



totem

LADYBUG

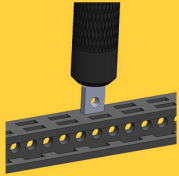
Assembly guide

**DIY APP
CONTROLLED
6-LEGGED
ROBOT**



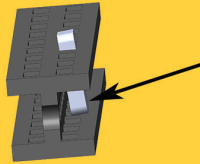
STARTING TIPS

Inserting nuts (1)



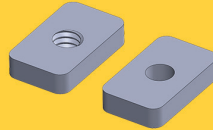
It is a good idea to start every step inserting nuts into beams (if the step requires). Use the back of the screwdriver to push in the nuts.

Inserting nuts (2)



After entering the first slot, nuts tend to tilt. Use your thumb to push it back straight, and then again use the screwdriver to insert the nut all the way in.

Faulty threads



Some of the nuts are missing threads. This is a manufacturing issue and we are working on it. In the mean time, we add few extra nuts. We apologize for the inconvenience.

Tightening standoffs



Push Nylon Standoff with your thumb while tightening it with the wrench.

Ruler

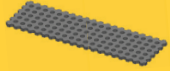


Use Beam/Bolt ruler to determine the length of beams and bolts.

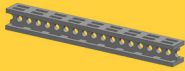
For more tips, please visit the link below:

<https://totemaker.net/blog/totem-mechanics-for-beginners/>

PART LIST



1x Board 30x100



10x Beam 90 mm



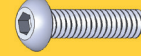
4x Bolt M1.6x3



34x Bolt M3x6



4x Bolt M3x8



8x Bolt M3x12



2x Bolt M3x16



4x Bolt M3x20



2x Bolt M3x25



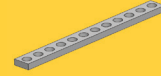
8x 2-Hole Simple Bracket



2x L-Twisted Bracket



2x L-Twisted Mirror Bracket



6x Strip Bracket 60 mm (12 Holes)



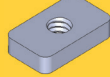
2x Zip Tie



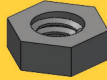
14x Lock Nut M3



4x Nut M3 5.5x5.5



42x Nut M3 6x10



4x Nylon Nut M3



4x Nylon Standoff M3x8 mm



10x Nylon Spacer 4 mm



2x Nylon Spacer 8 mm



1x Rechargeable Battery



2x N20 Motor



1x Mini Control Board



2x Mini DC Motor Bracket



2x N20 Motor Hub



2x Googly Eye



1x Ladybug Head



1x Ladybug Shell



6x Moon Boot



4x Ladybug Dot



1x Totem Screwdriver



1x Totem Wrench

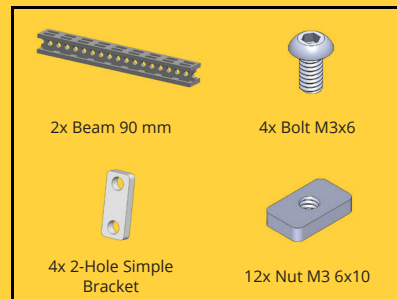
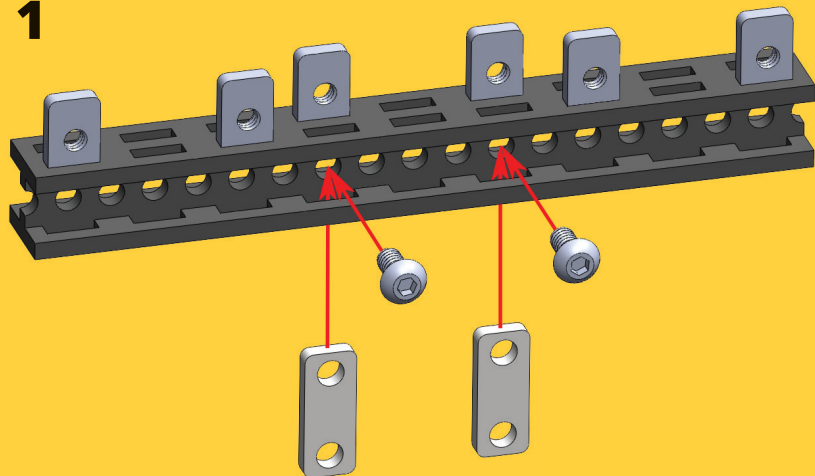


1x Mini Screwdriver



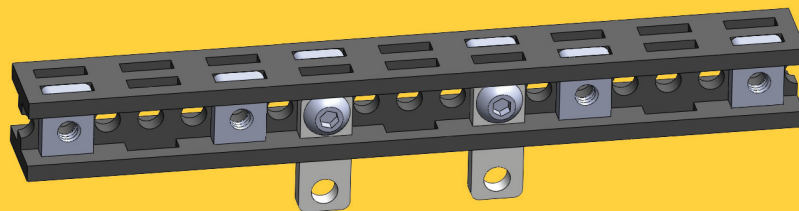
1x Battery Charger

1

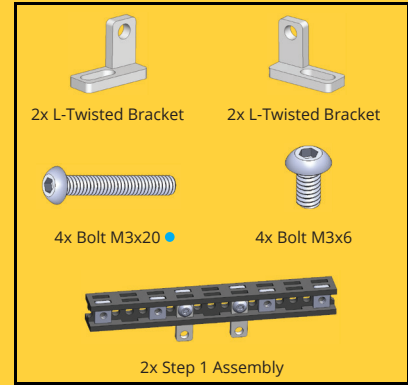
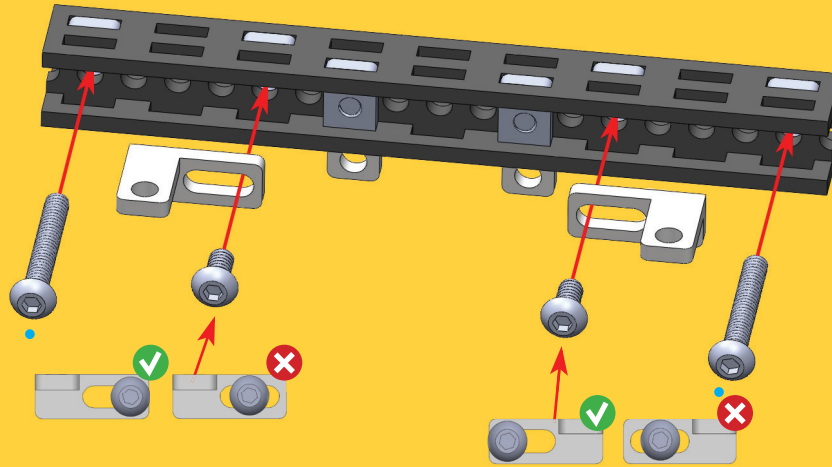


Repeat this step twice.

