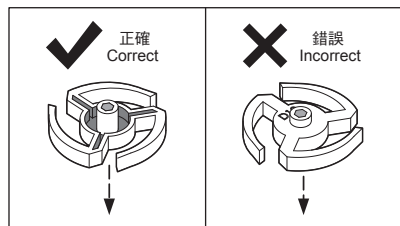
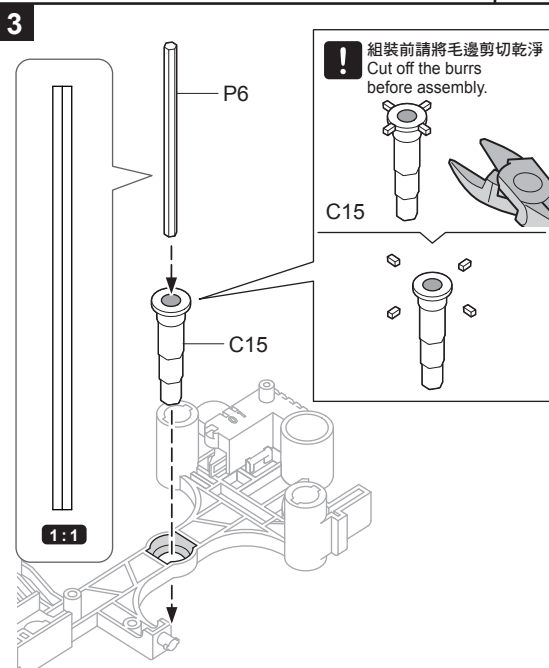
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2



3

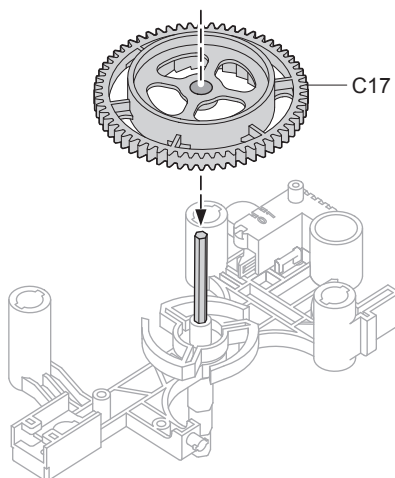
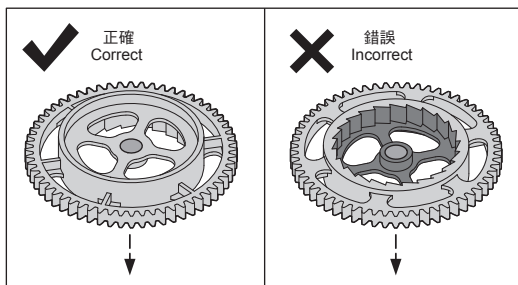
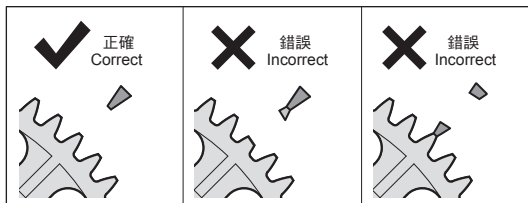
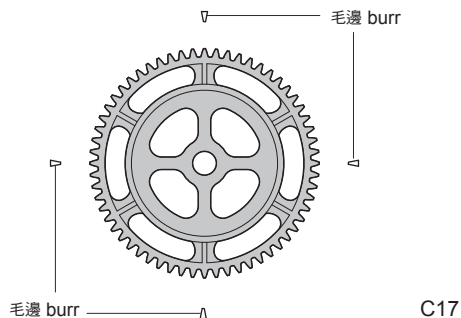


4



組裝前請將毛邊剪切乾淨

Cut off the burrs before assembly.

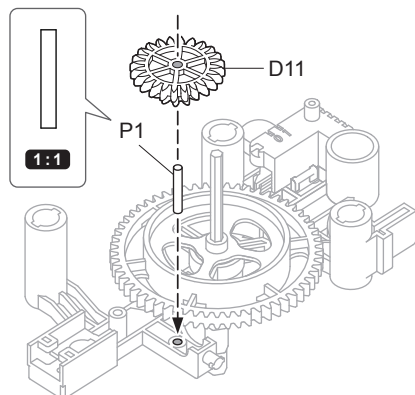
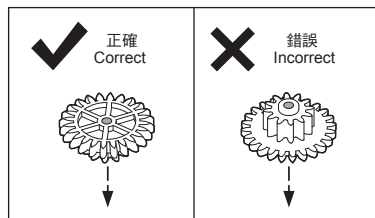
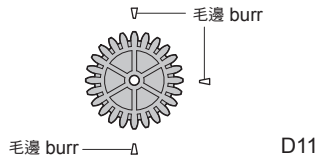


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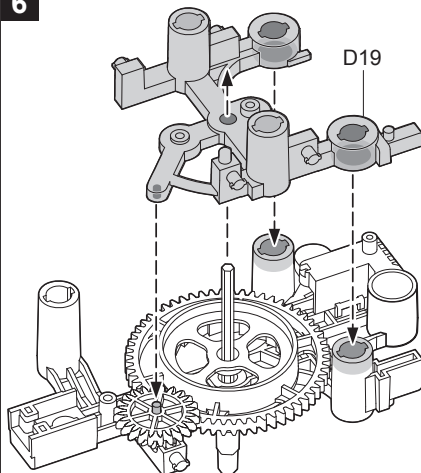


組裝前請將毛邊剪切乾淨

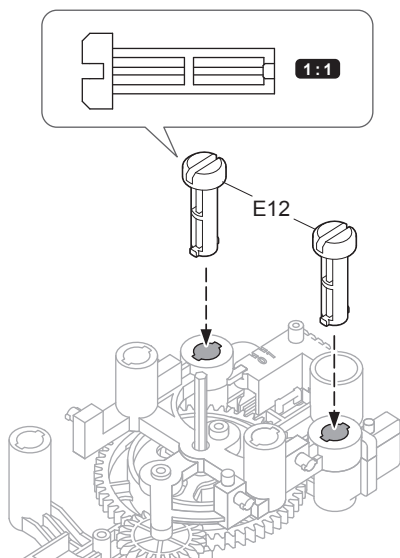
Cut off the burrs before assembly.



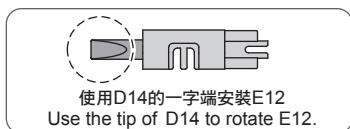
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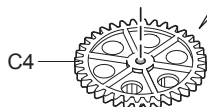
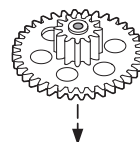
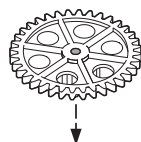
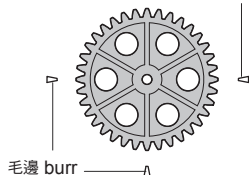
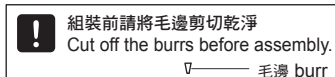
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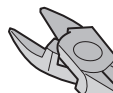
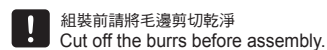
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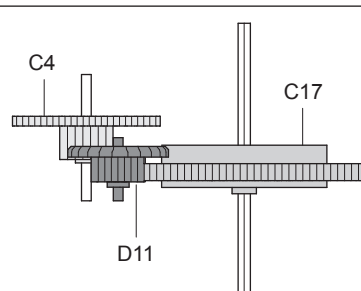
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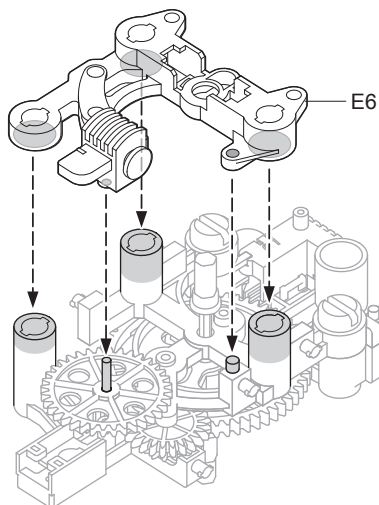
P3



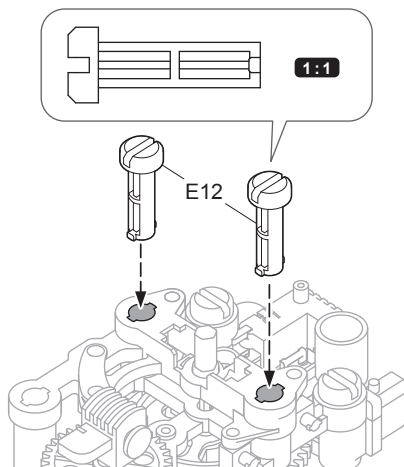
C20



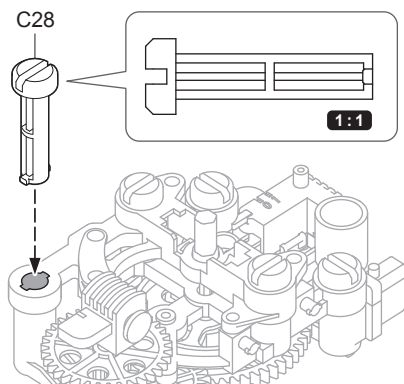
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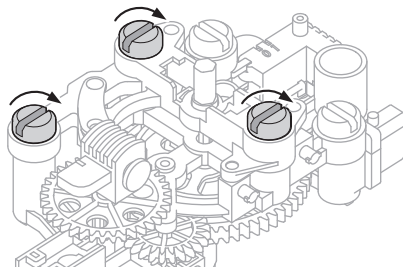
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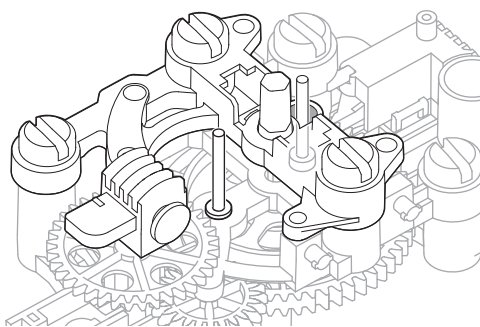
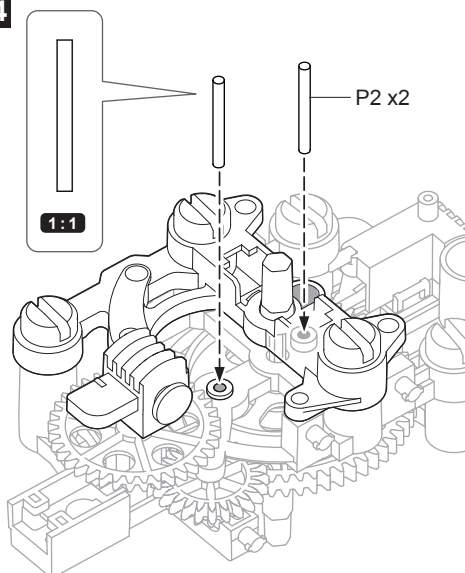
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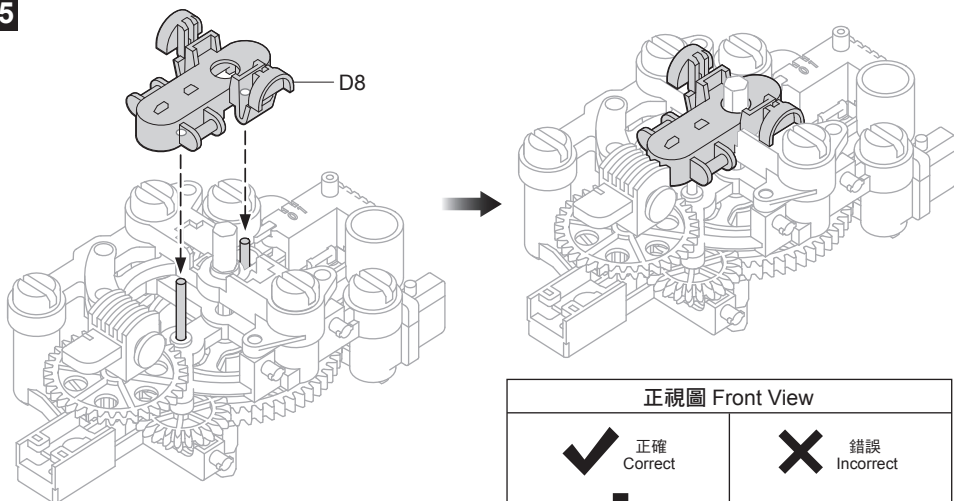
使用D14的一字端安装E12和C28
Use the tip of D14 to rotate E12 & C28.



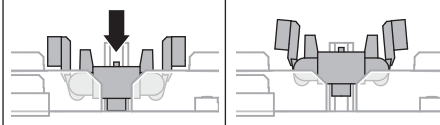
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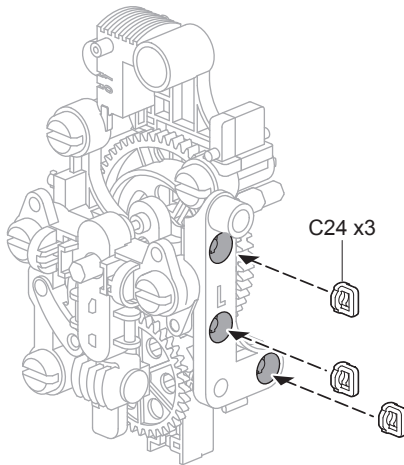
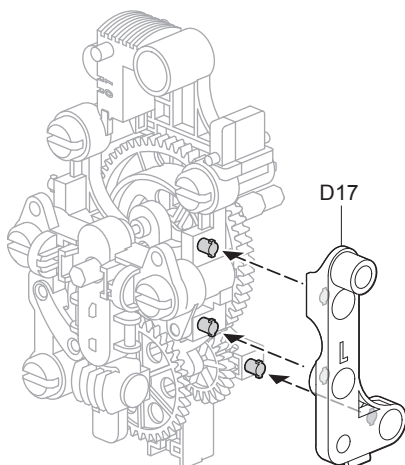
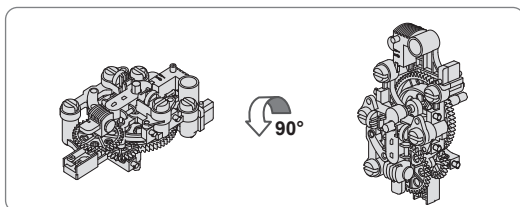


正視圖 Front View

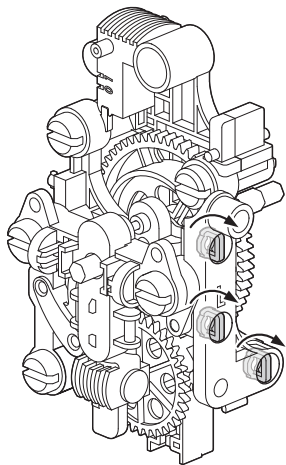
正確
Correct錯誤
Incorrect

請將D8壓至底 Please press D8 down firmly.

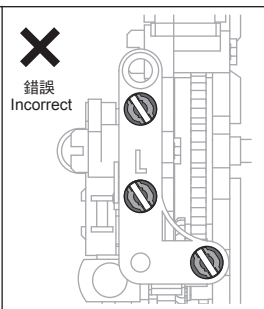
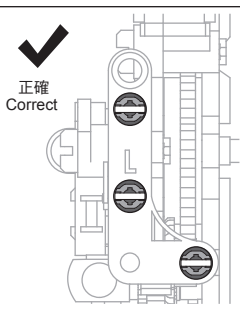
16



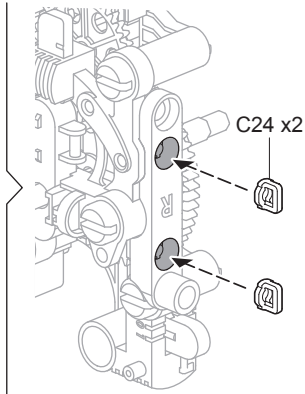
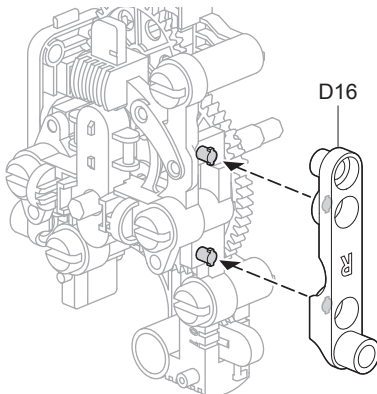
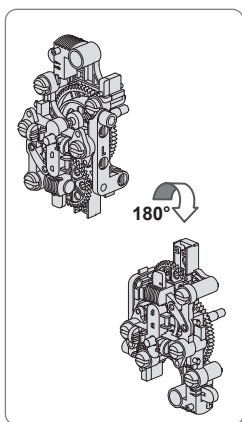
17



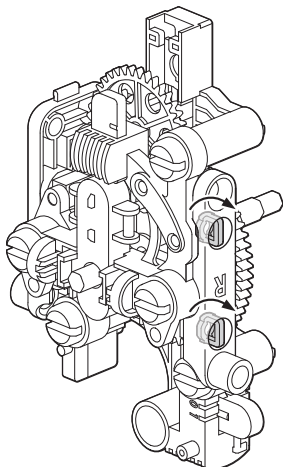
使用D14的開口端安裝C24
Use the tail of D14 to rotate C24.



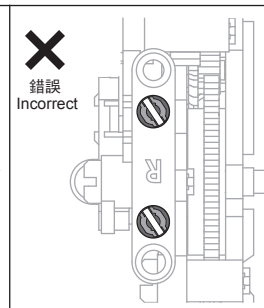
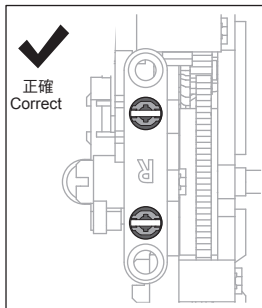
18

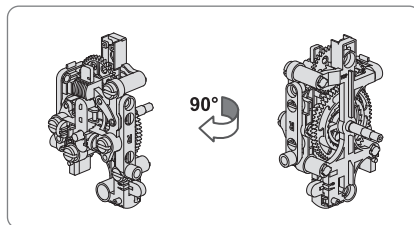


19

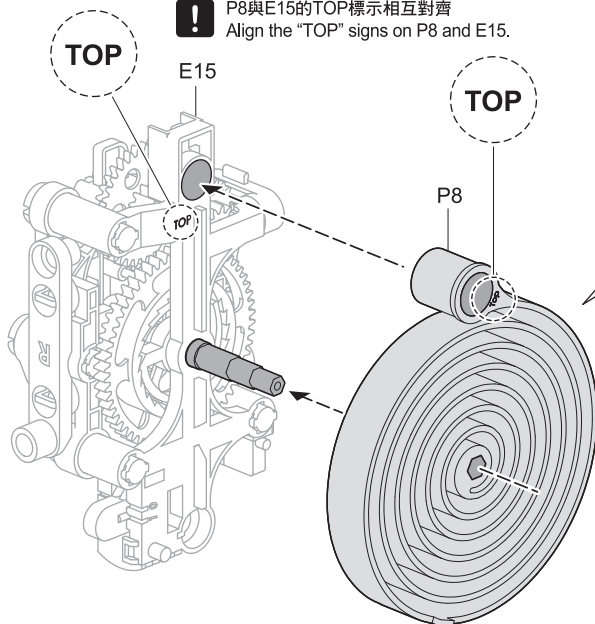


使用D14的開口端安裝C24
Use the tail of D14 to rotate C24.



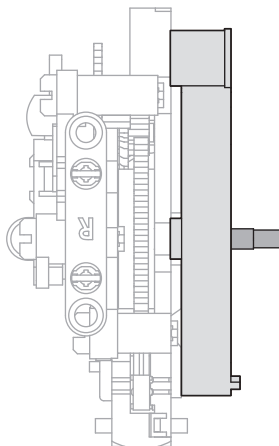
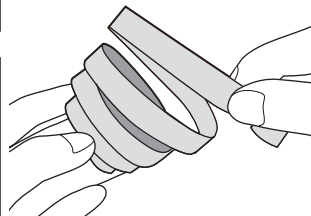


! P8與E15的TOP標示相互對齊
Align the "TOP" signs on P8 and E15.



! 請勿過度拉拔螺旋彈簧，
以免造成損壞
Do not pull hard, or it may
break P8.

