

# Robotic Jellyfish Nightlight Kit

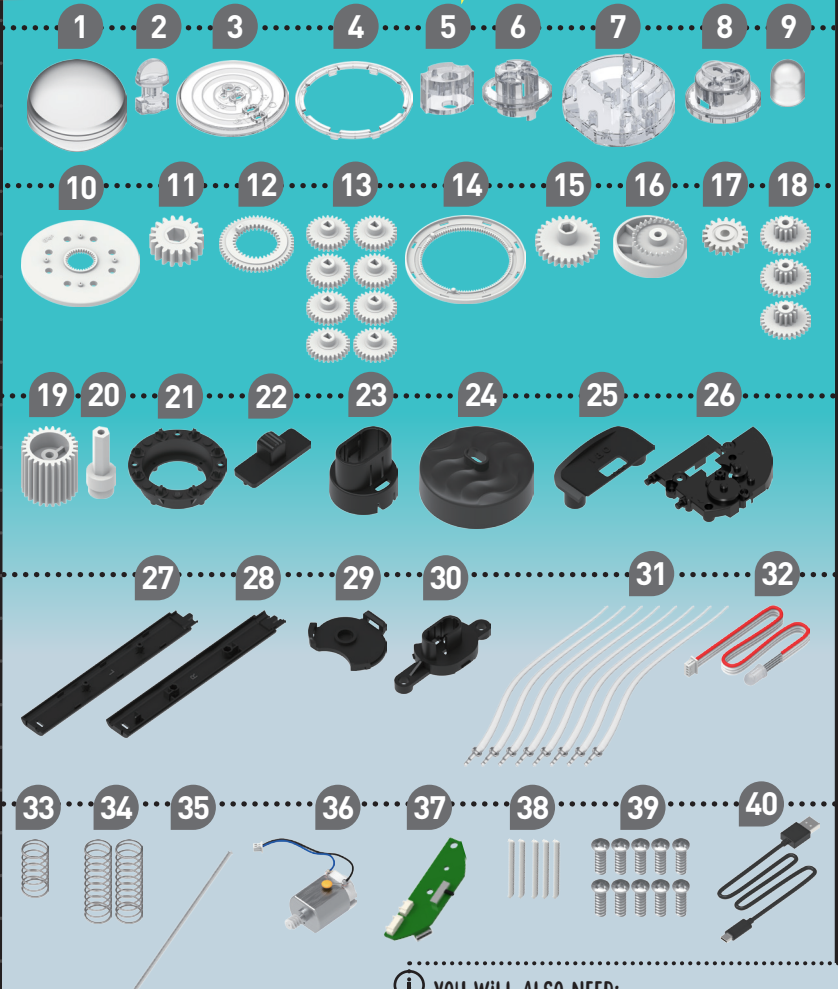
THAMES & KOSMOS



*Good to know!*

If you are missing any parts, please contact Thames & Kosmos technical support.

## KIT CONTENTS



**YOU WILL ALSO NEED:**

Small Phillips-head screwdriver with a long shank (at least a couple inches), USB power adapter

# Dear parents and adults,



Please support and accompany your child when assembling the Robotic Jellyfish Nightlight. Read the instructions together and follow them. Assembling the Robotic Jellyfish Nightlight is an exciting project and can take one to two hours. Please ensure that all parts of the kit are kept away from small children. **Have fun assembling and experimenting with your Robotic Jellyfish Nightlight Kit!**

## SAFETY INFORMATION

**WARNING:** Not suitable for children under 3 years. Choking hazard — small parts may be swallowed or inhaled. Strangulation hazard — long cord may become wrapped around the neck.

**WARNING:** This toy is only intended for use by children over the age of 8 years and above due to accessible electronic components. Instructions for parents or caregivers are included and shall be followed.

Keep packaging and instructions as they contain important information.