2x

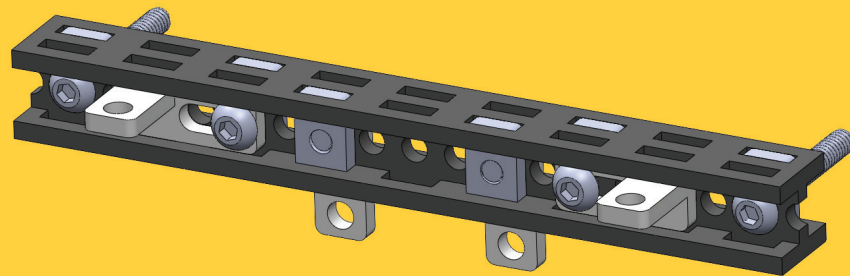


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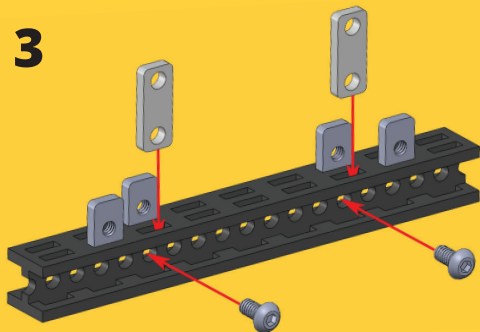


Repeat this step twice.

2x

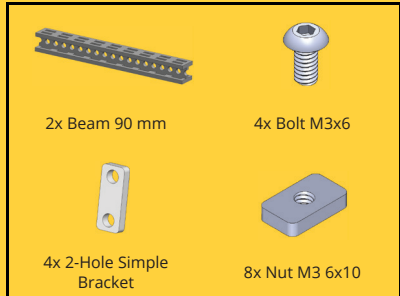
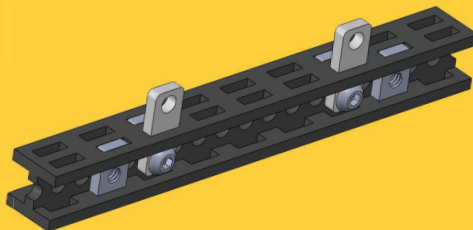


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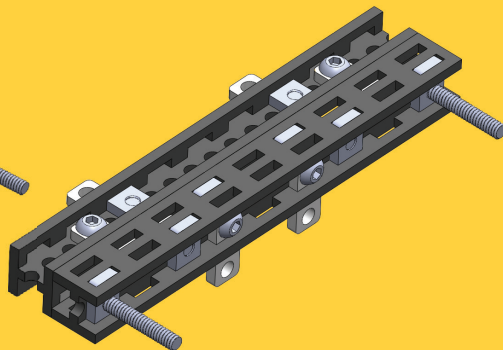
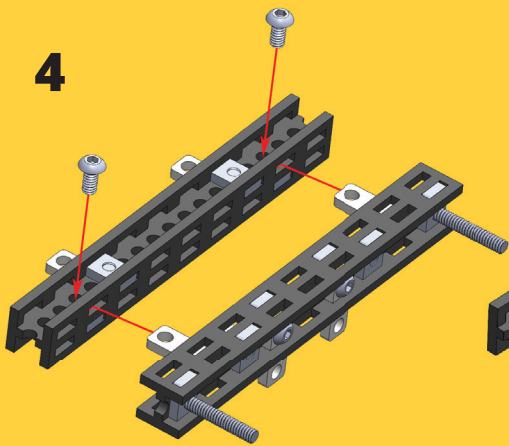


Repeat this step twice.

2x



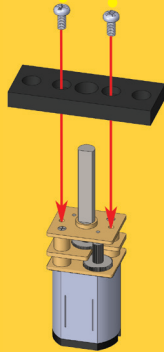
4



Repeat this step twice.

2x

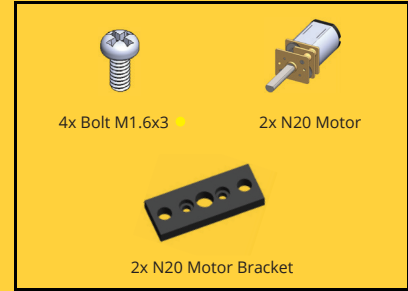
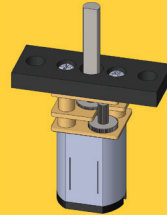
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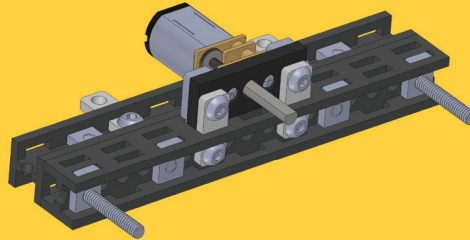
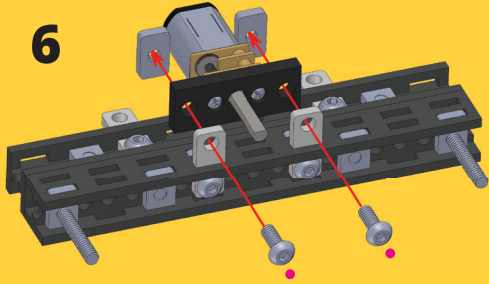
Use Mini Screwdriver
for this step.

Repeat this step twice.

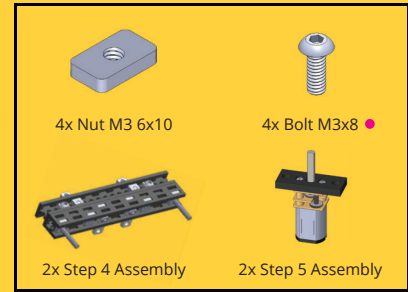
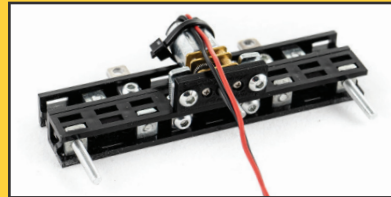
2x



6



Make sure motor
cables go on top

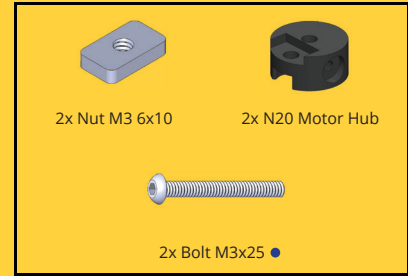
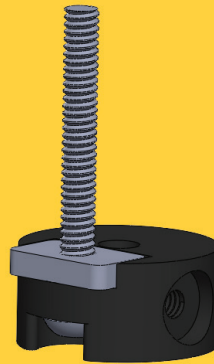
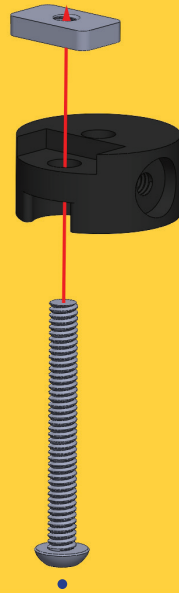


Repeat this step twice.

2x

7

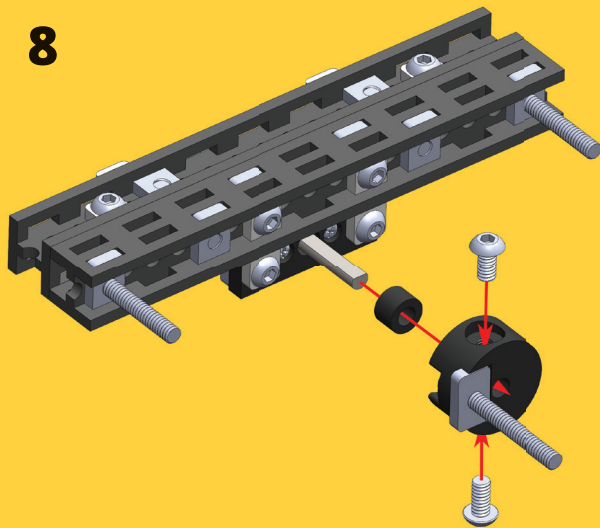
Tighten the
bolt firmly.



