Light My Bricks
Installation Instructions for Light My Bricks LED Lighting Kits
Jan 2, 2017 · 19 min read

Light My Bricks: LEGO Ferris Wheel 10247 Lighting Kit

The following page is the instructions for the **Light My Bricks LEGO Ferris Wheel (10247) LED light kit.**

To ensure a trouble-free installation of your light kit, please read and follow each step carefully.

If you run into any issues, please refer to the **online troubleshooting guide.**

To download this instructions guide in PDF format please click **here.**

> *Please note: This page lists instructions for the LED light kit only. If you are wishing to purchase the Light My Bricks LEGO Ferris Wheel (10247) LED light kit , please click here to view the product page*

. . .

Package contents:

- 2 x **Flashing White 15cm Bit Lights**

- 3 x **White Strip Lights**
- 1 x **5cm Connecting Cable**
- 1 x **15cm Connecting Cable**
- 1 x **30cm Connecting Cable**
- 2 x **Rubber Bands**
- 1 x **6 port Expansion Board**
- 1 x **8 port Expansion Board**
- 6 x **Multi Colour Changing Light Strings**
- 1 x **AA Battery Pack** (3x AA Batteries Required)
- 1 x **USB Power Cable**

Extra Pieces

- 1x **LEGO Trans Red 1x1 round plate**
- 1x **LEGO Trans Green 1x1 round plate**
- 3x **LEGO Plate 1x6** (for mounting strip lights)

USB Power Bank
You will need a USB Power Bank (Not included in this kit) to power the light strings. We recommend that the power bank be small and not more than 4.7 cm wide and 12 cm long, so that it can comfortably fit in the centre of the Ferris Wheel ring.

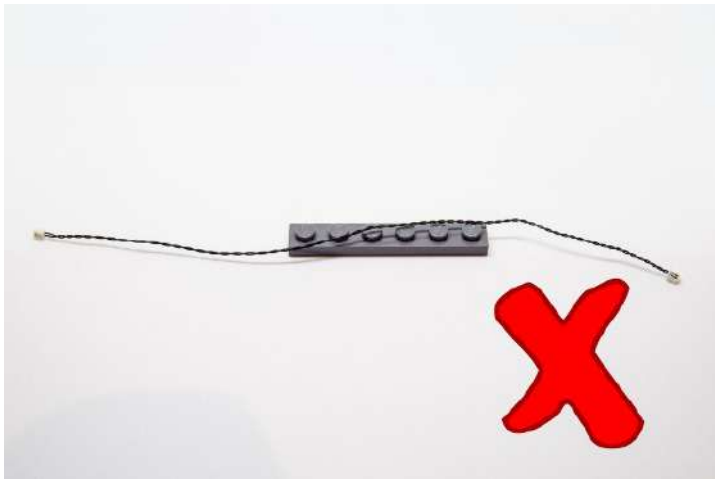
If you do not have a USB Power Bank, you can purchase them from Light My Bricks at our Powering section. We recommend a minimum 2,200 mAh Power Bank to give you several hours of power at a time (approximately 3–4 hours run time).

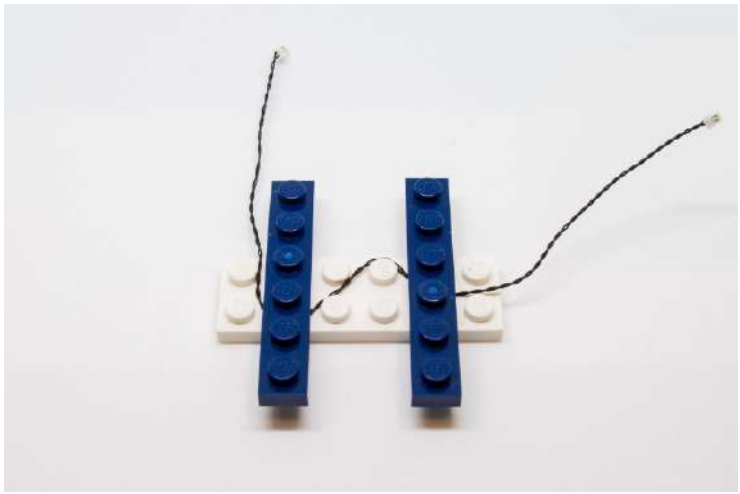
. . .

Important things to note:

Laying cables in between and underneath bricks

Cables can fit in between and underneath LEGO® bricks, plates, and tiles providing they are laid correctly between the LEGO® studs. Do NOT forcefully join LEGO® together around cables; instead ensure they are laying comfortably in between each stud.

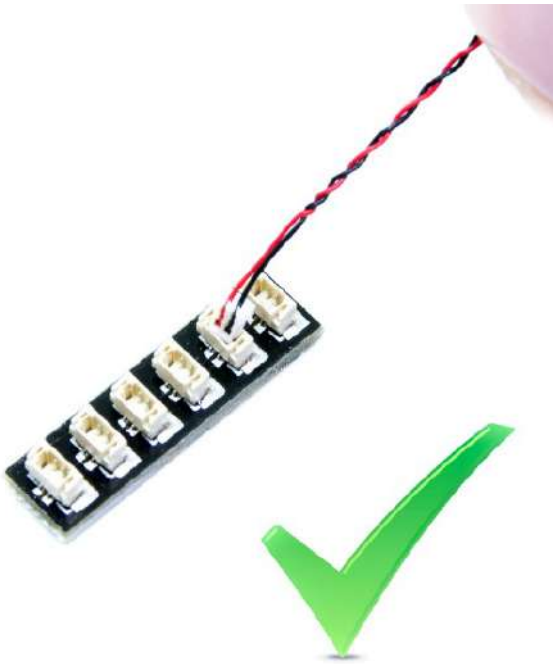


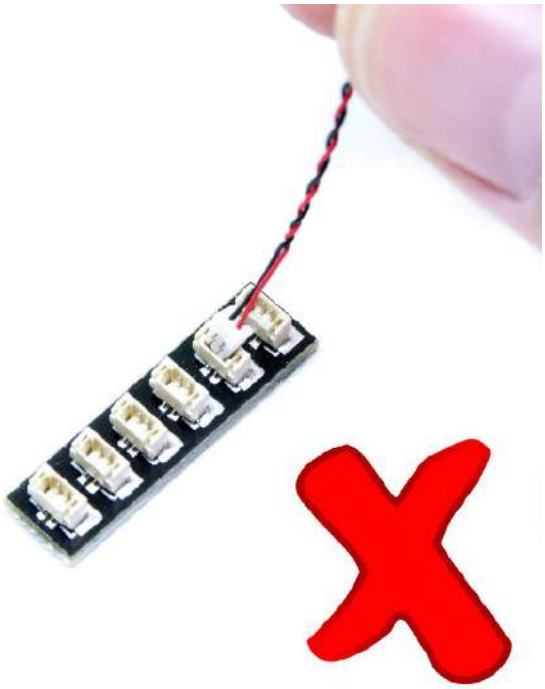


CAUTION: Forcing LEGO® to connect over a cable can result in damaging the cable and light.

Connecting cable connectors to Expansion Boards

Take extra care when inserting connectors to ports of Expansion Boards. Connectors can be inserted only one way. With the expansion board facing up, look for the soldered "=" symbol on the left side of the port. The connector side with the wires exposed should be facing toward the soldered "=" symbol as you insert into the port. If a plug won't fit easily into a port connector, do not force it.

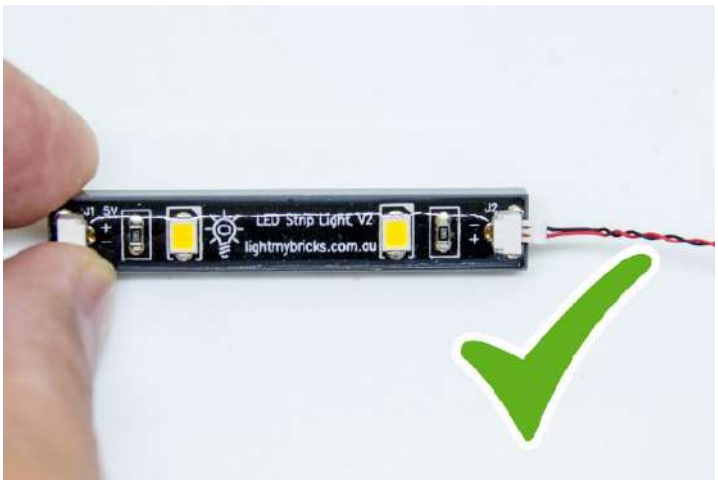


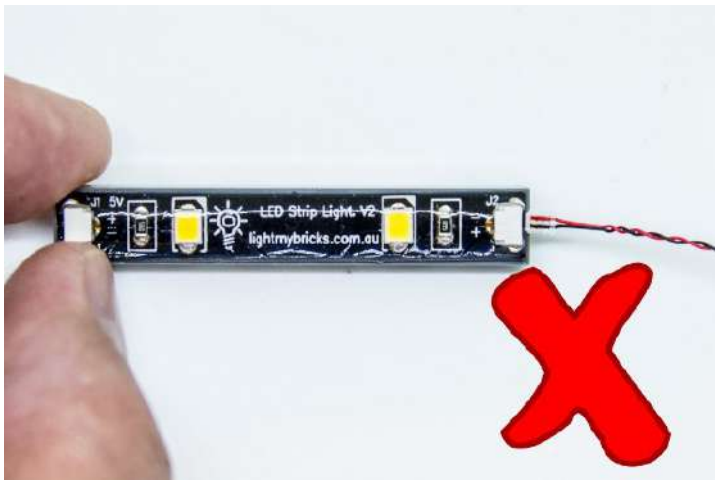


Incorrectly inserting the connector can can result in bent pins inside the port or possible overheating of the expansion board when connected.

Connecting cable connectors to Strip Lights

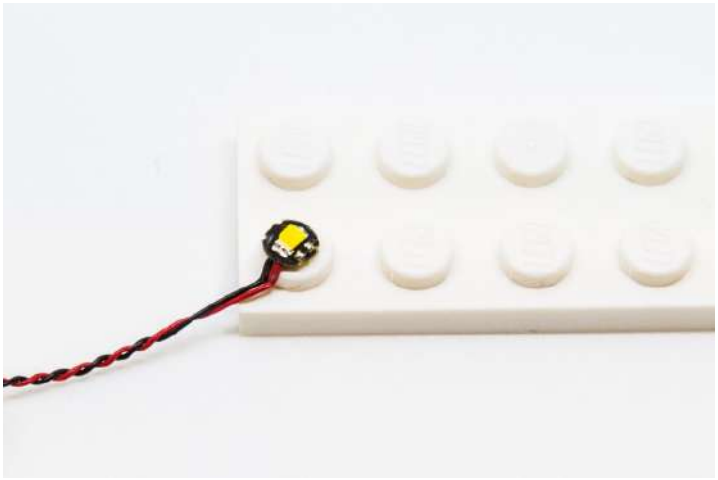
Take extra care when inserting connectors to ports on the Strip Lights. Connectors can be inserted only one way. With the Strip Light facing up, ensure the side of the connector with the wires exposed is facing down. If a plug won't fit easily into a port connector, don't force it. Doing so will damage the plug and the connector.

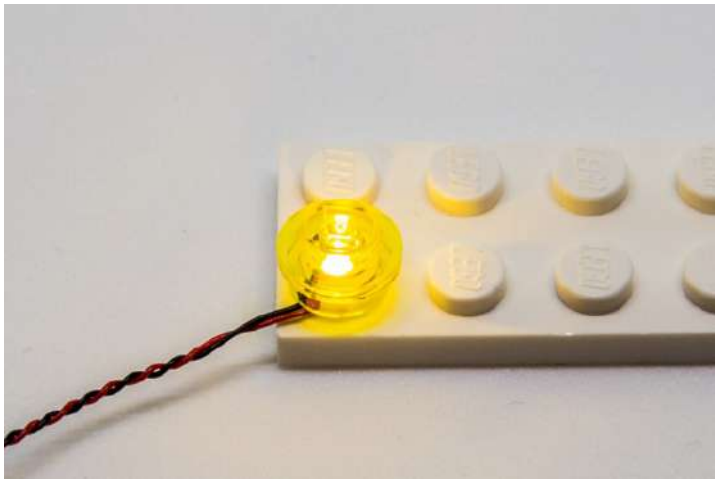


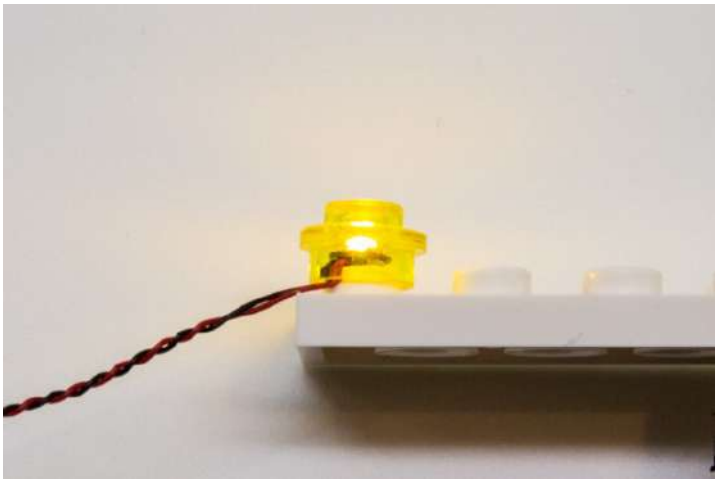


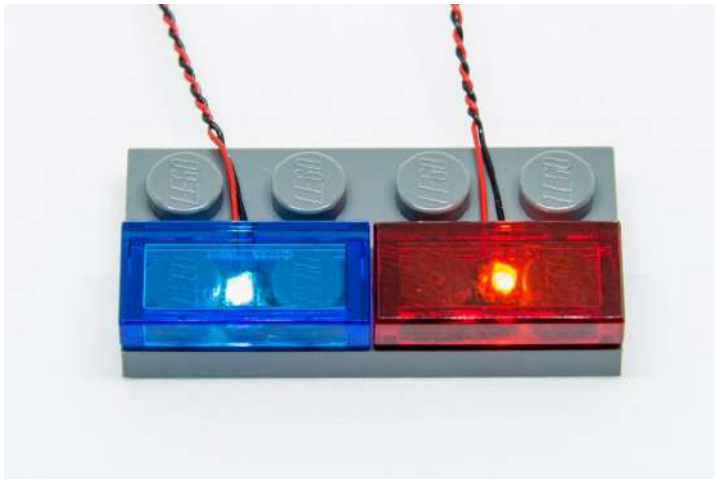
Installing Bit Lights under LEGO® bricks and plates.

When installing Bit Lights under LEGO® pieces, ensure they are placed the correct way up (Yellow LED component exposed). You can either place them directly on top of LEGO® studs or in between.







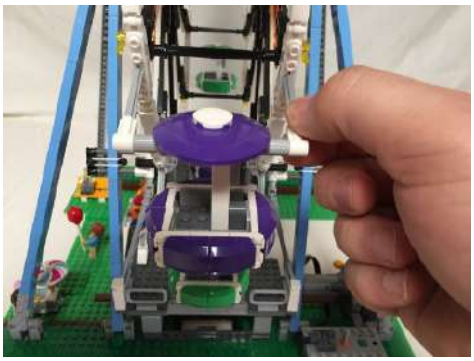


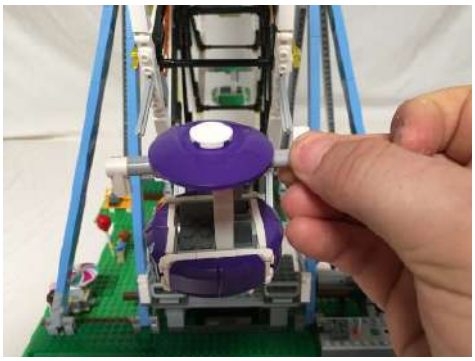
. . .

OK, Let's Begin!

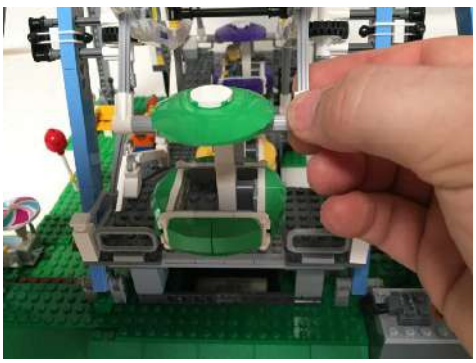
. . .

Turn your Ferris Wheel side on so that you can access the gondolas.

