



totem

MINI SPIDER

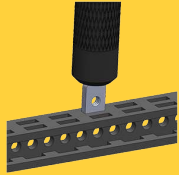
Assembly guide

**6-LEG-
MOVEMENT
MECHANISM**



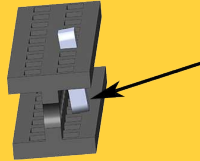
STARTING TIPS

Inserting nuts (1)



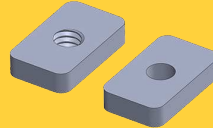
It is a good idea to start every step inserting nuts into beams (if the step requires). Use the back of the screwdriver to push in the nuts.

Inserting nuts (2)



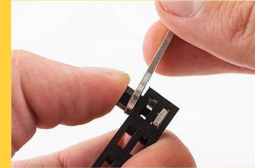
After entering the first slot, nuts tend to tilt. Use your thumb to push it back straight, and then again use the screwdriver to insert the nut all the way in.

Faulty threads



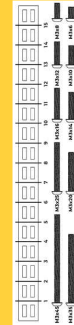
Some of the nuts are missing threads. This is a manufacturing issue and we are working on it. In the mean time, we add few extra nuts. We apologize for the inconvenience.

Tightening standoffs



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

Ruler

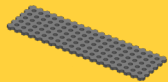


Use Beam/Bolt ruler to determine the length of beams and bolts.

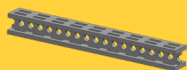
For more tips, please visit the link below:

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

PART LIST



1x Board 30x100



10x Beam 90 mm



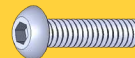
5x Bolt M1.6x3



30x Bolt M3x6



4x Bolt M3x8



6x Bolt M3x12



2x Bolt M3x16



4x Bolt M3x20



2x Bolt M3x25



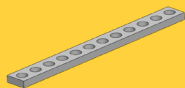
2x L-Twisted Bracket



2x L-Twisted Mirror Bracket



8x 2-Hole Simple Bracket



6x Strip Bracket 60 mm



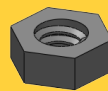
4x Nut M3 5.5x5.5



34x Nut M3 6x10



14x Lock Nut M3



4x Nylon Nut M3



4x Nylon Standoff M3x8



10x Nylon Spacer 4 mm



2x N20 Motor



2x N20 Motor Hub



2x Mini DC Motor Bracket



2x Zip Tie



1x Rechargeable Battery



1x Battery Charger



1x Mini Control Board



1x Mini Screwdriver

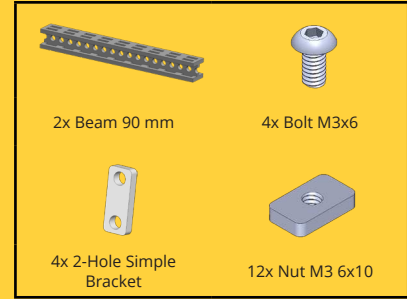
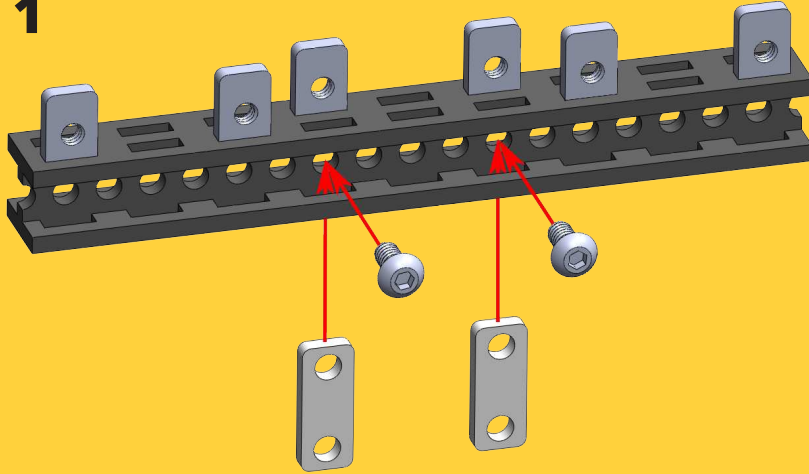


1x Totem Screwdriver



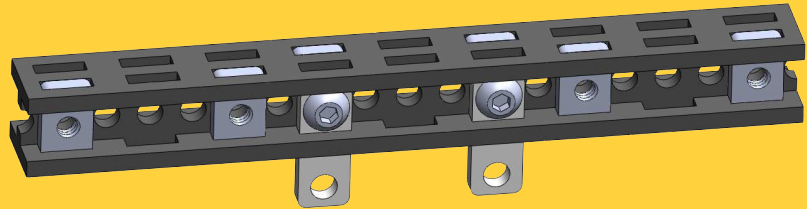
1x Totem Wrench

1

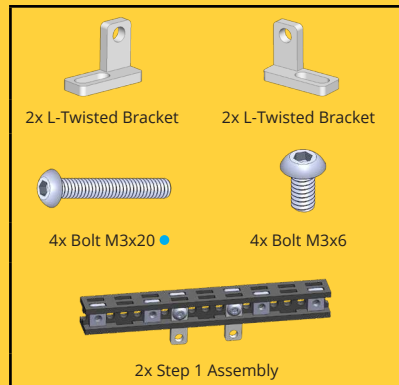
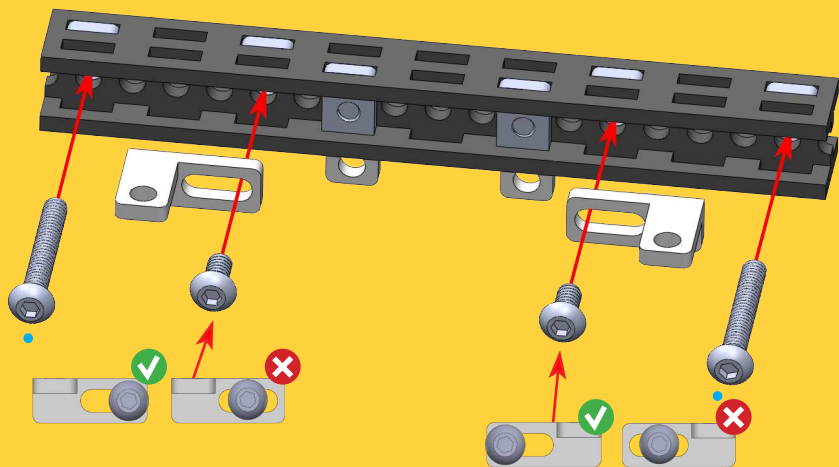


Repeat this step twice.