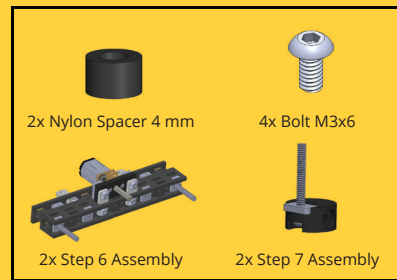
Repeat this step twice.

2x

8

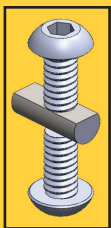


Prepare N20 Motor Hub:
screw bolts half way in
before placing hub on the
shaft of motor.

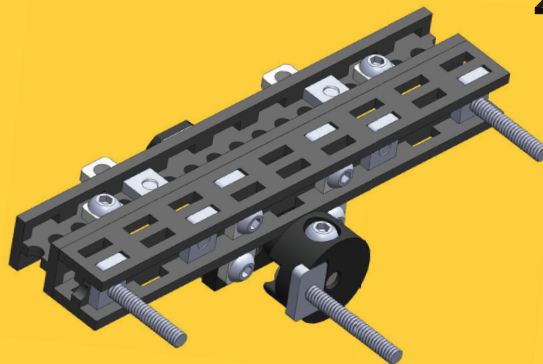


Repeat this step twice.

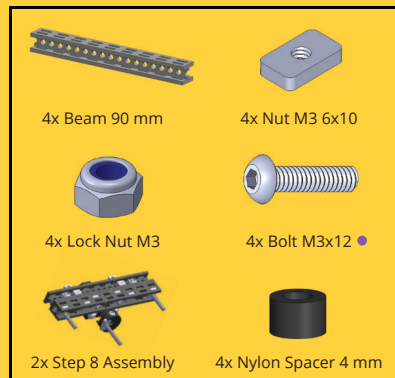
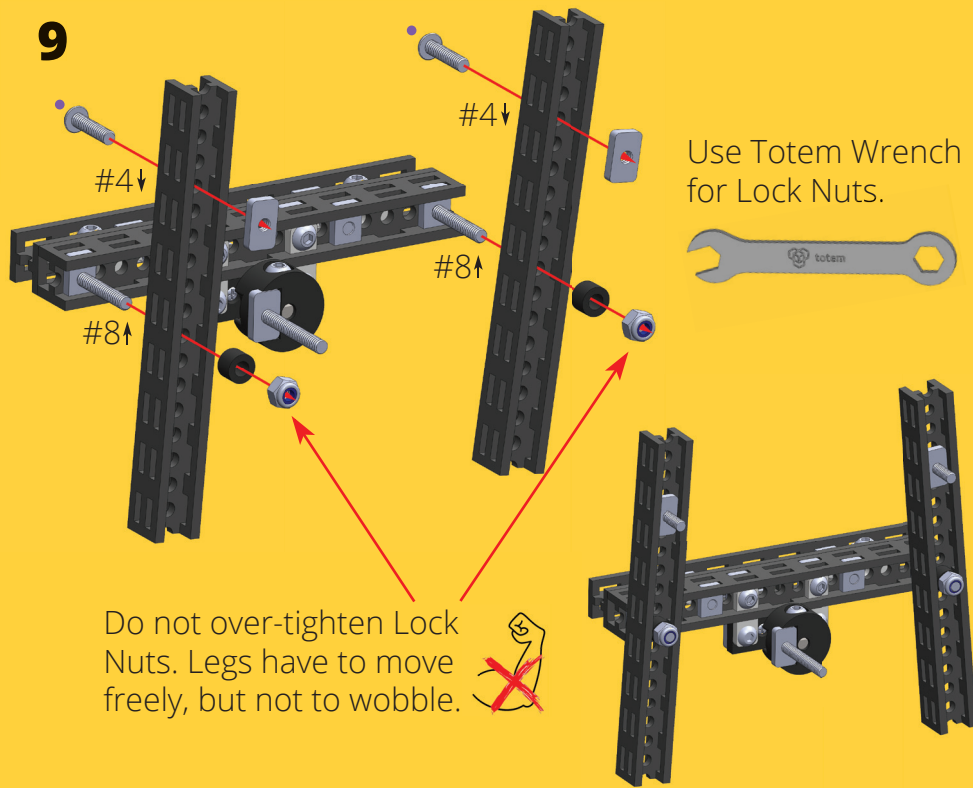
2x



One of the bolts must hit
the flat side of the shaft.
Tighten both bolts evenly
to keep the hub straight.



9

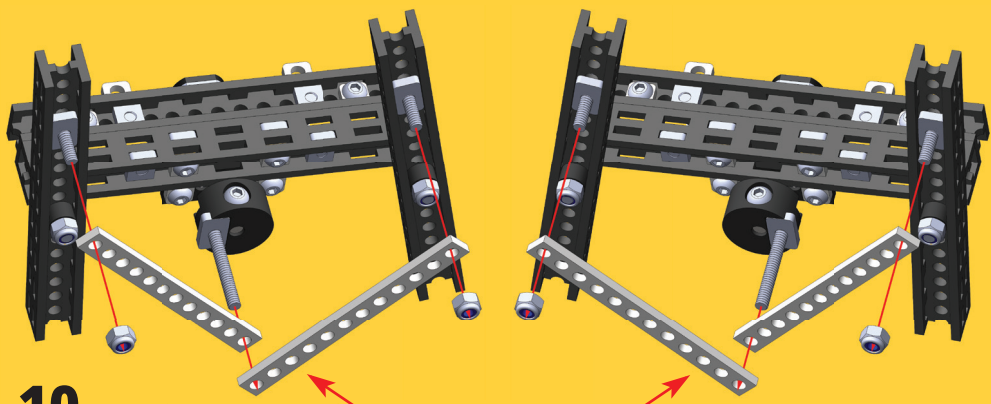


indicates number of circular slot.

↓ indicates counting direction.

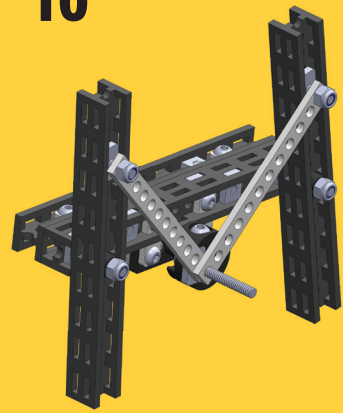
Repeat this step twice.

2x

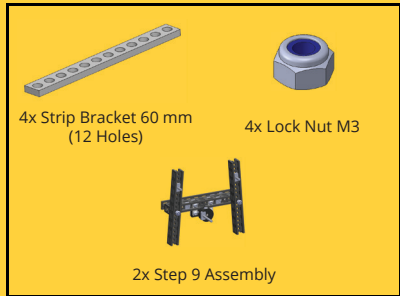
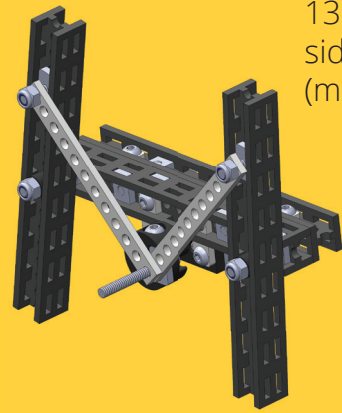


10

Mind Brackets' order.