- > **WARNING:** To reduce risk of fire or electric shock, do not expose this product to rain or moisture. Do not use near water.
- > Unplug this device when unused for long periods of time.
- > Do not stare directly into the LED.
- > Inspect the product before use. If damage is suspected, discontinue use immediately.
- > The toy is not intended for children under 3 years old.
- > The toy must only be used with the recommended transformer (USB power adapter, DC 5V).
- > The transformer is not a toy.
- > The transformer or power supply used with the toy shall be regularly examined for damage to the supply cord, plug, enclosure or other parts, and in the event of damage, it shall not be used until the damage has been repaired.
- > The toy is not to be connected to more than the recommended number of power supplies. This means only use the included USB-C cable.
- > The wires are not to be inserted into socket outlets.
- > This toy is only to be connected to equipment bearing either of the following symbols:  or 

## Checklist:

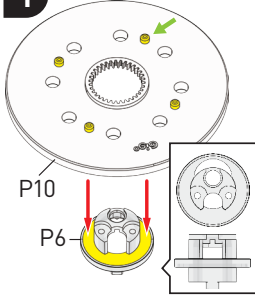
✓ No.	Description	Quantity	Part No.	✓ No.	Description	Quantity	Part No.
○ P1	Jellyfish dome	1	729852	○ P21	Jig	1	729874
○ P2	Locking key	1	729853	○ P22	Switch	1	729875
○ P3	Top cover	1	729854	○ P23	Bottom cover	1	729876
○ P4	Ring frame	1	729855	○ P24	Base bottom cover	1	729878
○ P5	Gear switch	1	729856	○ P25	Base side cover	1	729879
○ P6	Housing bottom	1	729857	○ P26	Base gear housing	1	729880
○ P7	Base bottom cover	1	729858	○ P27	Post cover, left	1	729881
○ P8	Housing top	1	729859	○ P28	Post cover, right	1	729882
○ P9	LED cap	1	729860	○ P29	Post cover, bottom	1	729883
○ P10	Planet gear carrier	1	729861	○ P30	Post cover, top	1	729884
○ P11	Planetary drive gear	1	729862	○ P31	Tentacle	8	729885
○ P12	Sun gear	1	729864	○ P32	RGB LED with wire	1	729886
○ P13	Planet gear	8	729865	○ P33	Short spring	1	729887
○ P14	Ring gear	1	729866	○ P34	Long spring	2	729889
○ P15	Gear with hex hole	1	729867	○ P35	Shaft, hexagonal	1	729890
○ P16	Cam gear	1	729868	○ P36	Motor with worm gear	1	729891
○ P17	Gear, 18T	1	729869	○ P37	Circuit board	1	729892
○ P18	Double gear	3	729870	○ P38	Shaft, round	5	729894
○ P19	Gear, 26T	1	729873	○ P39	Screw	10	729895
○ P20	Drive shaft	1	730249	○ P40	USB-C cable	1	729896

# ASSEMBLING THE JELLYFISH NIGHTLIGHT

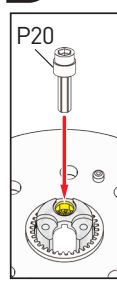
Scan the QR for an assembly video.



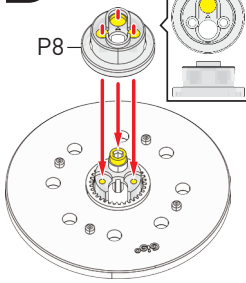
**1** Peg side up.



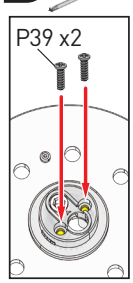
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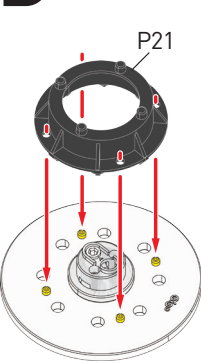
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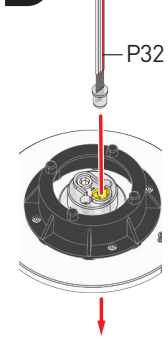
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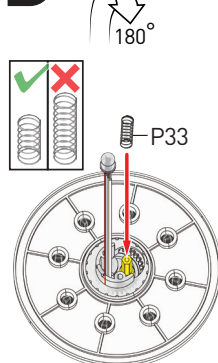
**5** Attach the jig.