2x

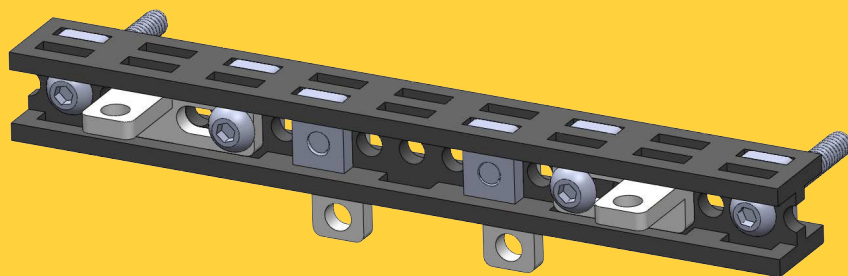


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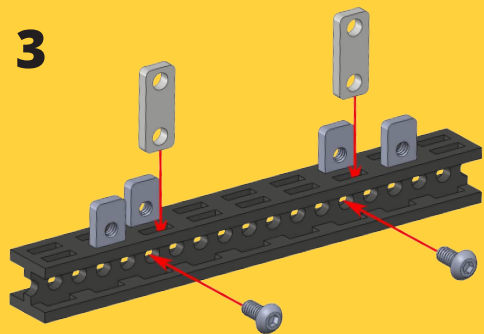


Repeat this step twice.

2x

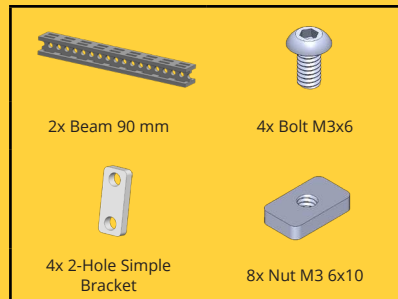
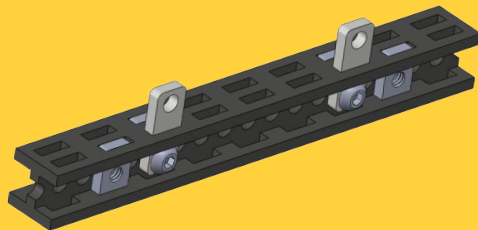


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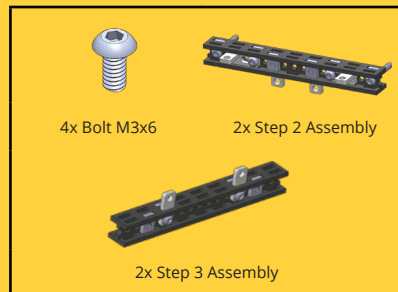
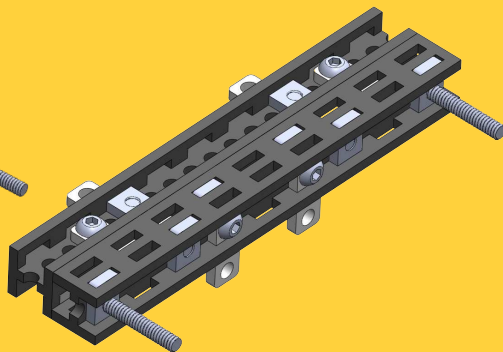
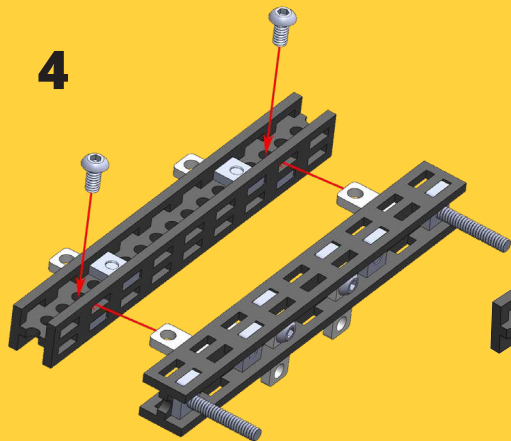


Repeat this step twice.

2x



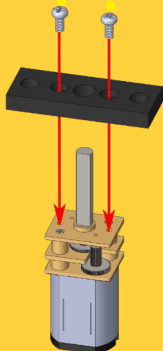
4



Repeat this step twice.