Do not over-tighten
Lock Nuts. Brackets
must be slightly loose.

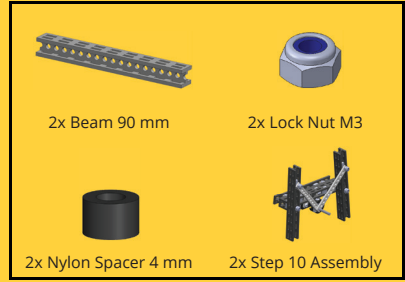
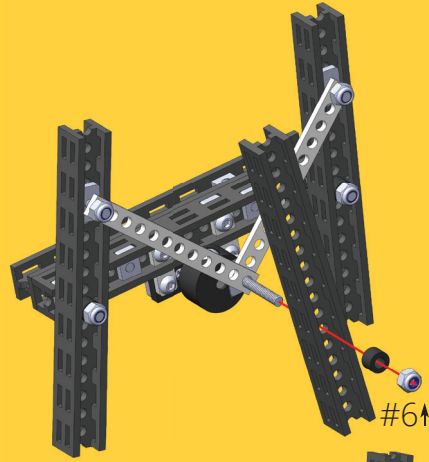
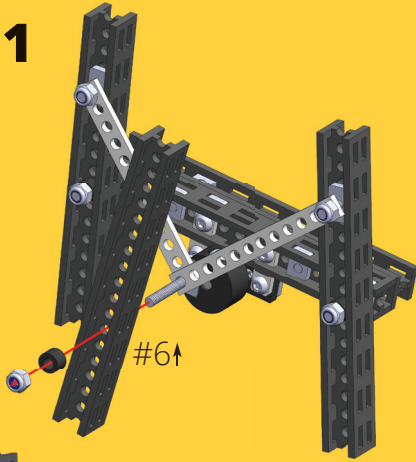


In steps 10, 11, 12, and
13 assembly for each
side is slightly different
(mirrored).

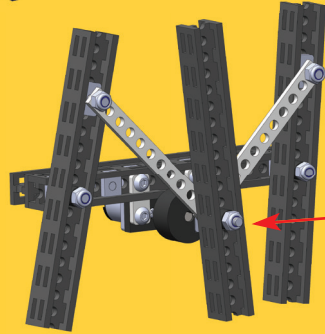
Use Totem Wrench
for Lock Nuts.



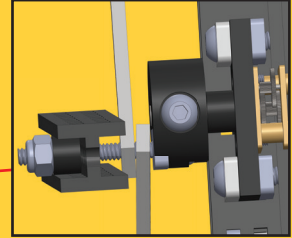
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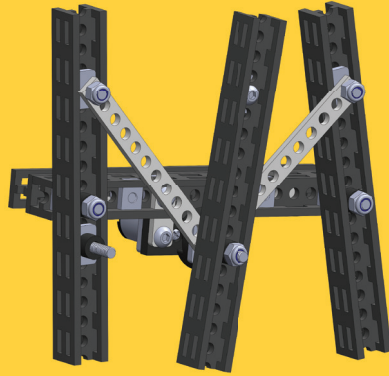
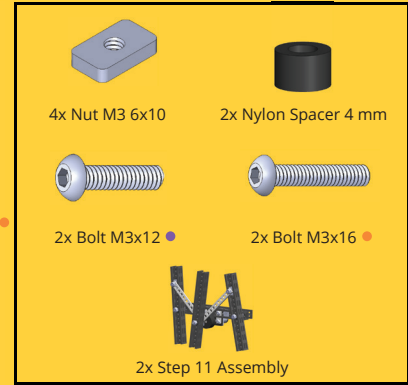
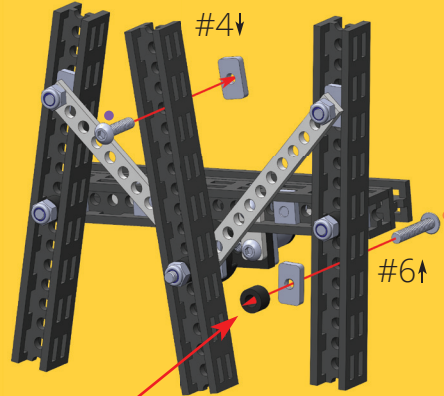
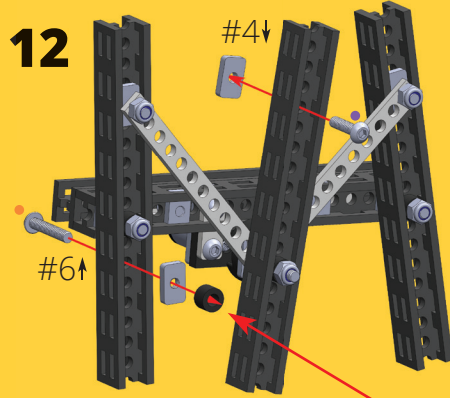
Use Totem Wrench for Lock Nuts.



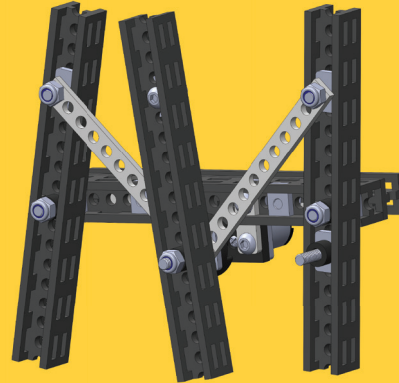
Do not over-tighten Lock Nut. Beam must be slightly loose.



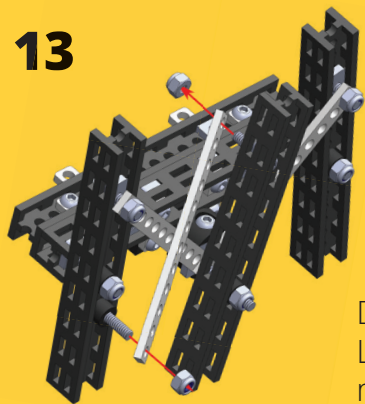
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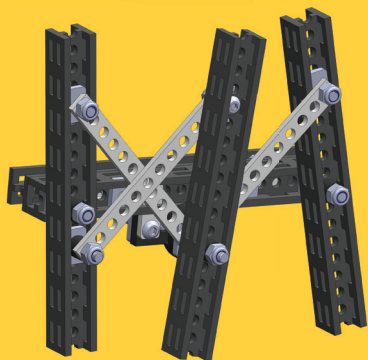
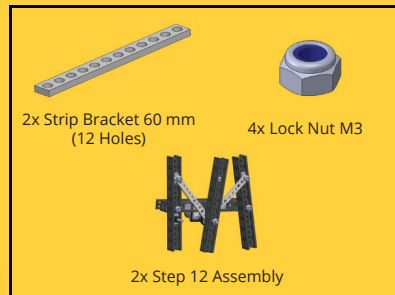
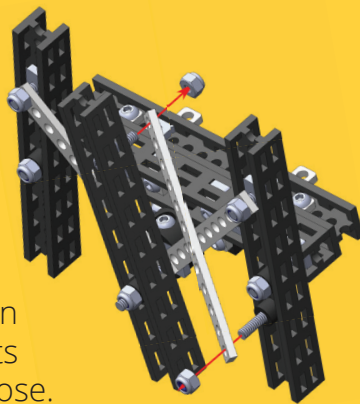
Nylon Spacers
will be loose
until next step.