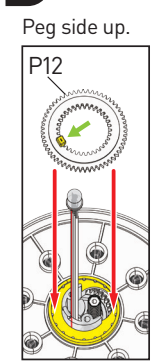
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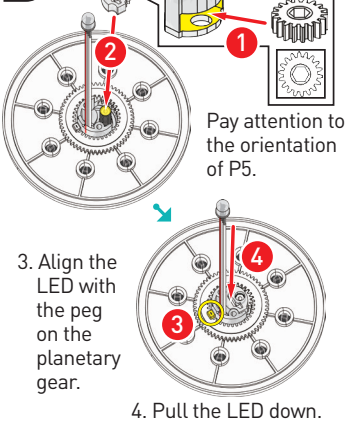
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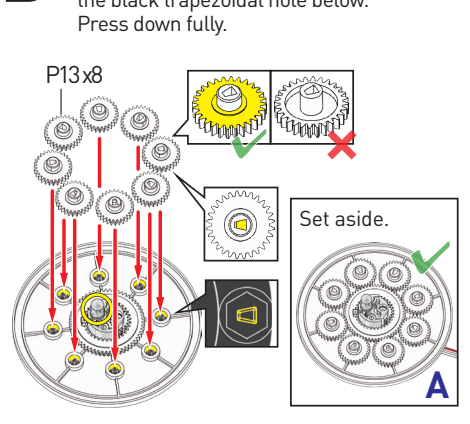
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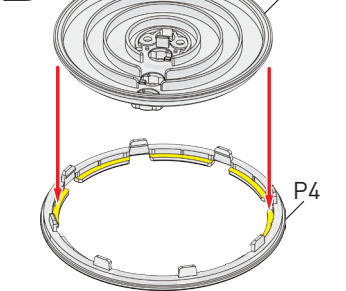
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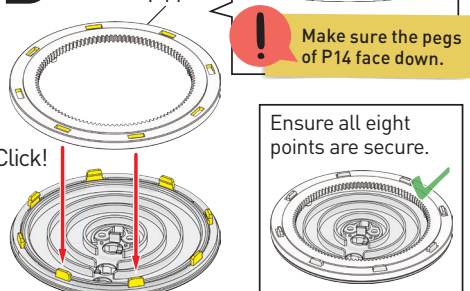
**10**



**11**

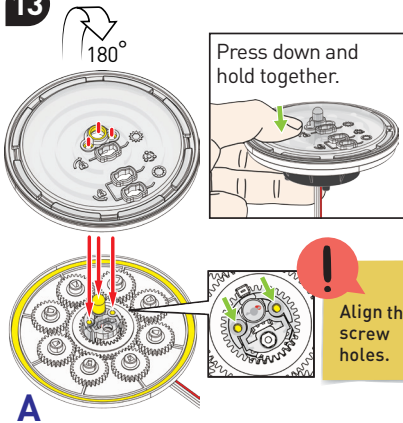


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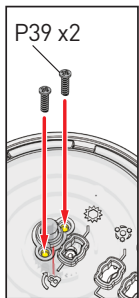


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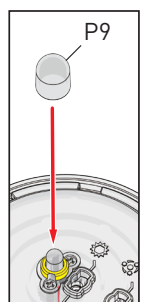
14

**!** Hold the parts together with your hand while you tighten the screws.



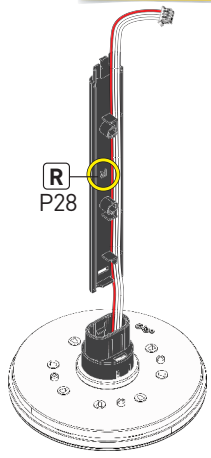
15

Press down fully.

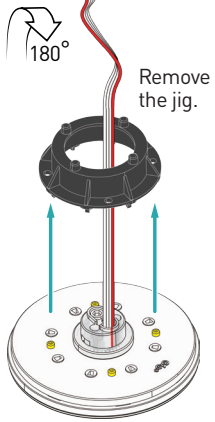


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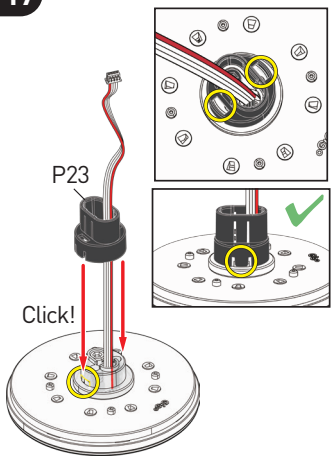
**!** Make sure the red wire faces inward.