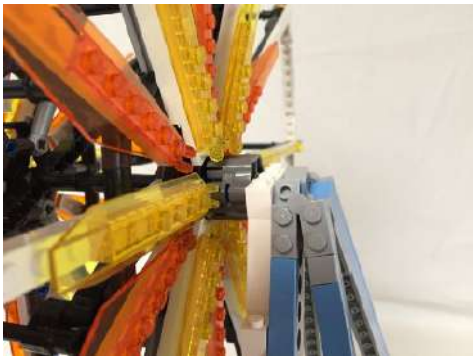
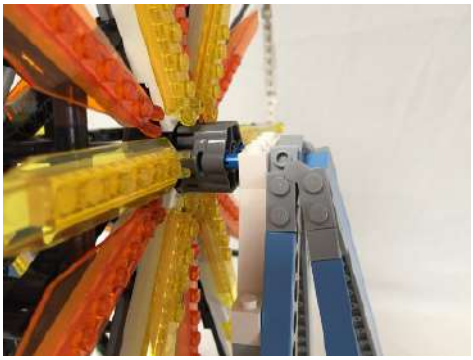
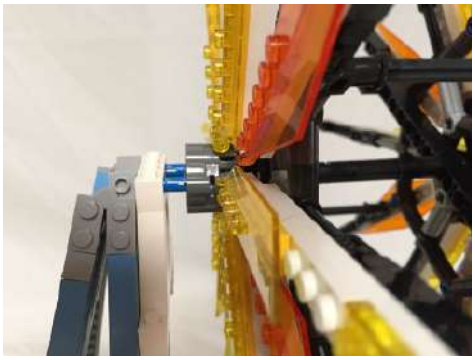




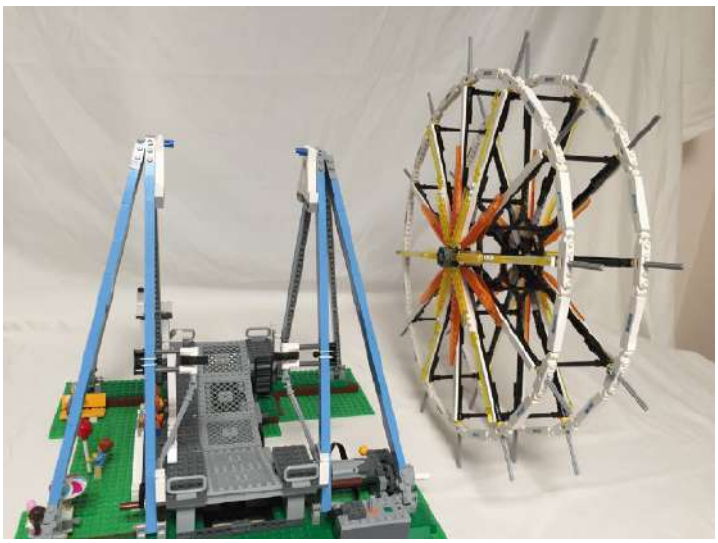
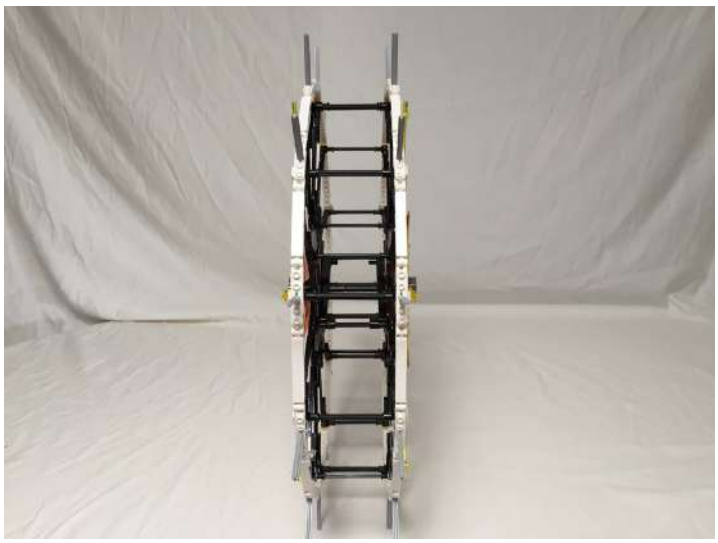
Remove the gondolas by pulling the white technic pieces off the main Ferris Wheel.



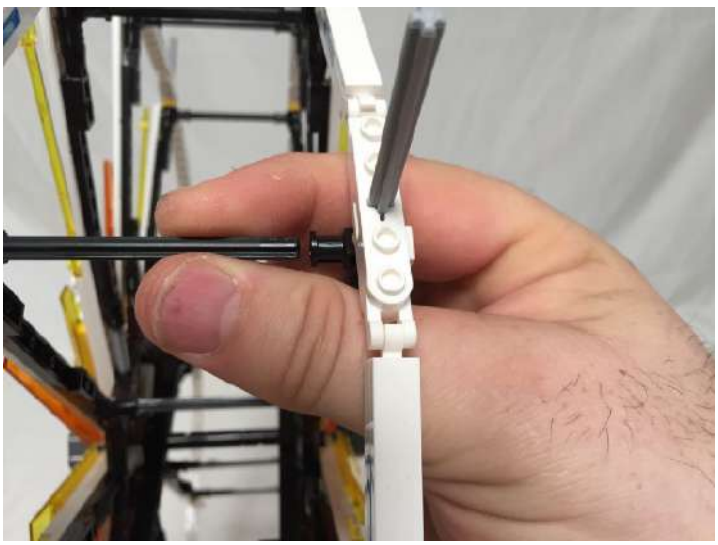
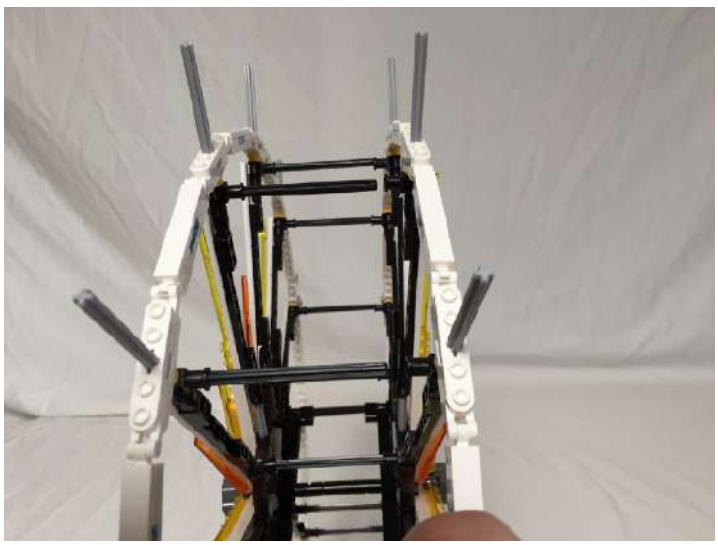
Repeat for all gondolas and put them to the side.

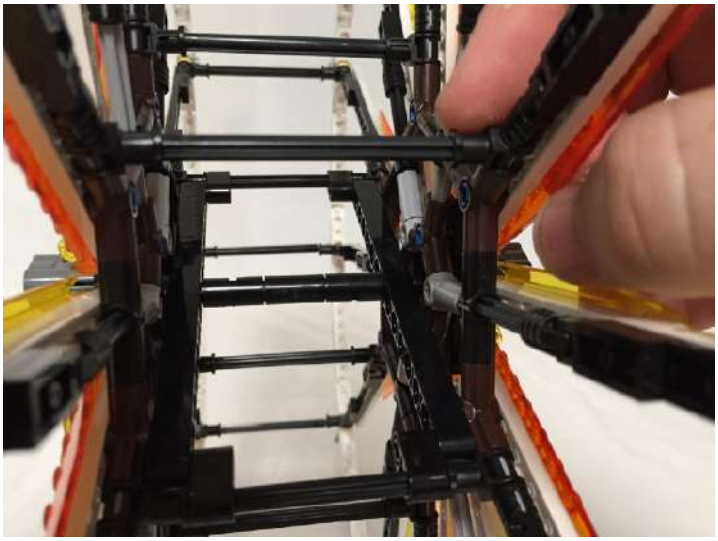
Detach the Ferris Wheel from the supporting structure by prying apart the join where the blue technic pins connect the wheel and the support structure.

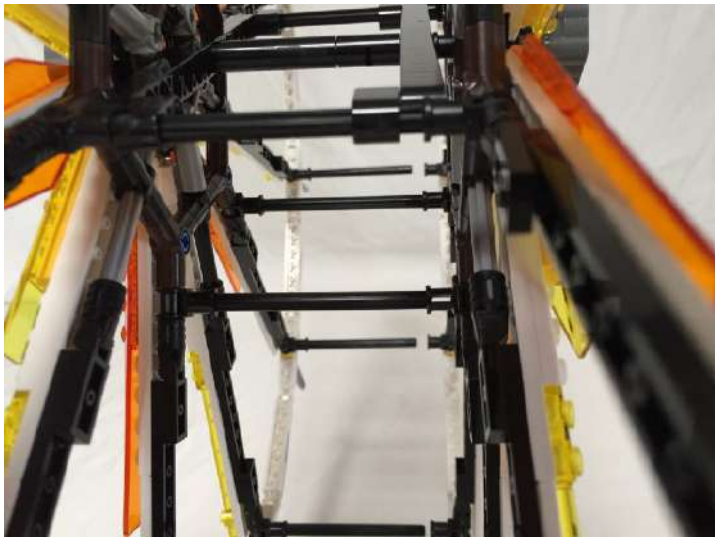



Pull the Ferris Wheel out of the support structure and put the base and support structure aside.

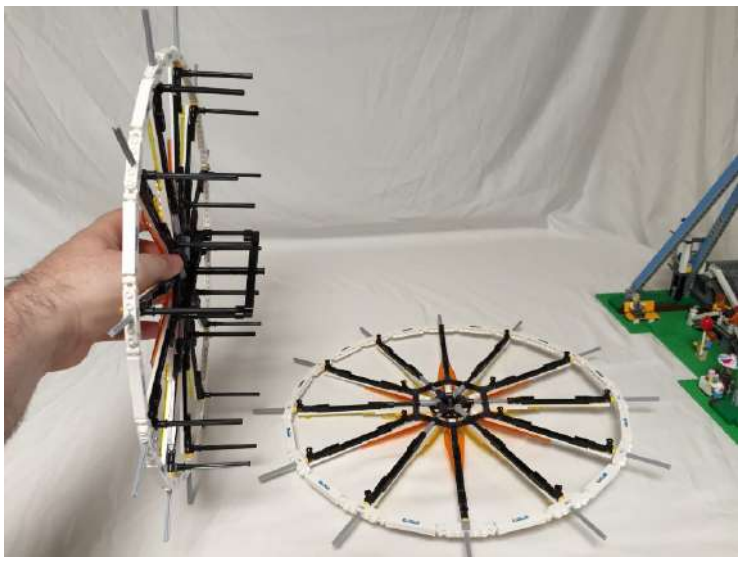



We want to pull the two sides of the wheel apart. Disconnect the technic axle pieces from their connectors around one side of the wheel. Work around the entire wheel so they they are all disconnected or loose.



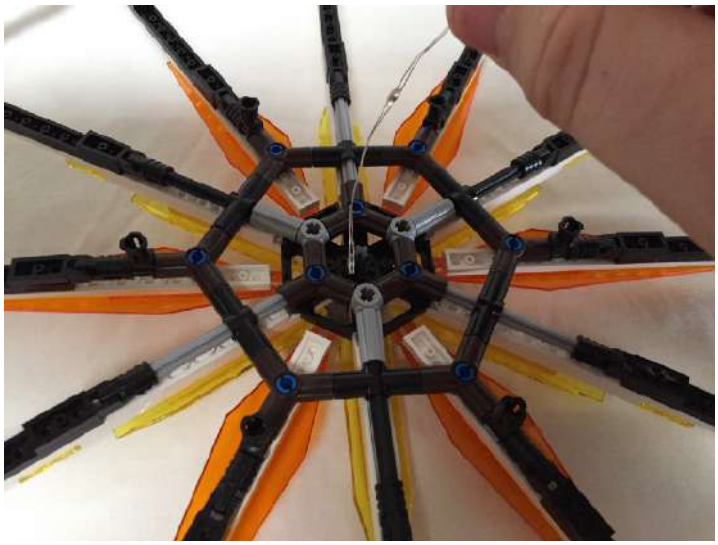


There are technic axle pieces towards the centre of the wheel as well. Disconnect these technic axle pieces from their connectors around the same side of the wheel.
Try to keep the centre supporting structure attached on the same side as the technic axle pieces. In this example, I am keeping everything attached to the left half of the wheel and nothing remaining connected to the right half of the wheel.

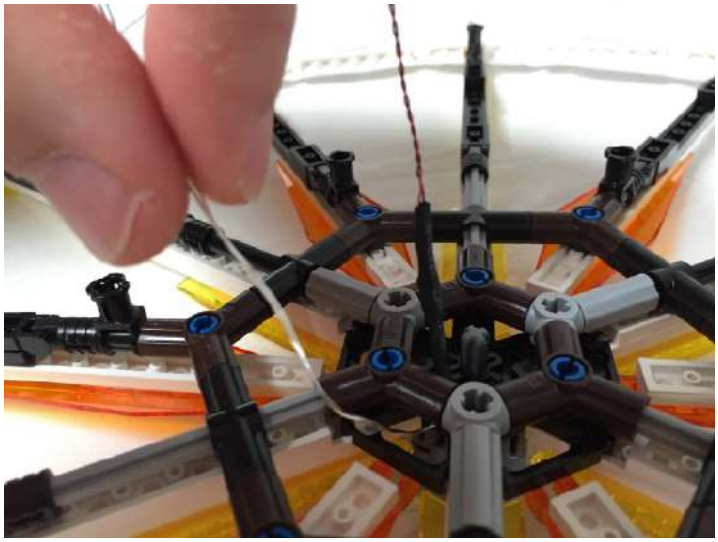


Pull the two halves of the wheel apart. One side has all the technic axle pieces still attached as well as the centre support pieces.
If yours didn't come apart neatly, make the necessary changes now.

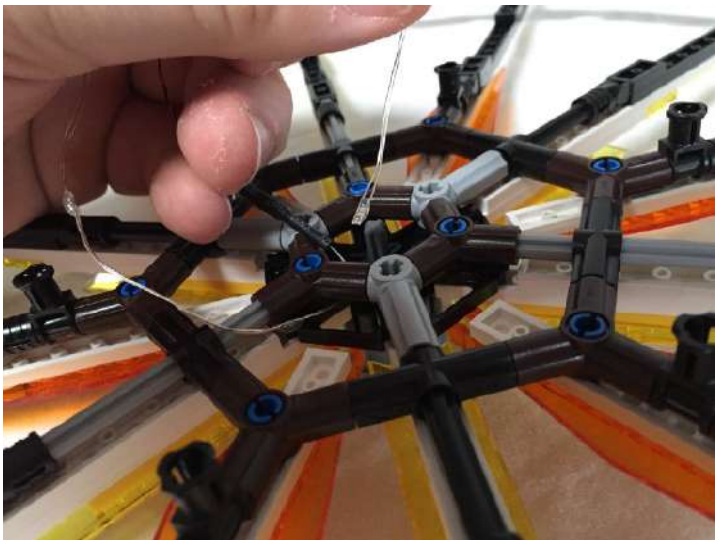
We are going to work with the right side of the wheel.

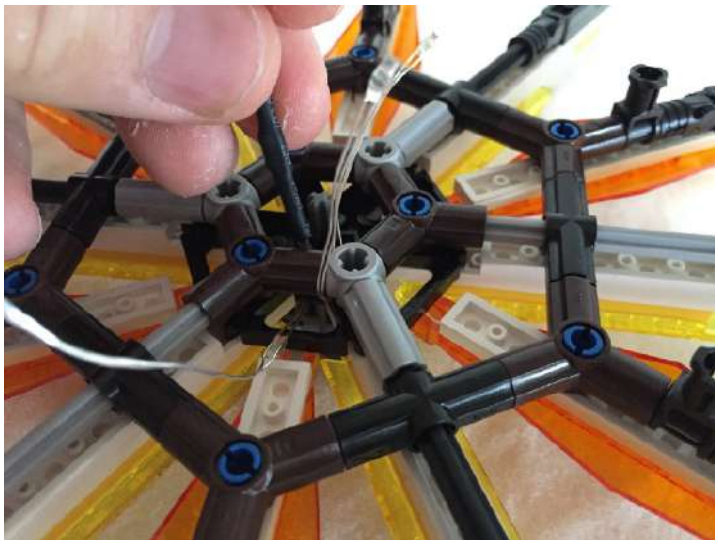


Grab one of the **Colour Changing Light Strings** and thread it through the inner most ring of axle connectors.