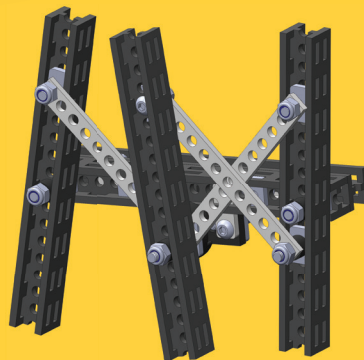
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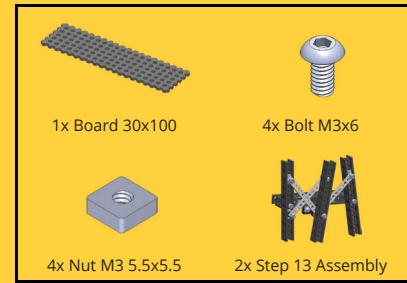
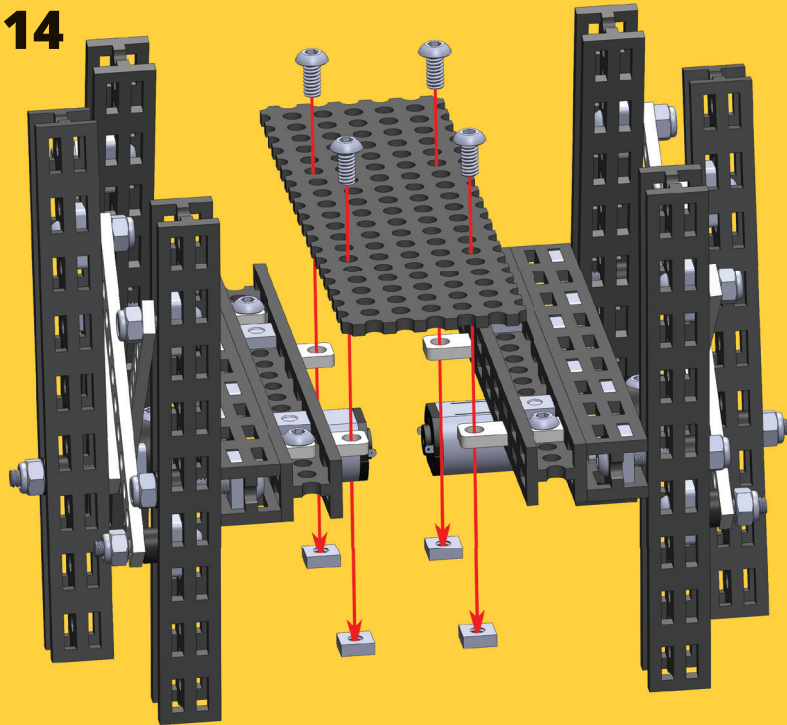
Do not over-tighten
Lock Nuts. Brackets
must be slightly loose.



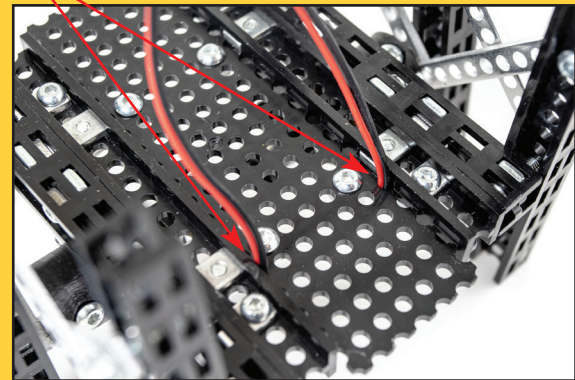
Use Totem Wrench
for Lock Nuts.



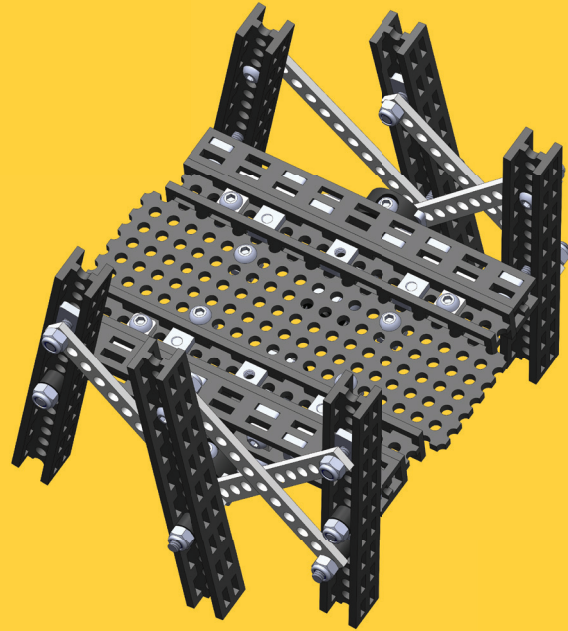
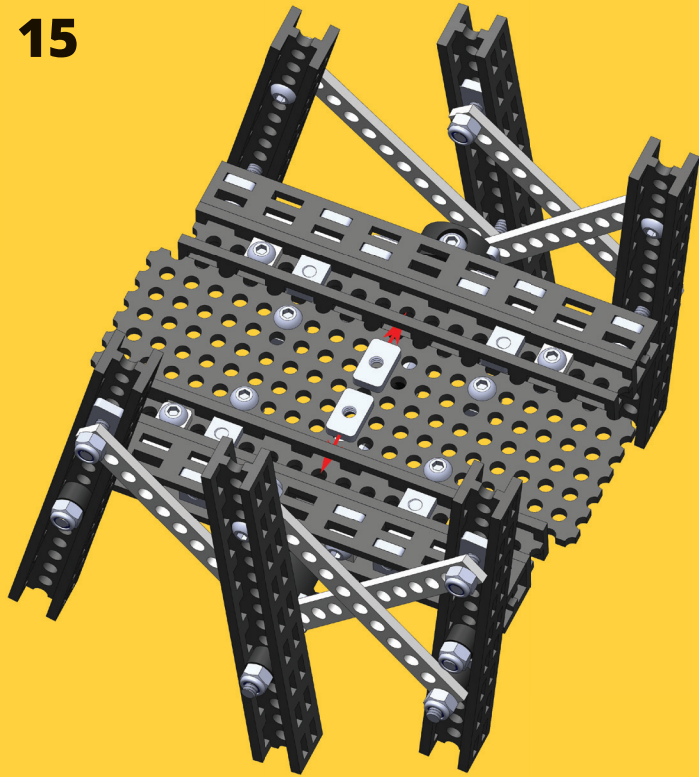
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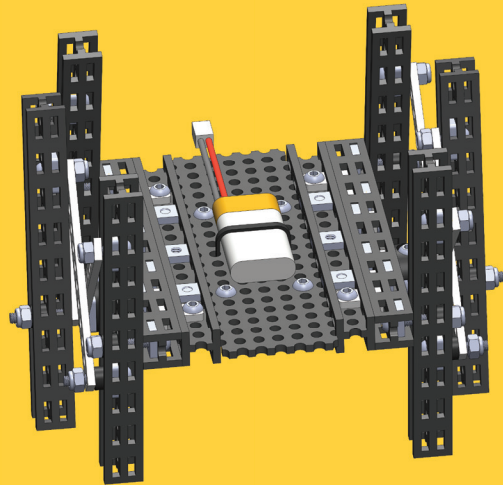
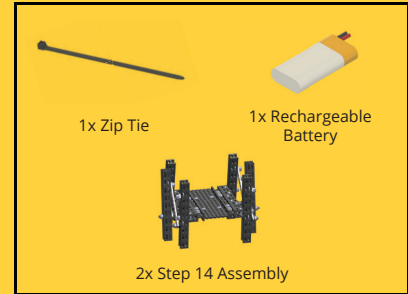
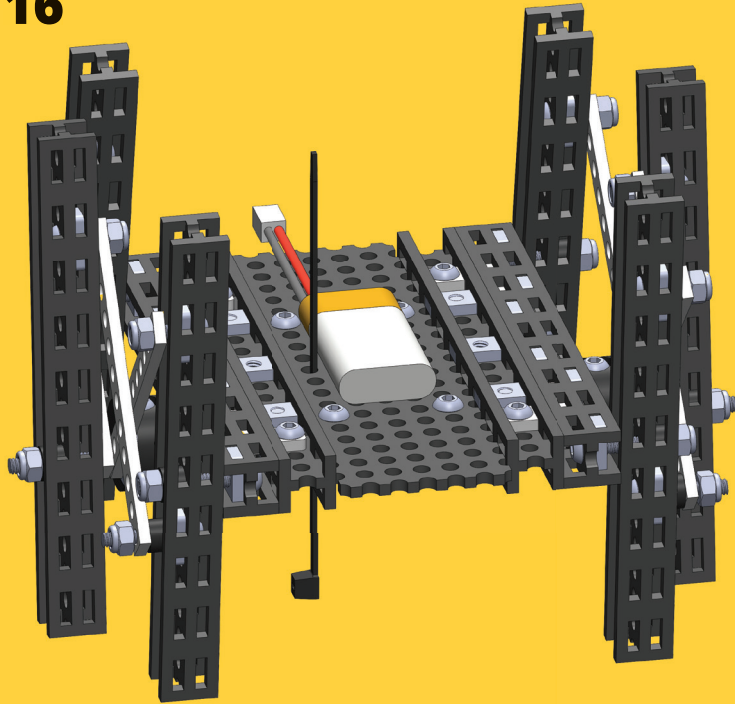
Mind the position of wires.