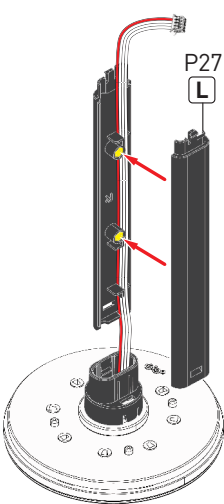
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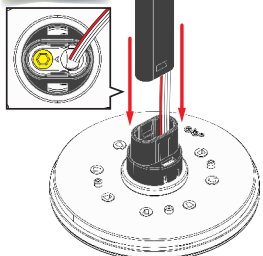
19



20

Press down fully while gently pulling the cable out.

**!** Make sure the cable is on the right.

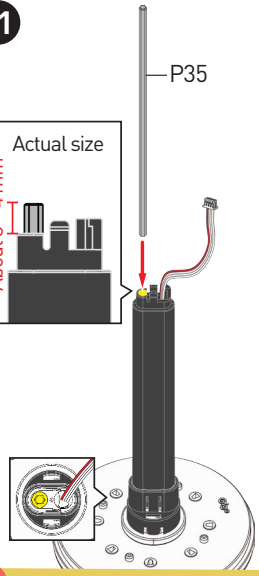


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Actual size

About 3 - 4 mm

**!** Press and slightly rotate the hexagonal shaft (P35). Afterward, about 3 - 4 mm of the shaft will be exposed.

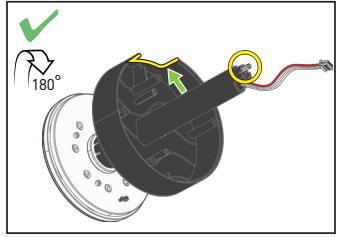
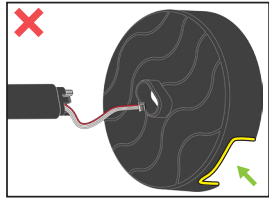
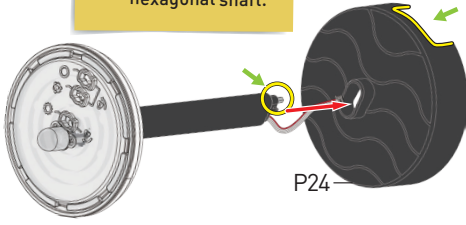




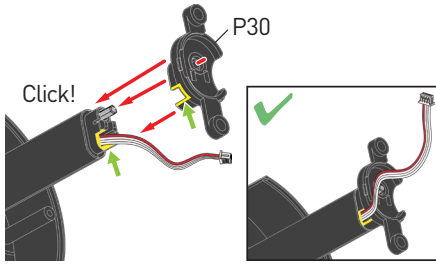
22



Align the notch of P24 with the hexagonal shaft.



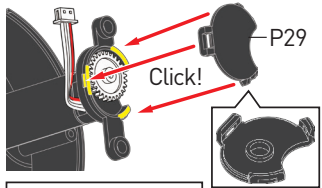
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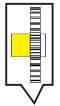
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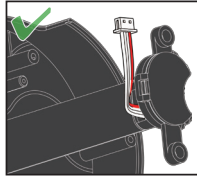
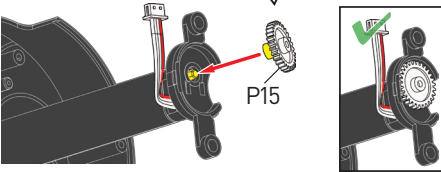
Press firmly at all three points.



24

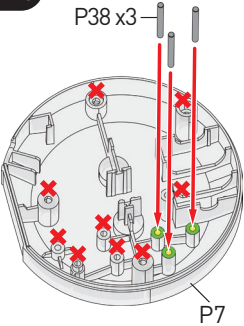


Insert the longer end of P15.