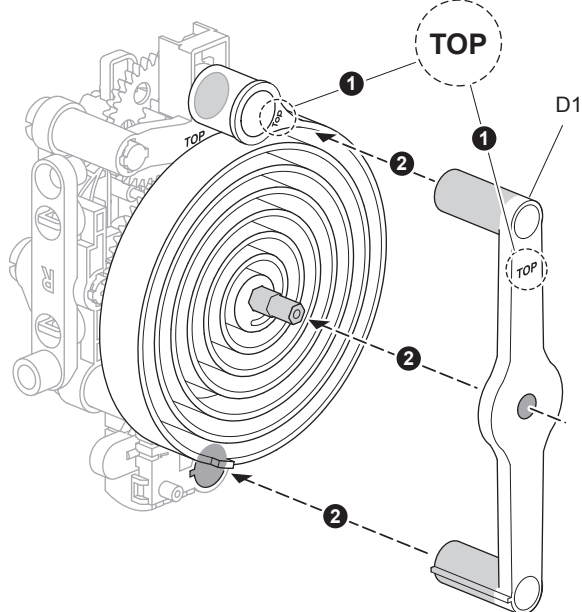
×
錯誤
Incorrect



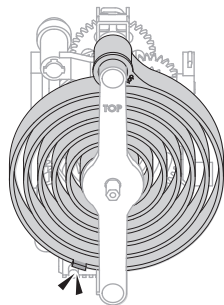
側視圖 Side View

21

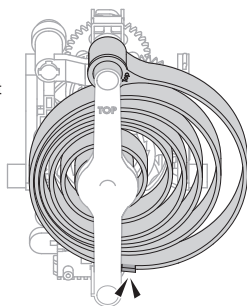
! “TOP” 標示應朝上
 “TOP” sign should be placed on top.



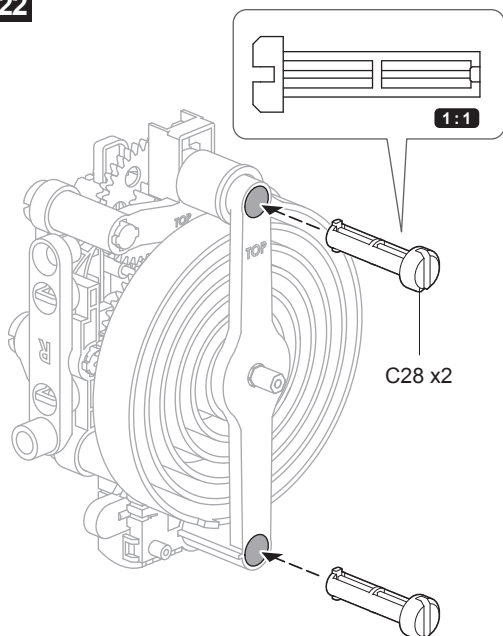
正確
Correct



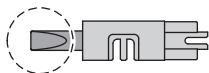
錯誤
Incorrect



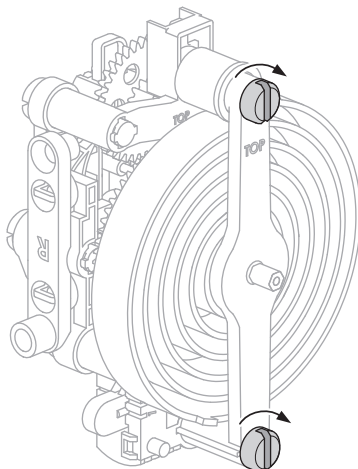
22



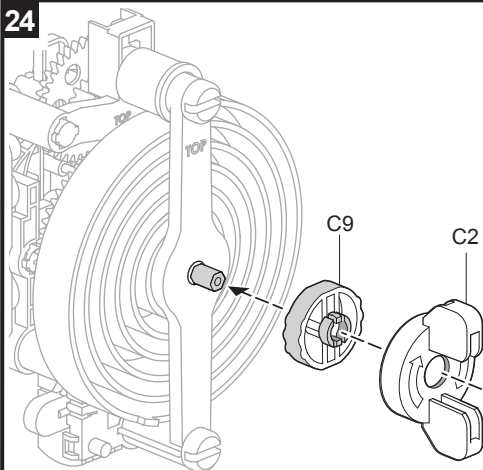
23



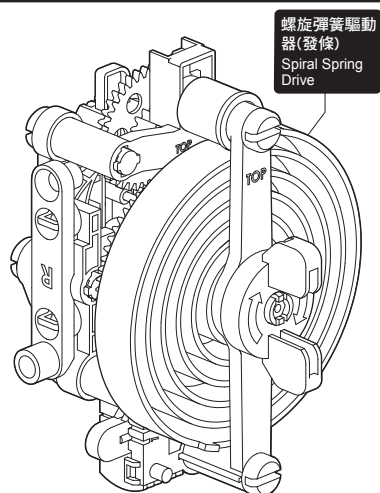
使用D14的一字端安裝C28
 Use the tip of D14 to rotate C28.



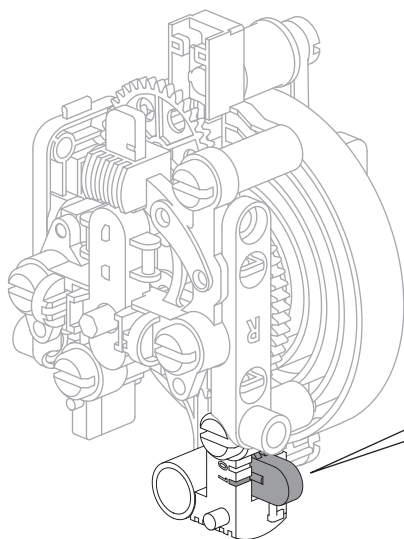
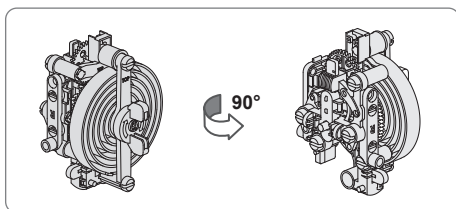
24



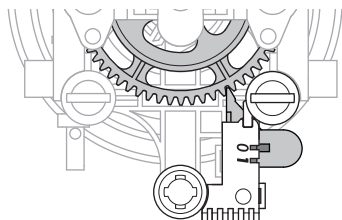
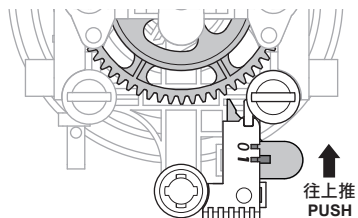
25



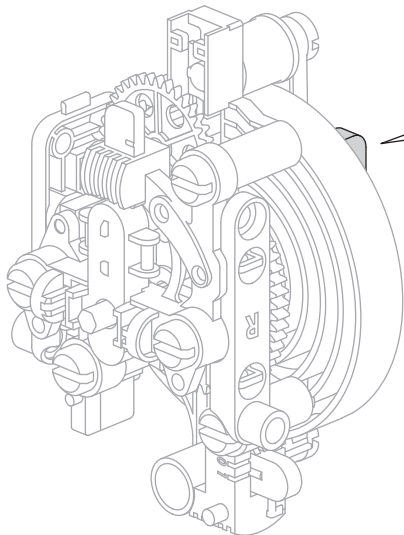
螺旋彈簧驅動器(發條)測試 Spiral Spring Drive Testing



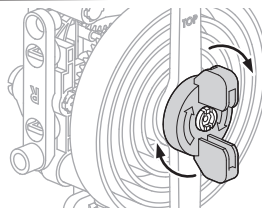
1



將開關切換到“0”以利停止運轉
Switch the button from “1” to “0” to
block the movement.



2

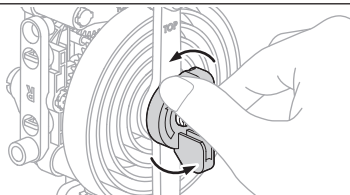


順時針轉一圈

Rotate the knob clockwise one full turn.



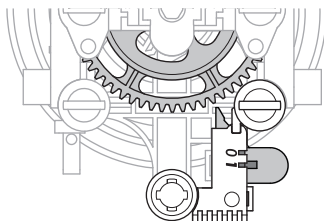
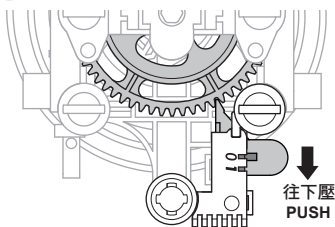
錯誤
Incorrect



請勿逆時針旋轉，以免損壞

Do not rotate the knob counter-clockwise, or you could break it.

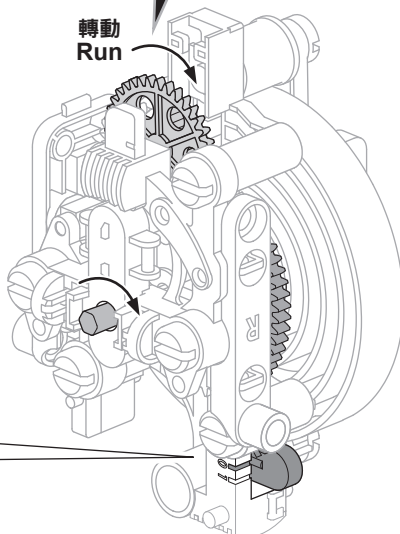
3



將開關切換到“1”以利開始動作
Switch the button from “0” to “1” to activate the operation.

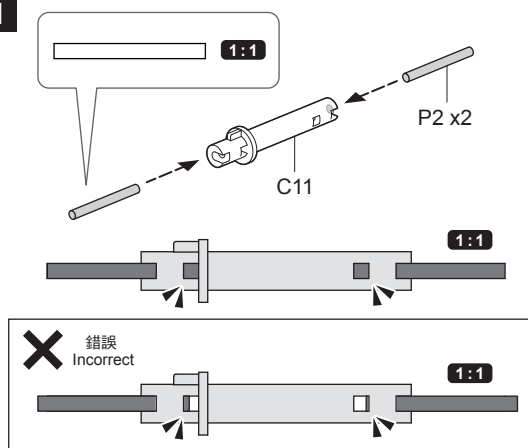
OK

轉動
Run

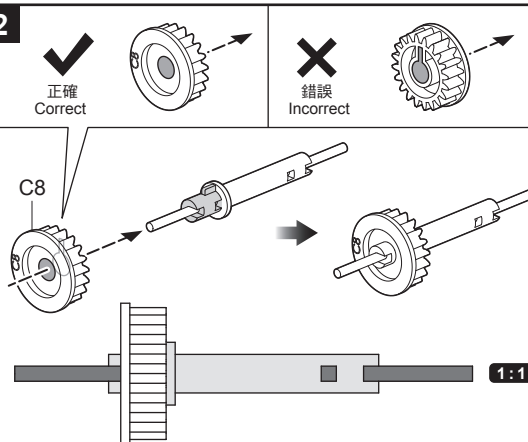


跑跑發條車組裝 Spring Car Assembly

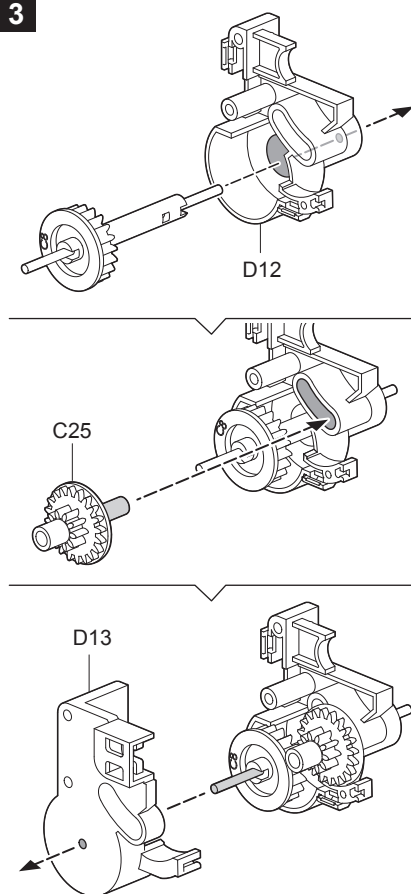
1



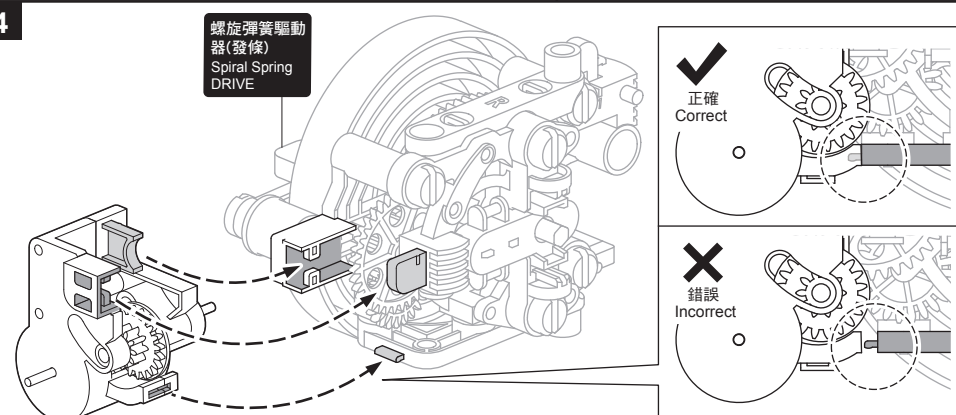
2



3

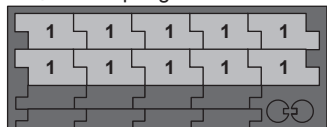


4



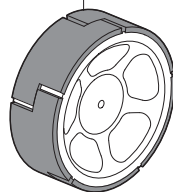
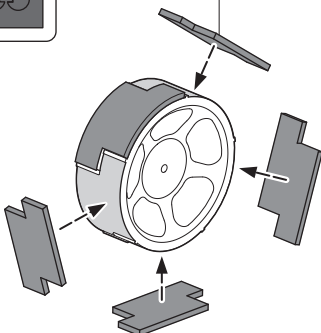
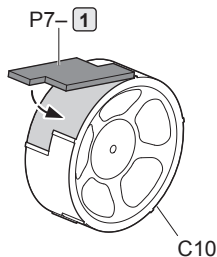
5

泡棉貼 P7 Sponge



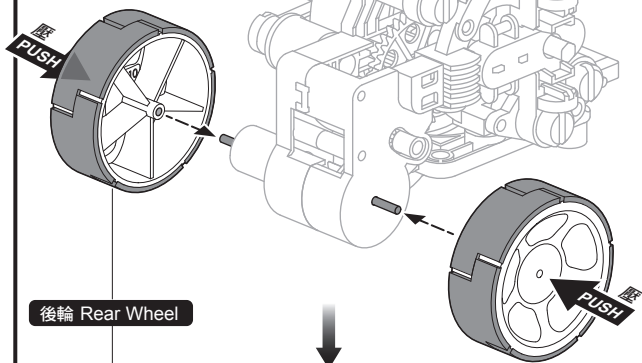
P7-① x4

後輪 Rear Wheel

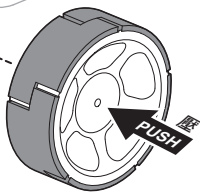


x2

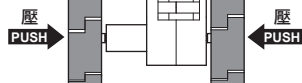
6



後輪 Rear Wheel



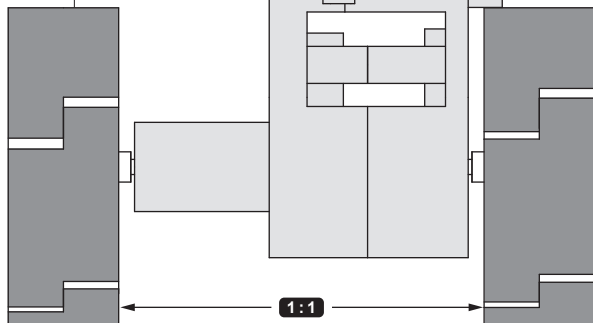
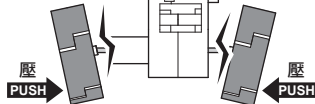
正確
Correct



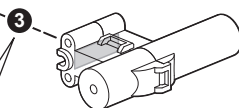
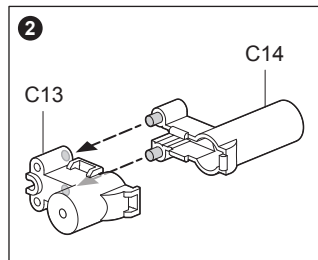
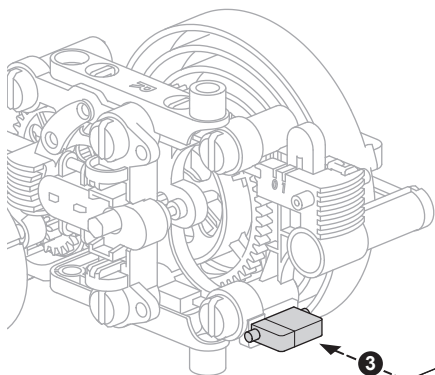
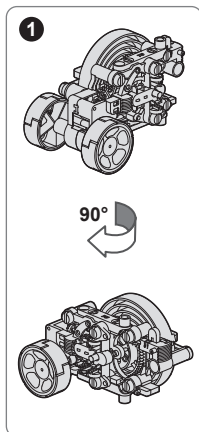
請朝輪胎中心緊壓，勿壓輪框
Please press the center of wheels only, not the rim.



錯誤
Incorrect



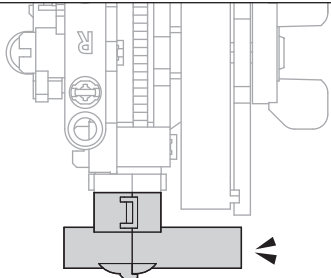
1:1



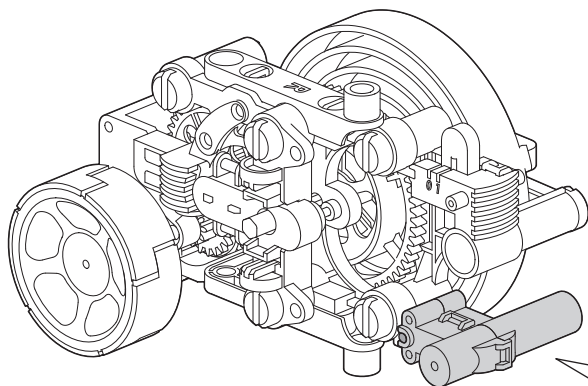
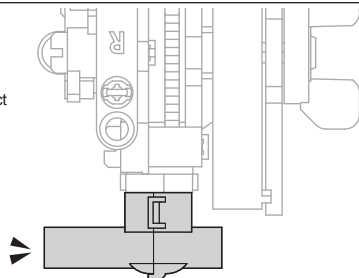
俯視圖 Top View