2x

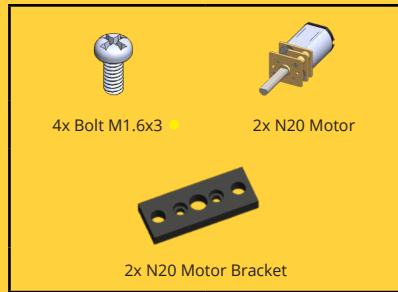
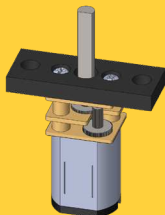
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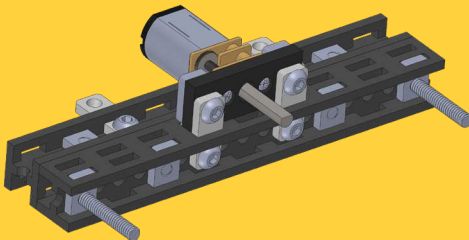
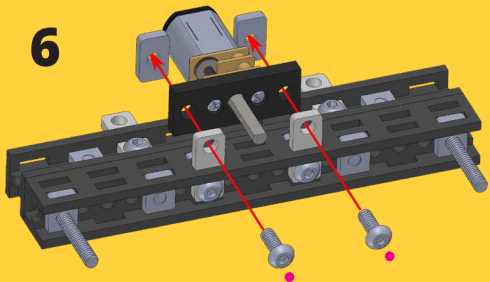
Use Mini Screwdriver for this step.

Repeat this step twice.

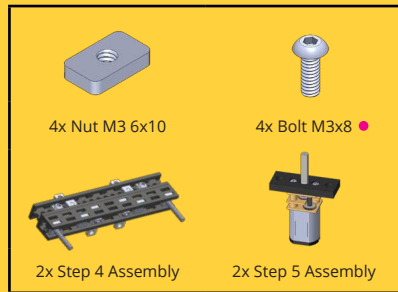
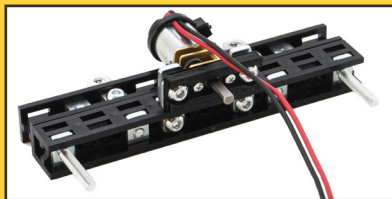
2x



6



Make sure motor cables go on top

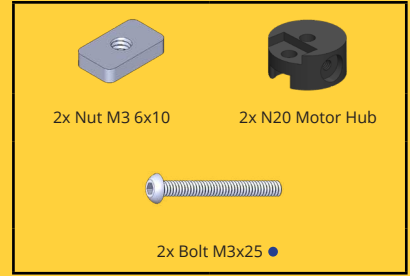
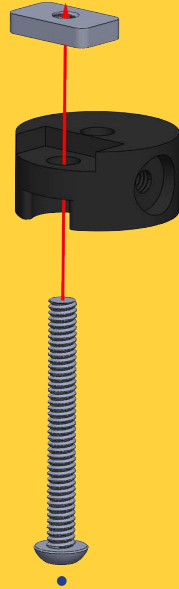


Repeat this step twice.

2x

7

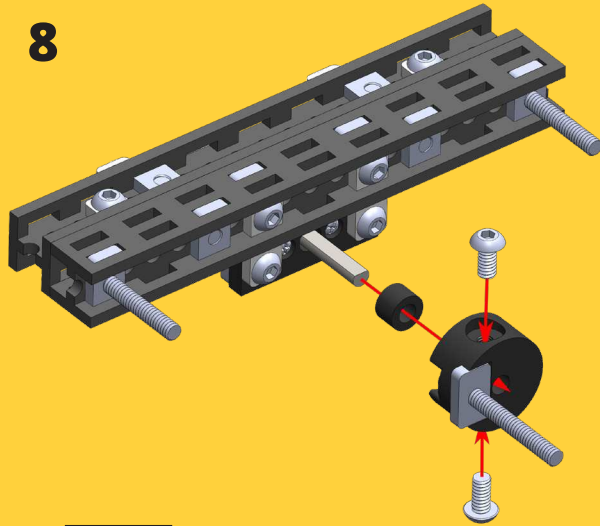
Tighten the
bolt firmly.



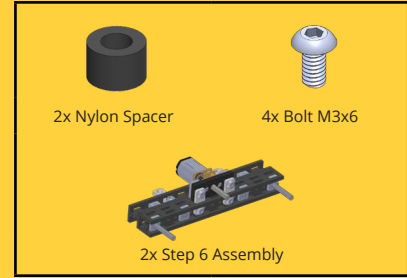
Repeat this step twice.

2x

8

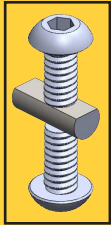


Prepare N20 Motor Hub:
screw bolts half way in
before placing hub on the
shaft of motor.

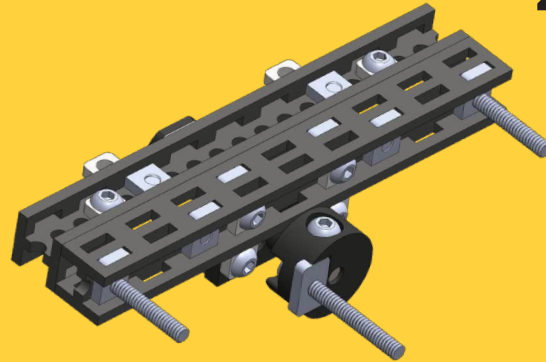


Repeat this step twice.