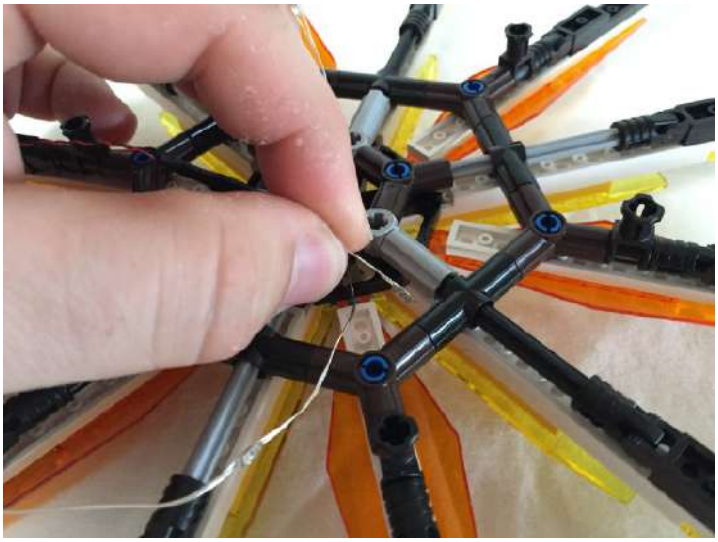


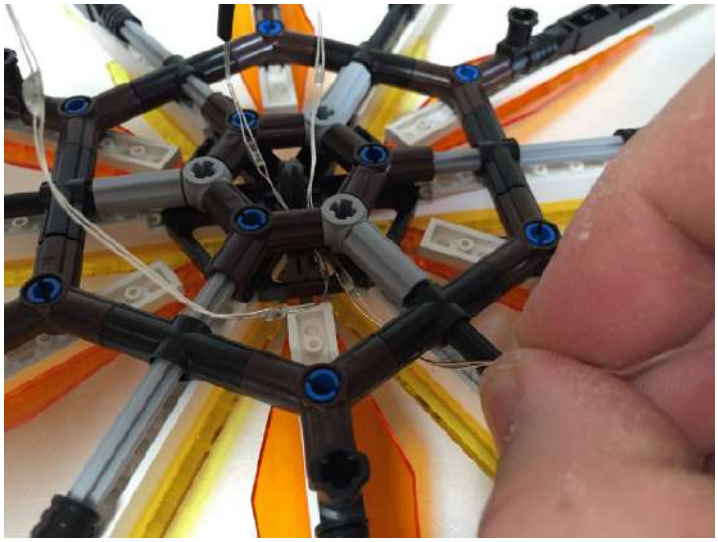
Thread the **Colour Changing Light String** down along the left hand side of one of the light grey axle connectors. The spoke of the wheel should be one that has transparent yellow pieces on the other side. Pull the **Colour Changing Light String** through until the black heat wrapped section is near the base and can stand vertically upwards.



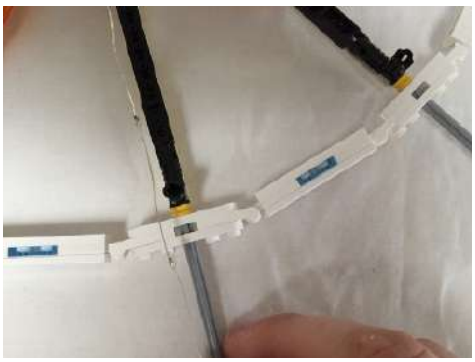


Grab the end of the **Colour Changing Light String** and feed it through the axle connectors again, wrapping it around the brown axle connector piece.



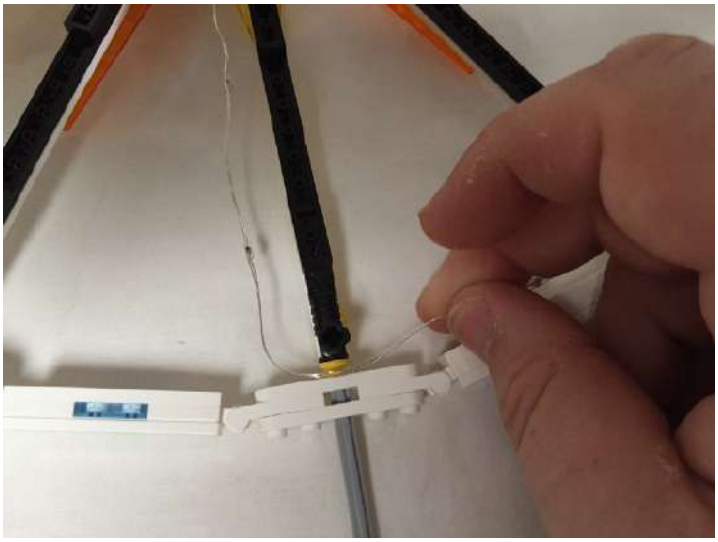


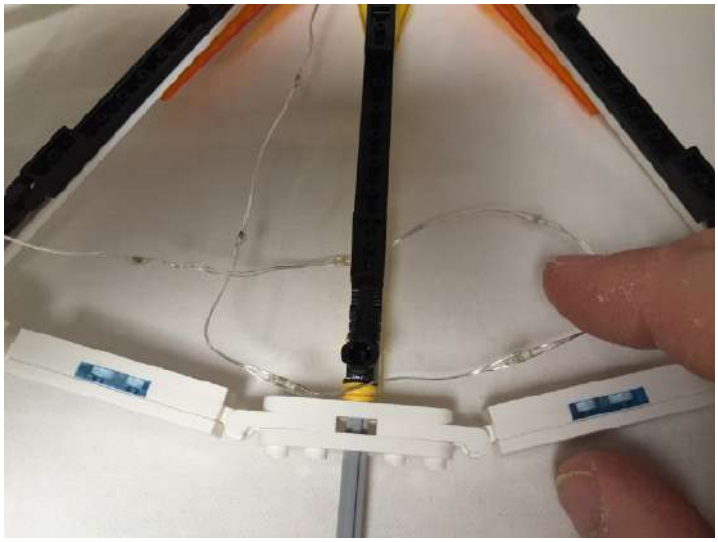
Feed the end of the **Colour Changing Light String** underneath the outer ring of axle connectors.



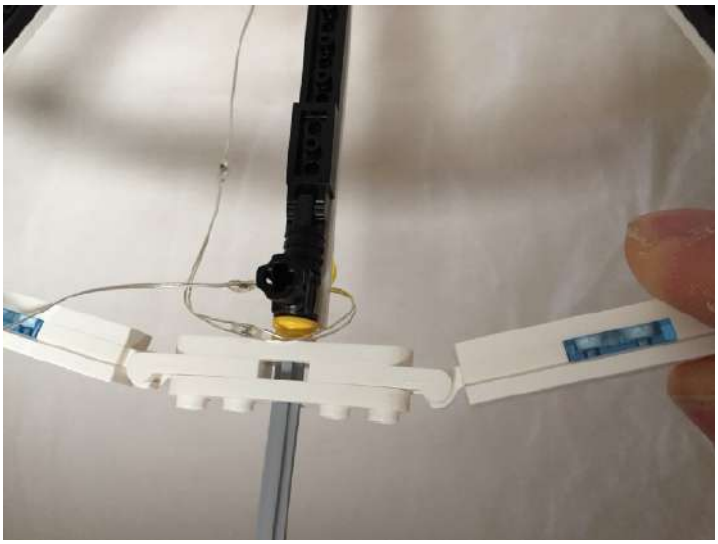
Colour Changing Light String wrapped around the axle connector piece.

Pull the **Colour Changing Light String** through and down the length of the wheel spoke until it has neatly wrapped around the axle connector piece on the inner ring.

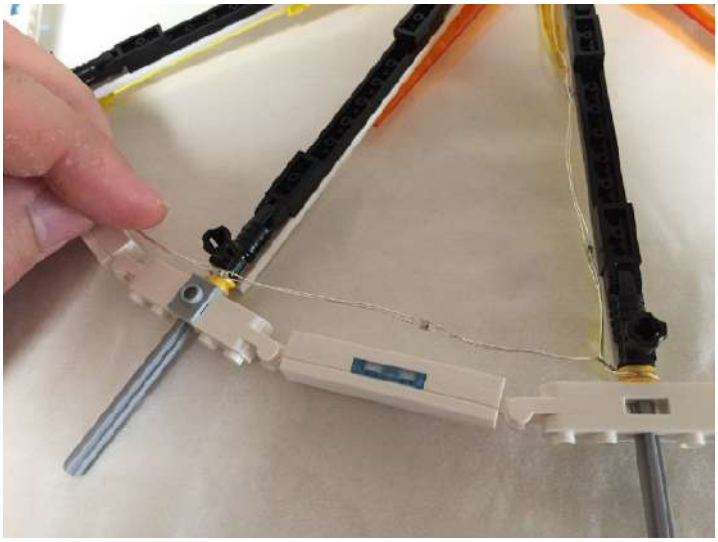




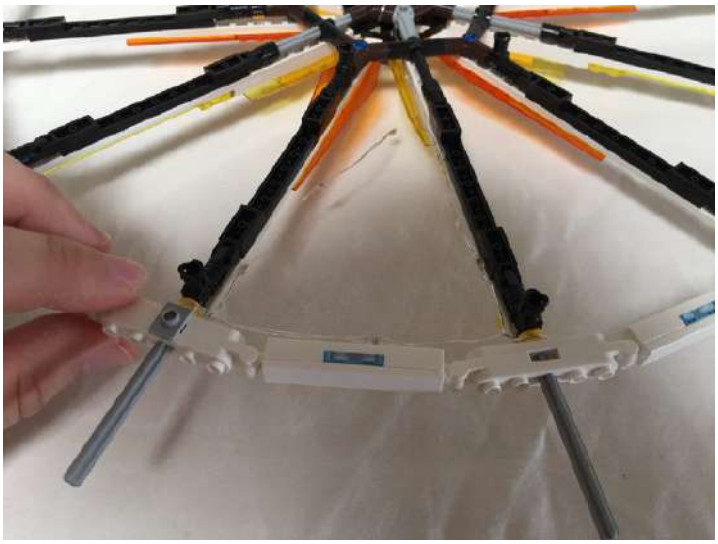
Bend the **Colour Changing Light String** so that it runs at a right angle across the top of the yellow technic bush piece. It runs towards the right hand side across the spoke that has transparent yellow pieces on the other side of it.
Loop the **Colour Changing Light String** around the spoke and feed it back to your left.
Feed the **Colour Changing Light String** under the wheel spoke and over the top of the part of the **Colour Changing Light String** that runs along the length of the spoke.

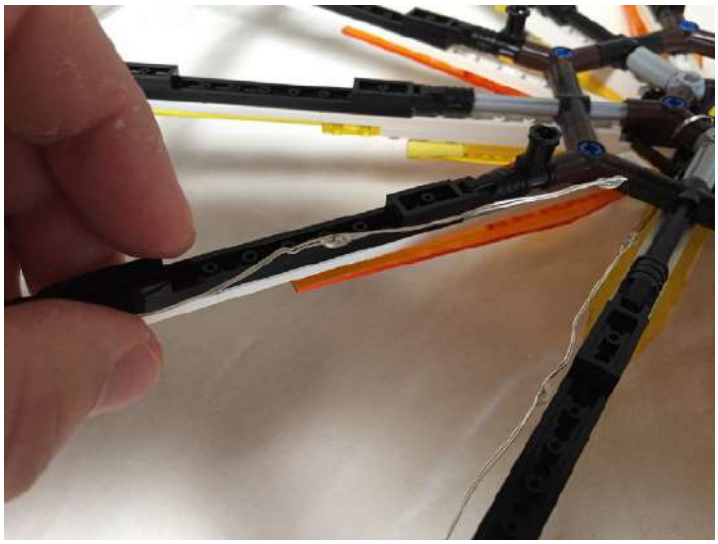


Carefully pull the **Colour Changing Light String** to your left until it is wrapped snugly around the yellow technic bush piece.

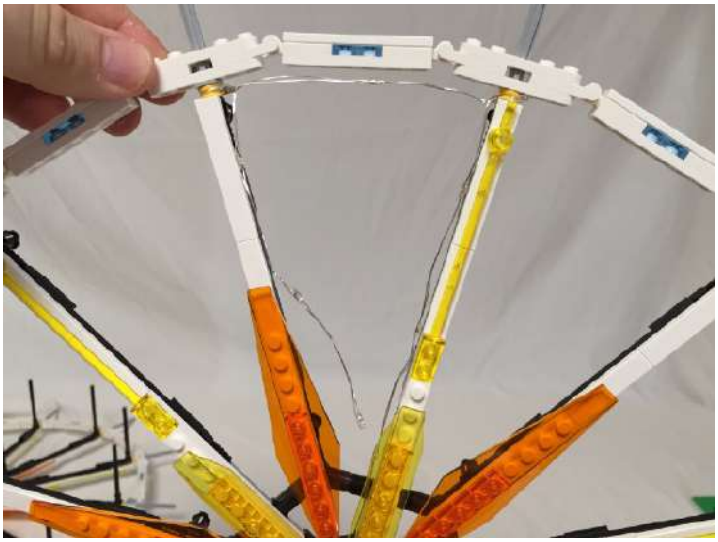


Run the **Colour Changing Light String** over the top of the yellow technic bush piece on the next wheel spoke to the left of the one we were just working on.
Wrap the **Colour Changing Light String** around the yellow technic bush piece and feed it back to your right. As you feed the **Colour Changing Light String** back, make sure it runs higher (closer to the outer ring) than section that runs from the right spoke to the left spoke.

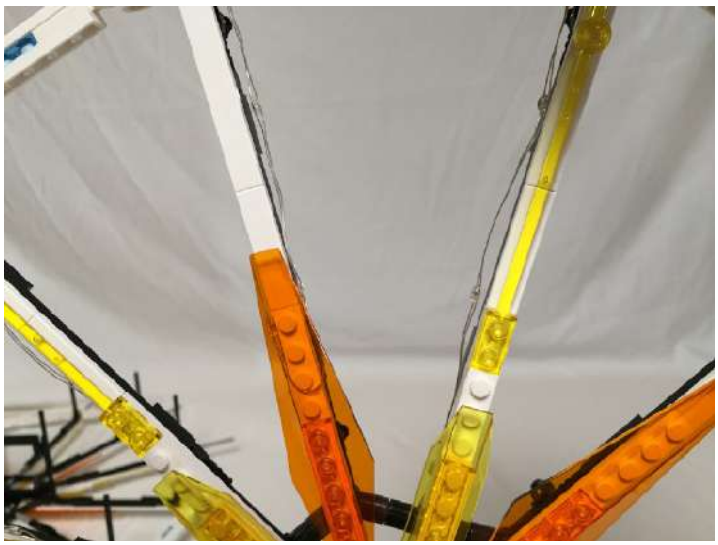




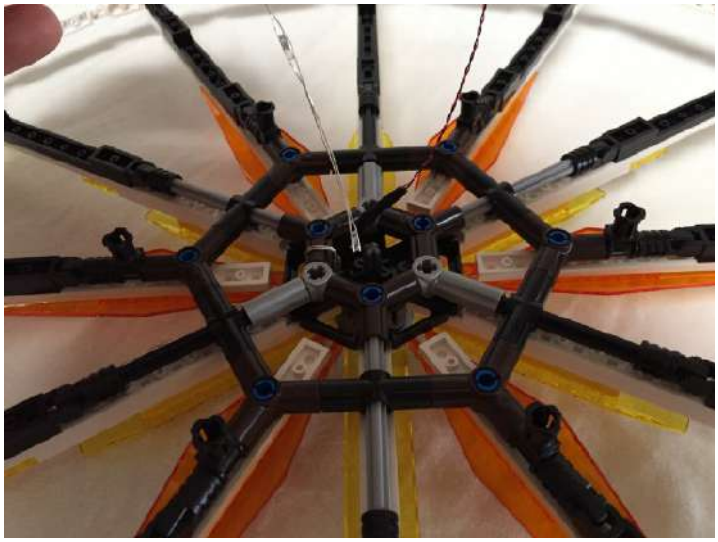
Fold the **Colour Changing Light String** down over itself close to the yellow technic bush piece. Run it down along the side of the spoke that has transparent orange pieces on the other side.



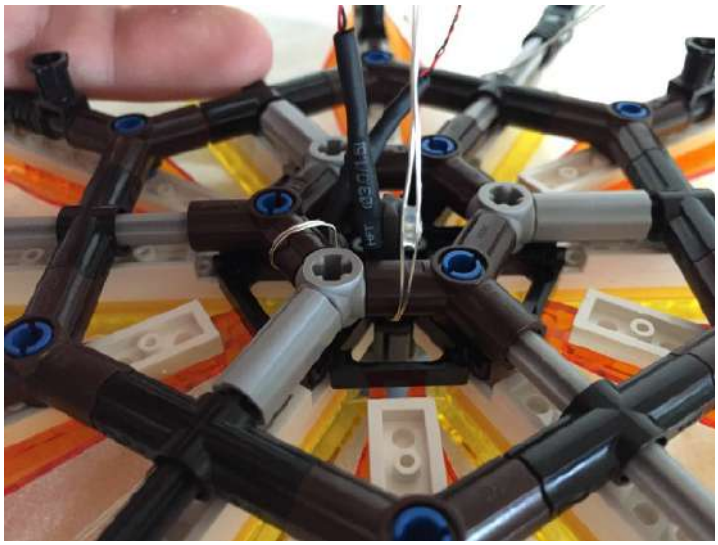
Stand the wheel up so that you can access the side with the transparent yellow and orange pieces.
Remove the transparent orange piece on the spoke that has the **Colour Changing Light String** running down the length of it.



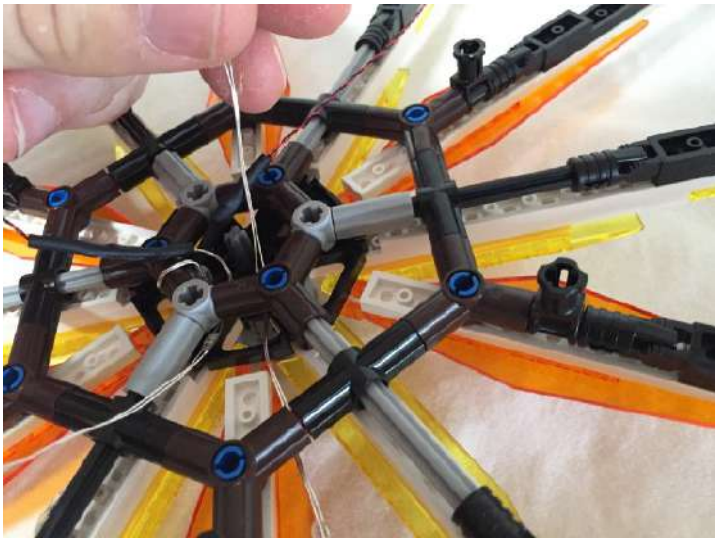
Wrap the **Colour Changing Light String** around the gap between the third and fourth stud of the white plate piece.
Replace the transparent orange piece.