正確
Correct



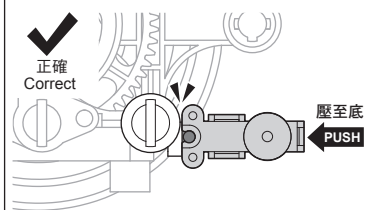
錯誤
Incorrect



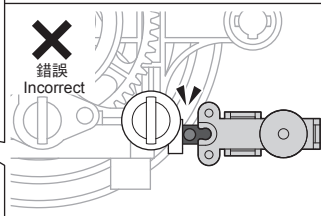
側視圖 Side View



正確
Correct

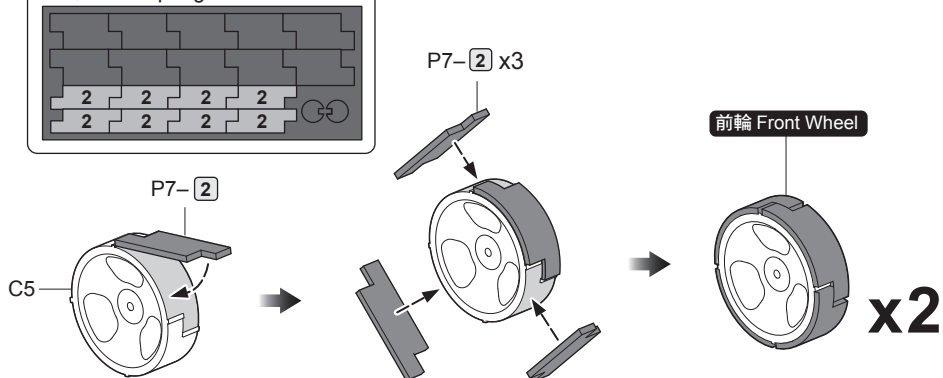


錯誤
Incorrect

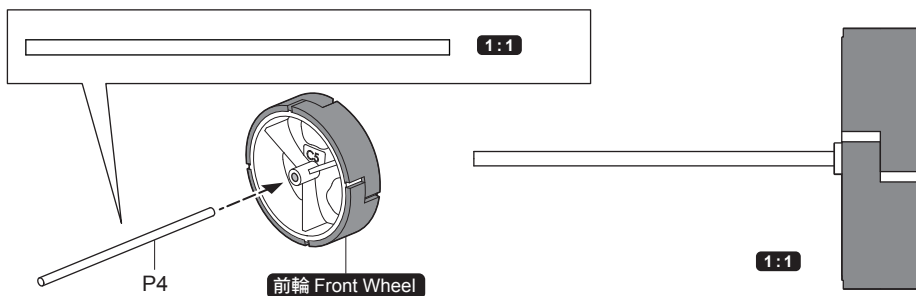


8

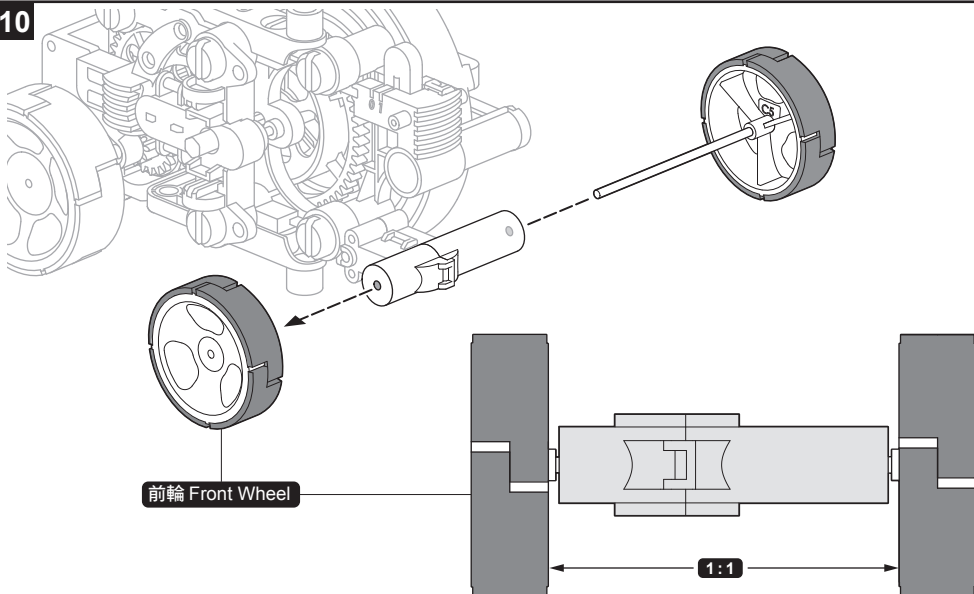
泡棉貼 P7 Sponge



9

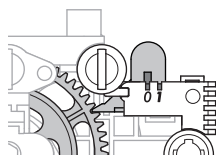
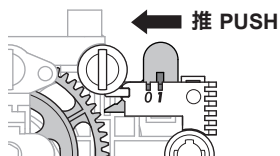
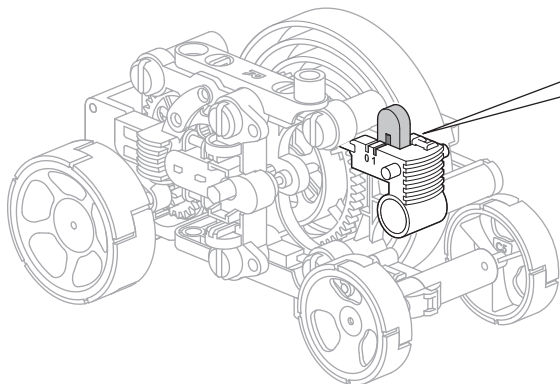


10



遊戲方式 How to Play

1

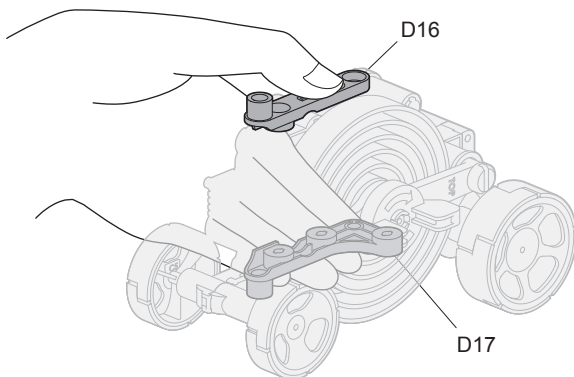


將開關切換到“0”以利鎖定動作
Switch the button from “1” to “0”
to block the movement.

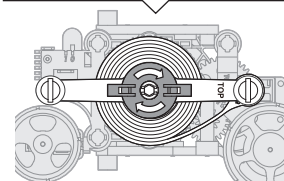
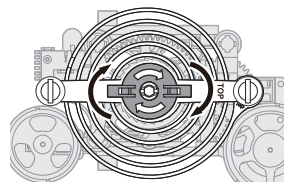
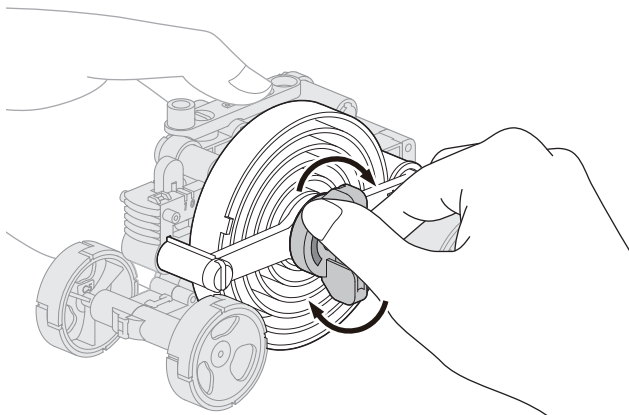
2



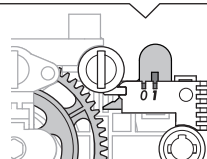
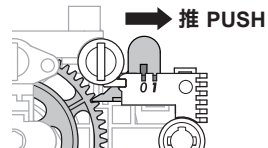
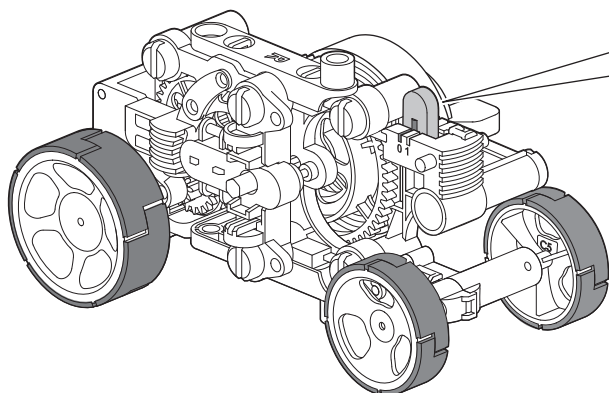
請依圖示握住D16 和 D17
Please hold D16 & D17
as shown.



3

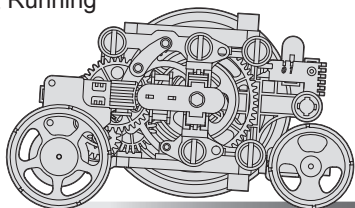


順時針旋轉直到聽到“咔”的聲音
Wind the knob clockwise until
you hear a “click” sound.



將開關切換到“1”以利開始動作
Switch the button from “0” to
“1” to activate the operation.

5 出發前進 Running



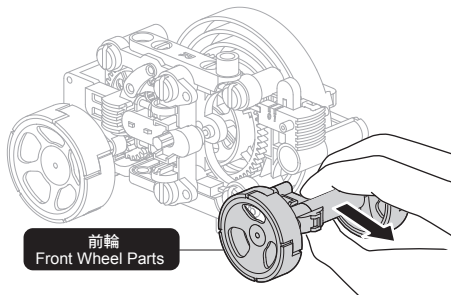
前進距離可達14M Running distance: 14 M



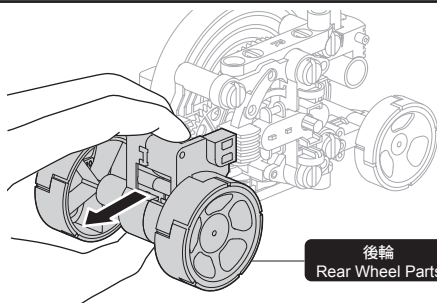
當每次結束遊戲後，請將螺旋發條完全解開放鬆，否則發條可能會變形且失去彈性。放鬆發條請參考 **54頁**

When you finish playing, please always release the spiral spring and keep it totally unwound. Otherwise the model can become deformed and lose its strength over time. Please refer to **Page 54** for spring release.

拆裝技巧 Disassembly Tips



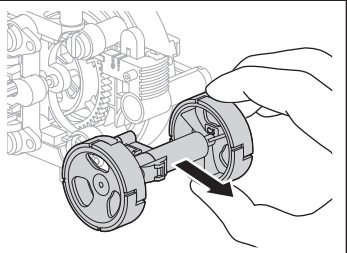
前輪
Front Wheel Parts



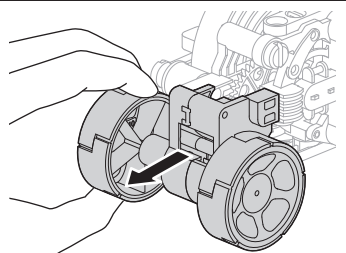
後輪
Rear Wheel Parts



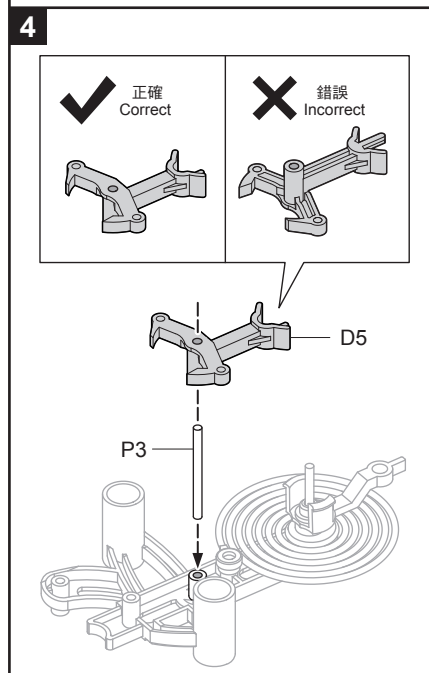
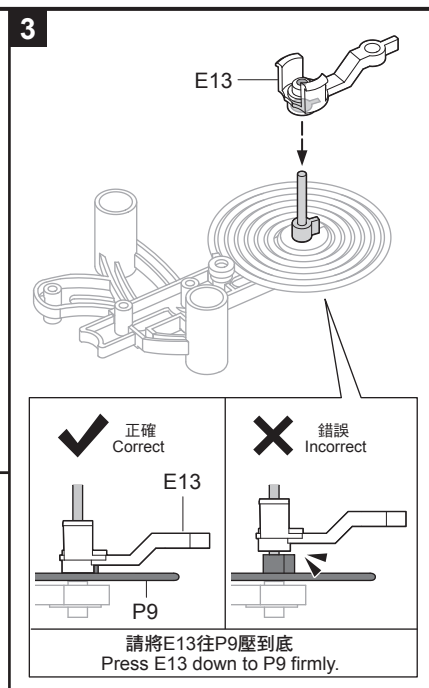
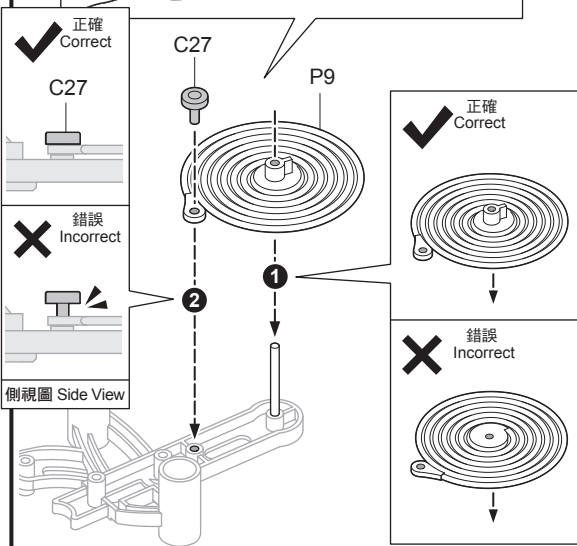
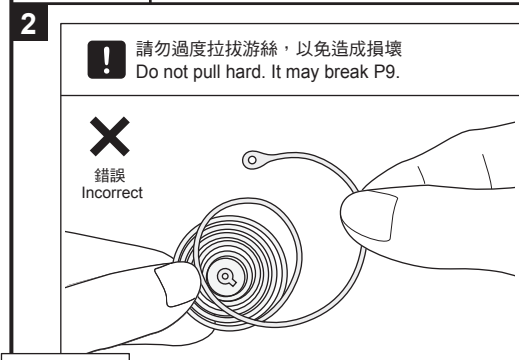
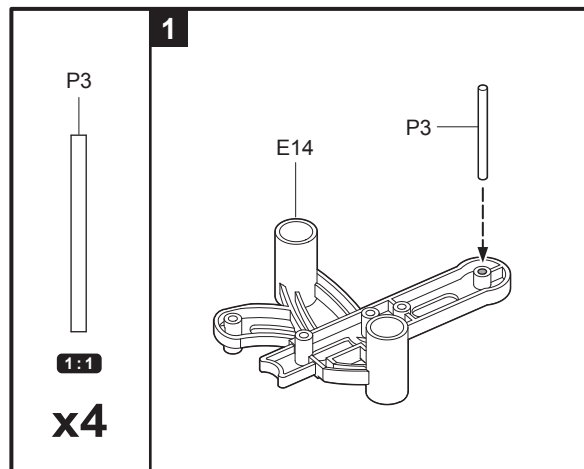
錯誤
Incorrect



錯誤
Incorrect



滴答計時器組裝 Spring Timer Assembly

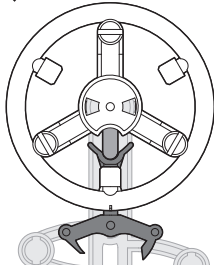


5

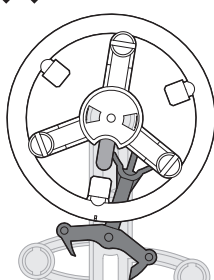
俯視圖 Top View



正確
Correct



錯誤
Incorrect



請將C23往E13壓到底
Press C23 down to E13 firmly.

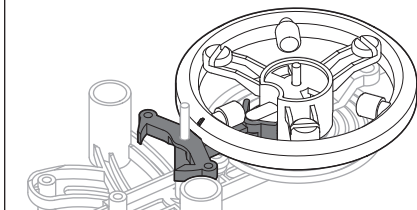
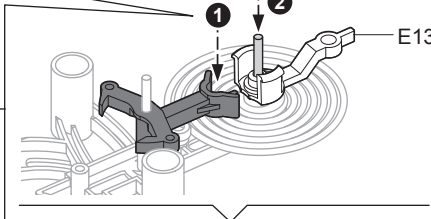
C23

3

1

2

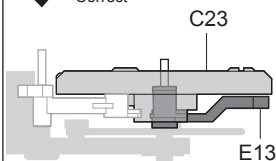
E13



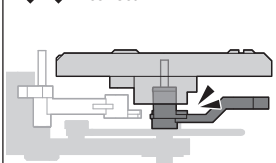
側視圖 Side View



正確
Correct



錯誤
Incorrect



6

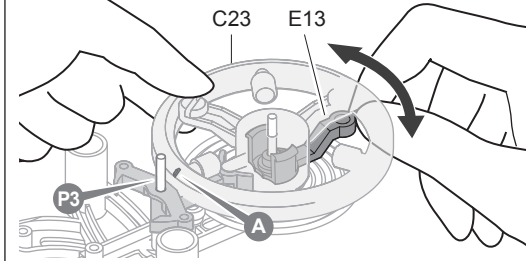
抓住C23，調整E13讓P3和A對齊
Hold C23 and adjust E13 to align P3 and A.

C23

E13

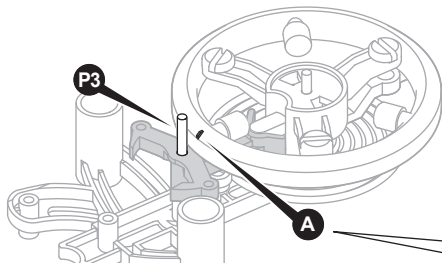
P3

A

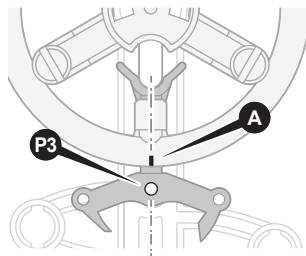


P3

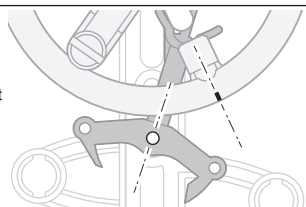
A



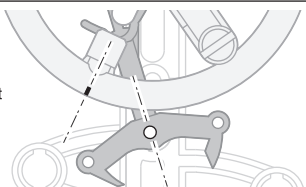
正確
Correct



錯誤
Incorrect



錯誤
Incorrect



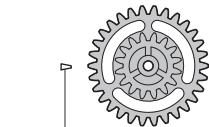
務必確認手放開C23的時候，P3和A要對齊

Make sure P3 and A are aligned when hands are off of C23.

7

! 組裝前請將毛邊剪切乾淨
Cut off the burrs before assembly.

毛邊 burr →



毛邊 burr →

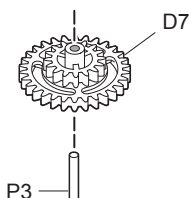
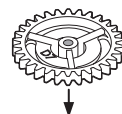
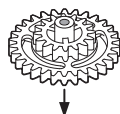
D7



正確
Correct



錯誤
Incorrect

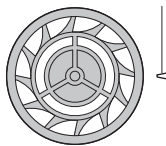


P3

8

! 組裝前請將毛邊剪切乾淨
Cut off the burrs before assembly.

毛邊 burr →



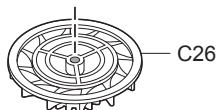
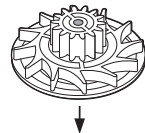
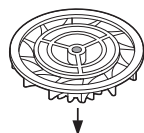
毛邊 burr C26



正確
Correct



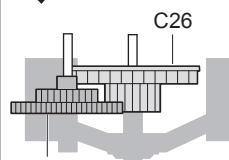
錯誤
Incorrect



P3



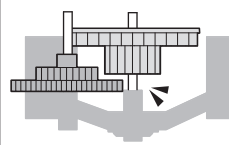
正確
Correct



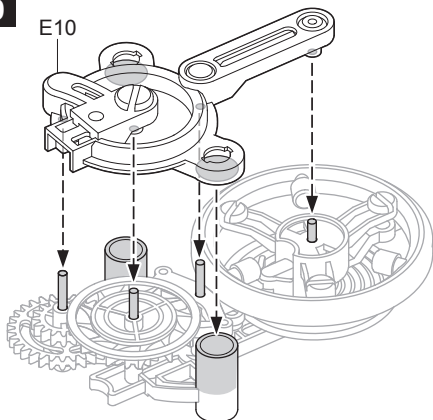
D7



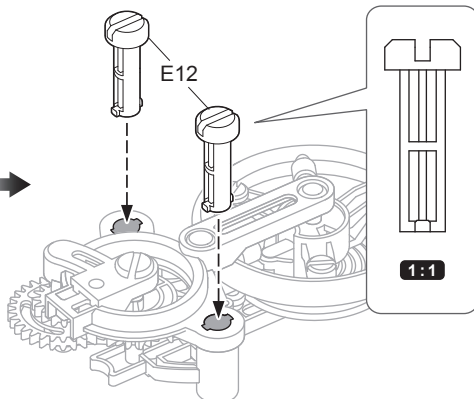
錯誤
Incorrect



9



E10



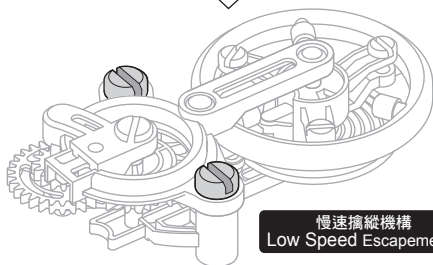
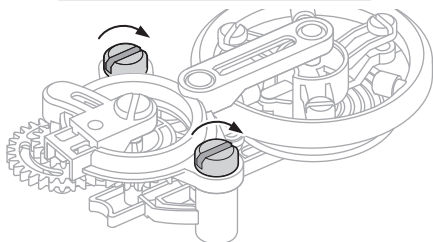
E12

1:1

10

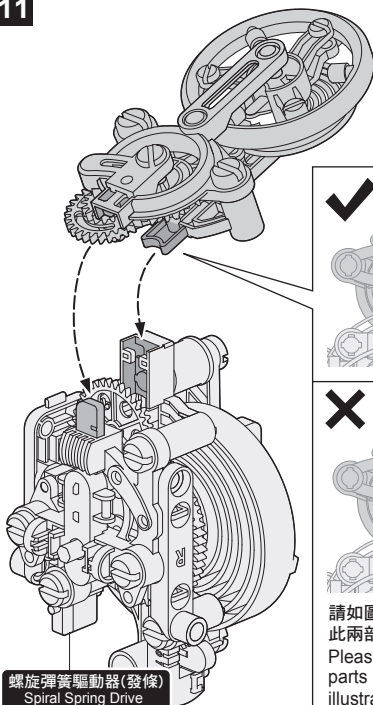


使用D14的一端安裝E12
Use the tip of D14 to rotate E12.