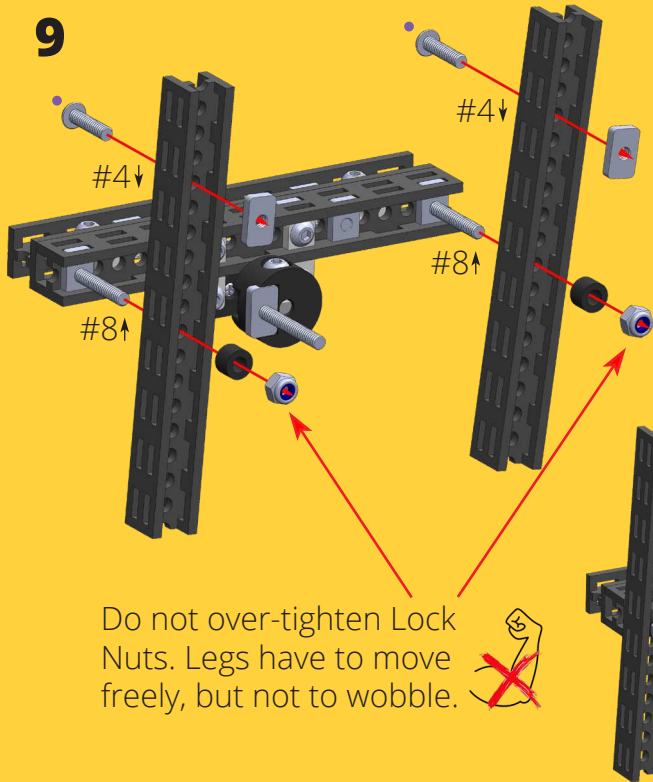
2x



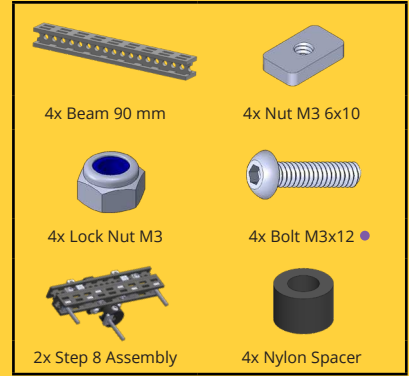
One of the bolts must hit
the flat side of the shaft.
Tighten both bolts evenly
to keep the hub straight.



9



Use Totem Wrench for Lock Nuts.



indicates number of slot.

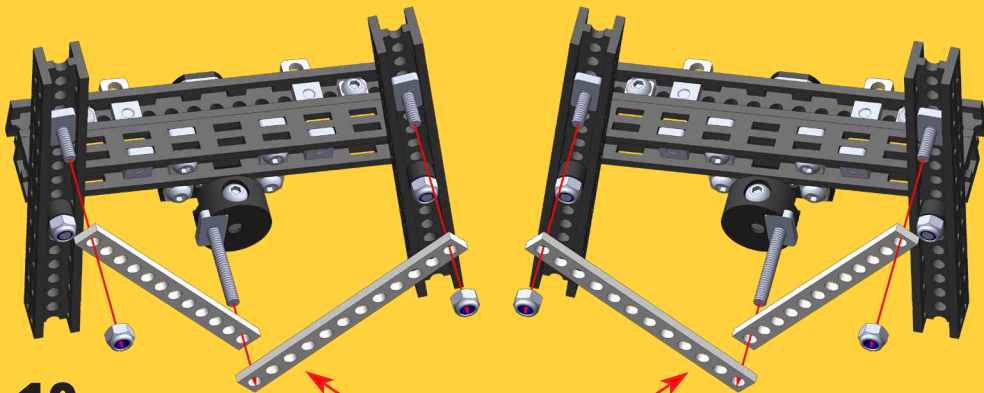
↓ indicates counting direction.

Repeat this step twice.

2x

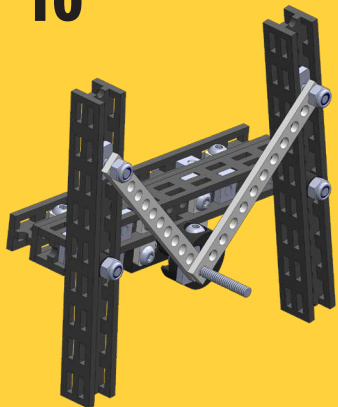
Do not over-tighten Lock Nuts. Legs have to move freely, but not to wobble.



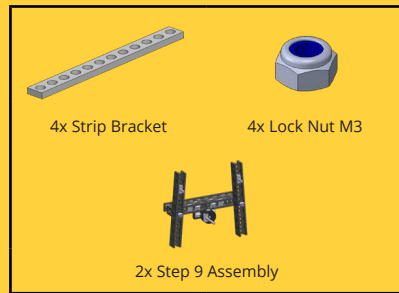
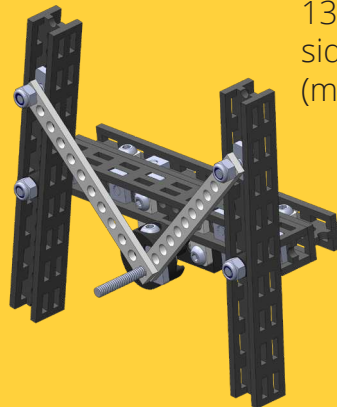


10

Mind Brackets' order.



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

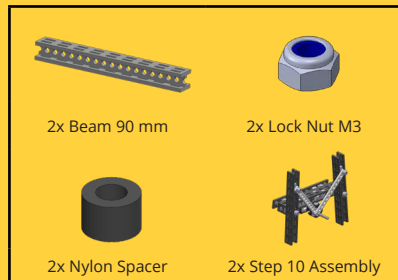
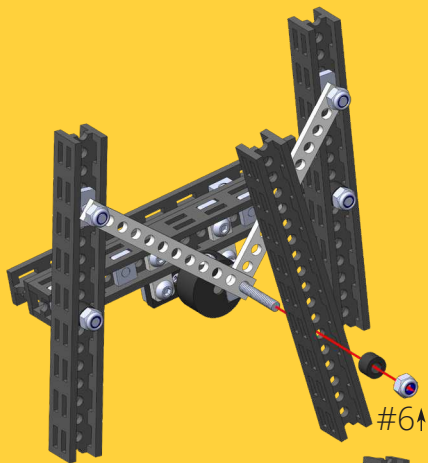


In steps 10, 11, 12, and 13 assembly for each side is slightly different (mirrored).

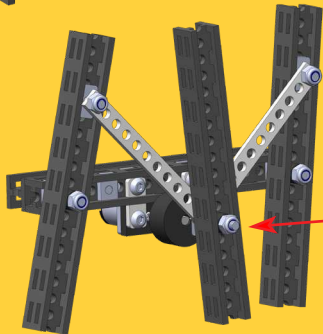
Use Totem Wrench for Lock Nuts.