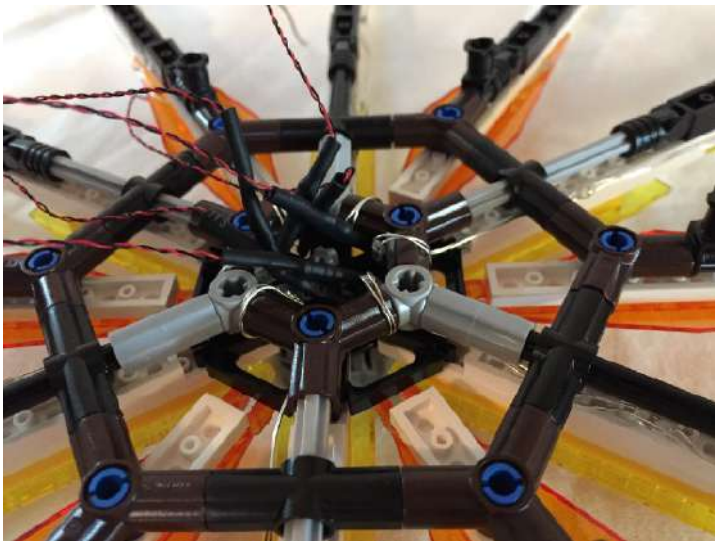
Place the wheel flat on the table again and rotate it clockwise until the next available technic connector piece on the inner ring of technic connectors is facing you.



Grab another **Colour Changing Light String** and repeat the steps we used to place the previous light string.
There are six technic connector sections on the inner ring of technic connectors and we are going to wrap a **Colour Changing Light String** around each of them.

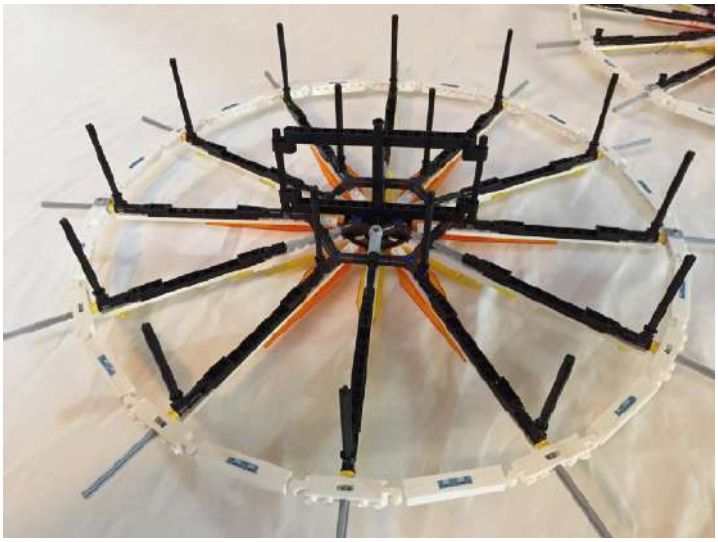


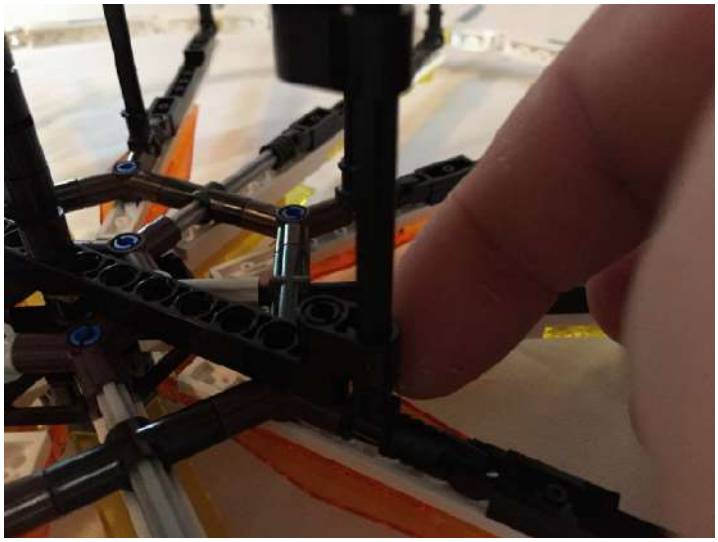
Remember to feed the **Colour Changing Light String** out down the length of a spoke that has transparent yellow pieces on the other side of it.



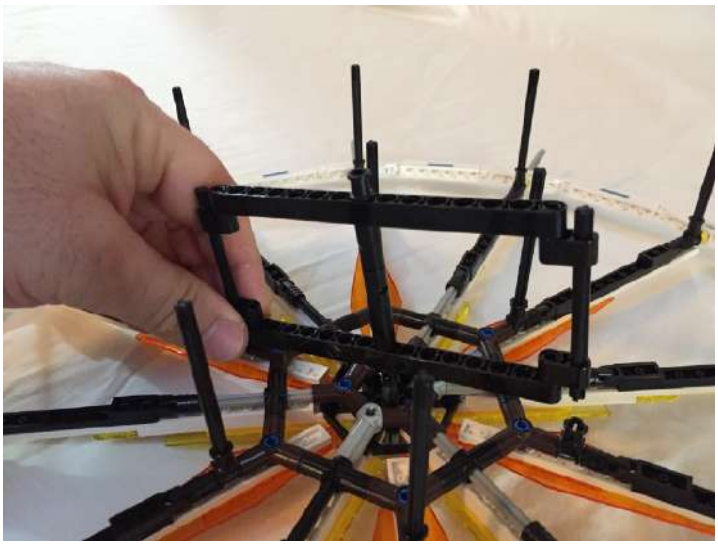
When you have finished all six sections, the Ferris Wheel ring will look something like the pictures above.
Put this half of the wheel aside for now.

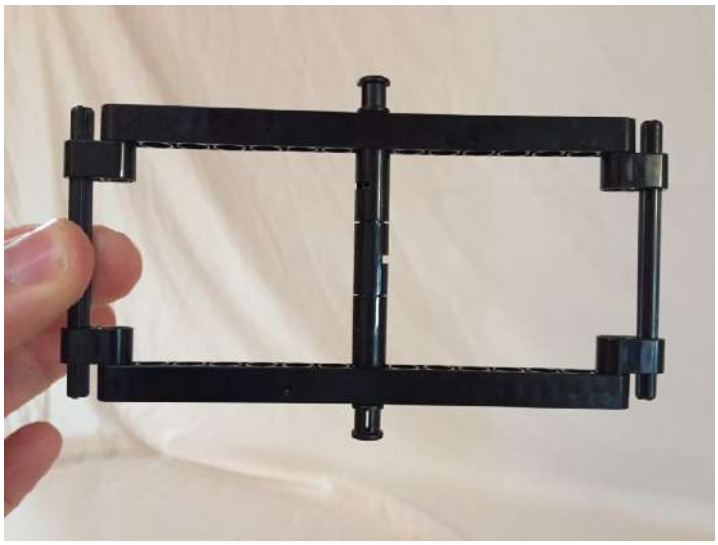
. . .



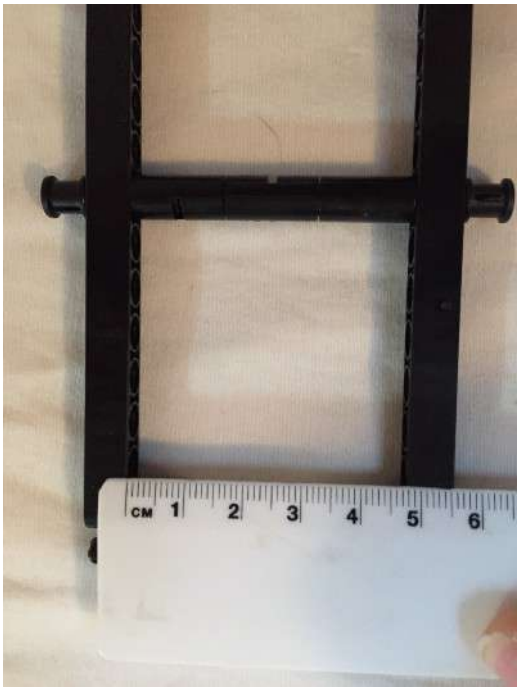


Grab the other half of the wheel with all the technic axle pieces still attached.
Lift the technic axle pieces at either end of the centre section.

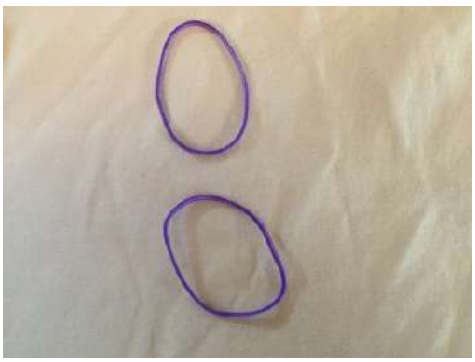




Keep lifting until the centre section is detached from the wheel.

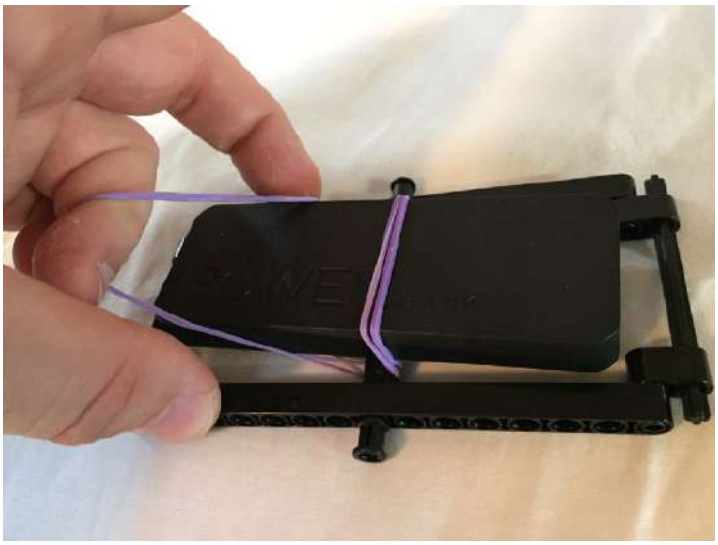


The USB power bank (Not included in this kit) will be attached to the centre section. Your power bank should be small enough to not exceed the length and width of the centre section which is approximately 4.7cm x 12cm.

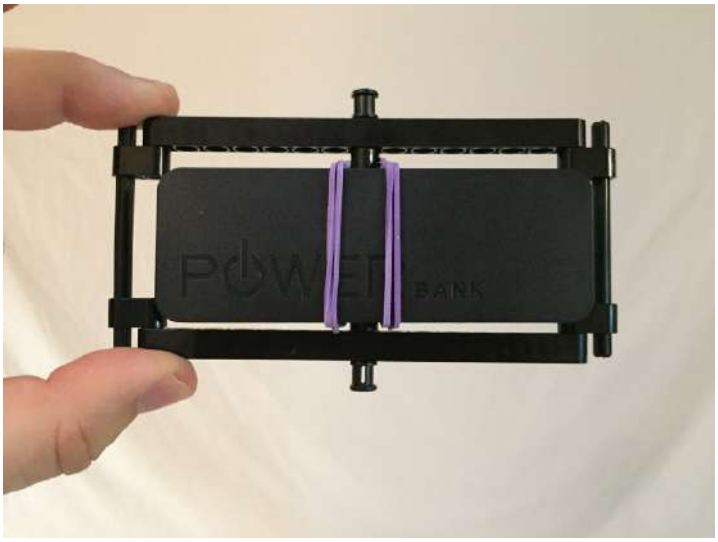


Grab your USB power bank and rubber bands.

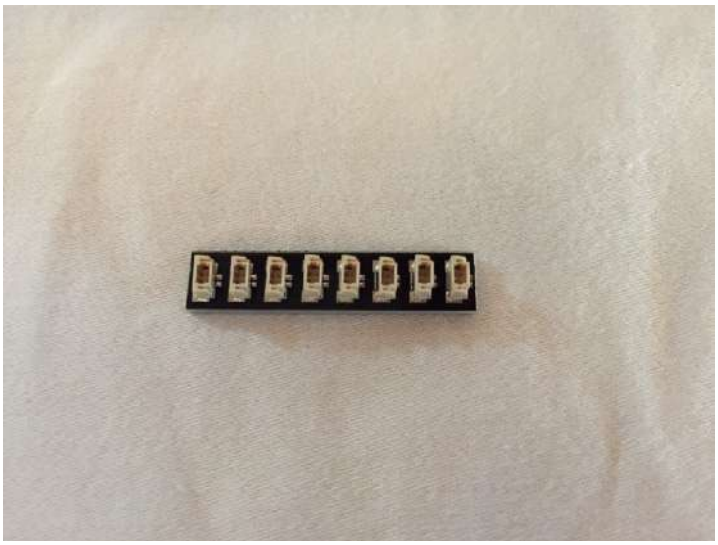
Put the rubber bands around the USB power bank and move them approximately one third of the way down the power bank.
Sit the power bank on top of the centre section.



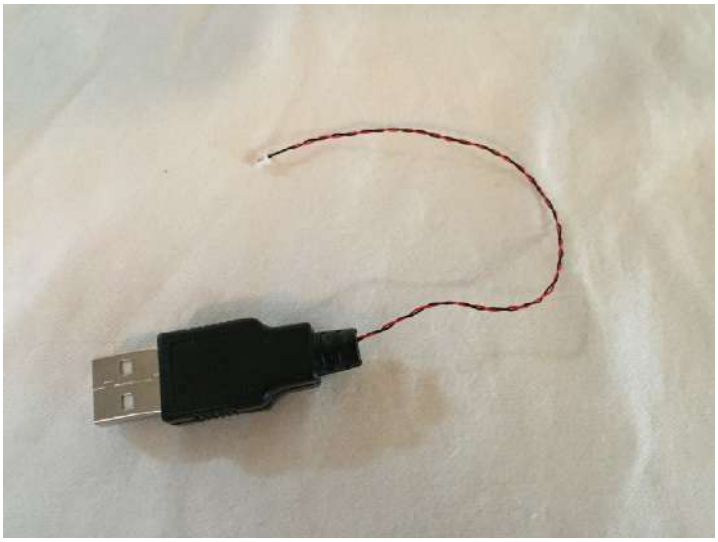
Pull the rubber bands underneath the middle of the centre section where the round technic pin connectors are.
Pull the rubber bands back over the power bank and left them go.

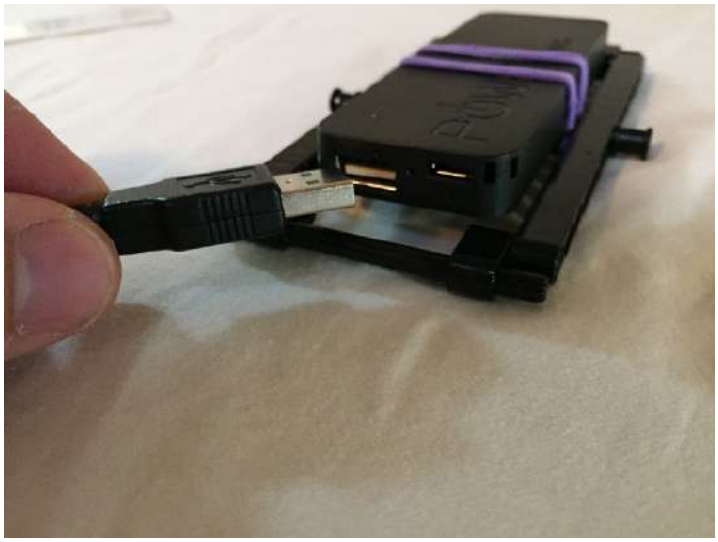


The power bank should comfortably rest on the centre section.

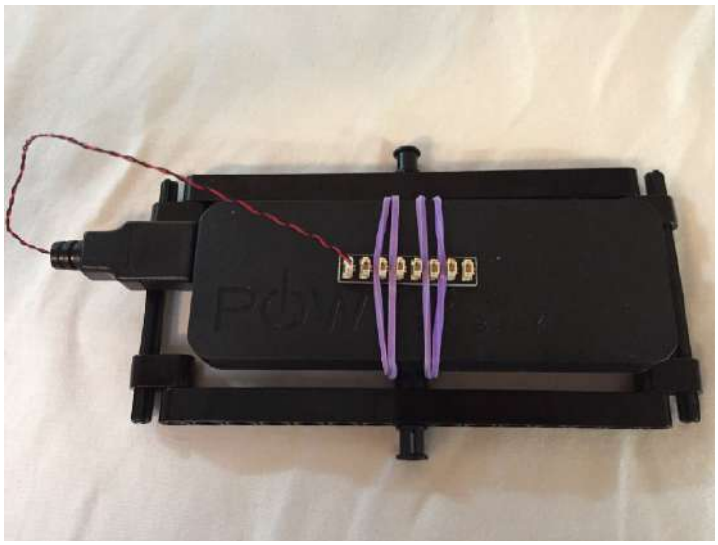


Grab the **8 port Expansion Board** and secure it to the power bank underneath the rubber bands.