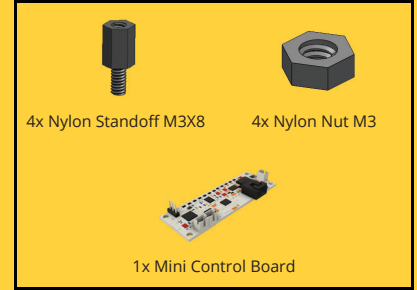
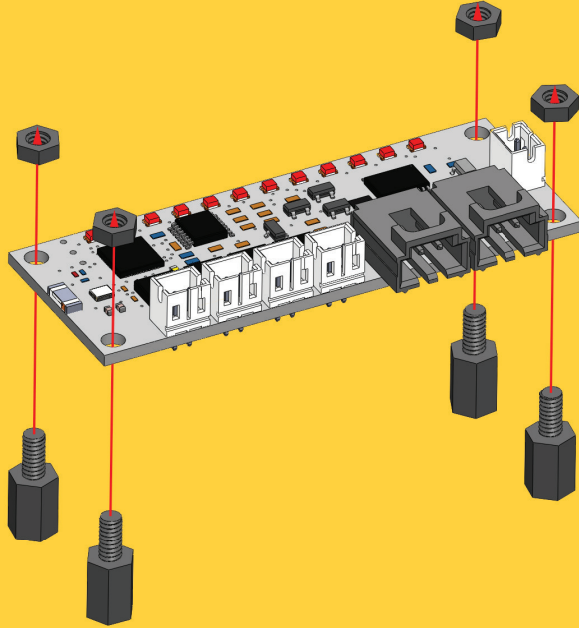
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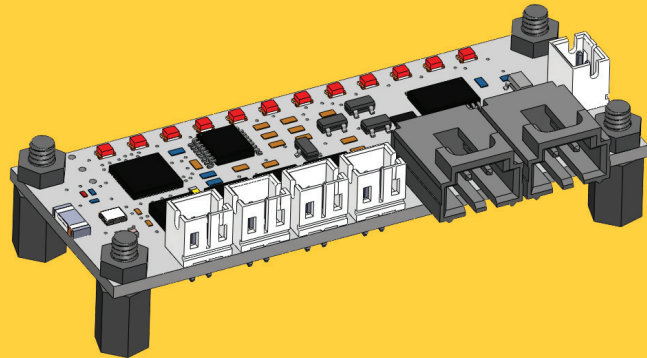
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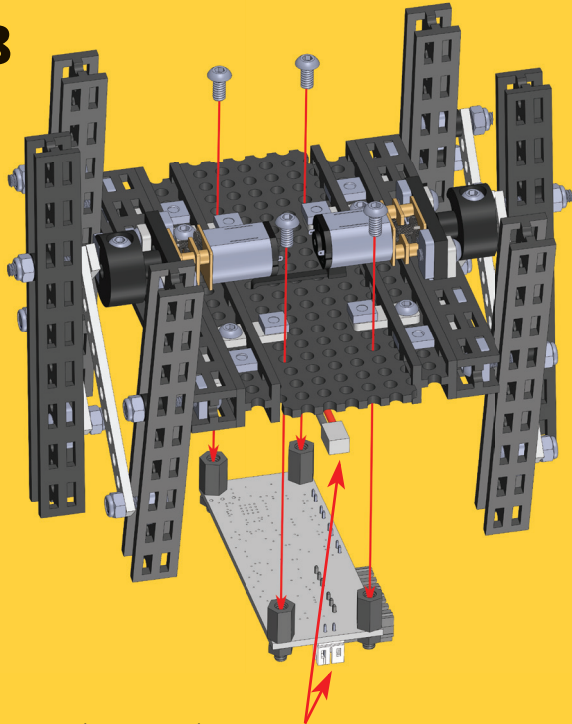
17



Use fingers only to tighten Nylon Standoffs and Nylon Nuts.