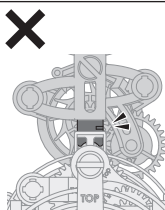
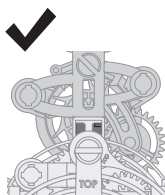


慢速擒縱機構
Low Speed Escapement

11



螺旋彈簧驅動器(發條)
Spiral Spring Drive



請如圖正確安裝
此兩部件
Please join the two
parts properly as
illustration shown.

12

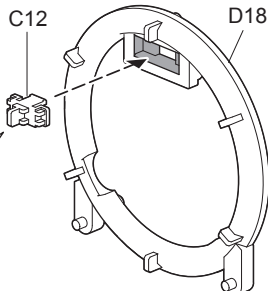


組裝前請先將
毛邊剪切乾淨
Cut off the burrs
before assembly.



C12

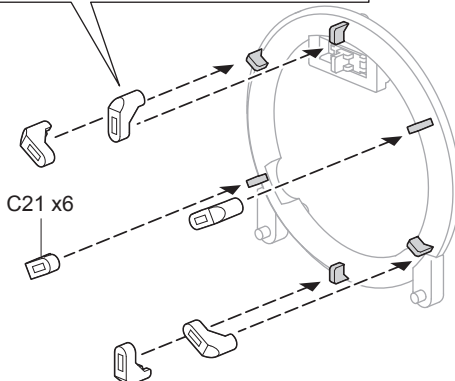
D18



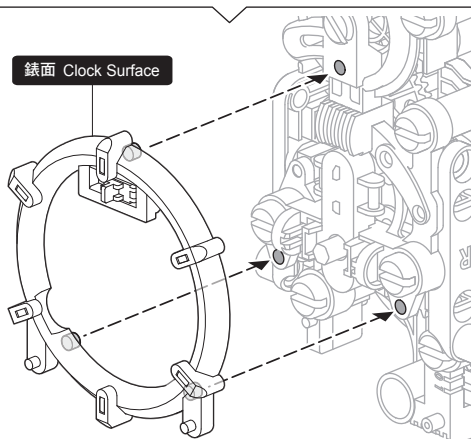
組裝前請先將
毛邊剪切乾淨
Cut off the burrs
before assembly.



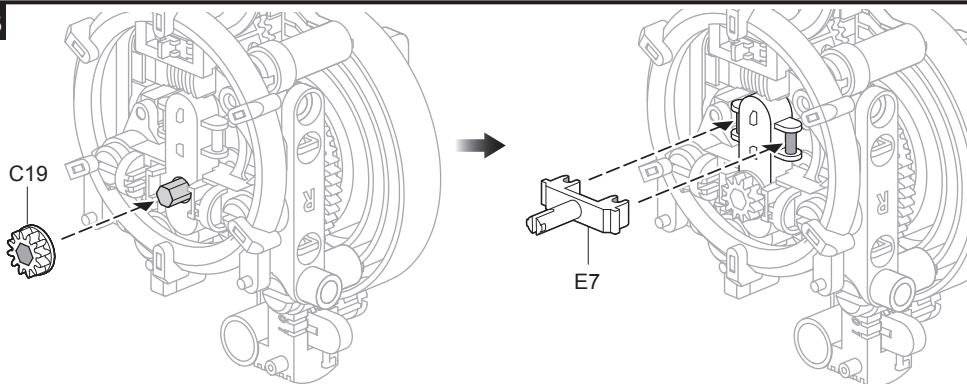
C21 x6



錶面 Clock Surface



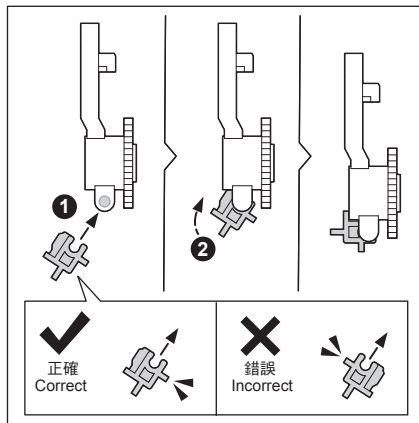
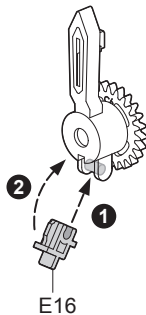
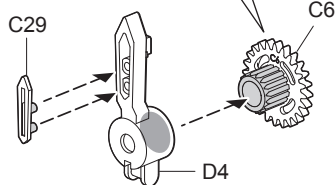
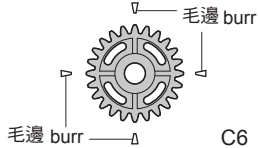
13



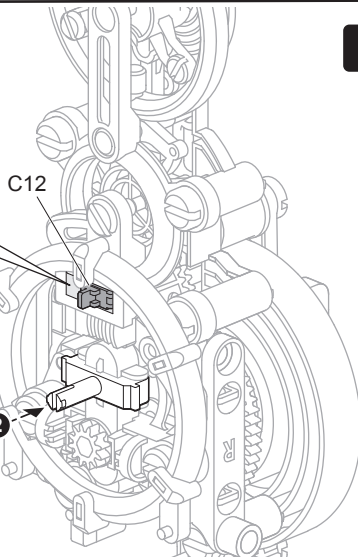
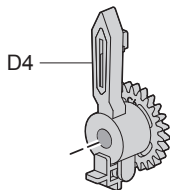
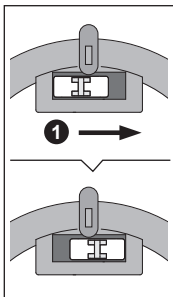
14



組裝前請將毛邊剪切乾淨
Cut off the burrs
before assembly.



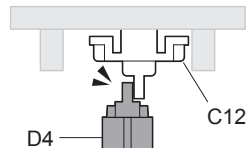
15



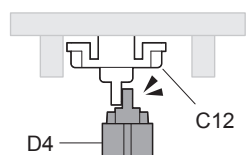
俯視圖 Top View



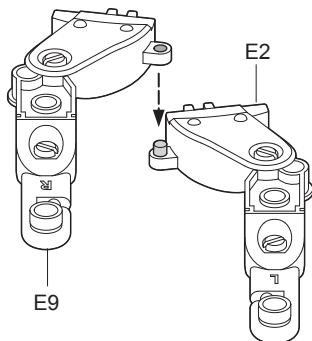
正確
Correct



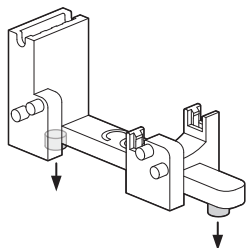
錯誤
Incorrect



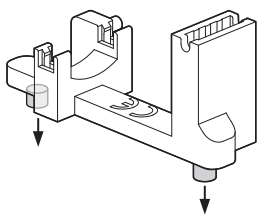
16



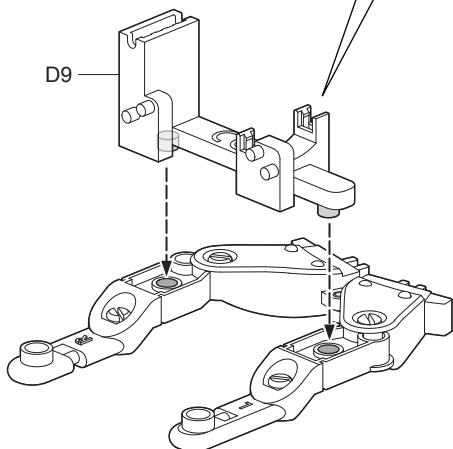
正確
Correct



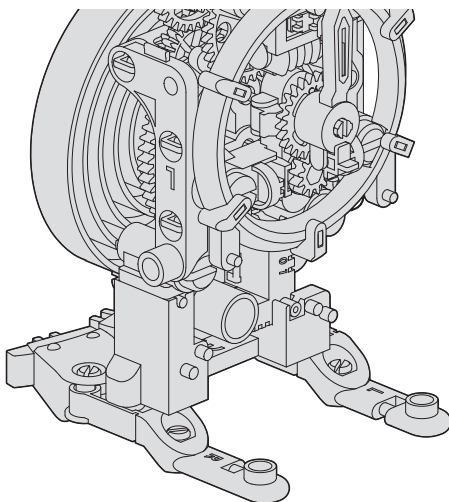
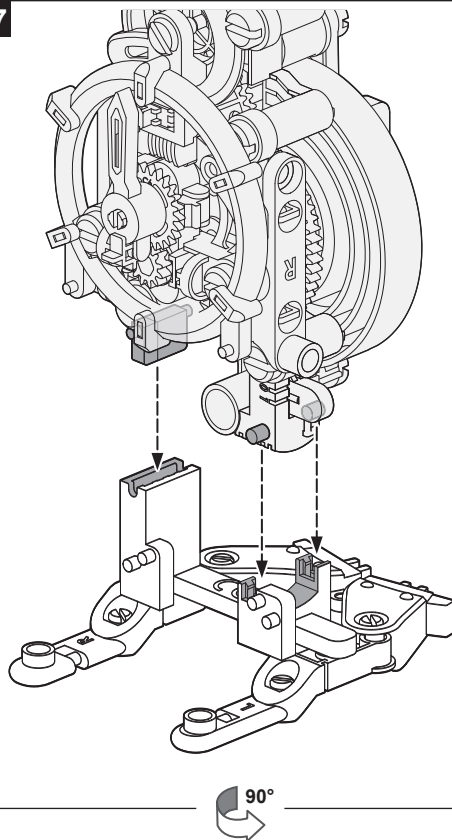
錯誤
Incorrect



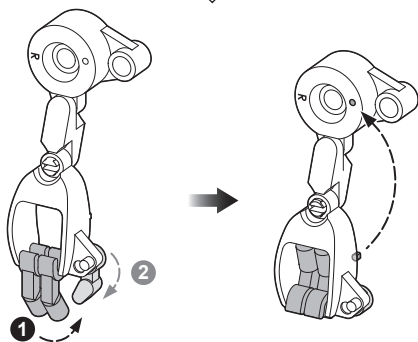
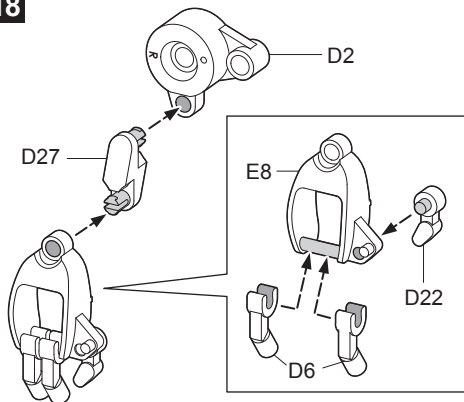
D9



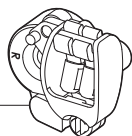
17



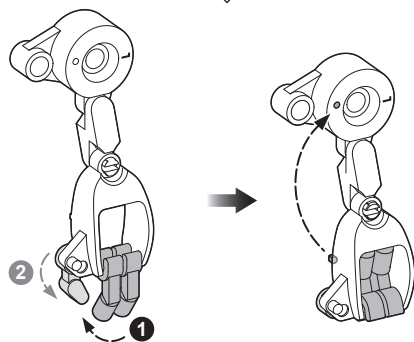
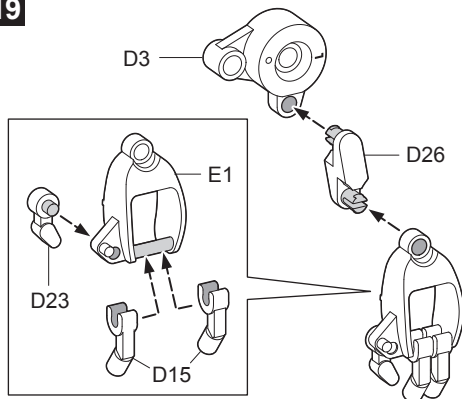
18



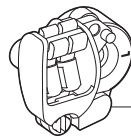
手部 右 R
HAND



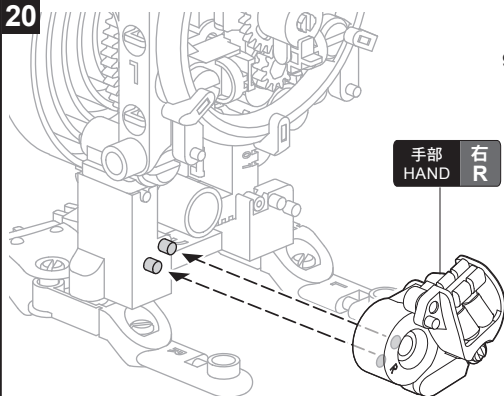
19



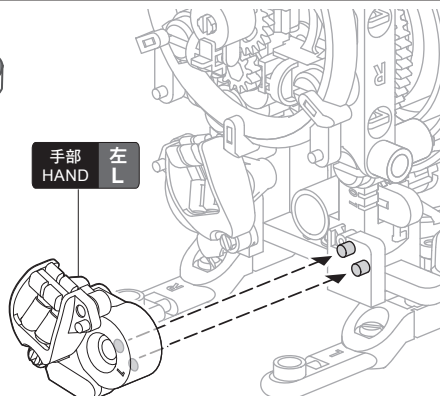
手部 左 L
HAND



20

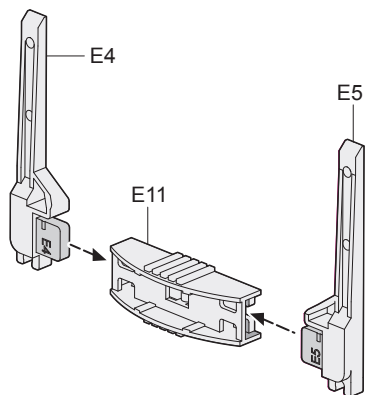


手部 右 R
HAND



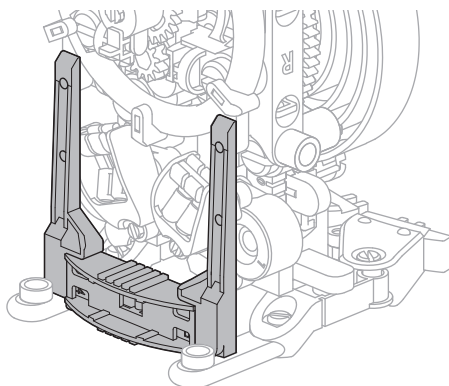
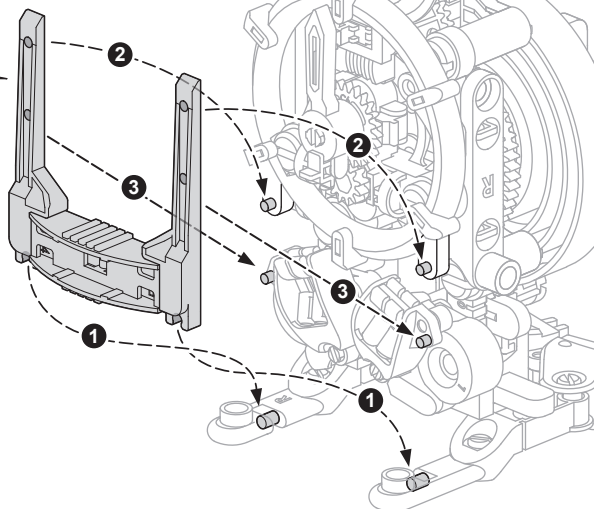
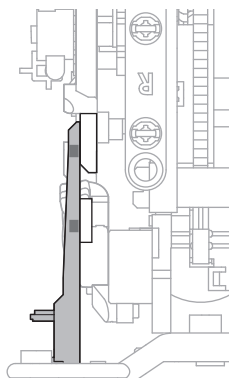
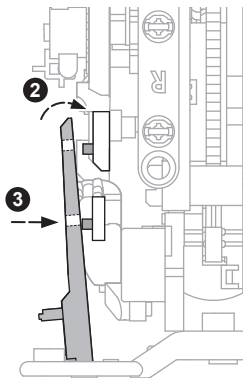
手部 左 L
HAND

21



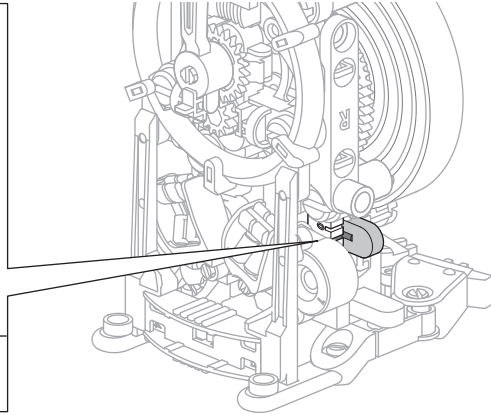
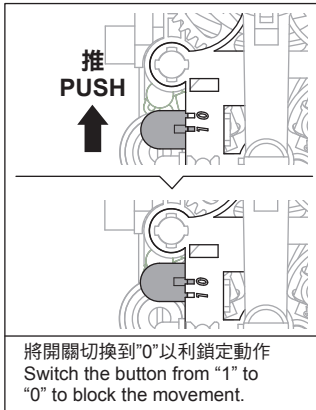
22

側視圖 Side View

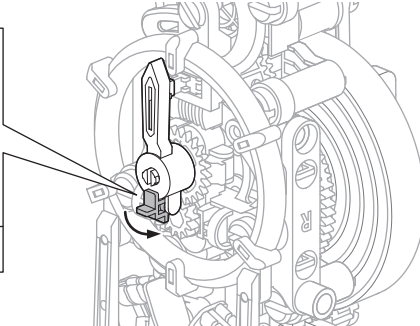
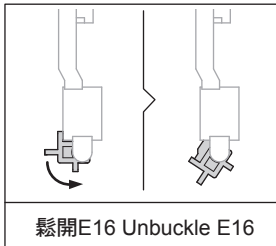


遊戲方式 How To Play

1



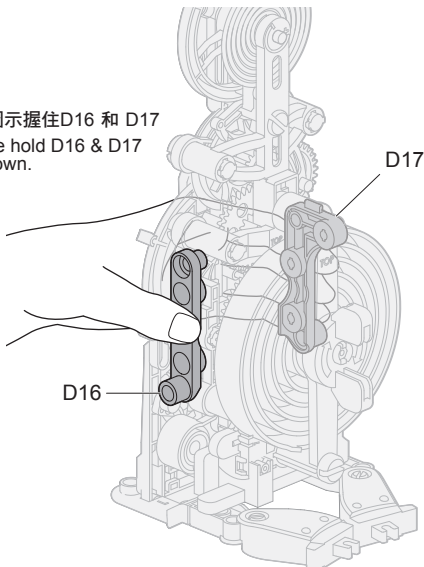
2



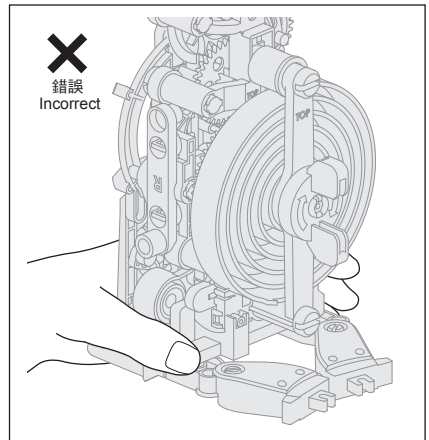
3



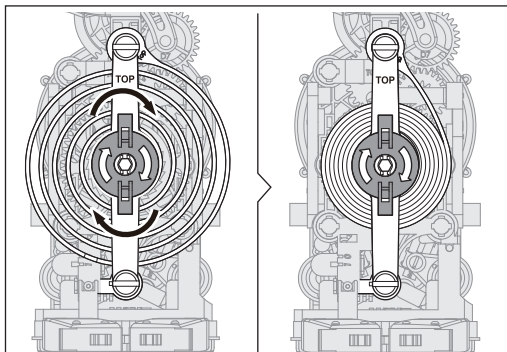
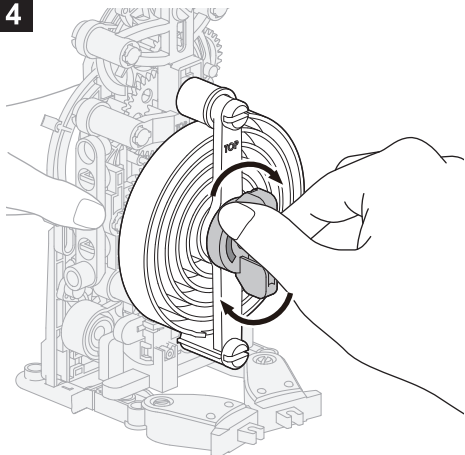
請依圖示握住D16 和 D17
Please hold D16 & D17
as shown.