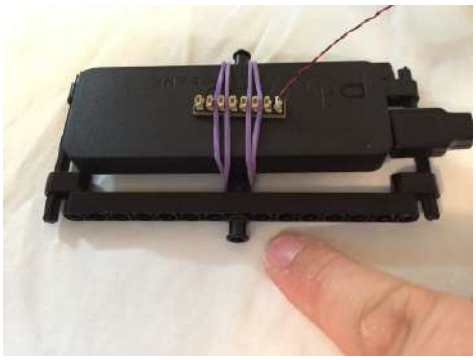


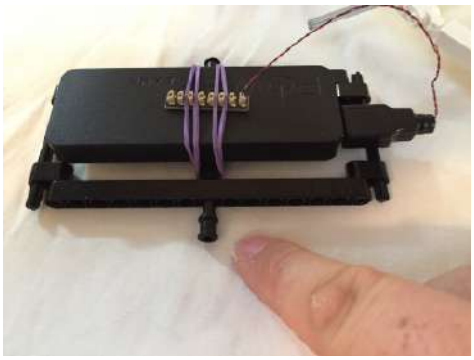


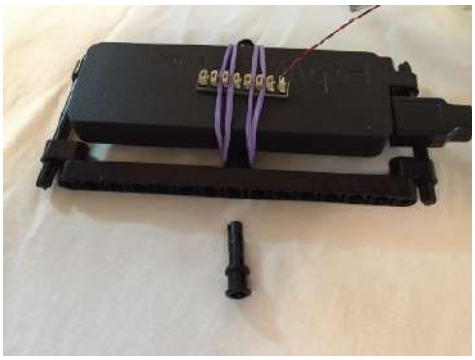
Grab the **USB Power Adaptor** and connect it to the power bank.



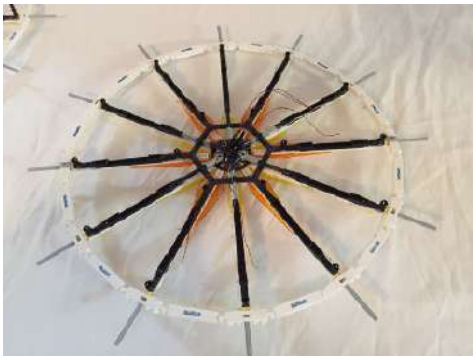
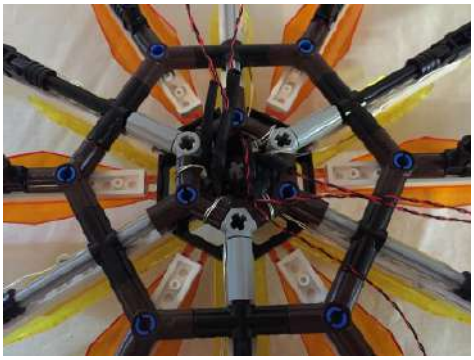
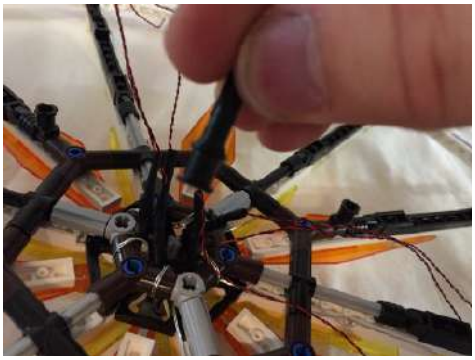
Plug the **USB Power Adaptor** in to the **8 port Expansion Board**.



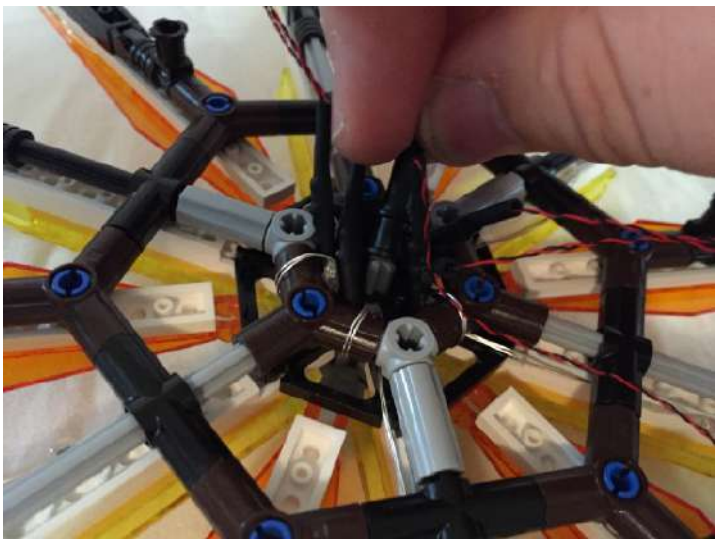
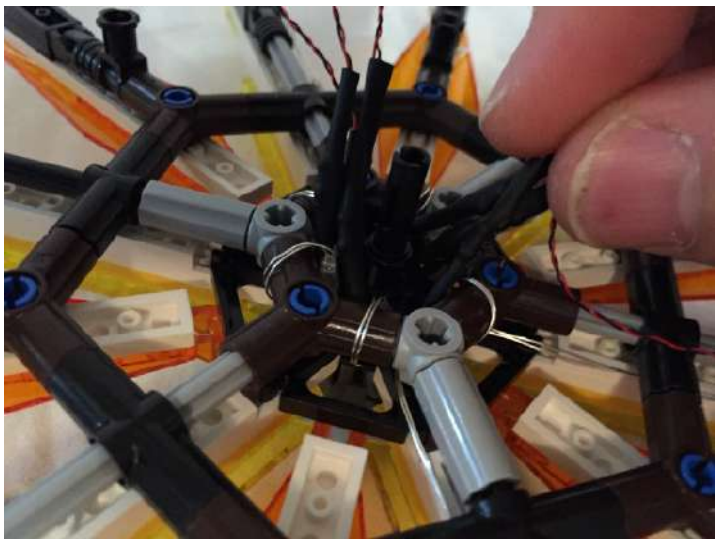




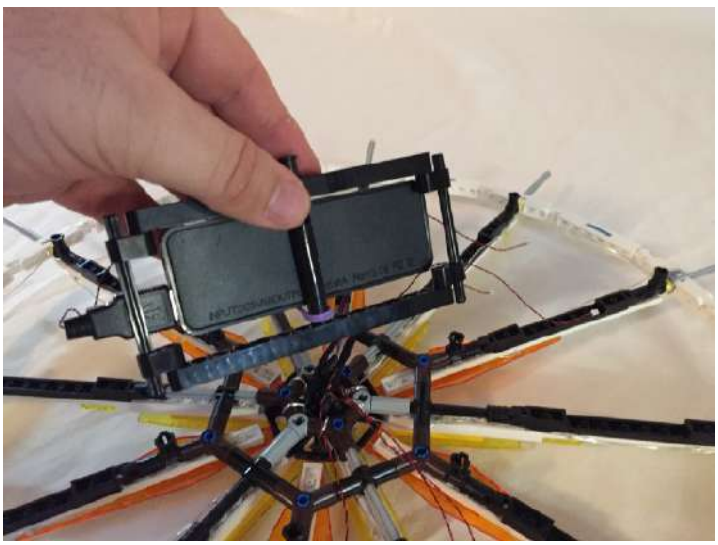
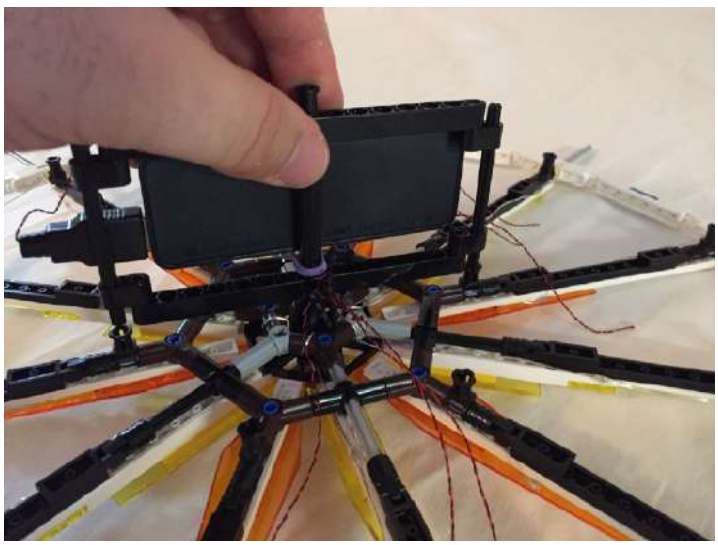
Remove the black technic pin from one side of the centre section.

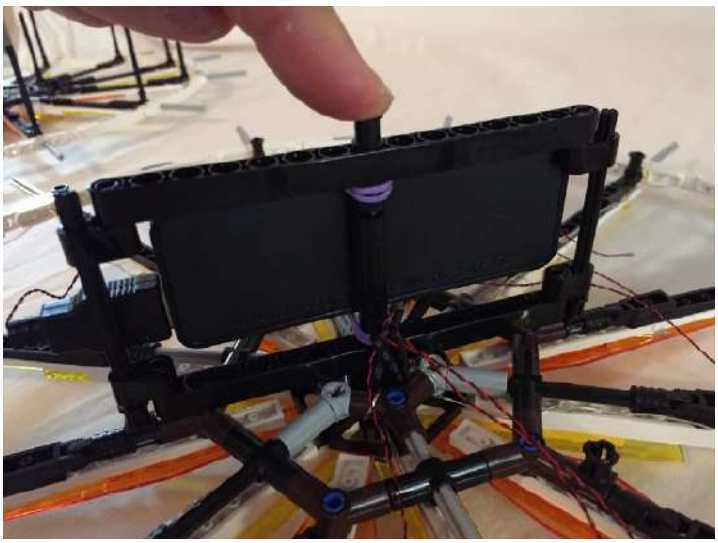
Grab the half of the Ferris Wheel that has the **Colour Changing Light Strings** fitted to it. Look for the light grey technic axle in the very centre of the wheel.

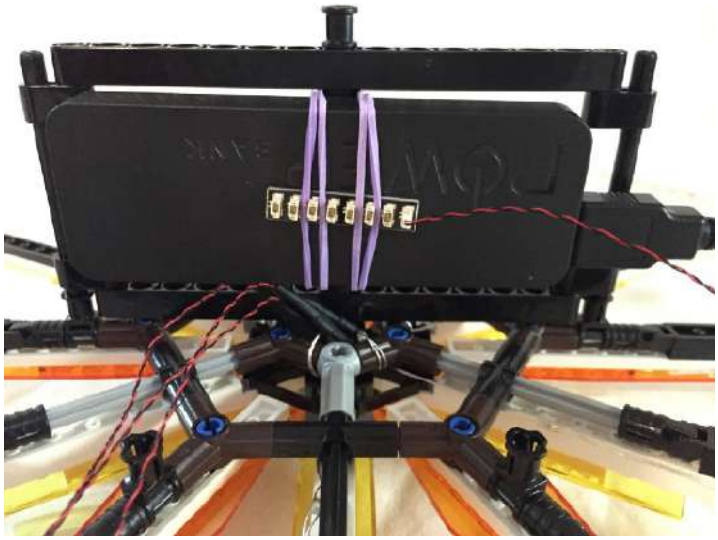



Attach the black technic pin from the centre section to the grey technic axle piece.

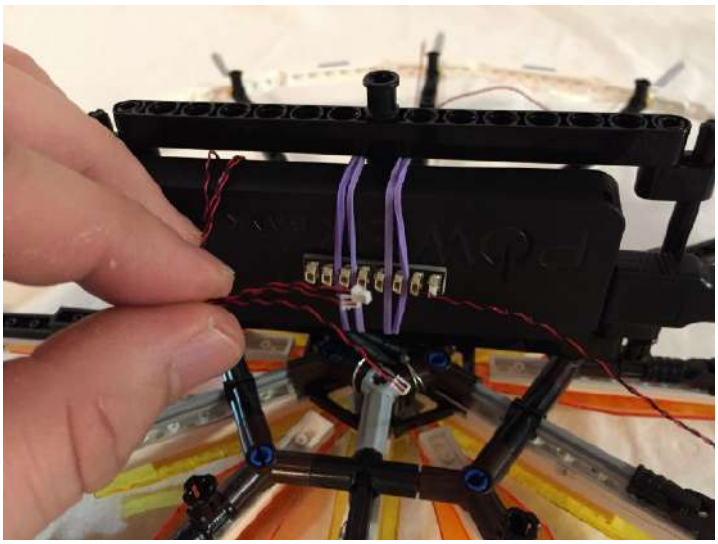



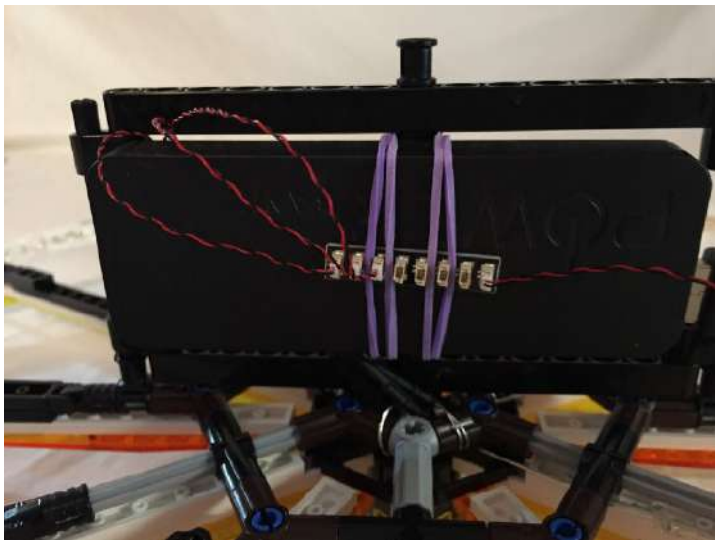
Reattach the centre section to the black technic pin.



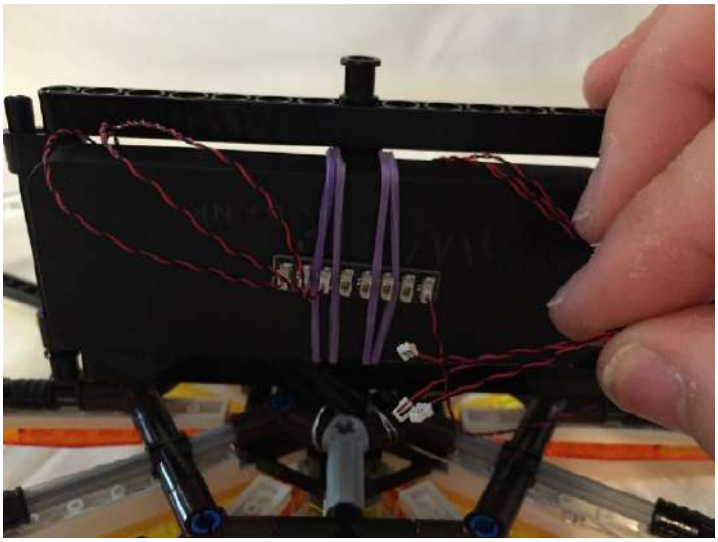


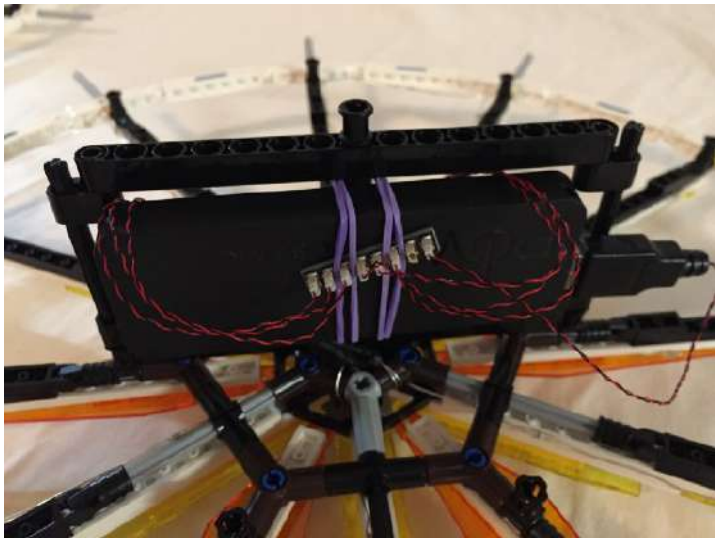
Secure the centre section by reattaching the black technic axle pieces at either end of the centre piece, to the axle connectors on the wheel.