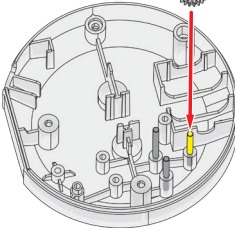
26

P38 x3



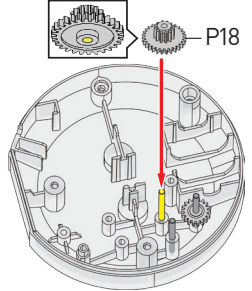
27

P17



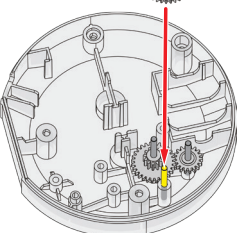
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P18



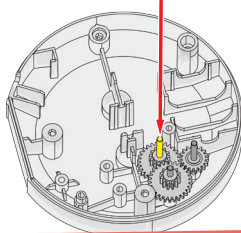
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P18



30

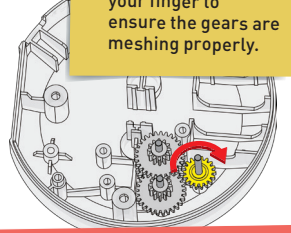
P18



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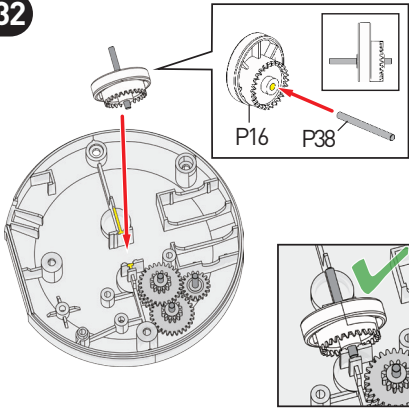


Turn the gear with your finger to ensure the gears are meshing properly.



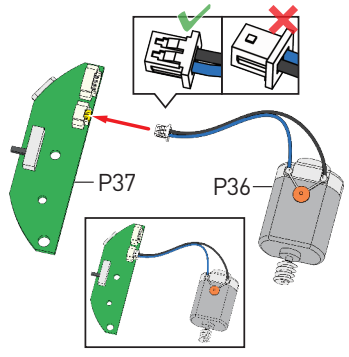
ASSEMBLY CONTINUES ON REVERSE SIDE

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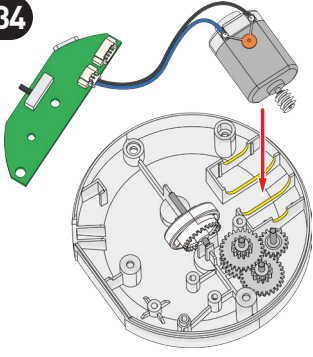


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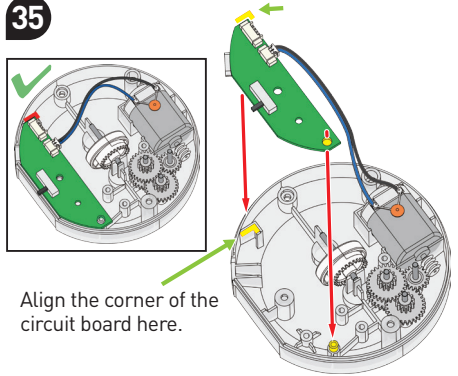
Press in all the way.



34

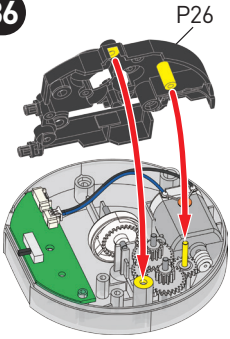


35

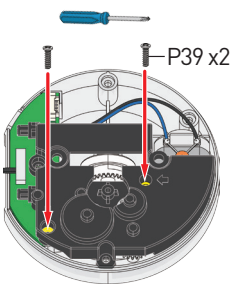


Align the corner of the circuit board here.