錯誤
Incorrect



4



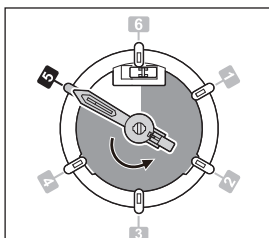
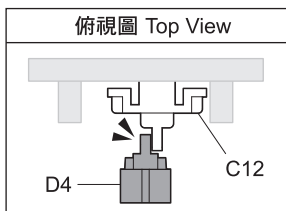
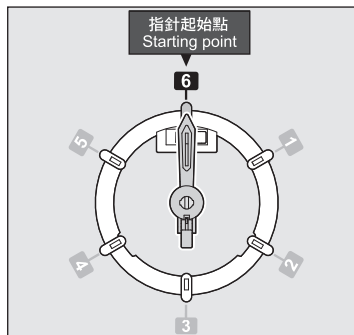
順時針旋轉直到聽到“咔”的聲音

Wind the knob clockwise until you hear a “click” sound.

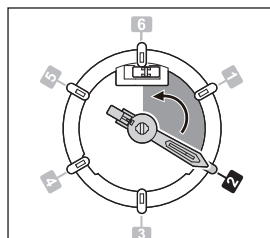
5

將指針調整到想要開始的位置

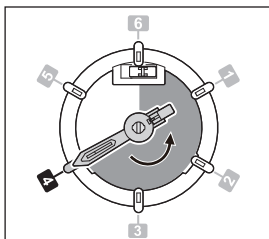
Point the minute hand to the number you'd like to start.



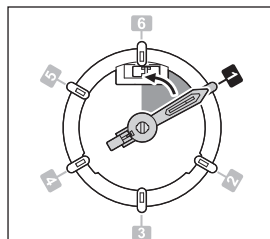
倒數5分鐘 Countdown 5 minutes



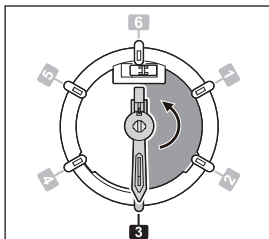
倒數2分鐘 Countdown 2 minutes



倒數4分鐘 Countdown 4 minutes

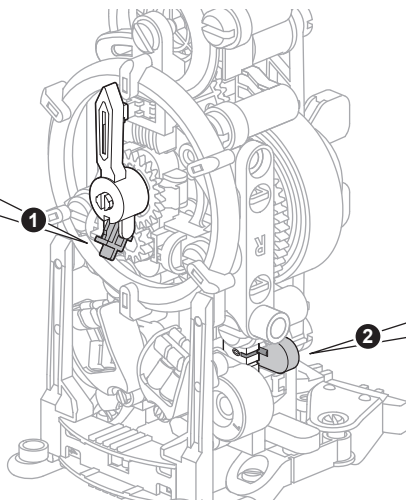
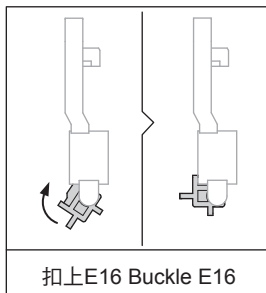


倒數1分鐘 Countdown 1 minut

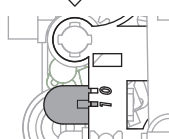
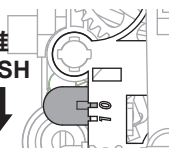


倒數3分鐘 Countdown 3 minutes

6



推
PUSH

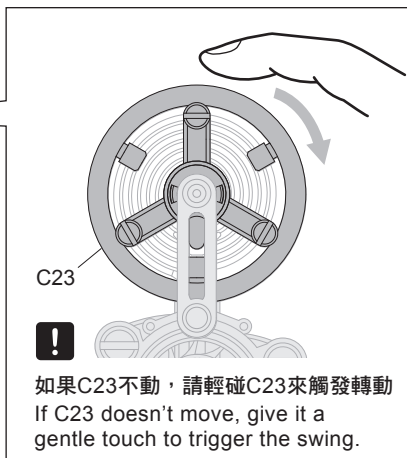


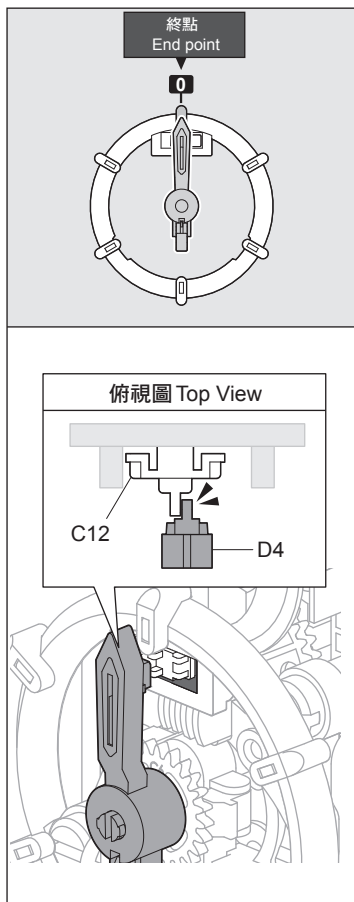
將開關切換到“1”以利
開始動作

Switch the button from
“0” to “1” to activate
the operation.

7

最多可以倒數6分鐘 The spring timer can do a 6 minutes countdown.





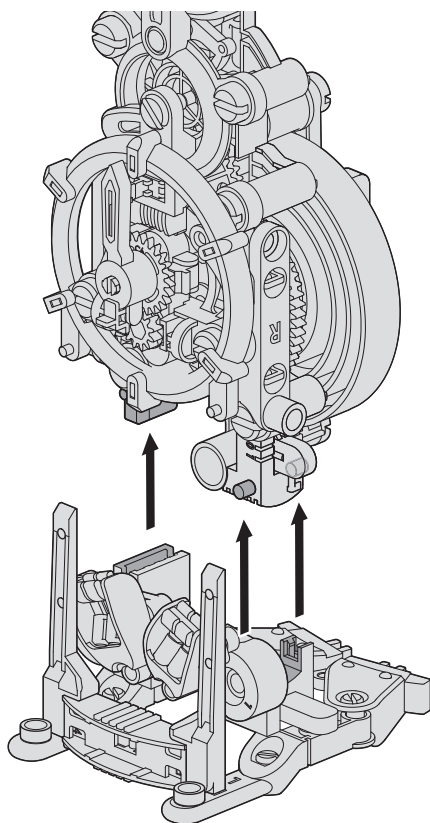
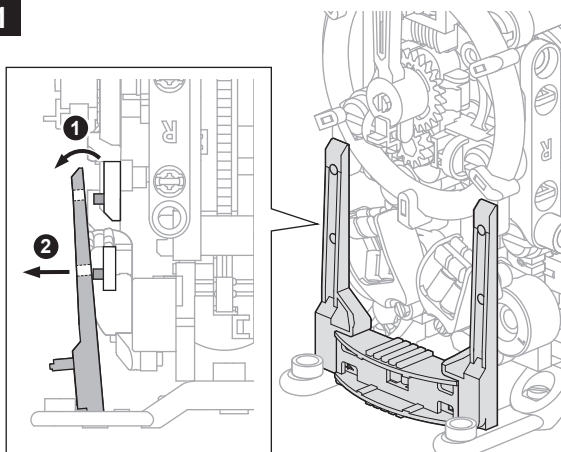
當分針來到終點，慢速擒縱機構又會再擺動最多30秒是正常現象

When the hand arrives the end point, it is normal if the low speed escapement still swings up to 30 seconds.

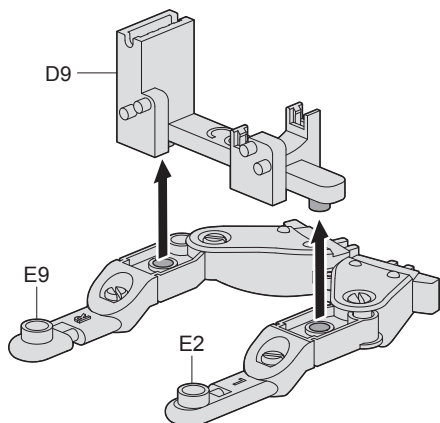
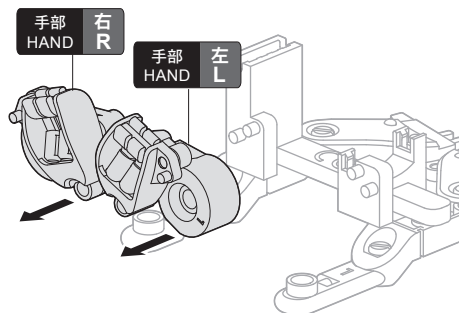
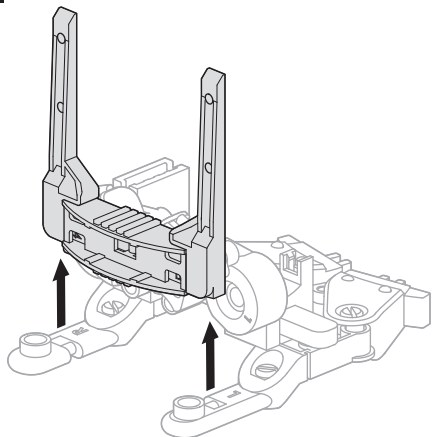


當每次結束遊戲後，請將螺旋發條完全解開放鬆，否則發條可能會變形且失去彈性。放鬆發條請參考 **55頁**

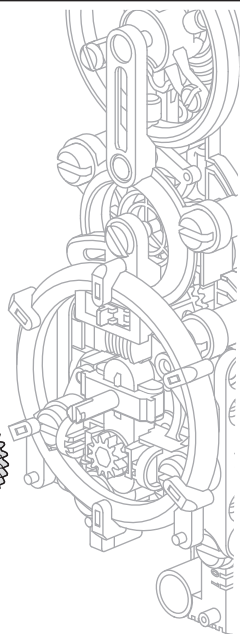
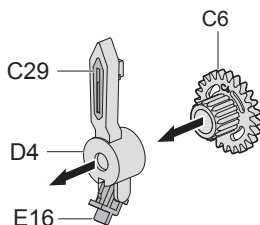
When you finish playing, please always release the spiral spring and keep it totally unwound. Otherwise the model can become deformed and lose its strength over time. Please refer to **Page 55** for spring release.



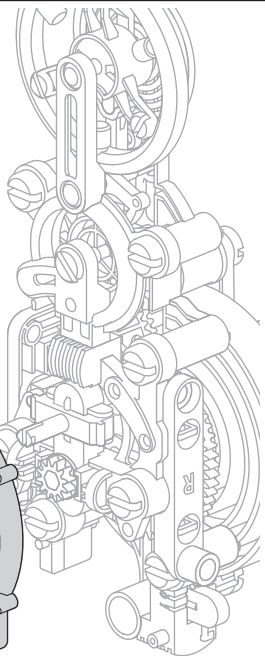
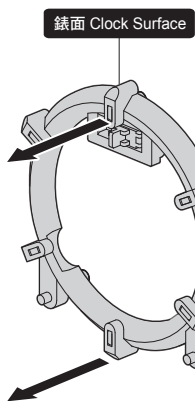
2



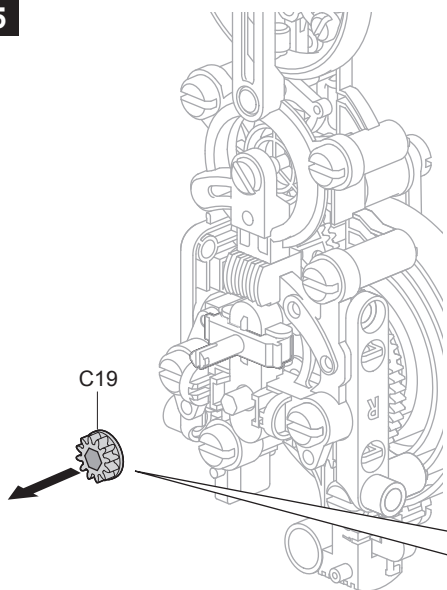
3



4



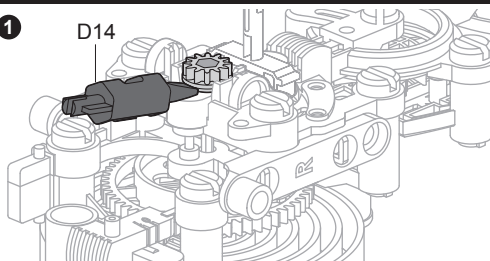
5



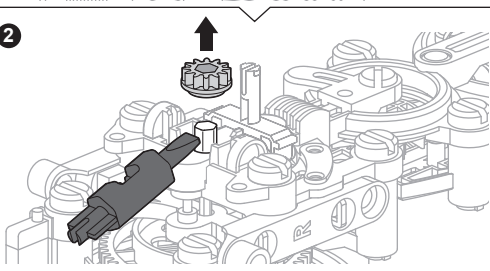
小技巧提醒 Tips

1

D14

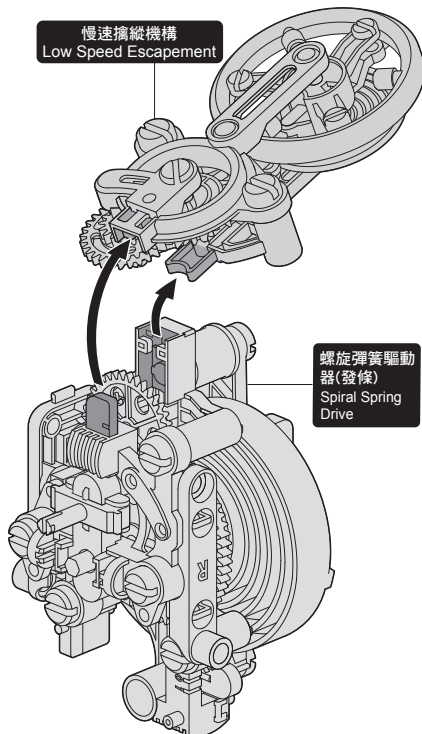


2

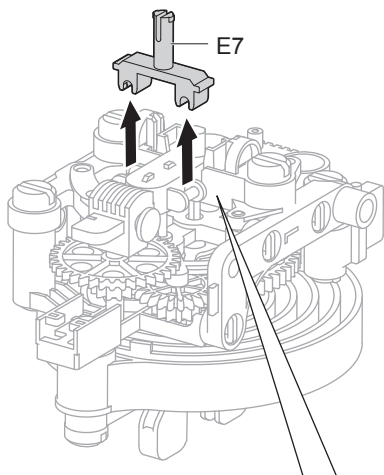


6

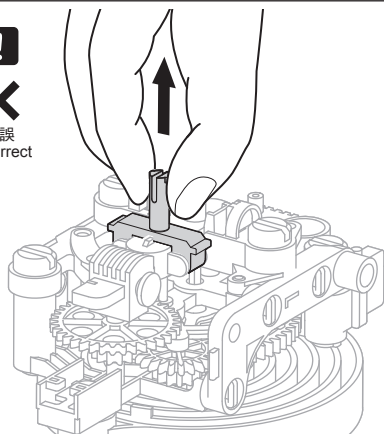
慢速擒縱機構
Low Speed Escapement



螺旋彈簧驅動
器(發條)
Spiral Spring
Drive

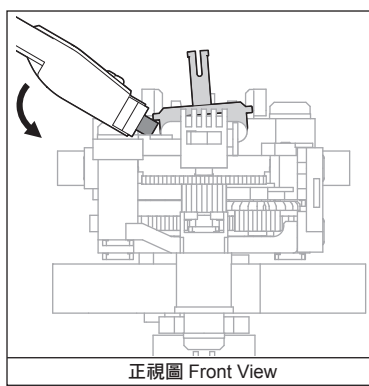
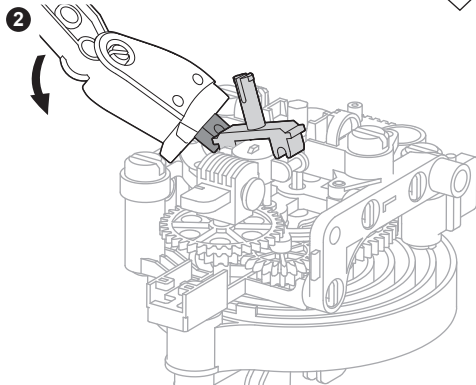
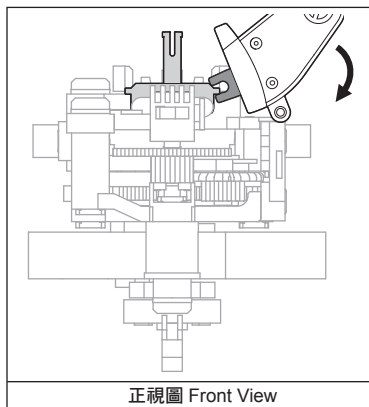
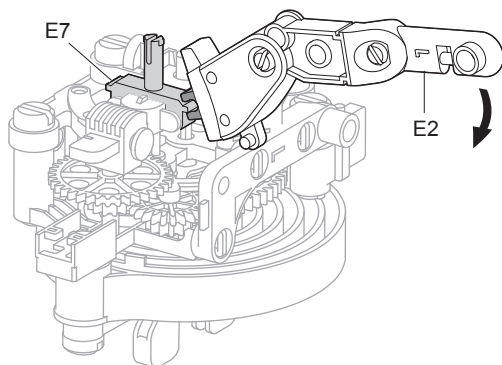


!
×
錯誤
Incorrect



小技巧提醒 Tips

- 1** 請用E2來拆卸E7 Use E2 to disassemble E7.



發條機器人安裝 Spring Bot Assembly

身體組裝 Body Assembly

1



使用D14開口端卸除C24
Use the tail of D14 to rotate C24.

螺旋彈簧驅動器(發條)
Spiral Spring Drive

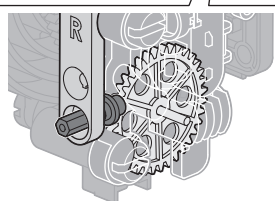
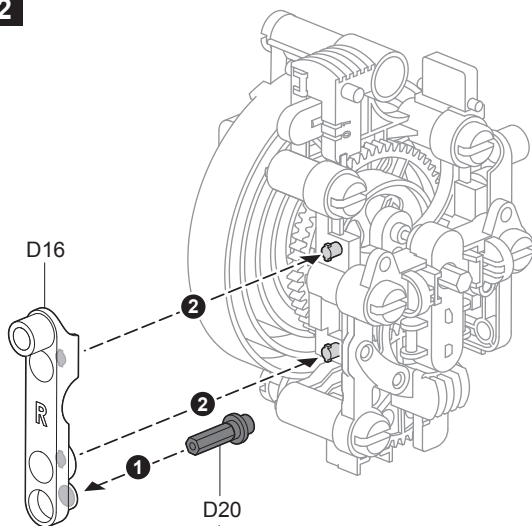


卸除C24x2
Disassemble C24x2

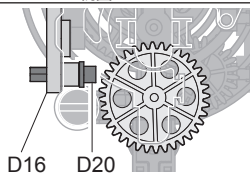


卸除D16
Disassemble D16

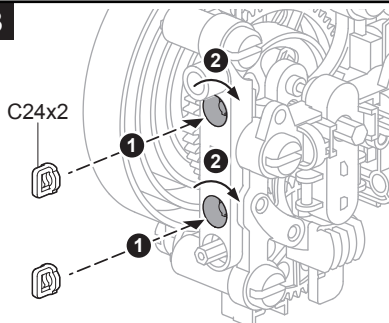
2



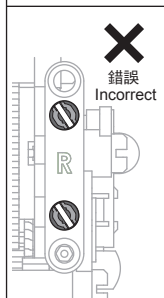
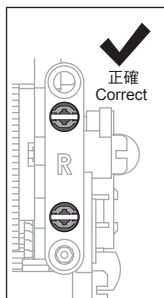
正視圖 Front View



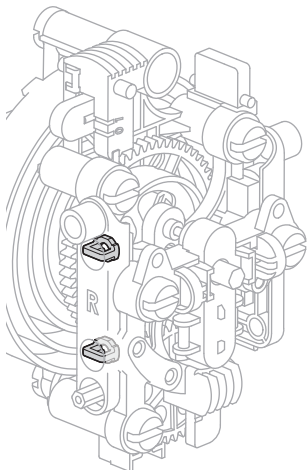
3



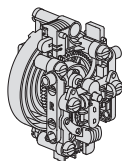
使用D14開口端安裝C24
Use the tail of D14 to rotate C24.