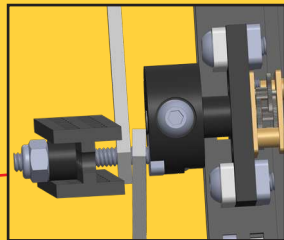
11



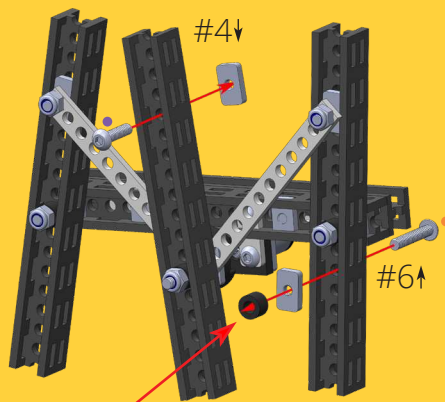
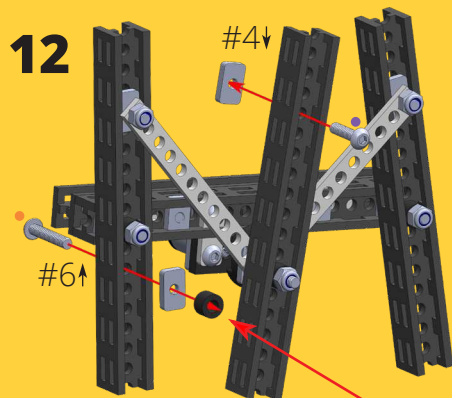
Use Totem Wrench for Lock Nuts.








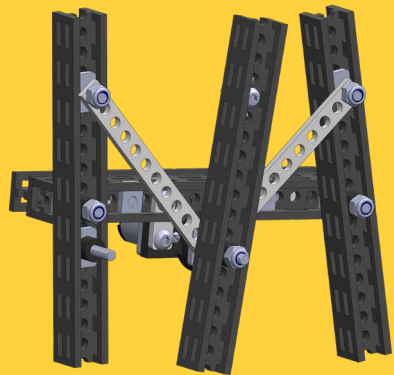
Do not over-tighten Lock Nut. Beam must be slightly loose.



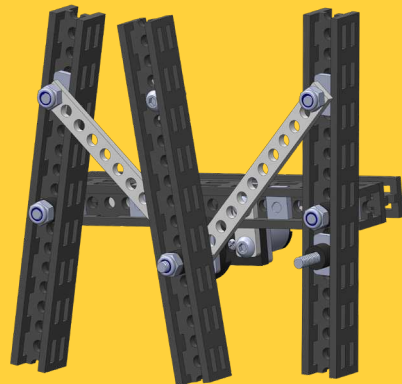
12



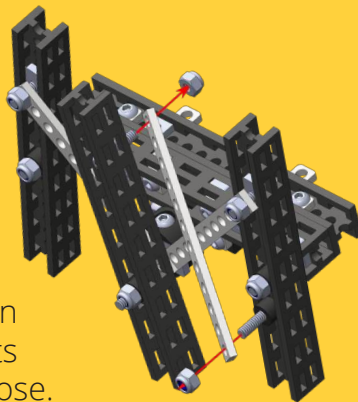
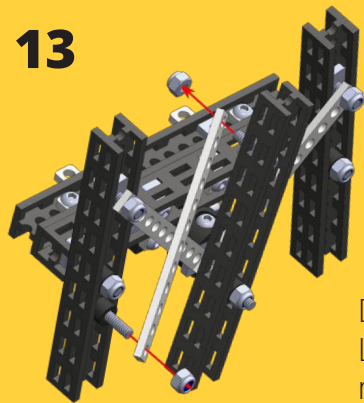
	
4x Nut M3 6x10	2x Nylon Spacer
	
2x Bolt M3x12	2x Bolt M3x16
	
2x Step 11 Assembly	



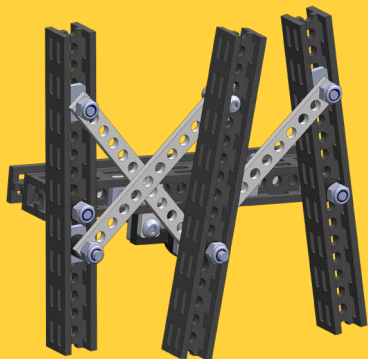
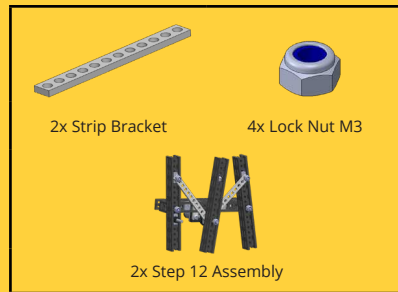
Nylon Spacers will be loose until next step.