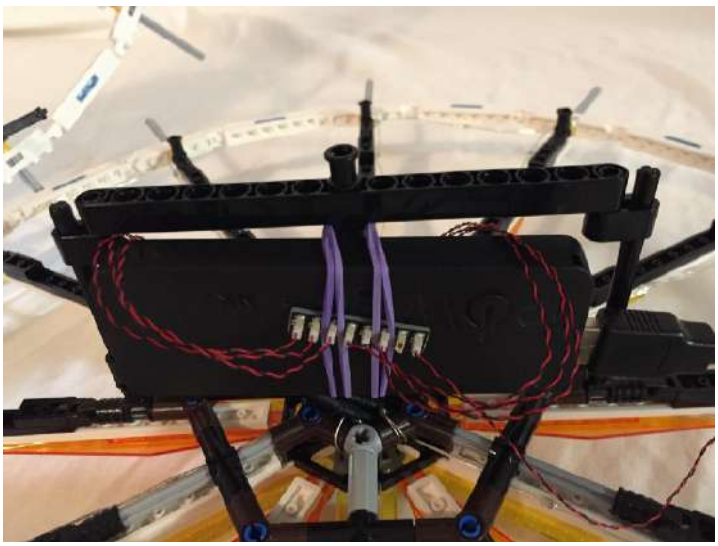


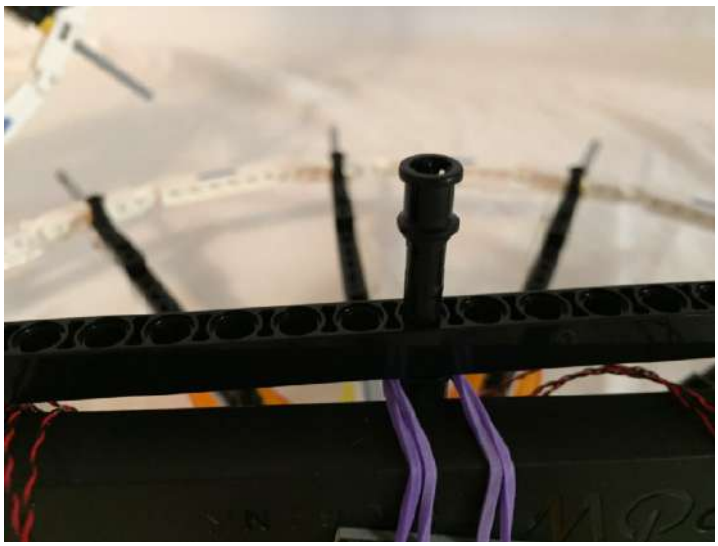
Wrap the wires from the **Colour Changing Light Strings** around the power bank to take up some of the slack if you wish.





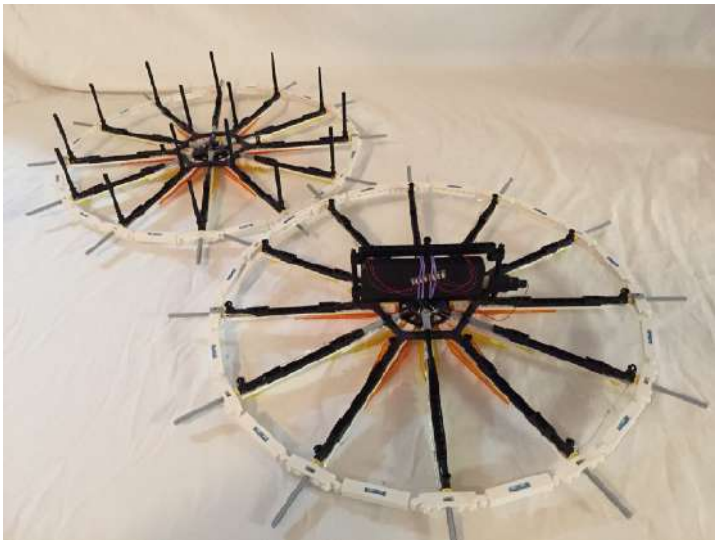
Attach the plugs from the **Colour Changing Light Strings** to the **8 port Expansion Board**.

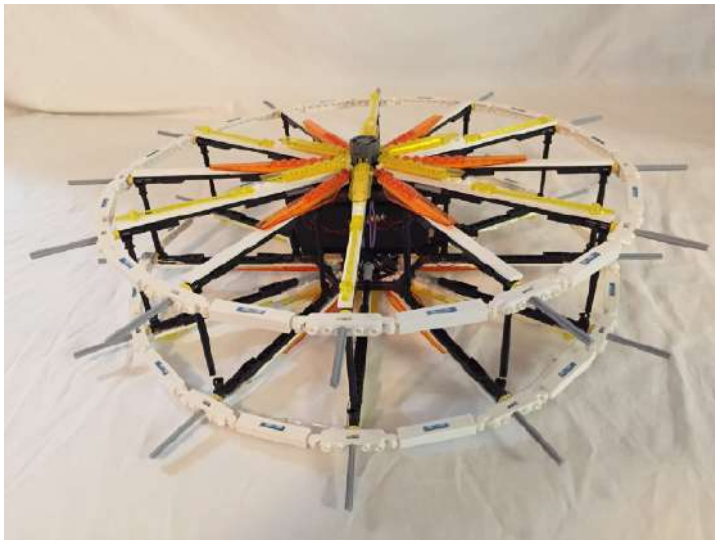




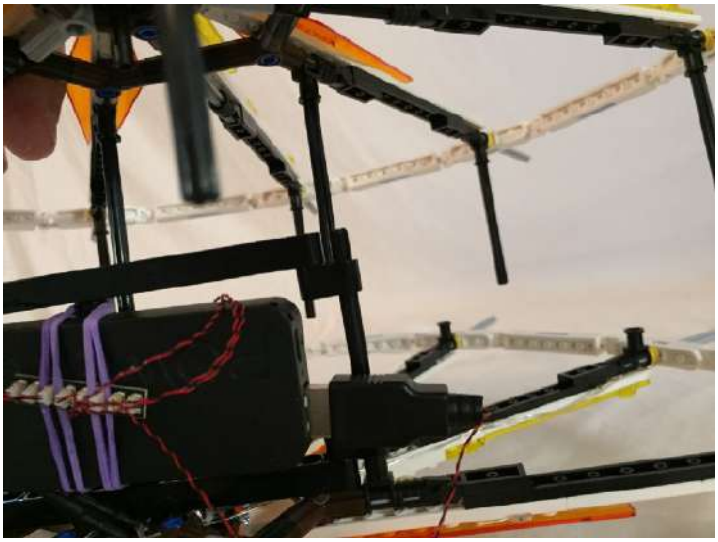
Remove the black technic pin from the exposed side of the centre section.

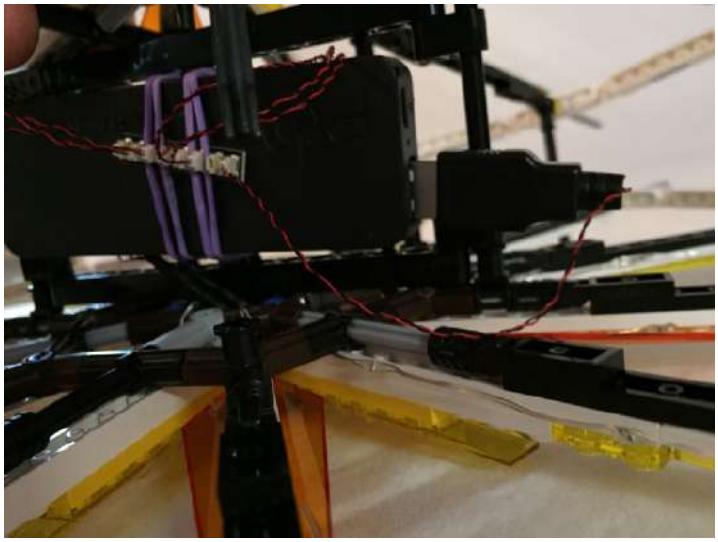
Grab the other half of the wheel and attach the black technic pin to the grey axle piece in the centre of the wheel.



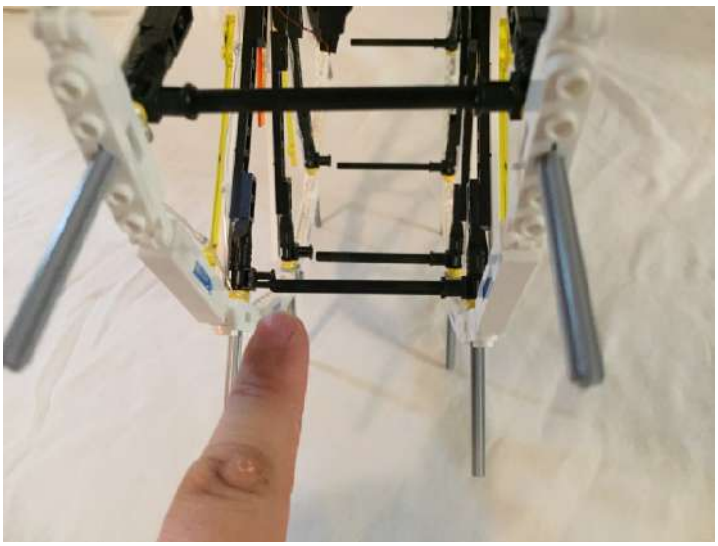


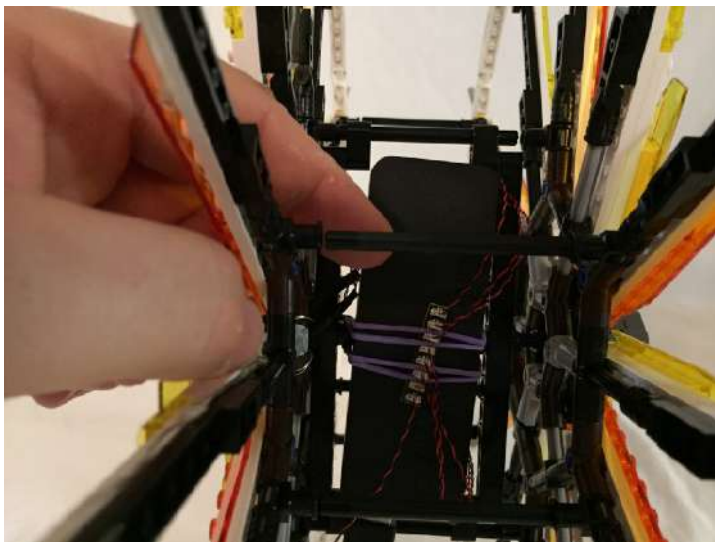
Put the wheels back together and prepare to reattach them.



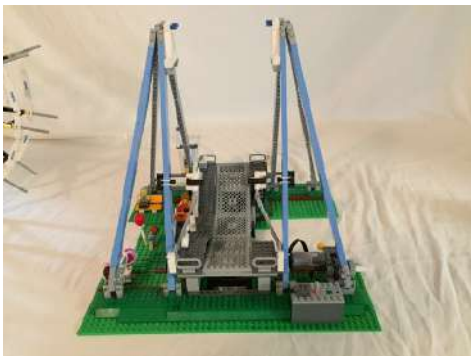


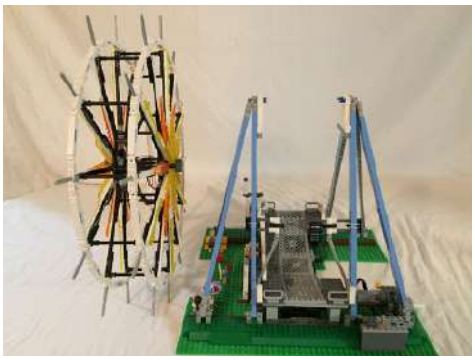
Do your best to line up axle pieces with axle connectors.
Focus on reattaching the centre section section first.



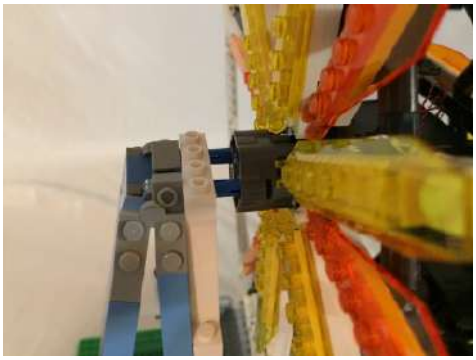


Work around the wheel reattaching all the axle pieces and axle connectors.



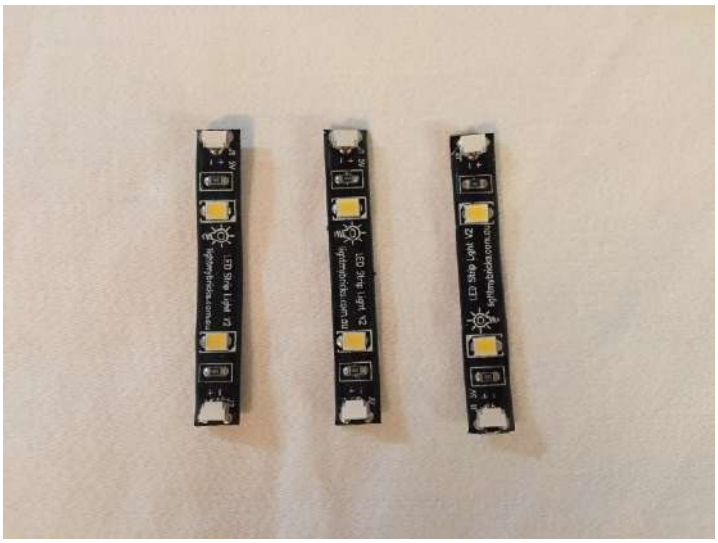
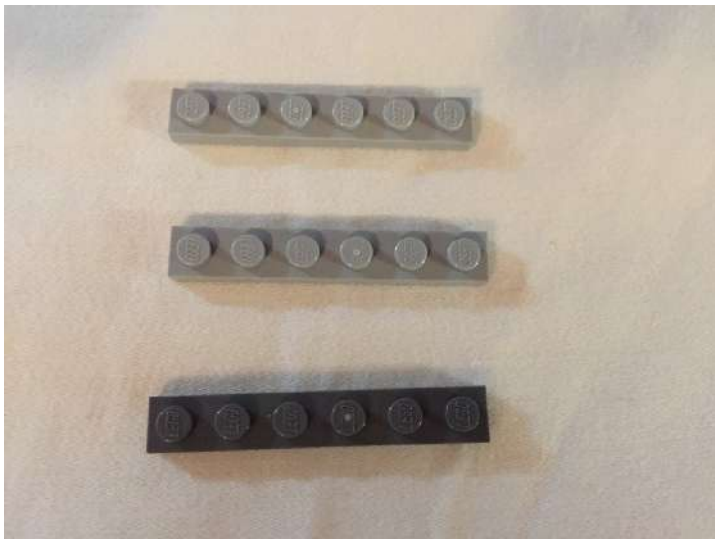


Once your wheel is back together, grab the base of the model and prepare to reattach the wheel to the support structure.
Make sure the **Colour Changing Light Strings** are facing the front of the model.

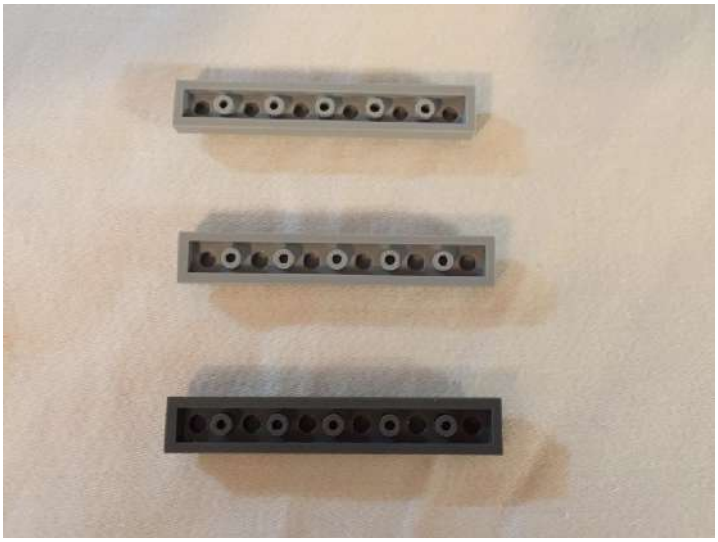


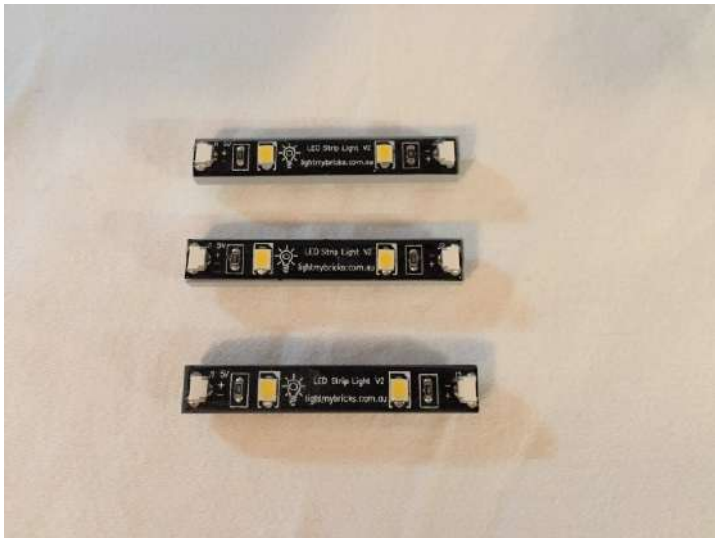
Lift the wheel in and reattach the technic pins to hold it in place.

. . .