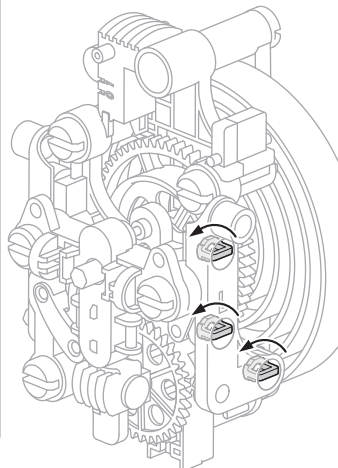
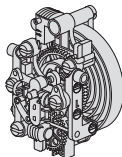
側視圖 Side View



4

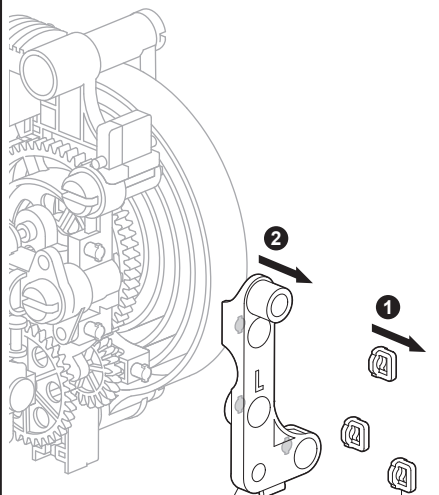


90°



使用D14開口端卸除C24
Use the tail of D14 to rotate C24.

5

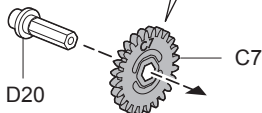
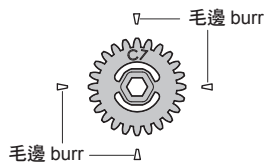


卸除D17
Disassemble D17

卸除C24x3
Disassemble C24x3

6

⚠ 組裝前請先將毛邊剪切乾淨
Cut off the burrs before assembly.



✓
正確
Correct

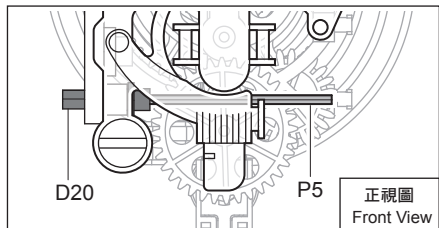
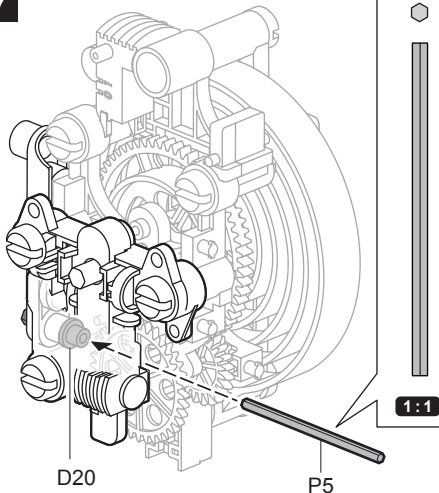


✗
錯誤
Incorrect

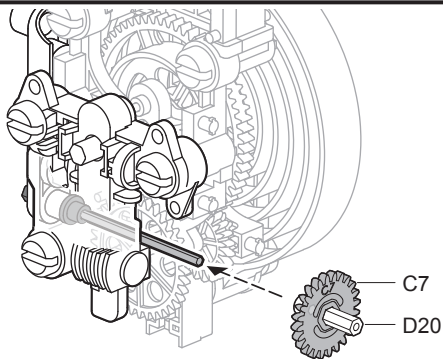


俯視圖 Top View

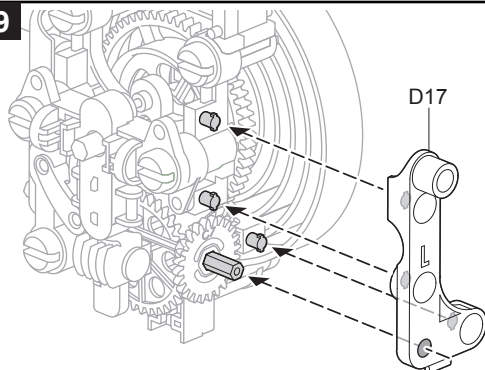
7



8



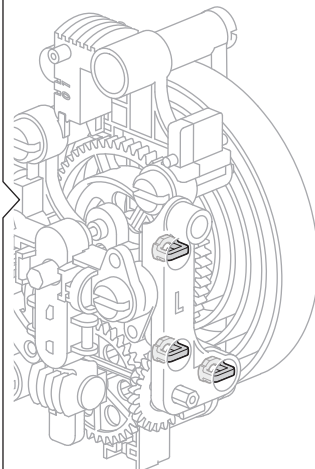
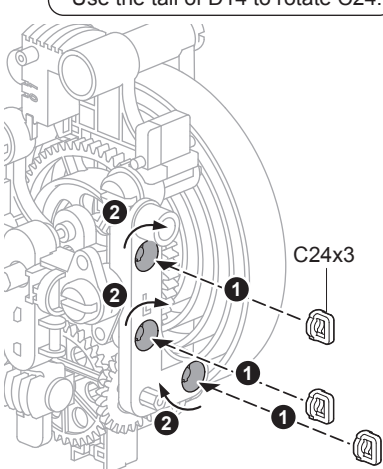
9



10

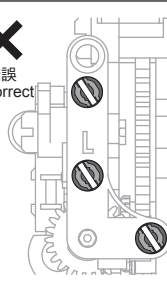


使用D14開口端安裝C24
Use the tail of D14 to rotate C24.



✓
正確
Correct

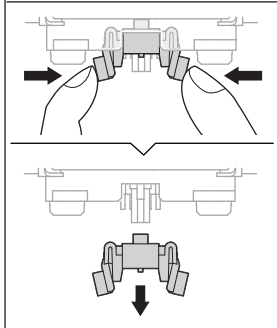
✗
錯誤
Incorrect



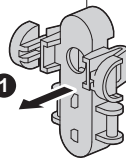
側視圖 Side View

11

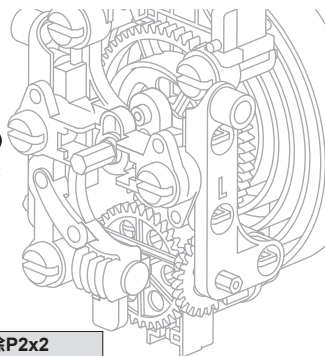
俯視圖 Top view

卸除D8
Disassemble D8

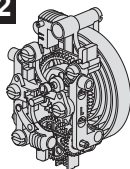
1

卸除P2x2
Disassemble P2x2

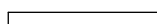
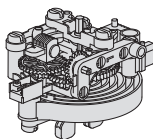
2



12



90°



1:1

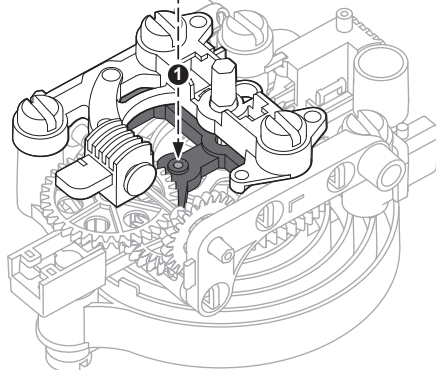
P2

2

C1

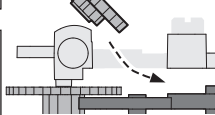


1



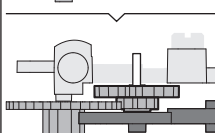
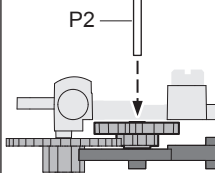
1

C1

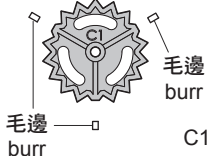
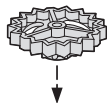
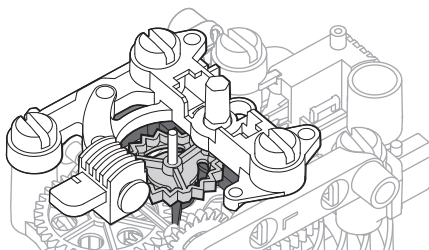
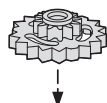


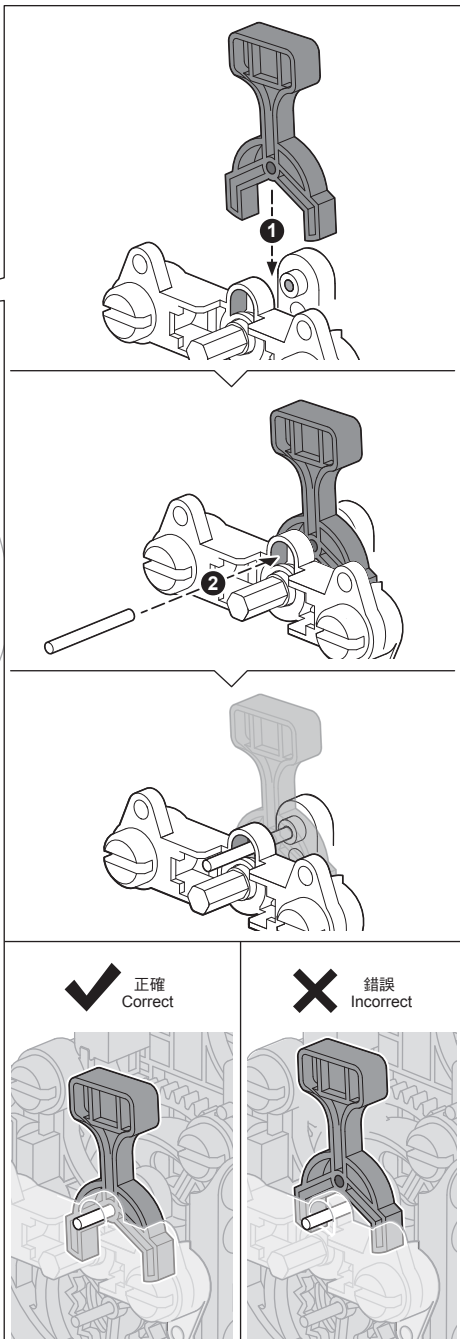
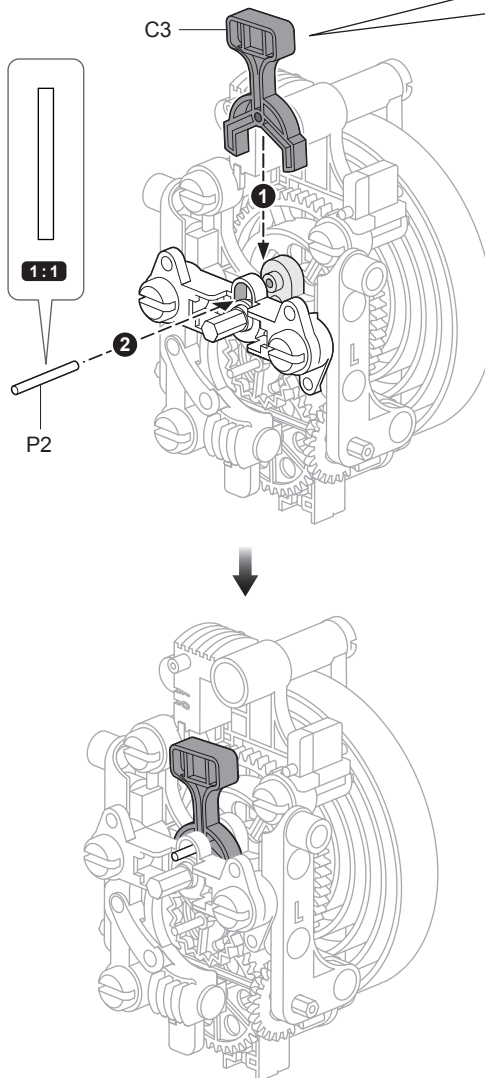
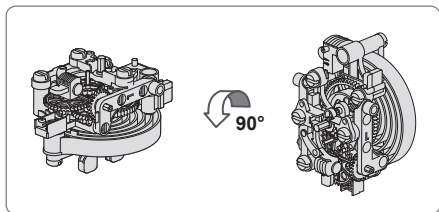
2

P2



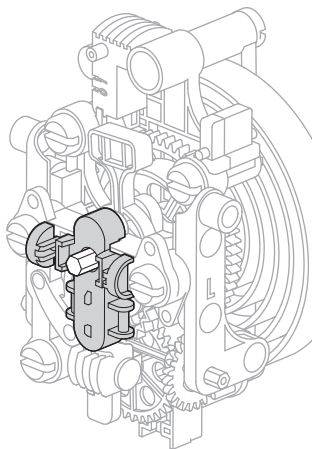
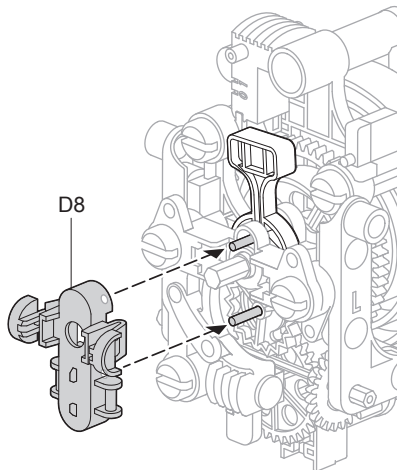
側視圖 Side View

組裝前請先將毛邊
剪切乾淨
Cut off the burrs
before assembly.✓
正確
Correct✗
錯誤
Incorrect



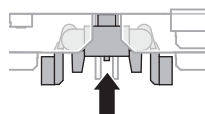
14

身體組裝完成! BODY DONE!

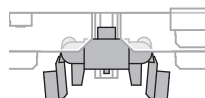


俯視圖 Top View

✓ 正確
Correct



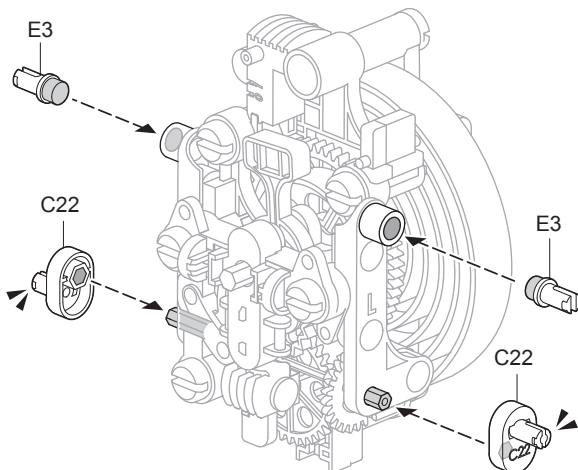
✗ 錯誤
Incorrect



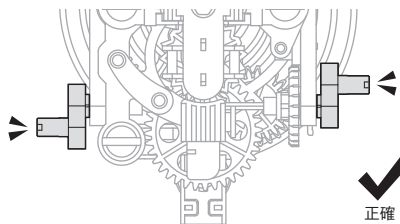
請將D8壓緊
Please press D8 down
firmly.

頭、手、腳組裝 Head, Arms, and Feet Assembly

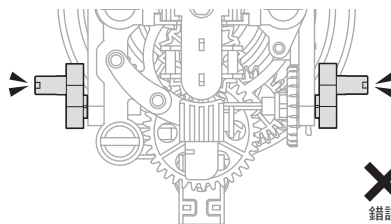
1



正視圖 Front View

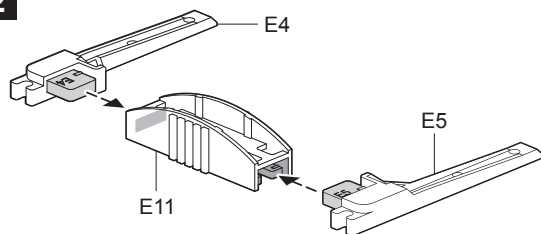


✓ 正確
Correct



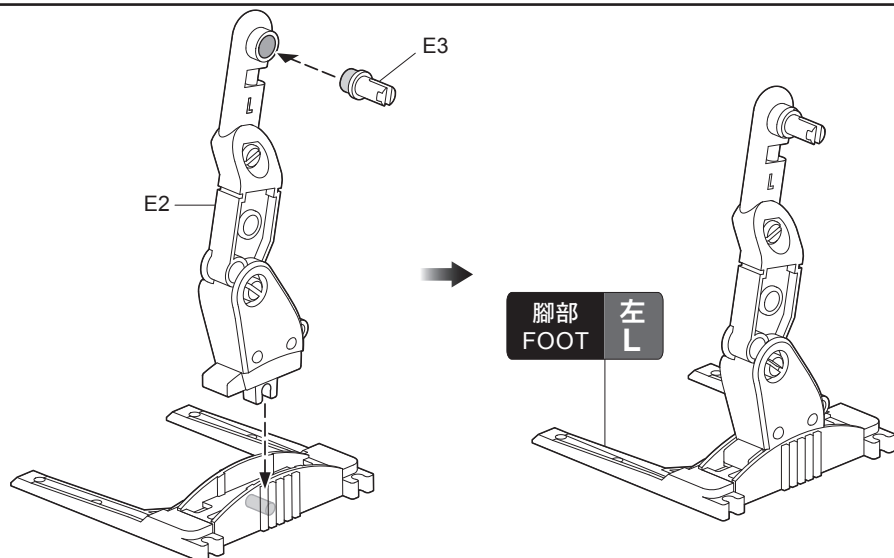
✗ 錯誤
Incorrect

2

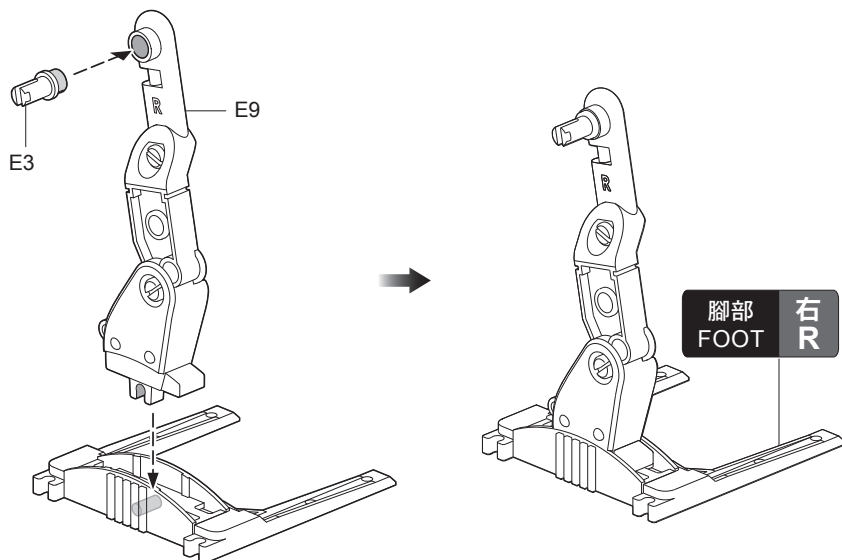


x2

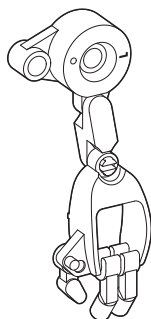
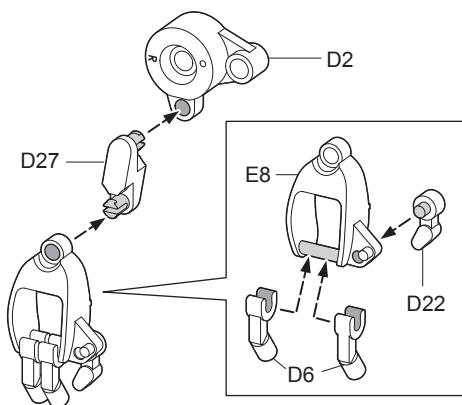
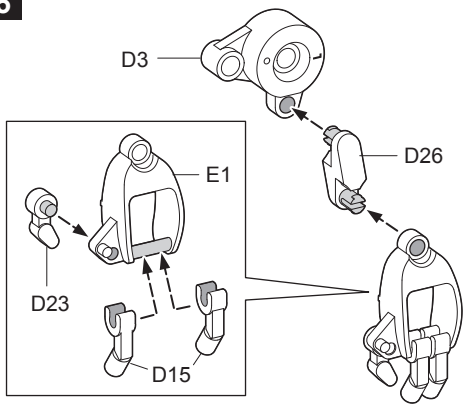
3