36

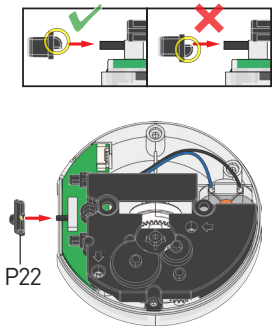


37



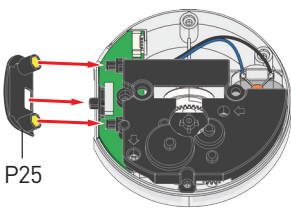
38

Note the orientation of the switch.

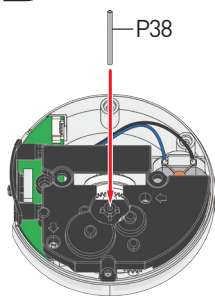


39

Press in all the way.

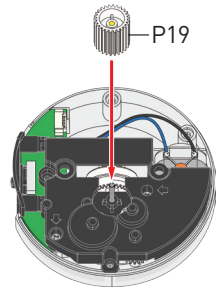


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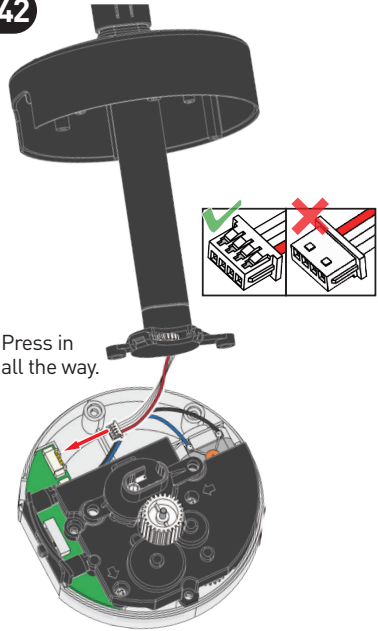


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**!** Make sure the gears engage properly.

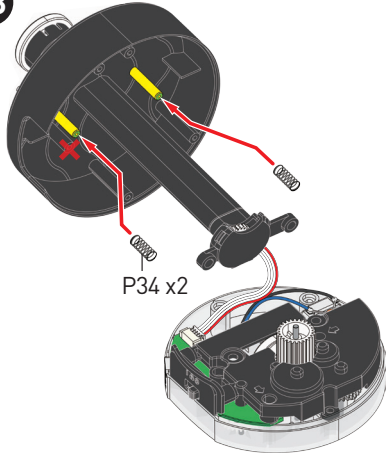


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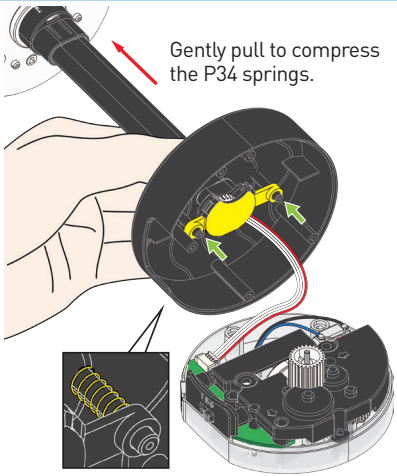
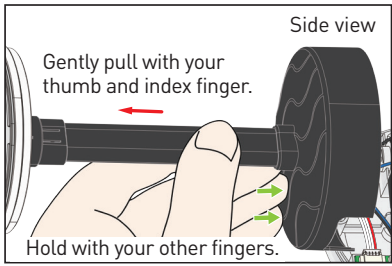
Press in all the way.