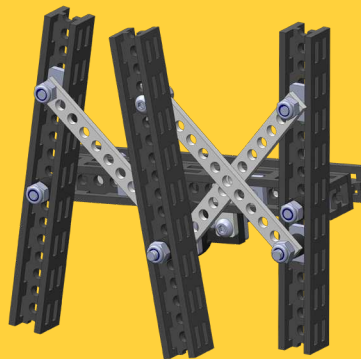
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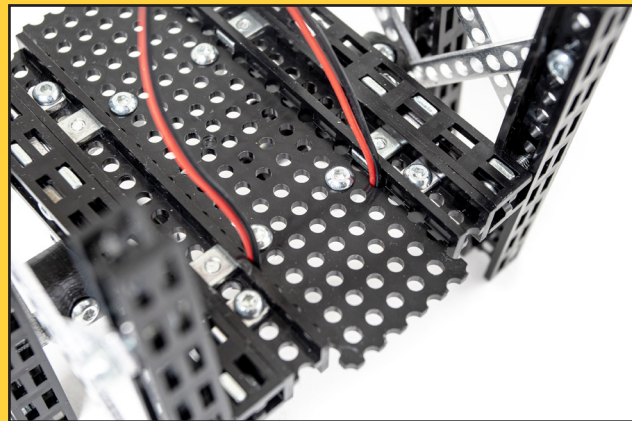
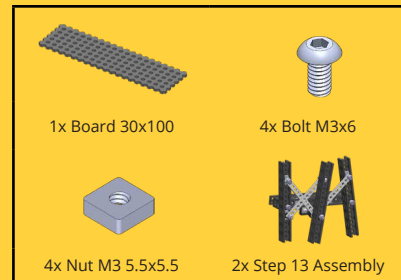
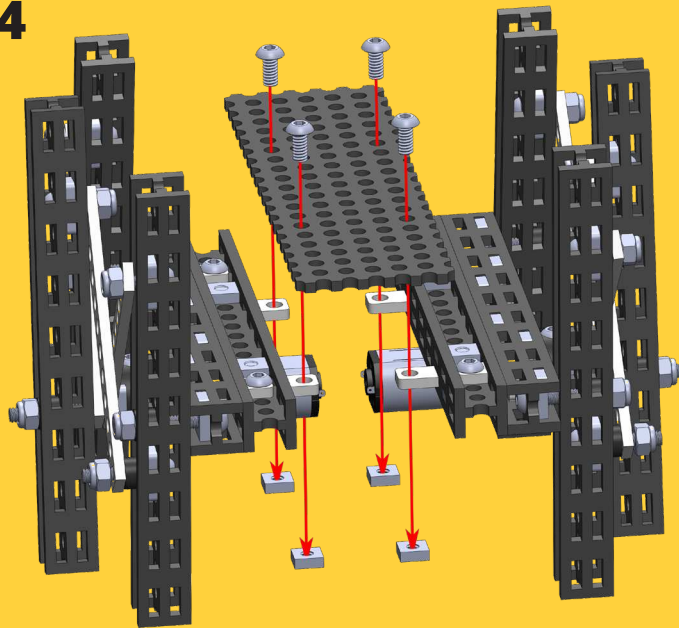
Do not over-tighten
Lock Nuts. Brackets
must be slightly loose.



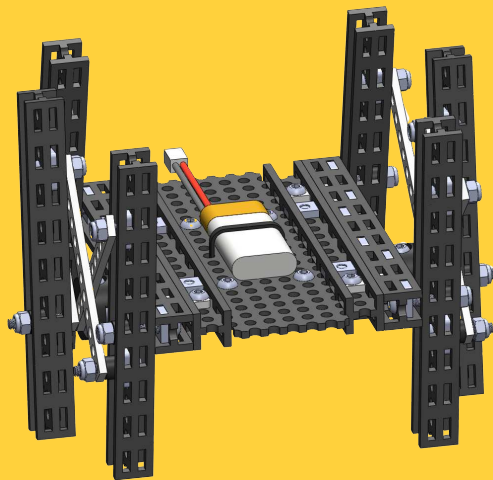
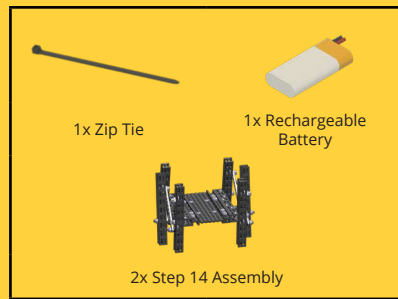
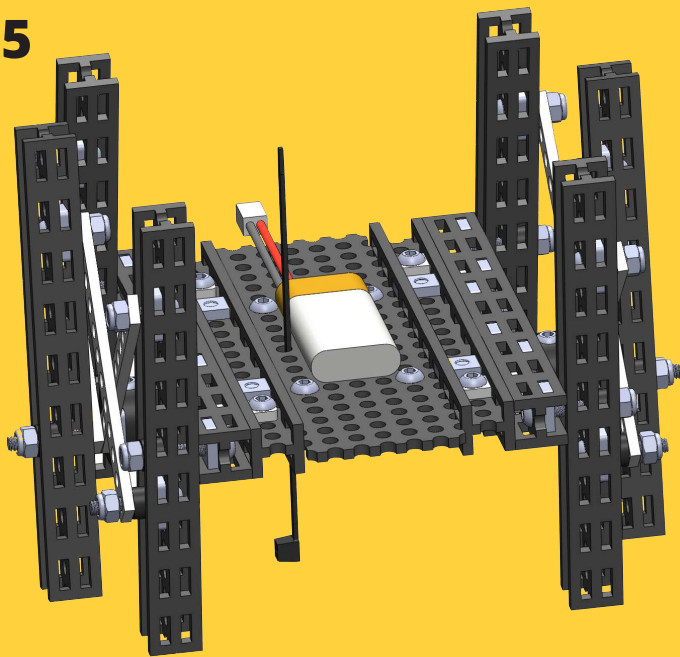
Use Totem Wrench
for Lock Nuts.