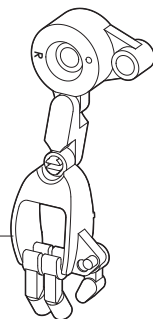
4



5



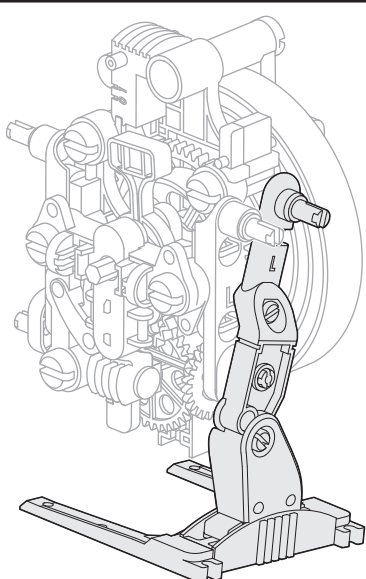
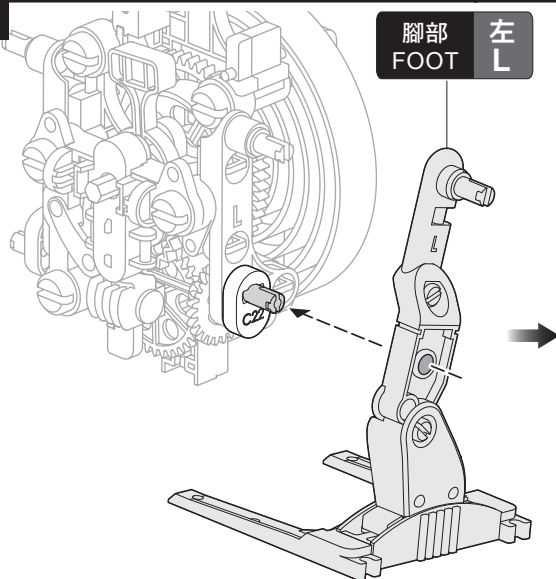
手部 左
HAND L



手部 右
HAND R

6

腳部 左
FOOT L

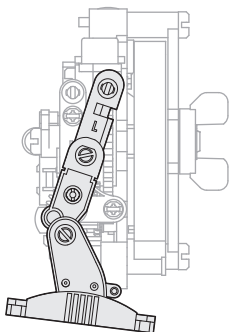


7

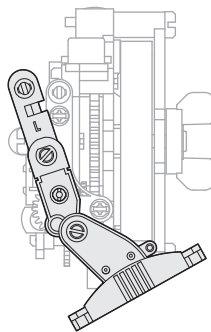
側視圖 Side View



正確
Correct



錯誤
Incorrect



8

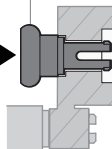
俯視圖 Top View



正確
Correct

壓至底
PUSH

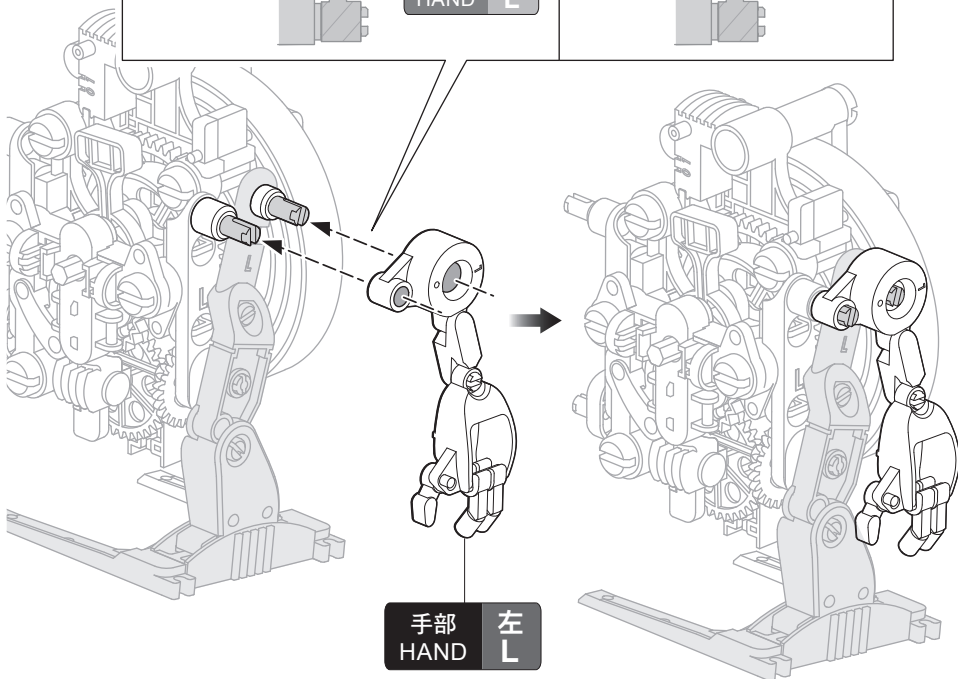
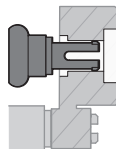
腳部 左
FOOT L

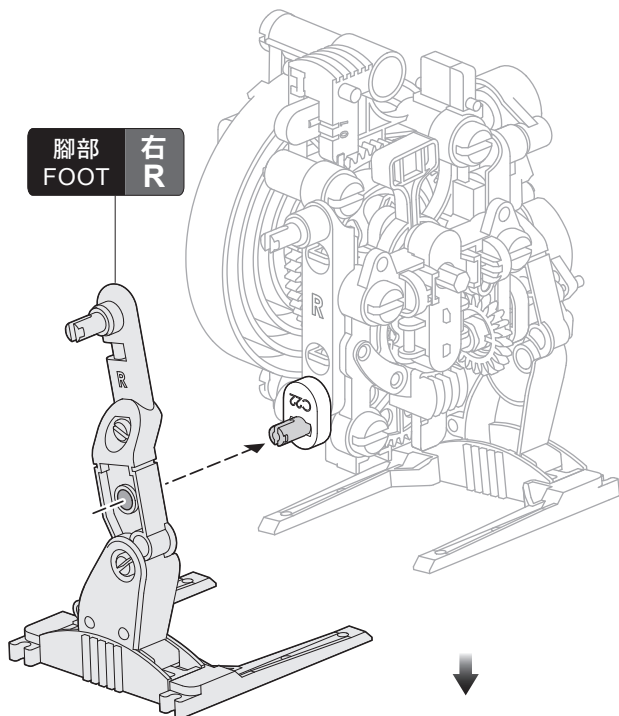
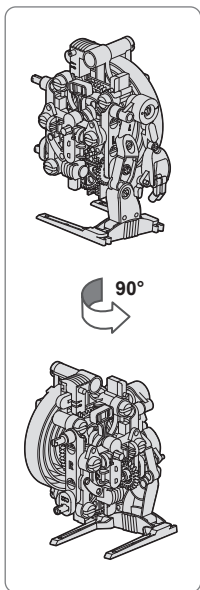


手部 左
HAND L



錯誤
Incorrect

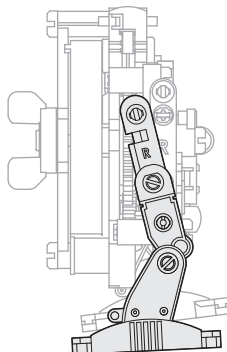




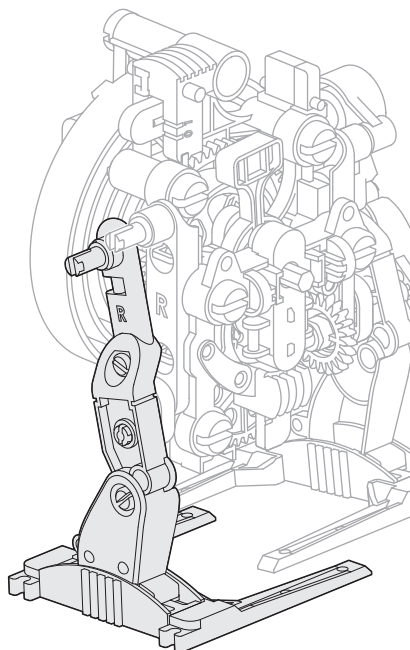
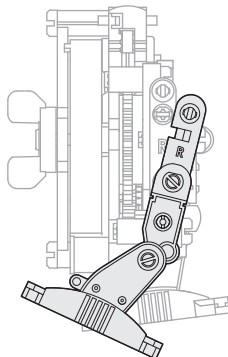
側視圖 Side View



正確
Correct



錯誤
Incorrect



俯視圖 Top View



正確
Correct

手部
HAND

右
R

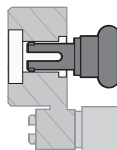
腳部
FOOT

右
R

壓至底
PUSH

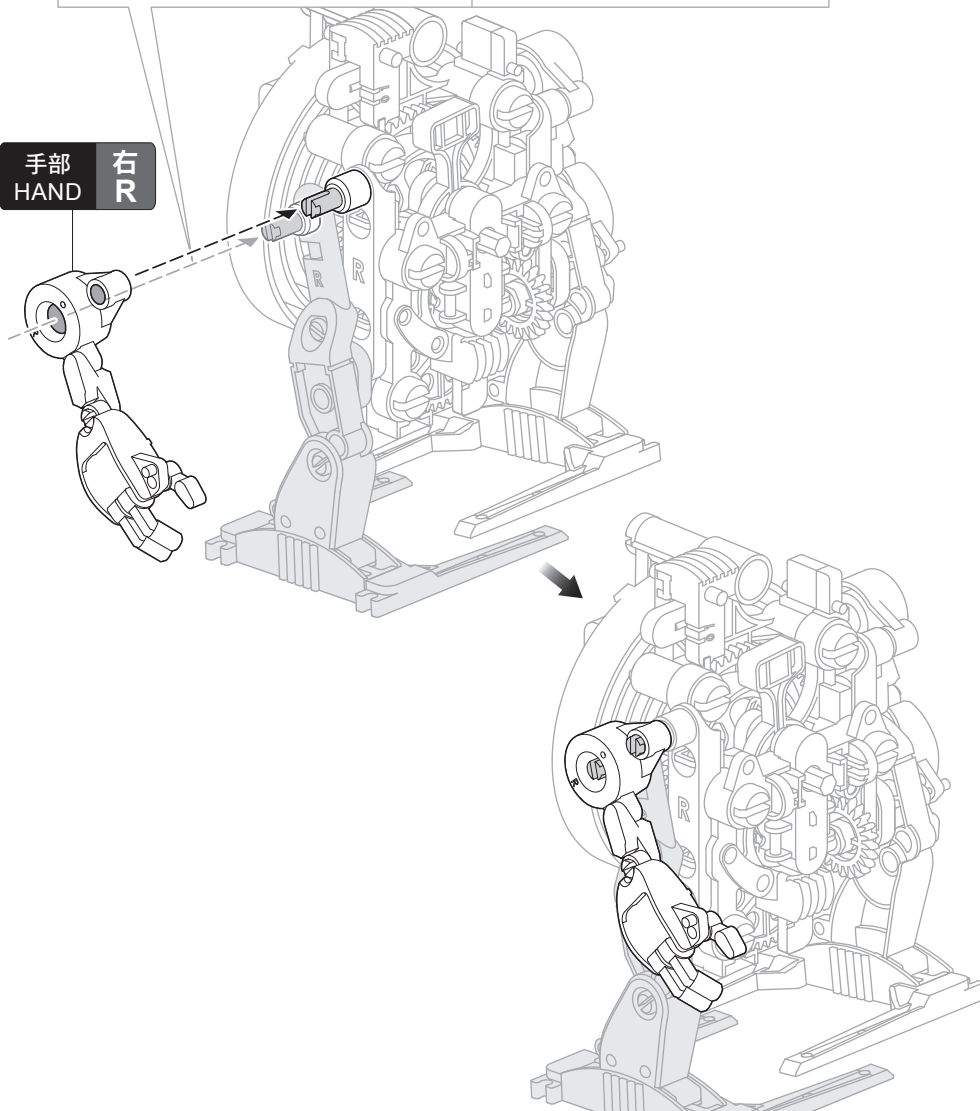


錯誤
Incorrect

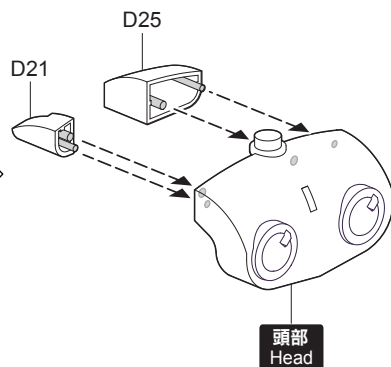
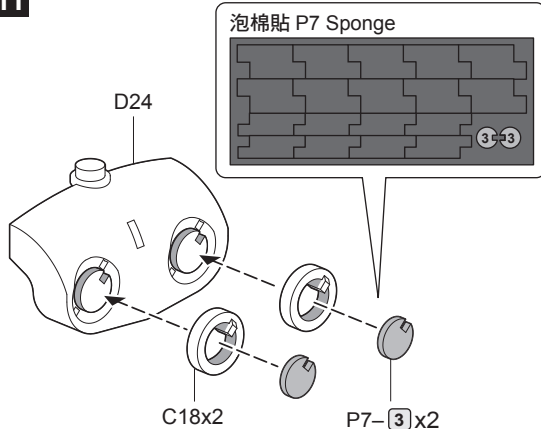


手部
HAND

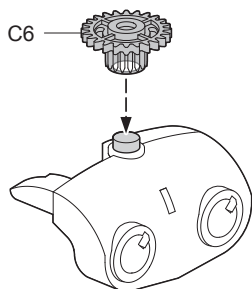
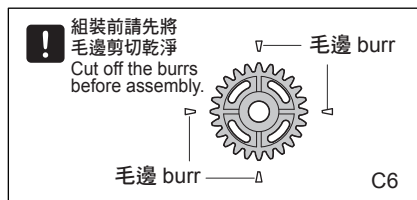
右
R



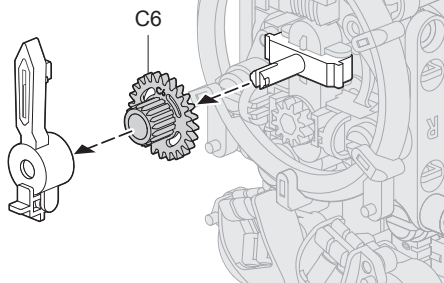
11



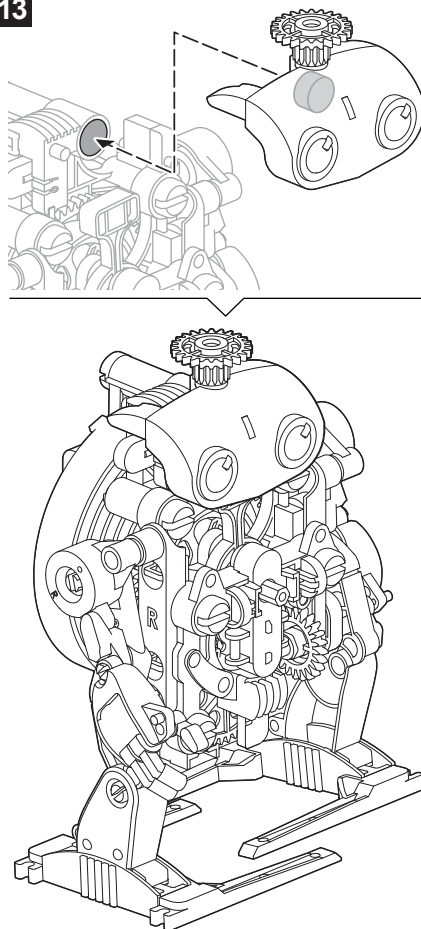
12



計時器
Spring Timer

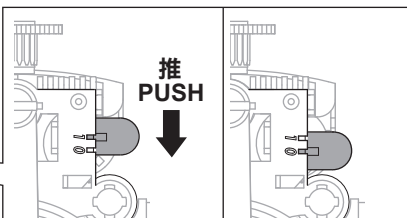
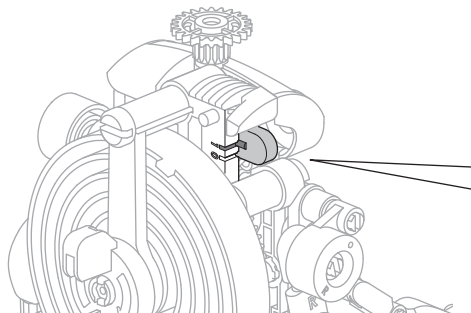


13



遊戲方式 How to Play

1

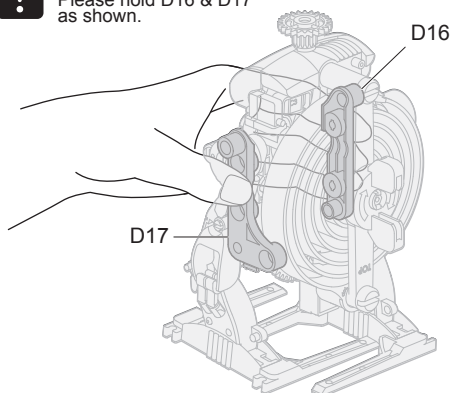


將開關切換到“0”以利鎖定動作
Switch the button from “1” to “0” to block the movement.

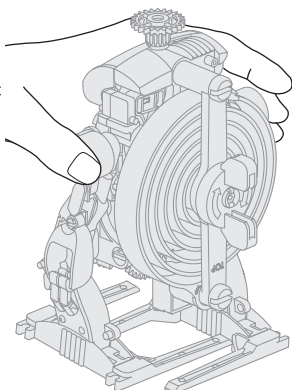
2



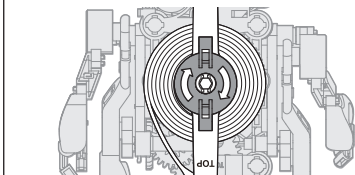
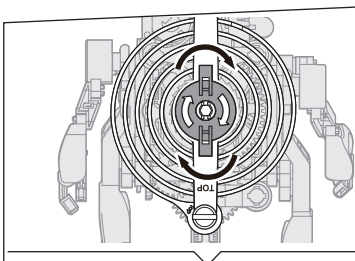
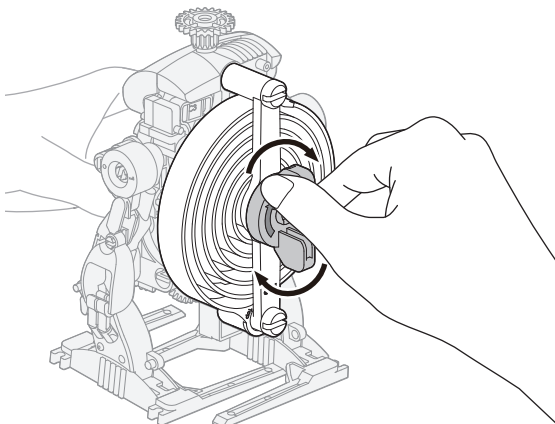
請依圖示握住D16和D17
Please hold D16 & D17 as shown.



✗
錯誤
Incorrect

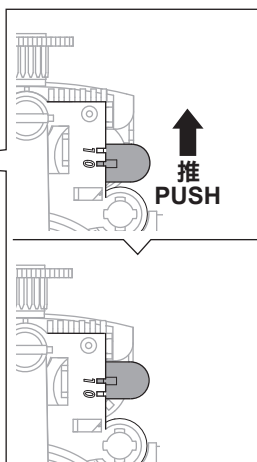
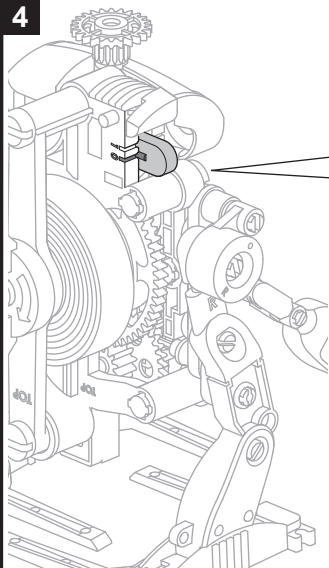


3



順時針旋轉直到聽到“咔”的聲音
Wind the knob clockwise until you hear a “click” sound.

4

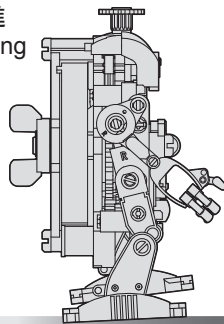


將開關切換到“1”以利
開始動作

Switch the button from “0” to “1”
to activate the operation.

5 前進

Running



前進距離可達50CM
Running distance: 50 CM

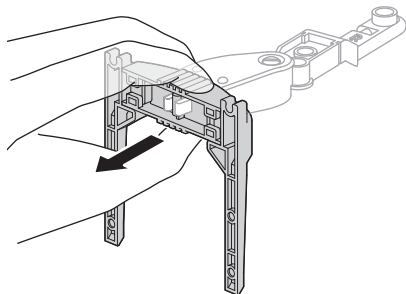


當每次結束遊戲後，請將螺旋發條完全
解開放鬆，否則發條可能會變形且失去
彈性。放鬆發條請參考 **65頁**

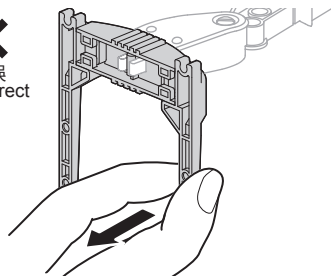
When you finish playing, please
always release the spiral spring
and keep it totally unwound.