43



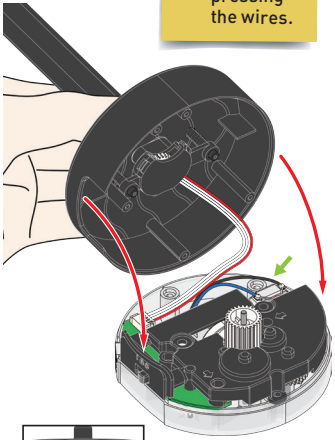
P34 x2

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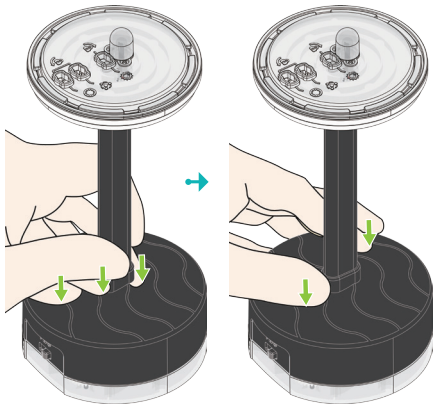
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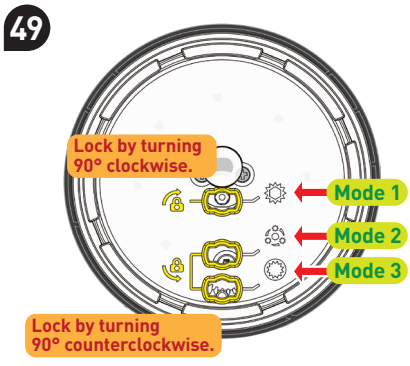
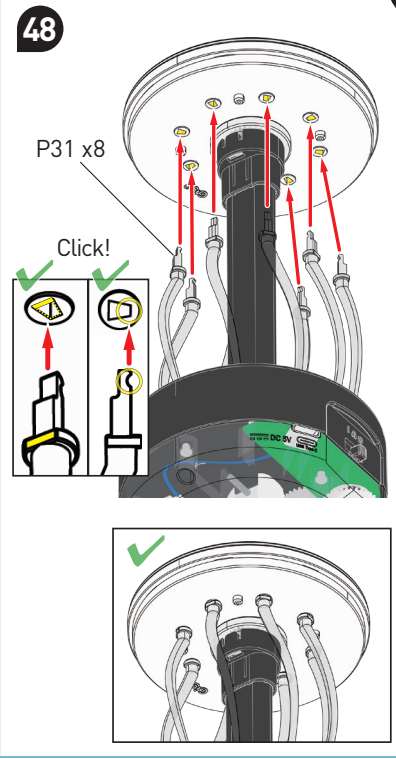
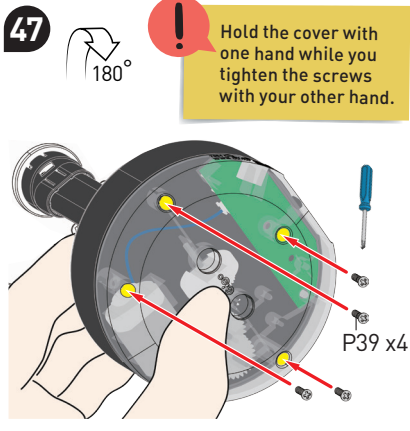
**!** Avoid pressing the wires.



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**!** Continue to hold the cover down until you attach the screws in the next step.



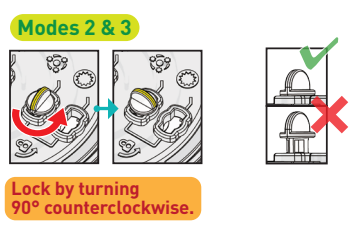
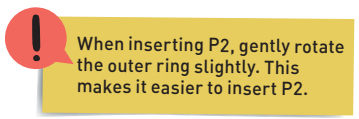
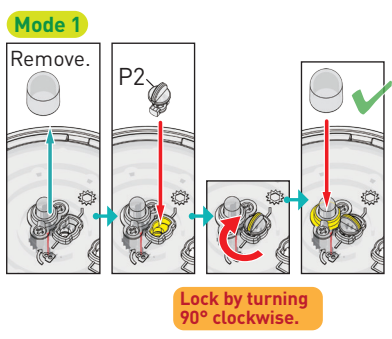


The jellyfish has a planetary gear train in its head. One of three elements can be fixed into place with P2: the sun gear, the planet gear carrier, or the ring gear. This affects the movement of the robot, detailed in the table below.

Choose one of the three modes, and use P2 to lock one of the elements.  
 Note: Rotate P2 90° clockwise to lock mode 1 and 90° counterclockwise to lock modes 2 & 3.