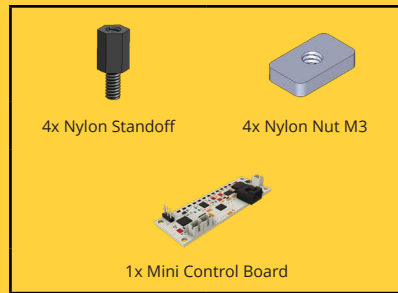
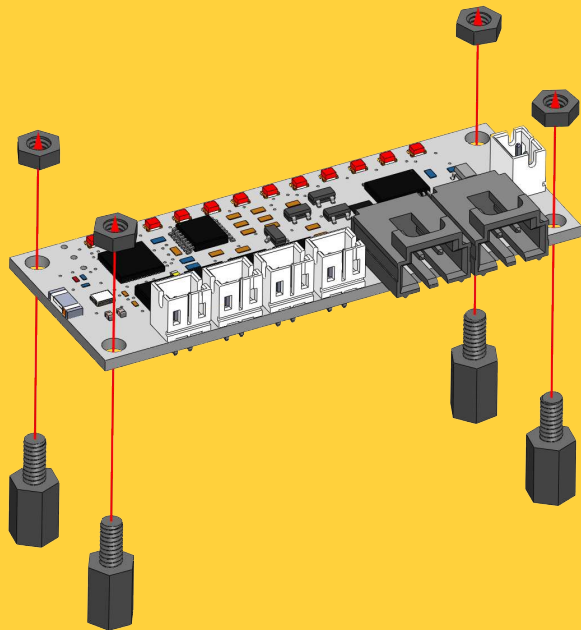
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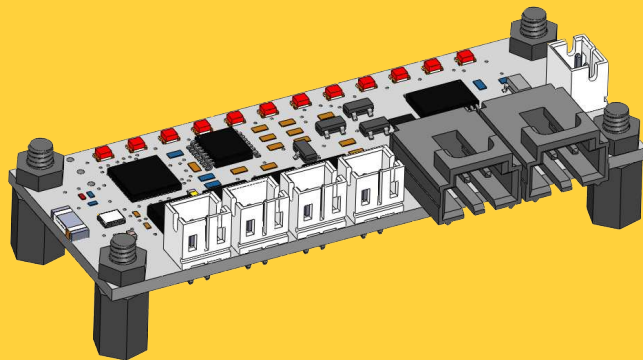
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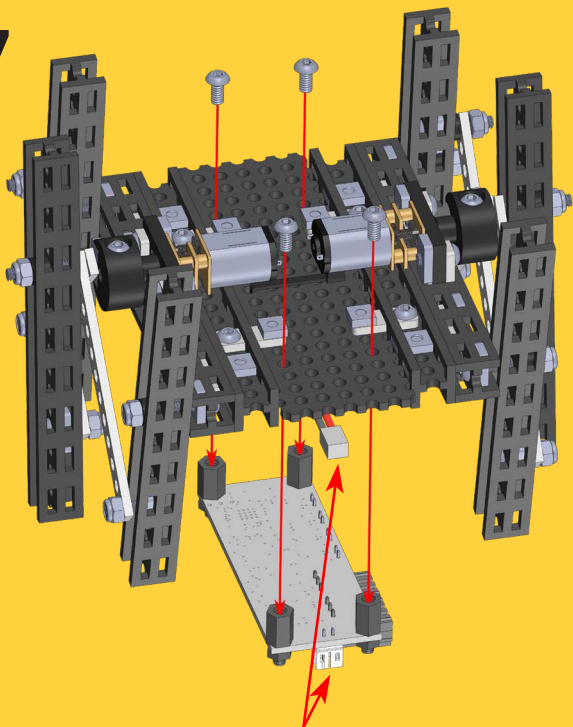
16



Use fingers only to tighten Nylon Standoffs and Nylon Nuts.



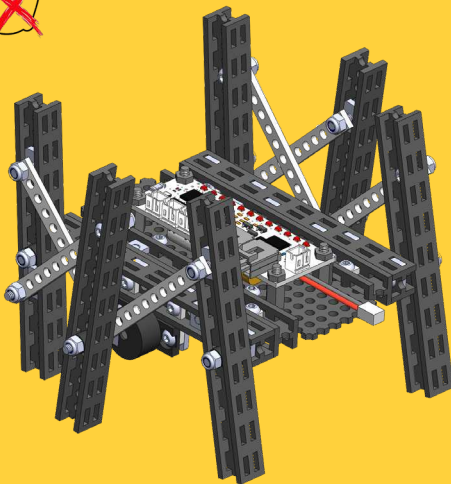
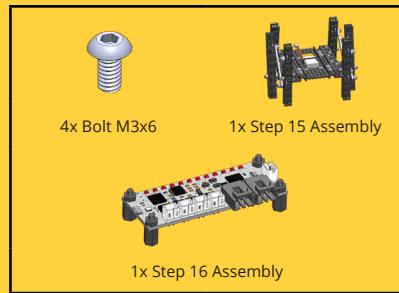
17



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

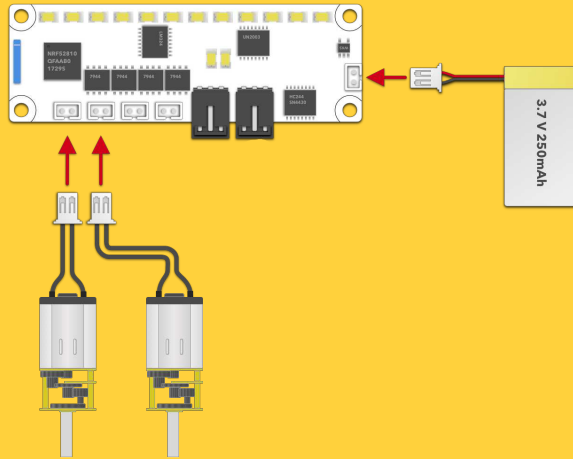
Flip the model (motors up).

Do not use much force when tightening Bolts into Standoffs.