Otherwise the model can become
deformed and lose its strength
over time. Please refer to **Page 55**
for spring release.

拆裝技巧 Disassembly Tips

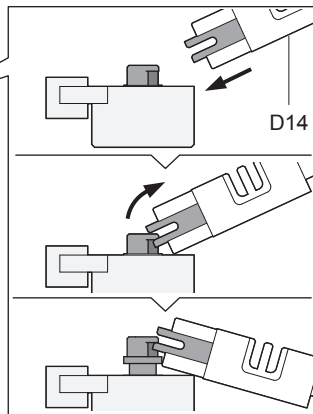
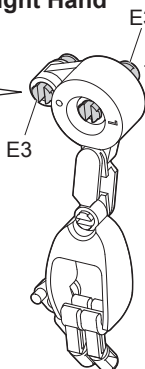
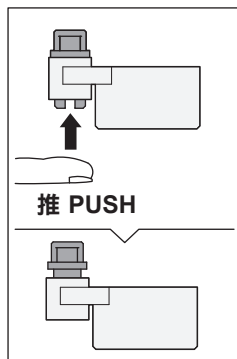


錯誤
Incorrect



拆除在左手和右手的E3

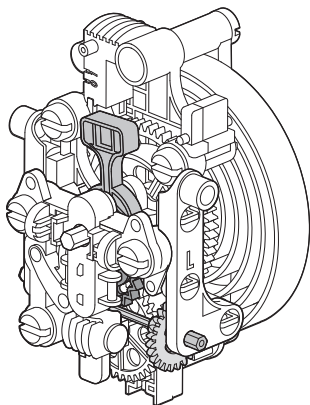
Disassemble E3 of Left Hand and Right Hand



身體與螺旋彈簧結合方式 From Body to Spiral Spring Drive

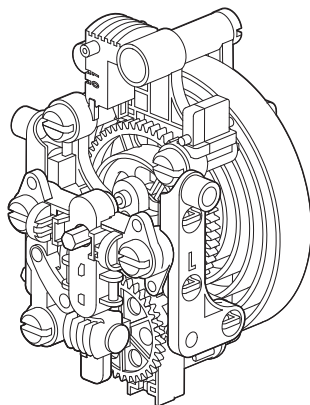
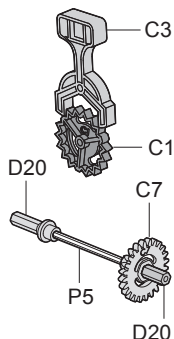
如果要組裝成滴答計時器或是跑跑發條車，請先將身體轉換為螺旋彈簧驅動器

If you are ready to assemble the timer or the car, convert Body back to Spiral Spring Drive first.



身體
BODY

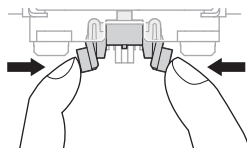
卸除 REMOVE



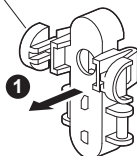
螺旋彈簧驅動器
SPIRAL SPRING DRIVE

1

俯視圖 Top view

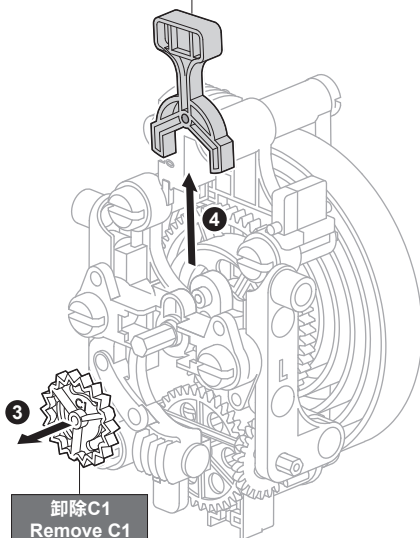


卸除D8
Disassemble D8



卸除P2x2
Disassemble P2x2

卸除C3
Remove C3



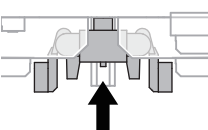
卸除C1
Remove C1

2

俯視圖 Top View



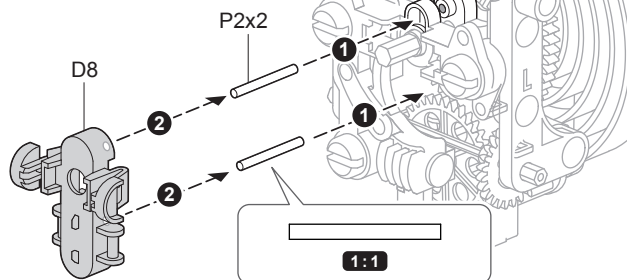
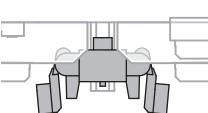
正確
Correct



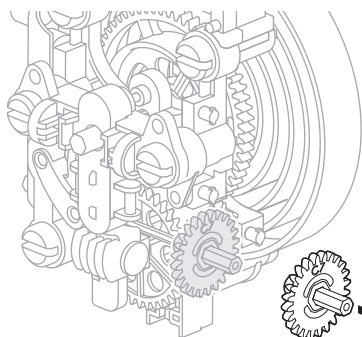
推 PUSH



錯誤
Incorrect



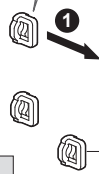
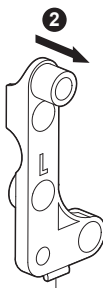
3



卸除C7和D20
Remove C7 & D20

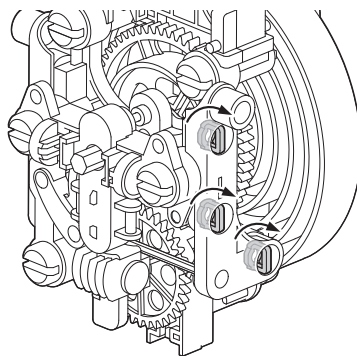
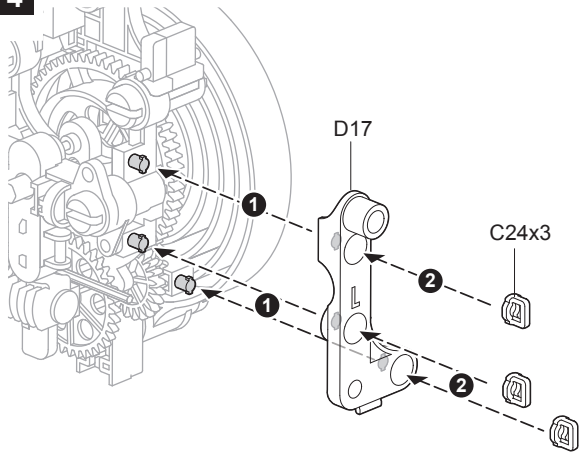


卸除D17
Disassemble D17



卸除C24x3
Disassemble C24x3

4



5



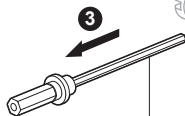
使用D14開口端卸除C24
Use the tail of D14 to rotate C24.



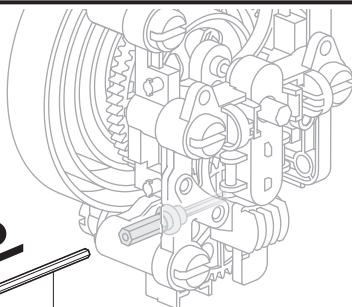
卸除 C24x2
Disassemble C24x2



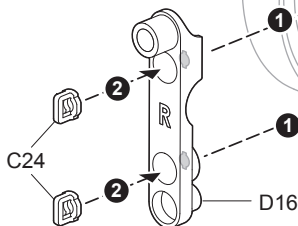
卸除 D16
Disassemble D16



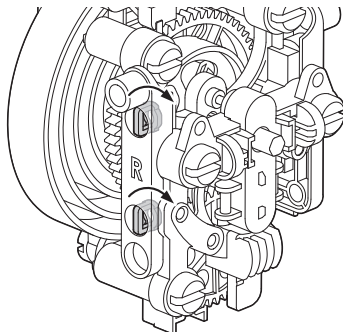
卸除 D20 & P5
Remove D20 & P5



6

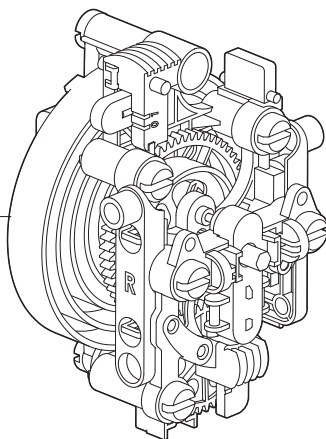


使用D14開口端安裝C24
Use the tail of D14 to rotate C24.



7

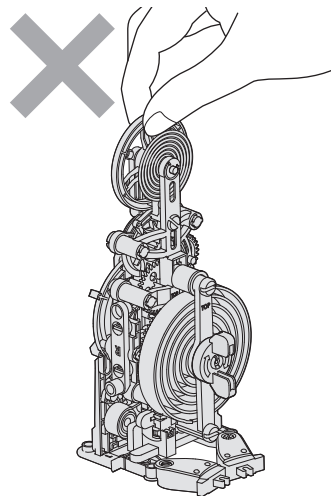
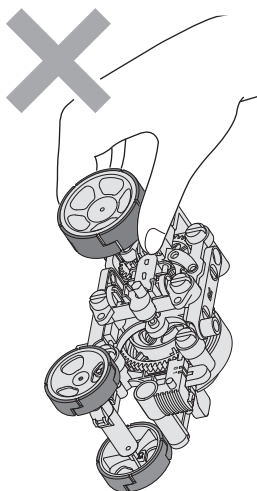
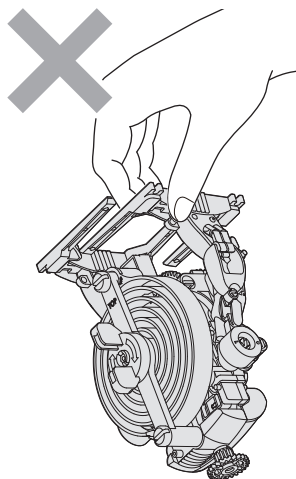
螺旋彈簧驅動
器(發條)
Spiral Spring
Drive



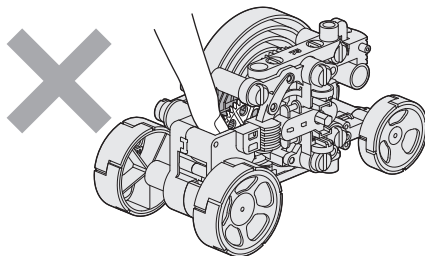


注意事項 Warning

請勿如圖示方式拿取，以免損壞 Do not pick up the assembled kit as shown in the pictures.



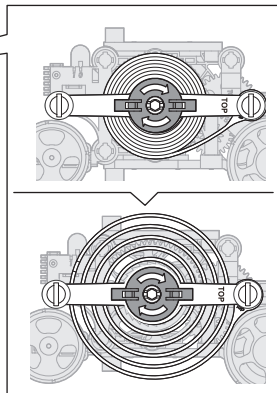
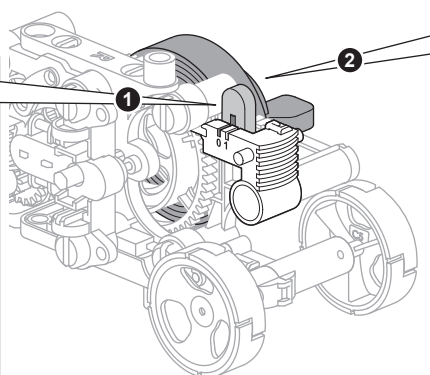
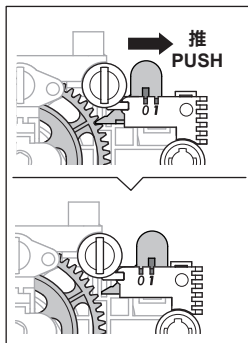
請勿將手指置於部件轉動處以免受傷 To avoid injury, never put your finger in the moving parts.



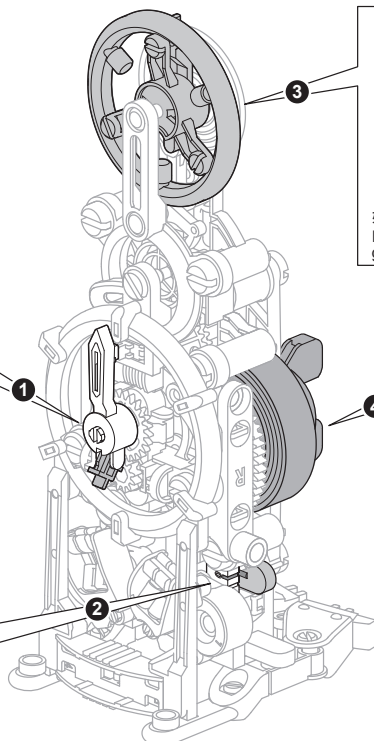
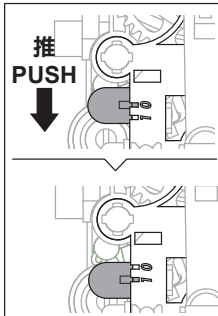
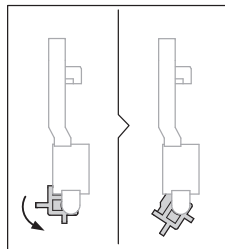
當不再遊戲時，請將螺旋彈簧釋放完全，避免彈簧變形

Please release the spiral spring completely when you finish playing. If not, the spring could deform.

跑跑發條車 Spring Car

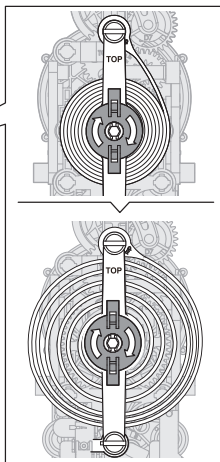


滴答計時器 Spring Timer

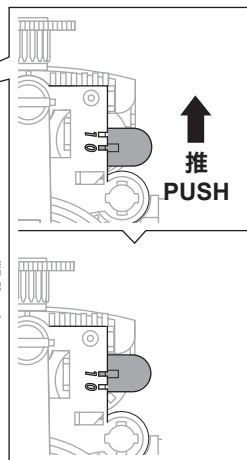
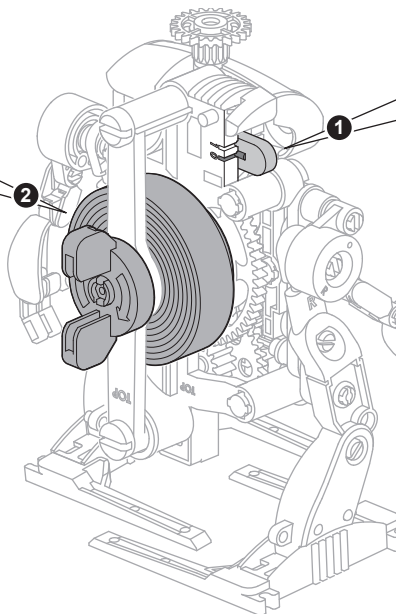
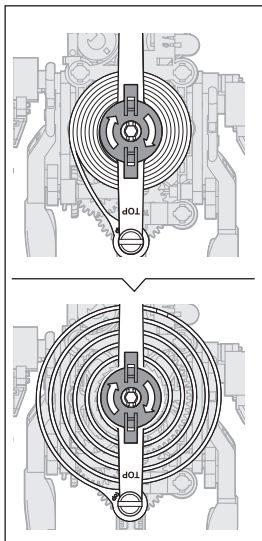


C23

如果C23不會動，請輕推C23使其動作
If C23 doesn't move, give it a gentle touch to trigger the swing.



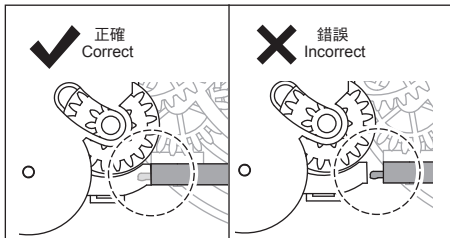
發條機器人 Spring Bot



故障排除 Trouble Shooting

Q 啟動螺旋彈簧驅動器(發條)後，車子卻不動該怎麼辦？
What should I do if the car doesn't run after I switch it on?

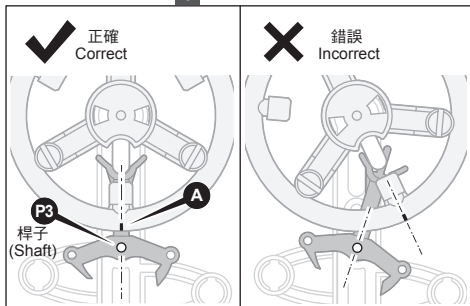
A 請回到第16頁，步驟**3** 確認後輪是否安裝正確
Please check if the rear wheels are assembled correctly (page16, step **3**)



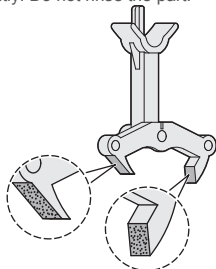
Q 如果計時器運作不順暢，我該如何處理？
What should I do if the timer doesn't run smoothly?

A1 請確認當手放開C23時，**P3** 和 **A** 有對齊
(詳情請參考23頁步驟**6**)

Make sure shaft **P3** and **A** are aligned when hands are off of C23
(page 23, step **6**)

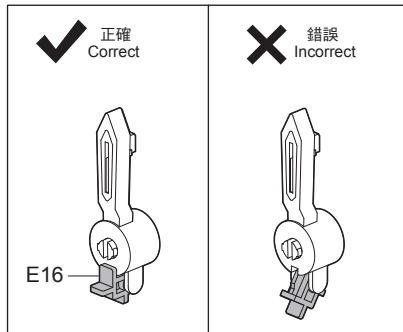


A2 請確認D5上沒有異物或灰塵堆積，如果有的話，請將D5拆下清潔。清潔時請用面紙或棉花棒輕柔擦拭，請勿用水直接沖洗。
Please check if any dust accumulation problem on D5. It could happen after playing a while. If yes, disassemble D5 and remove the dust with tissue papers or cotton swabs gently. Do not rinse the part.



Q 滴答計時器啟動但分針卻不動該怎麼辦？
What should I do if the timer seems to work but the minute hand doesn't move?

A 請確認E16是否扣上(詳見第32頁，步驟**6**)
Please ensure E16 is buckled on (page32, step **6**)

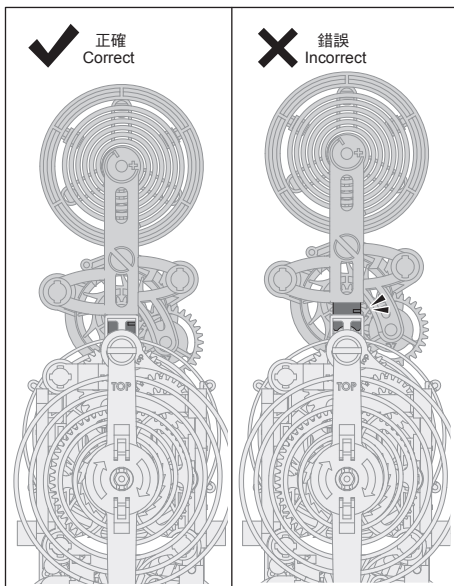


Q 滴答計時器不運作或是啟動啟動螺旋彈簧驅動器(發條)後彈簧馬上完全釋放該怎麼辦？

What should I do if the timer doesn't work, or the spring is completely released right after I switch it on?

A 請確認慢速擒縱機構是否與螺旋彈簧驅動器(發條)完全結合(如圖示)

Please ensure the "Low Speed Escapement" is perfectly connected to the "Spiral Spring Drive", as illustration shown.



When ordering parts, please include the following

- [illegible]

零件型號 Part Number	零件名稱 Part Name	數量 Qty
5GE-73000P1	圓軸(極短) Round Shaft (Small)	
5GE-73000P2	圓軸(短) Round Shaft (Short)	
5GE-73000P3	圓軸(中) Round Shaft (Medium)	
5GE-73000P4	圓軸(長) Round Shaft (Long)	
5GE-73000P5	六角軸(短) Hex Shaft (Short)	
5GE-73000P6	六角軸(長) Hex Shaft (Long)	
5GE-73000P7	泡棉貼 Sponge	
5GE-73000P8	螺旋彈簧 Spiral Spring	
5GE-73000P9	游絲 Hairspring	
5GE-73000P10	夾鏈袋 Zipper Bag	

 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.



SPIRAL SPRING

..... science kit

三合一英倫發條時鐘先生

Pro'sKit®

寶工實業股份有限公司
PROKIT'S INDUSTRIES CO., LTD

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