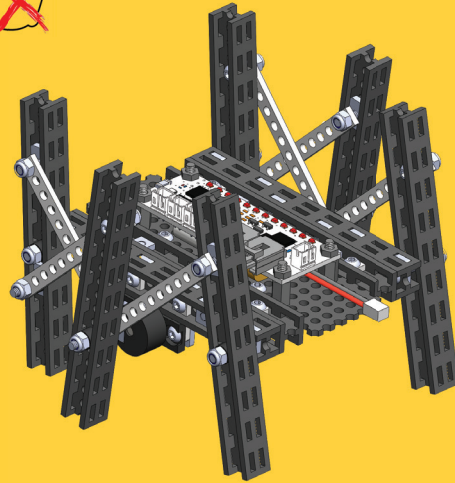
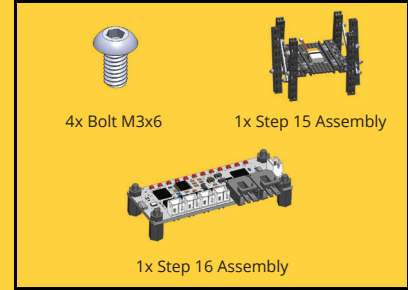
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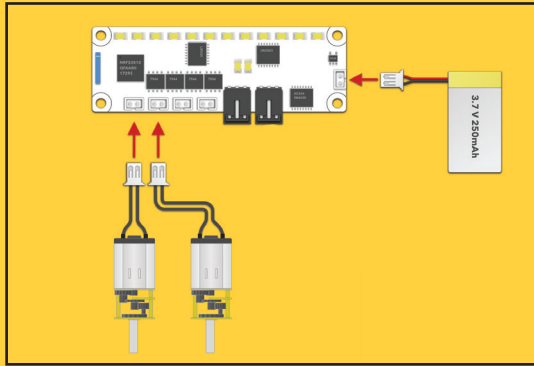
Make sure battery connector is on the same side as battery cable.

Flip the model (motors up).

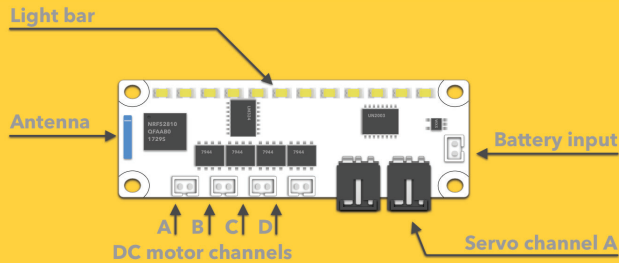
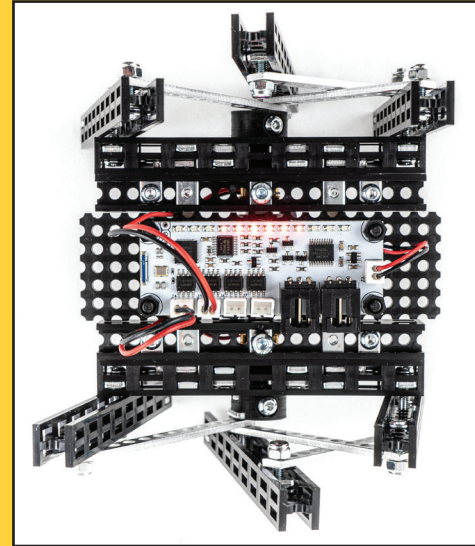
Do not use much force when tightening Bolts into Standoffs.



19 CONNECTING ELECTRONICS



Mini Control Board

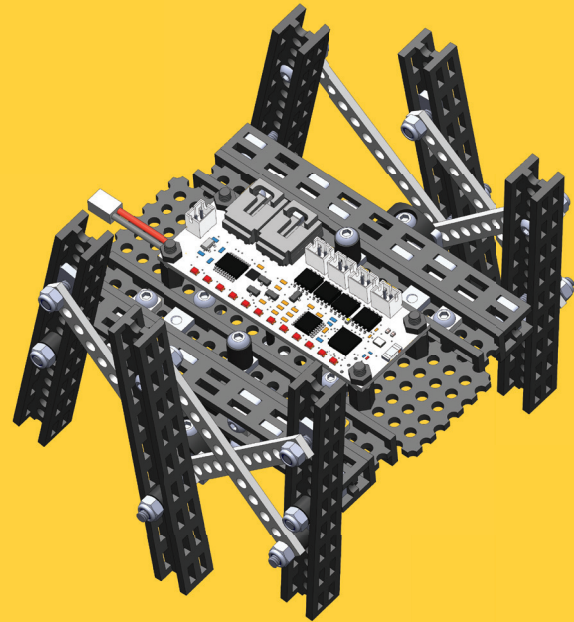
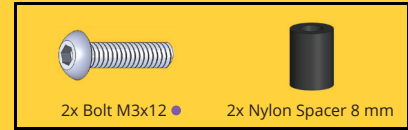
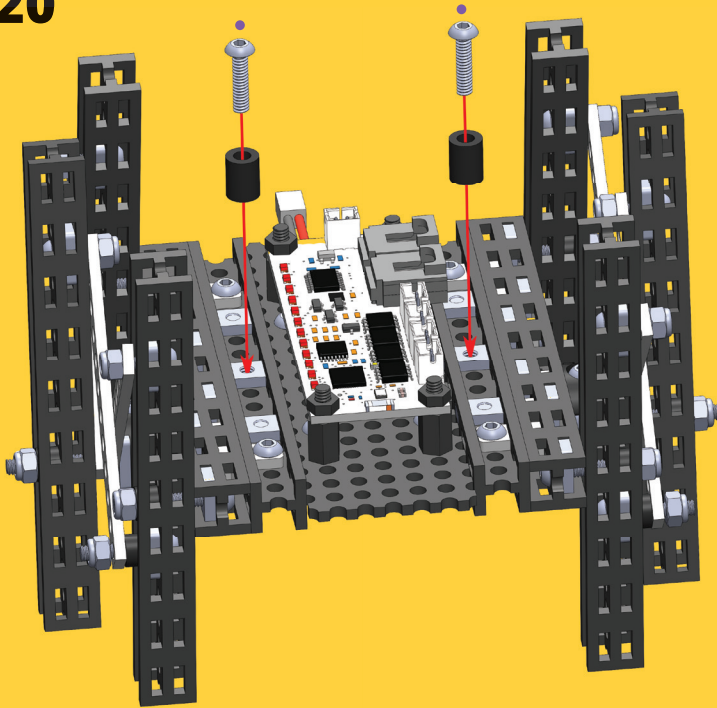


Light Bar – to indicate the battery charge level. Changes lights when successfully connected to the app.

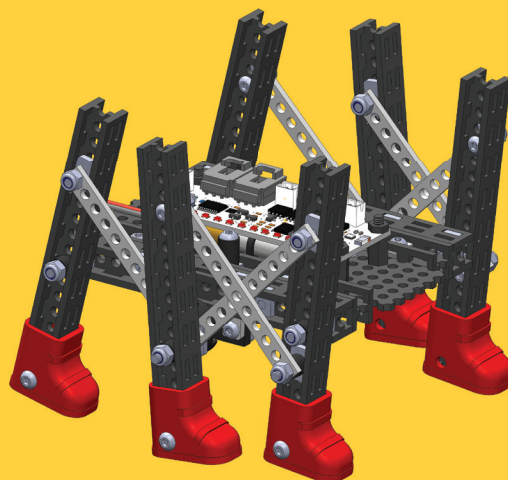
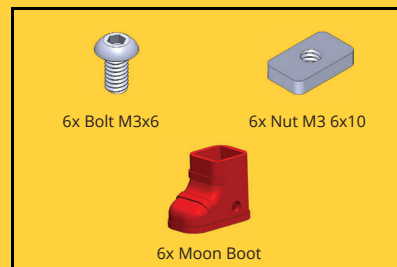
Up to **4 DC motor channels**.

Up to **2 Servo motor channels**.