	Which gear is fixed?	Jellyfish head rotation	Tentacle rotation	Tentacle spin
Mode 1	Sun gear			
Mode 2	Planet gear carrier			
Mode 3	Ring gear			

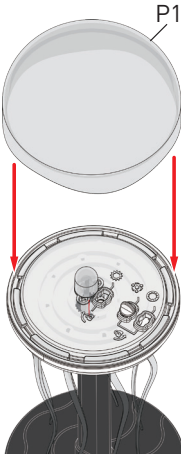
Note: When switching modes, the power must be turned off.





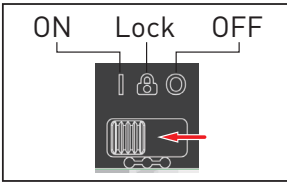
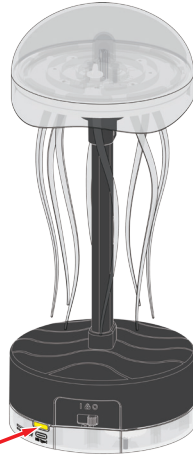


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Insert the Type-C end into the base and insert the USB end into a wall brick or USB port (not included). Switch to "on" to power the model.



- >> When the robot is set to "on", the LED cycles between different colors. Switch it to "lock" to fix the current color and stop the gears from turning.
- >> When you are going to sleep or when you will be away from the toy, switch it to "lock" or "off" to ensure optimal performance.
- >> When the robot is "on", it will automatically shut off after 15 minutes. To restart motion, turn to "off", then back to "on".

## NOTES ON DISPOSAL OF ELECTRICAL AND ELECTRONIC COMPONENTS:

The electronic components of this product are recyclable. For the sake of the environment, do not throw them into the household trash at the end of their lifespan. They must be delivered to a collection location for electronic waste, as indicated by the following symbol: Please contact your local authorities for the appropriate disposal location.



### TIPS



Scan the QR code for a video showing tips for using the robot.



# WHAT'S HAPPENING?

You built a **planetary gear system**! This is a gear train in which one gear revolves around the other — much like how the planets revolve around (or orbit) the Sun. In your jellyfish model, you are able to fix — or lock — one component at a time: the sun gear, the planet gears, or the ring gear. Planetary gears are used in many mechanical applications, like cars and wind turbines.

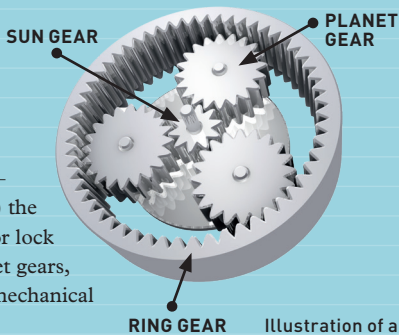
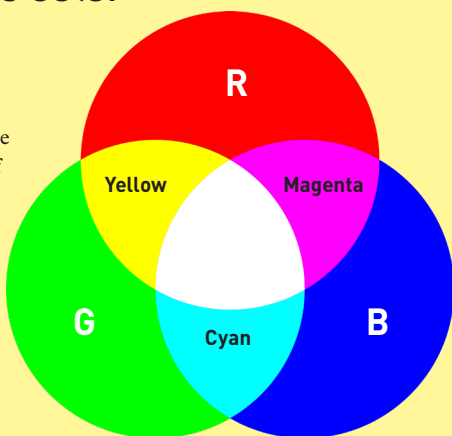


Illustration of a planetary gear

## How the light changes color

**RGB LEDs** actually contain three LEDs: red, green, and blue. By sending different amounts of electricity to each LED, the brightness of each LED can be controlled. The different brightnesses of red, green, and blue light combine to create different hues. This is called **additive color mixing**. Red and blue together make magenta; green and blue together make cyan; red and green make yellow; and red, green, and blue together make white.



### FCC Part 15 Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### ICES Statement

CAN ICES-3 (B)/NMB-3(B)

This Class B digital apparatus complies with Canadian ICES-003.

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

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Technical product development: Dominik Ulrich, Genius Toys Taiwan Co., Ltd.  
Manual design concept: Atelier Bea Klenk, Berlin.  
Packaging design concept: Peter Schmidt Group, Hamburg  
Packaging layout: Dan Freitas  
Illustration and images: Genius Toys Taiwan Co., Ltd.  
Manual text and layout: Hannah Mintz and Ted McGuire.com

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