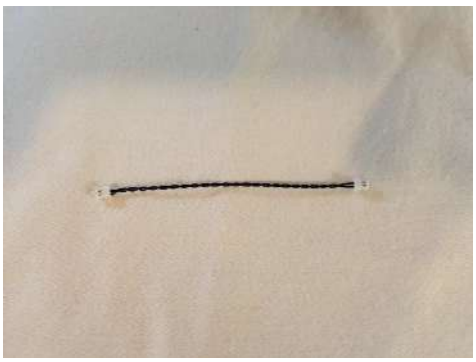



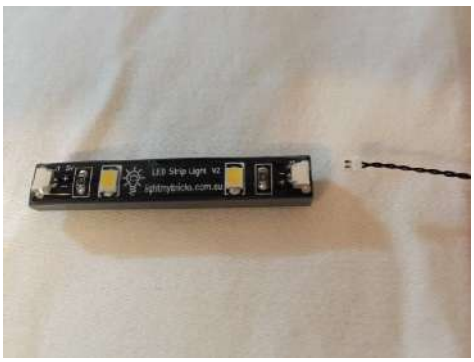
Time to grab the three **Strip Lights** and the 1 x 6 plates if you chose to use them.

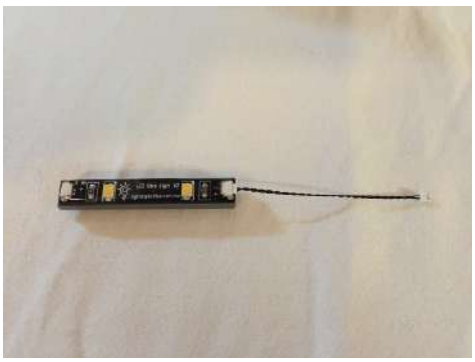




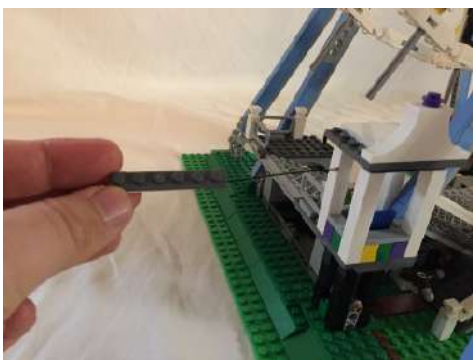
If you have the 1 x 6 plates, peel the adhesive backing off the **Strip Lights** and attach them to the back of the plates.

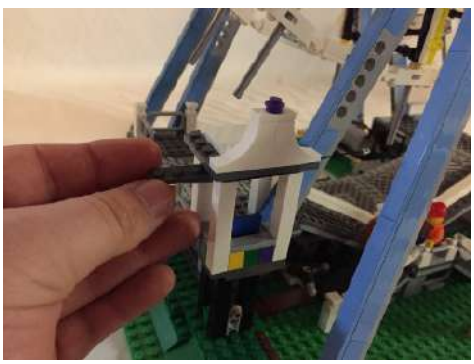




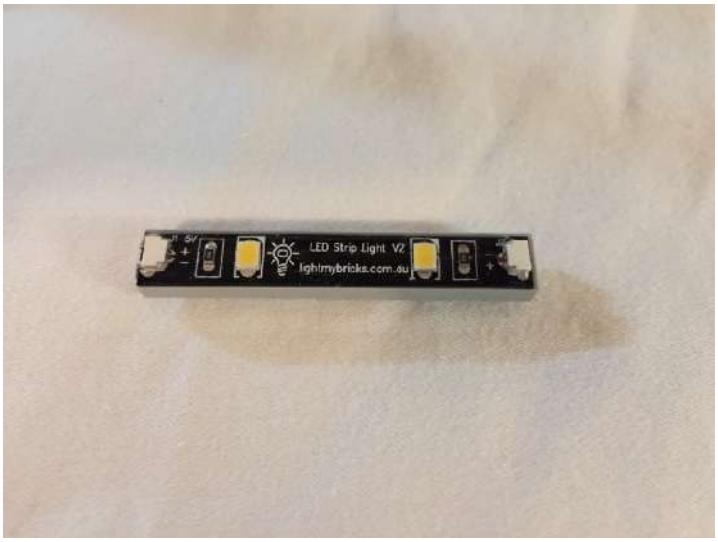


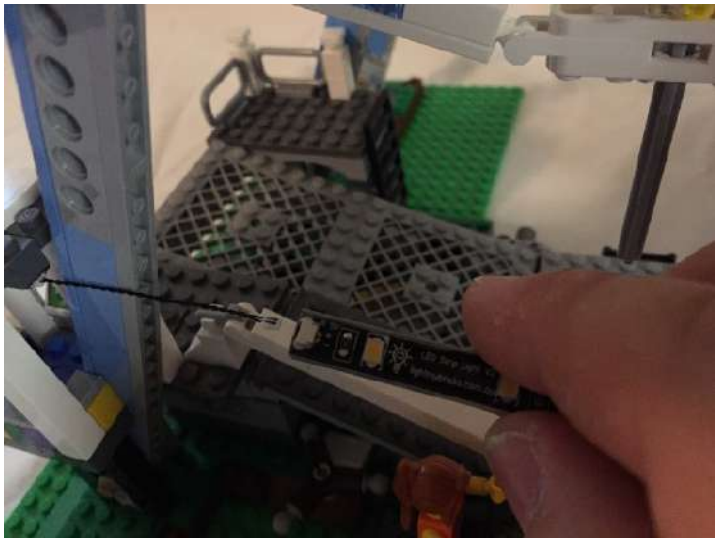
Grab the **5cm Connecting Cable** and connect it to one of the **Strip Lights**.



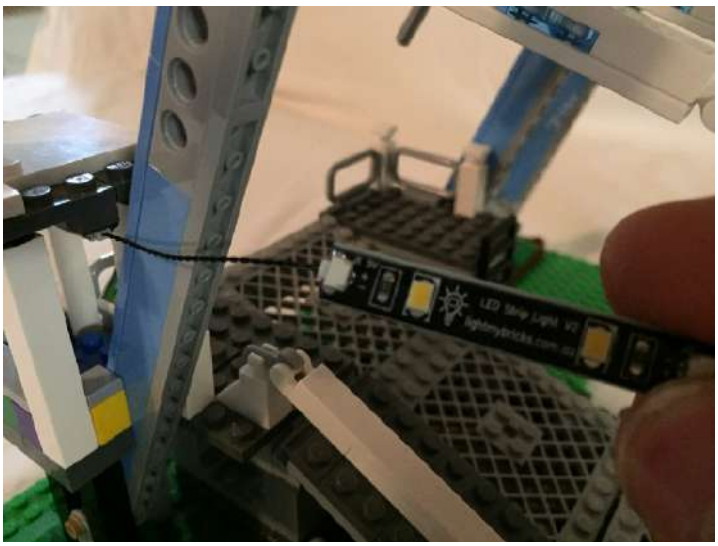


Working from the outside and then in, feed the **5cm Connecting Cable** end of the **Strip Light** through the control booth and attach the **Strip Light** to the roof.

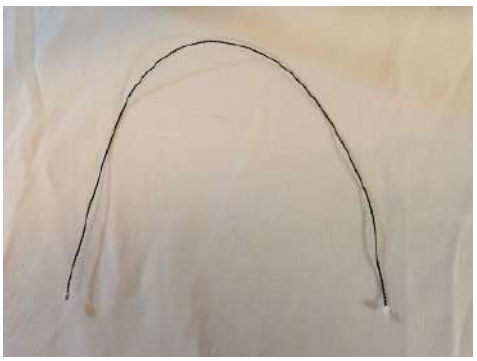


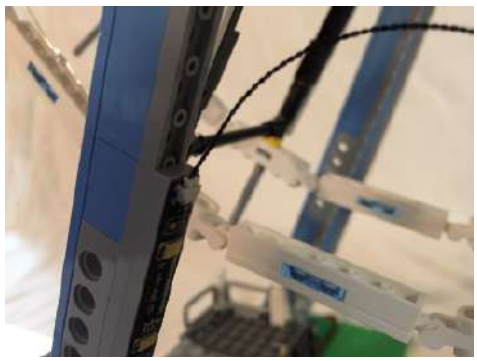


Grab another **Strip Light** and connect it to the other end of the **5cm Connecting Cable.**

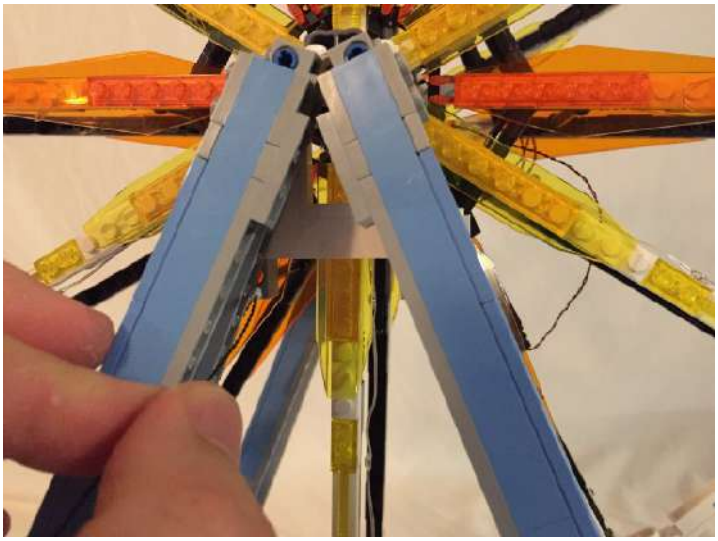


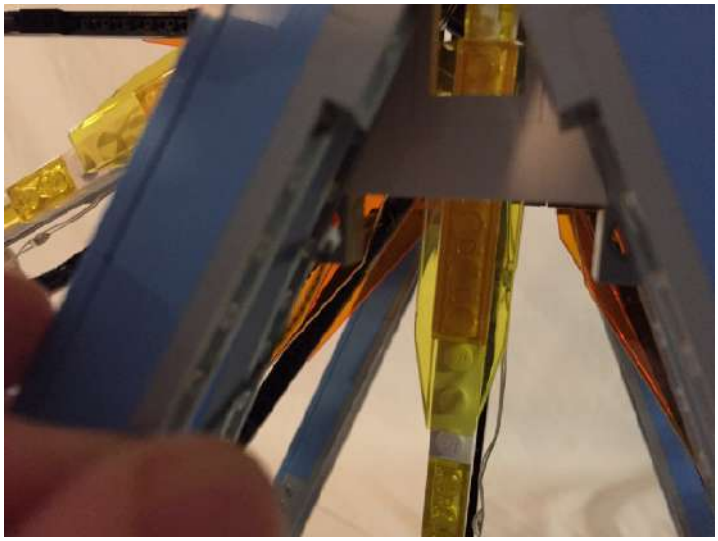
Attach the **Strip Light** to the nearest support structure leg.



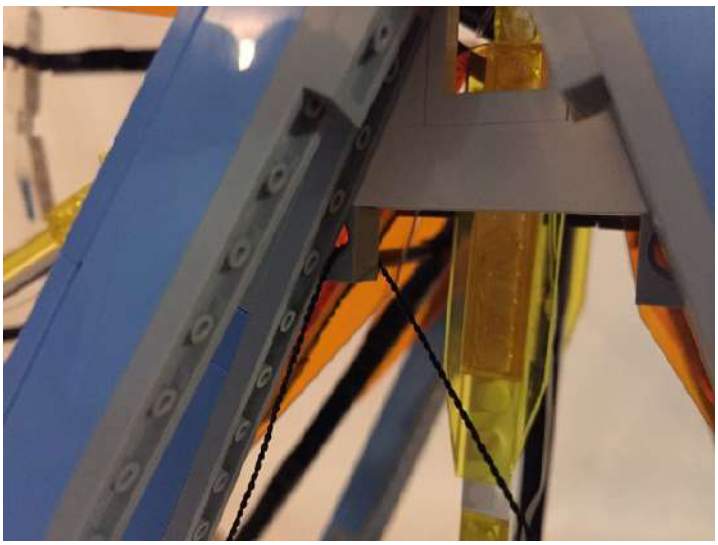


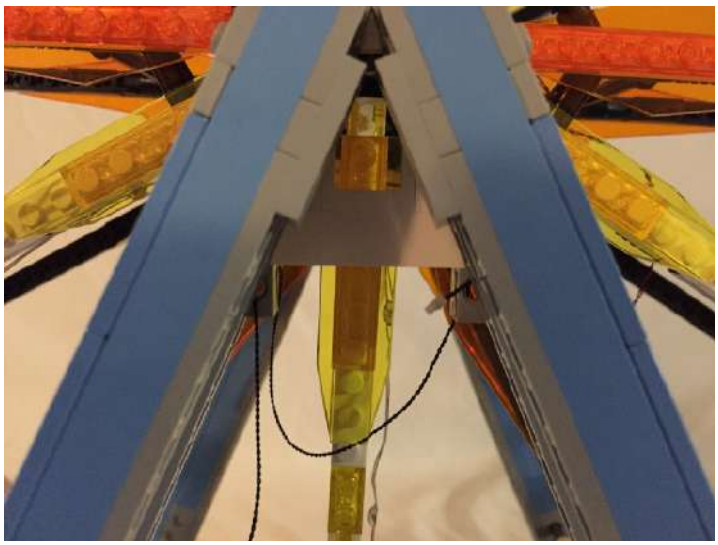
Grab the **30cm Connecting Cable** and connect it to the other end of the **Strip Light** that was just attached to the support structure leg.



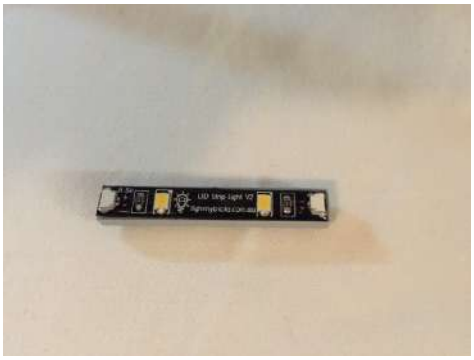


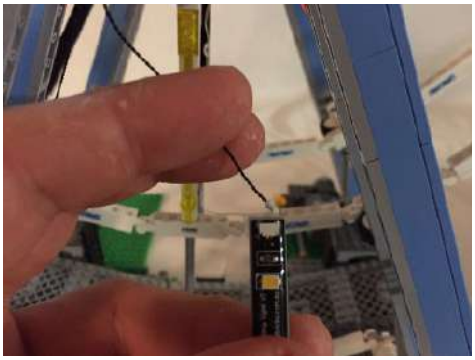
Towards the top of the support structure legs, you will see a partial technic hole that we will feed the **30cm Connecting Cable** through. You will have to push that piece back a fraction so that you can feed the plug of the cable through.



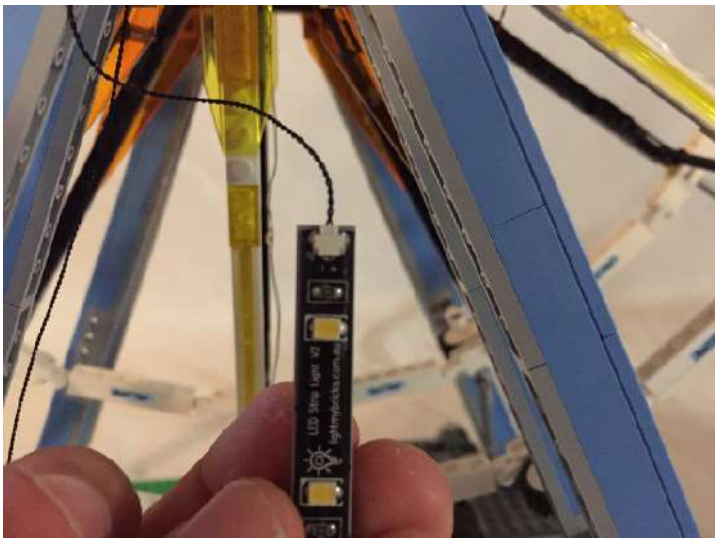


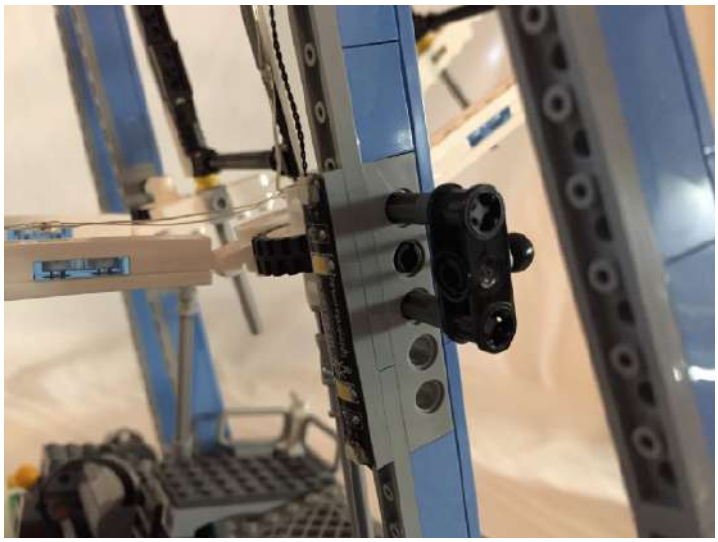
Pull the **30cm Connecting Cable** through and then feed it back through the partially available technic hole on the other side.