18

CONNECTING ELECTRONICS

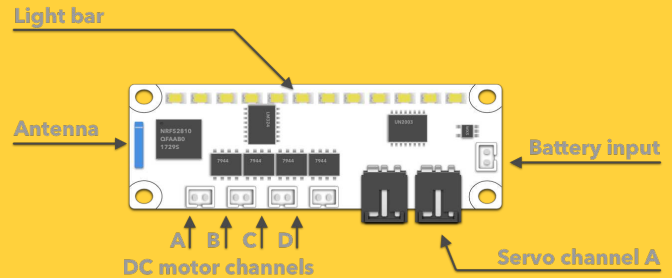


Mini Control Board

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

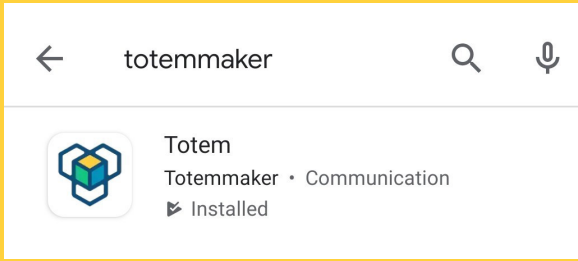
Up to **4 DC motor channels**.

Up to **2 Servo motor channels**.



HOW TO CONTROL

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



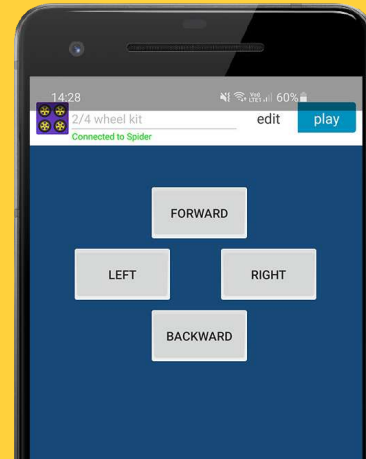
Follow the step by step guide to connect your Mini Spider to your device.



Search for:
Totemaker

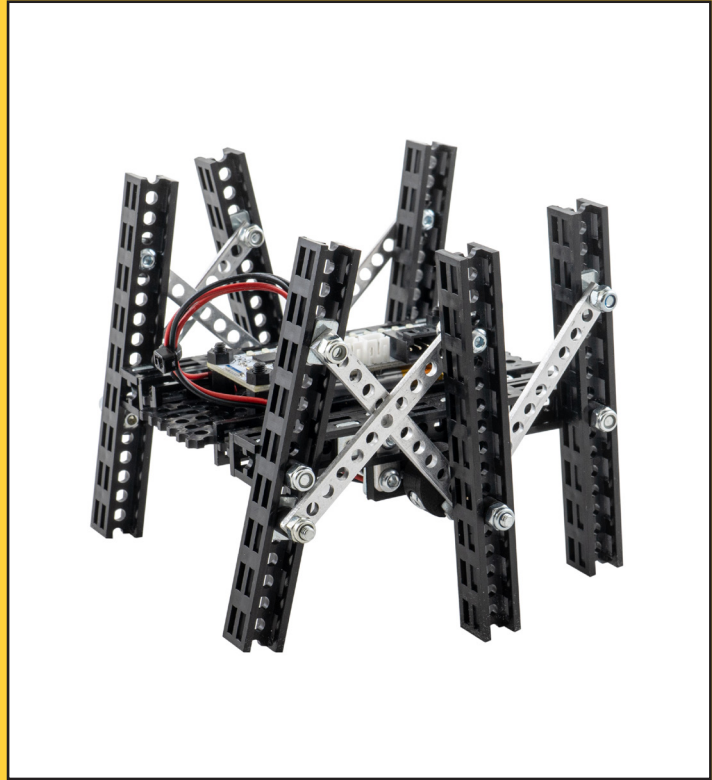


To slow down the rotation speed, press two buttons at the same time. I. e. press both Forward and Right buttons.



Voilà! Your Mini Spider is now alive and ready to play.

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





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 mechanism, 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.

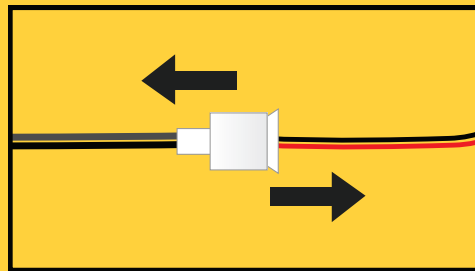
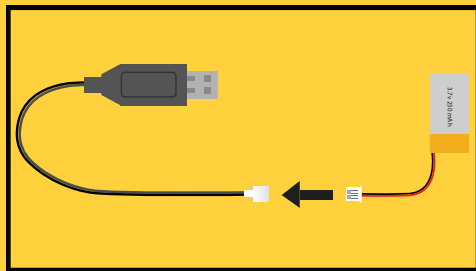
BATTERY SAFETY INFORMATION:

- 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 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 1). 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 2).
- 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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Sauletekio al. 15-709, Vilnius, 10224, Lithuania
For customer support please contact: support@totemmaker.net

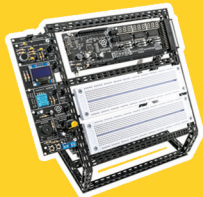


WARNING:

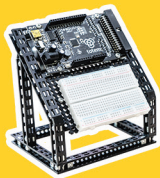
CHOKING HAZARD - Small parts.
Not for children under 3 years.



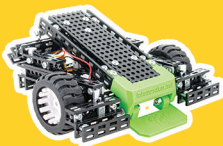
Discover more of Totem:



Mini Lab



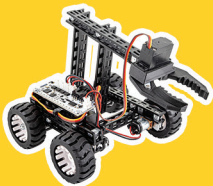
Micro Lab



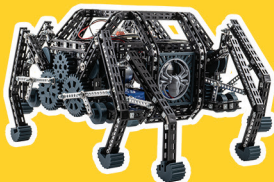
Mini Trooper



Young Engineer Kits



Gripper Bot



Black Spider

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