20



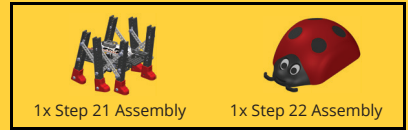
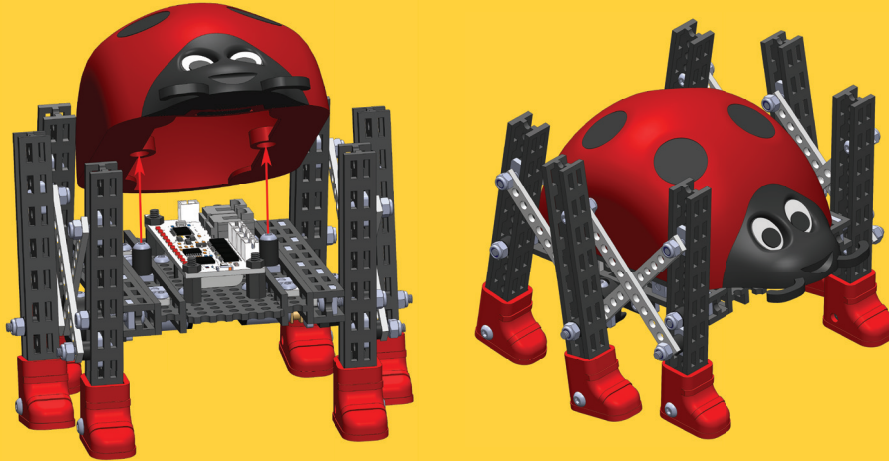
21



22



23



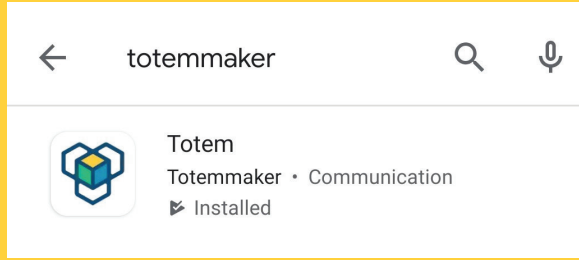
Woohoo! Your Ladybug is now alive and ready to play.

Ladybug walks best on smooth surfaces like your desk top or floor.



HOW TO CONTROL

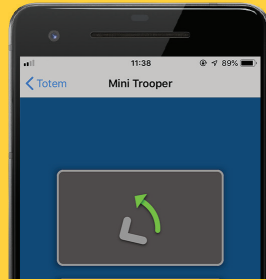
Download Totem app on your smartphone or tablet via App Store or Google Play.



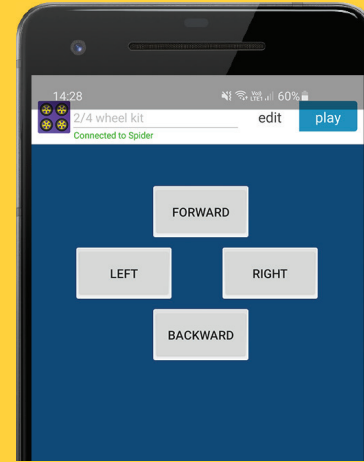
Follow the step by step guide to connect your Ladybug to your device.



Search for:
Totemaker



To slow down the rotation speed, press two buttons at the same time. I. e. press both Forward and Right buttons.





PRECAUTIONS: ELECTRONICALLY OPERATED PRODUCT

Do not give this product to children aged 8 or below. As with all electronic products, precautions should be observed during handling and use to prevent electric shock.

Adult supervision required.

Note to adults: to ensure that the child's play is both safe and fun, please review all operating instructions and safety rules with your child.

SAFETY WARNINGS:

- Do not pick up toy while in motion.
- Keep fingers, hair, and loose clothing away from moving parts, to avoid the injury.
- Adult supervision is required when this toy is being operated.
- If you stopped operating the toy, remember to unplug the battery, to avoid accidental operation.
- If the toy is dirty, please clean it with dry and soft cloth. Do not clean electronics.
- Do not expose the toy to high temperature, high humidity, or direct sunlight.
- Indoor use only. Do not put this product in water to avoid damaging its electronic components.
- The product is made of complex electronic circuit and electronic components, do not disassemble, or modify the circuit board.

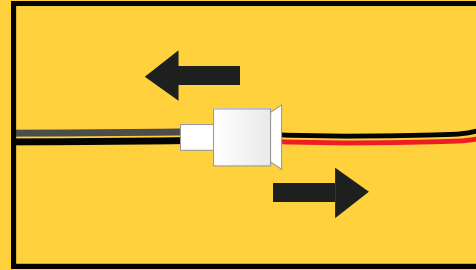
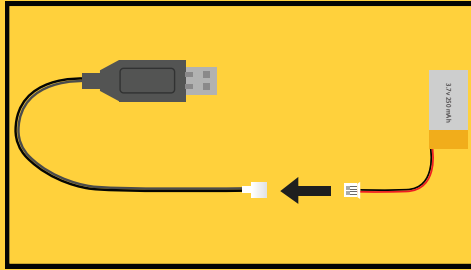
BATTERY SAFETY INFORMATION:

- This toy is designed to work with provided 250 mAh 3.7V LiPo battery and charger.
- Rechargeable battery must be charged by adult only.
- Do not leave charging without supervision of adult.
- There is a risk of fire and personal injury if battery is punctured, damaged or misused.
- Do not disassemble or damage the battery pack.
- Use only the supplied 250 mAh 3.7V LiPo battery. Using any other battery may damage the model.
- Use only the included USB charging cable to charge the battery.
- Please check on a regular basis the wire, plug, battery, charger, and other electronic parts on the toy. If any damage is found, please stop using the product immediately.
- Stop charging if battery becomes hot, smells, smokes or gives off strong odour.
- Never throw batteries into fire to avoid explosion or leakage.
- Check the batteries on regular basis to avoid leakage.
- Recycle or dispose of batteries according to local laws and guidelines.

BATTERY CHARGING:

Rechargeable battery must be charged by adult only.

- The new battery pack needs to be charged before use.
- Connect the USB charging cable to 5V USB power source, such as laptop.
- Connect the battery to the charger (see picture on the left). The charger will show a red LED light when charging the battery. When the battery is fully charged, the red LED light turns off.
- To disconnect cables, hold the connectors of both cables and pull apart (see picture on the right).
- Do not attempt to overcharge the battery.



KEEP THIS INSTRUCTION MANUAL AND THE PRODUCT BOX AS IT CONTAIN IMPORTANT INFORMATION FOR FUTURE REFERENCE.

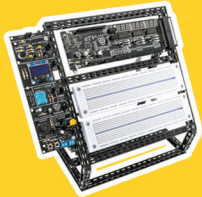
Due to the continuous product improvement, the pictures on this manual may differ slightly from the actual product. Please adhere to actual product instead.

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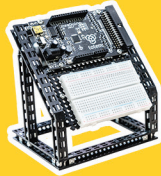
www.totemmaker.net
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Sauletekio al. 15-709, Vilnius, 10224, Lithuania
For customer support please contact: support@totemmaker.net



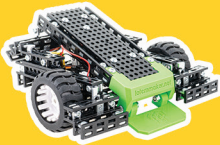
Discover more of Totem:



Mini Lab



Micro Lab



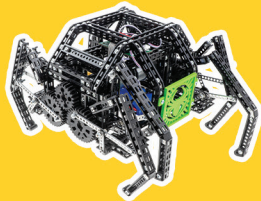
Mini Trooper



Young Engineer Kits



4WD Car Kit



Spider

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