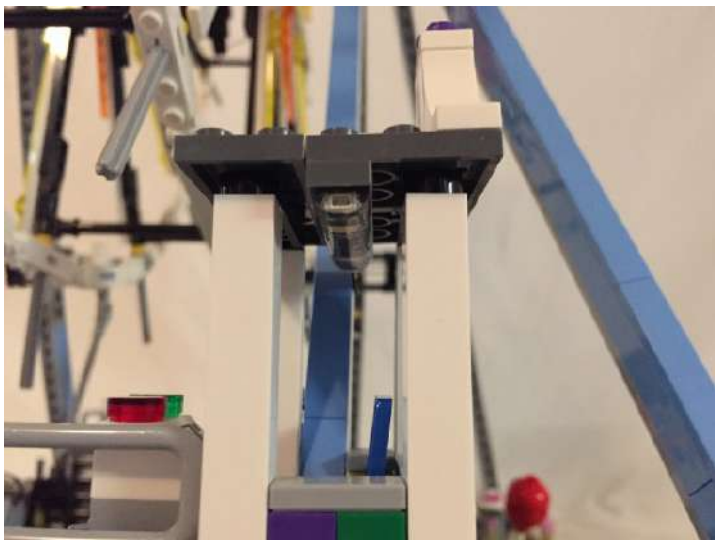


Pull the **30cm Connecting Cable** through and let it hang down.
Grab the last **Strip Light.**

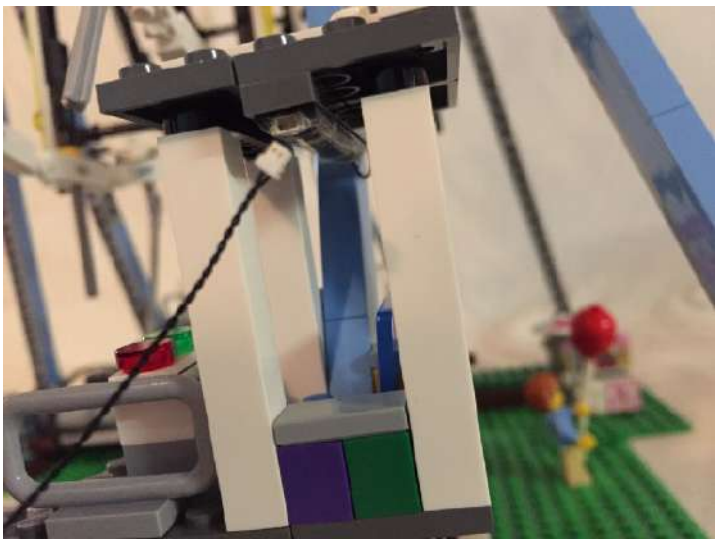


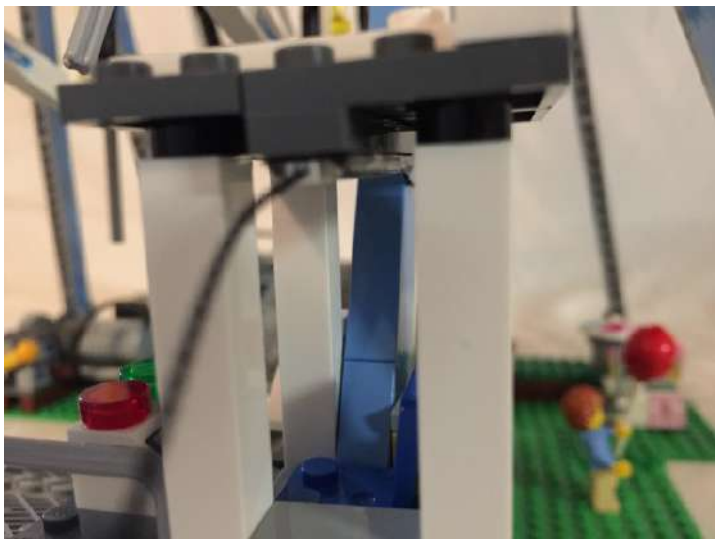


Attach the **30cm Connecting Cable** to the **Strip Light** and attach the **Strip Light** to the rear right support structure leg.

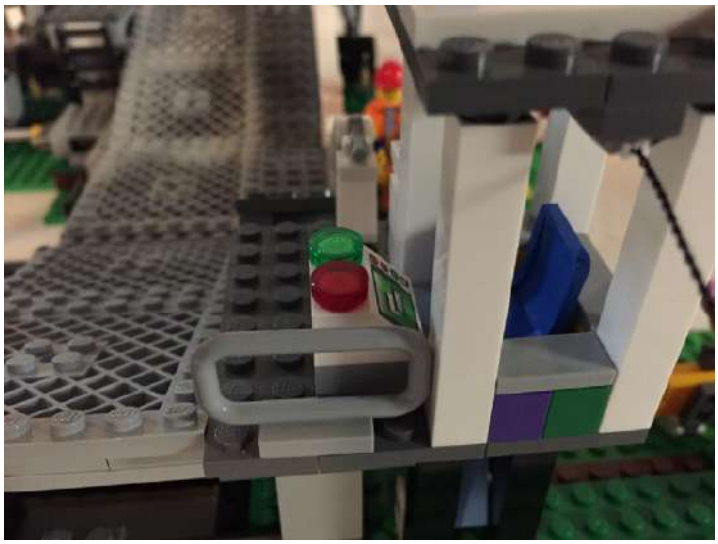


Grab the **15cm Connecting Cable.**



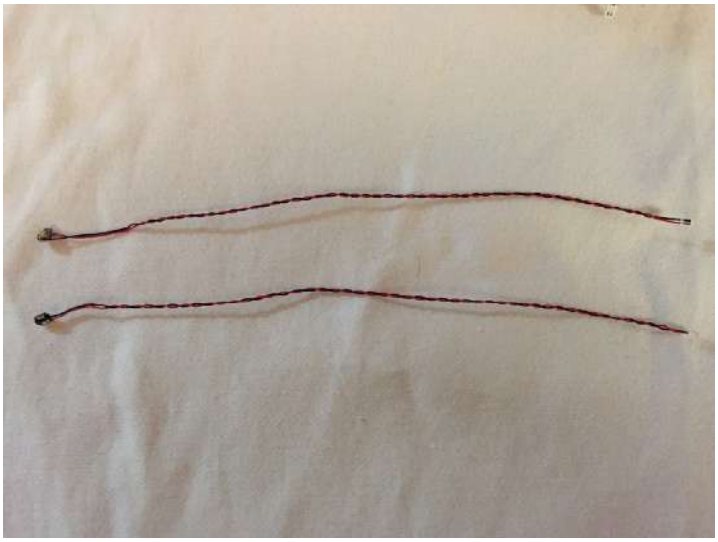


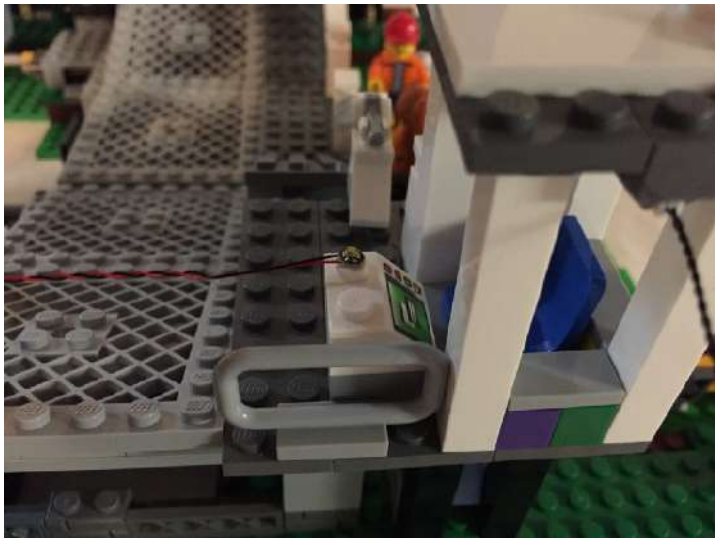
Connect the **15cm Connecting Cable** to the **Strip Light** attached to the roof of the control booth.



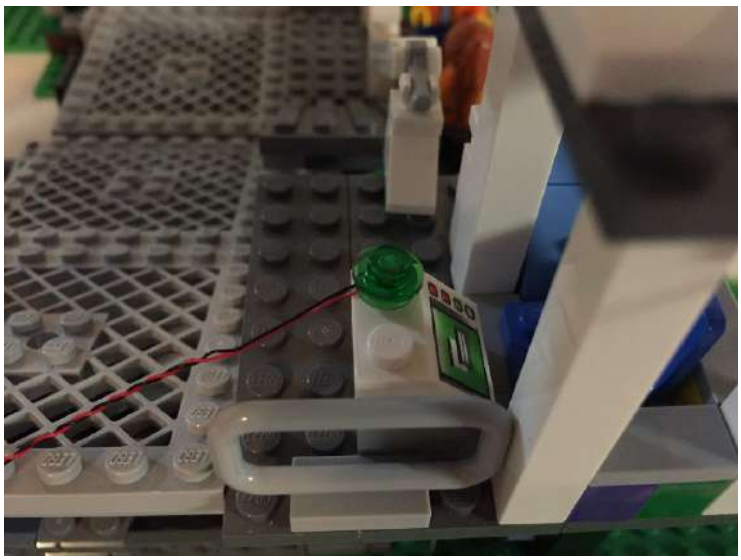
Grab the red and green transparent round 1 x 1 plates.

Remove the red and green transparent round 1 x 1 tiles from the top of the control booth computer.

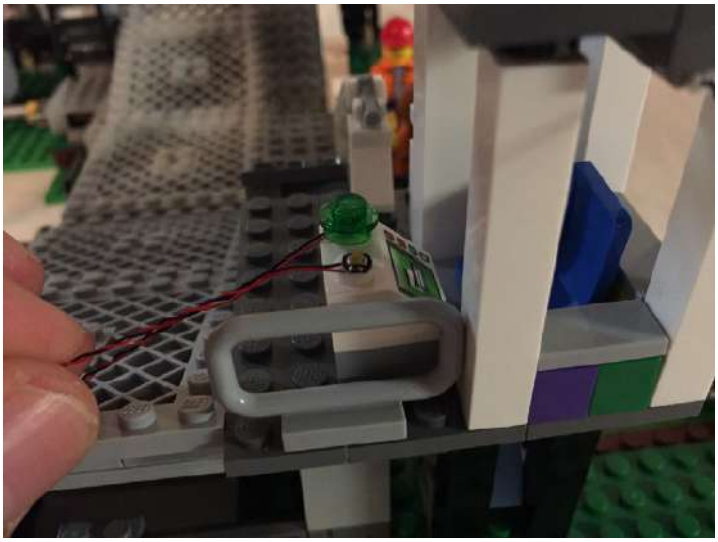


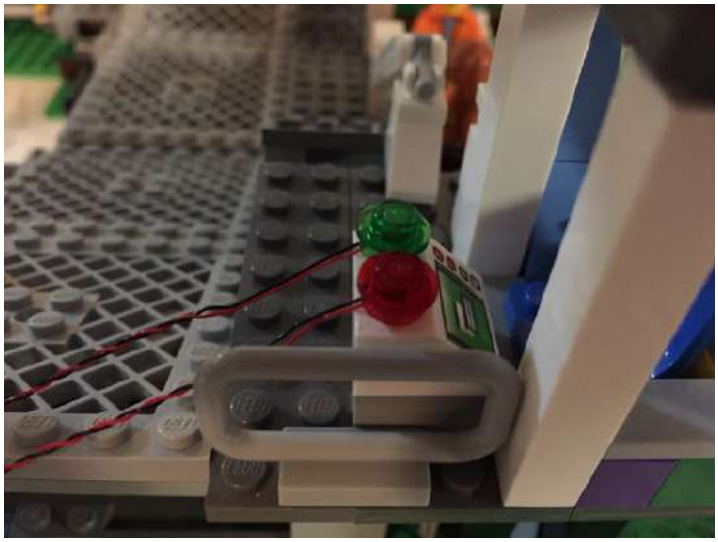


Grab the **Flashing White Bit Lights.** Place one of them on top of the far stud on the control booth computer.

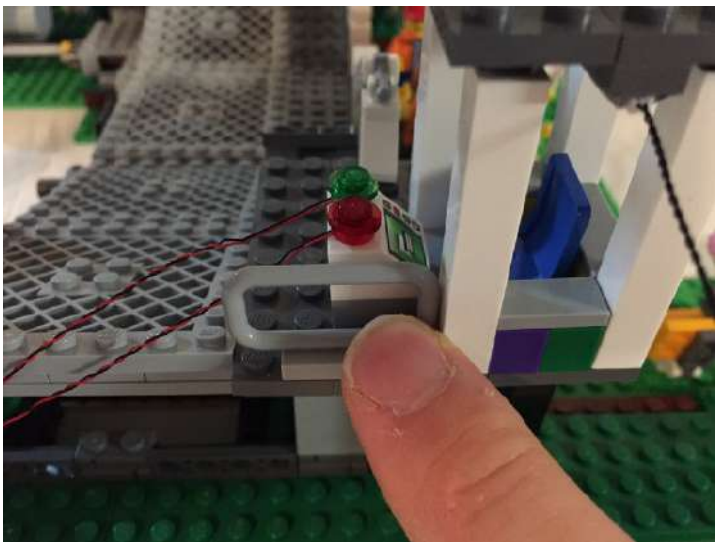


Slowly fit the transparent green 1 x 1 plate over the top of the **Flashing White Bit Light.**

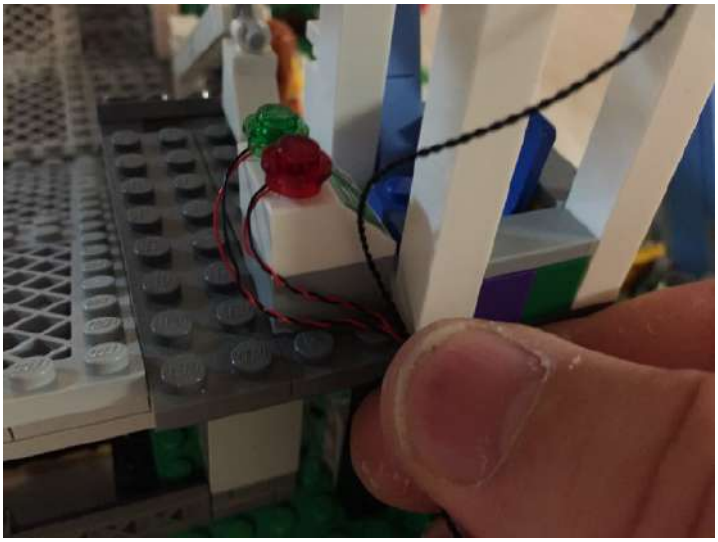


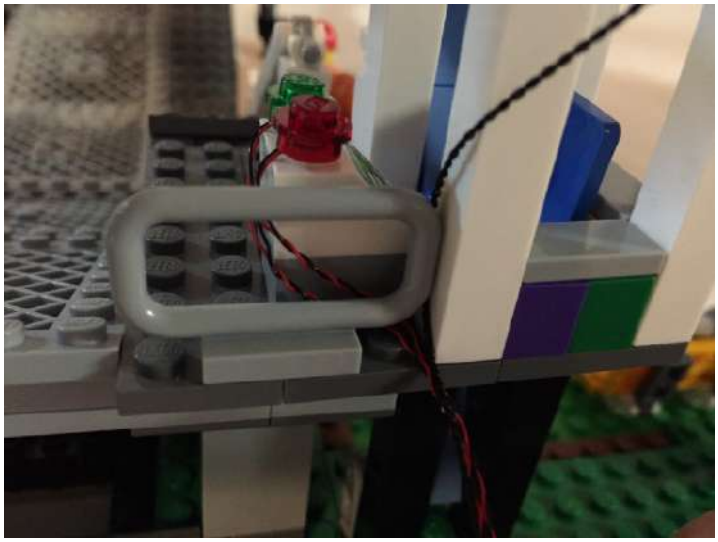


Repeat the procedure for the other **Flashing White Bit Light** and slowly fit the transparent red 1 x 1 plate over the top.

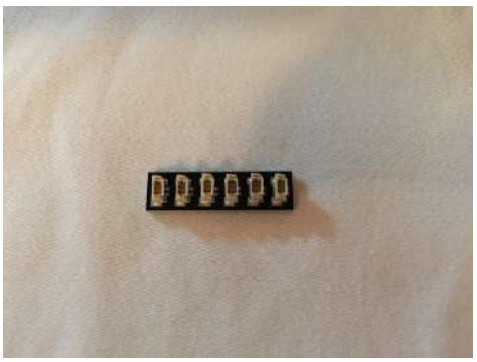


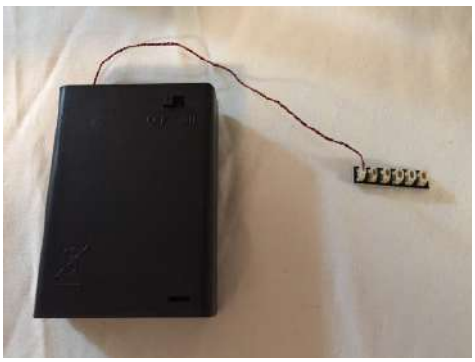
Remove the light grey bar piece from directly in front of the control booth computer.



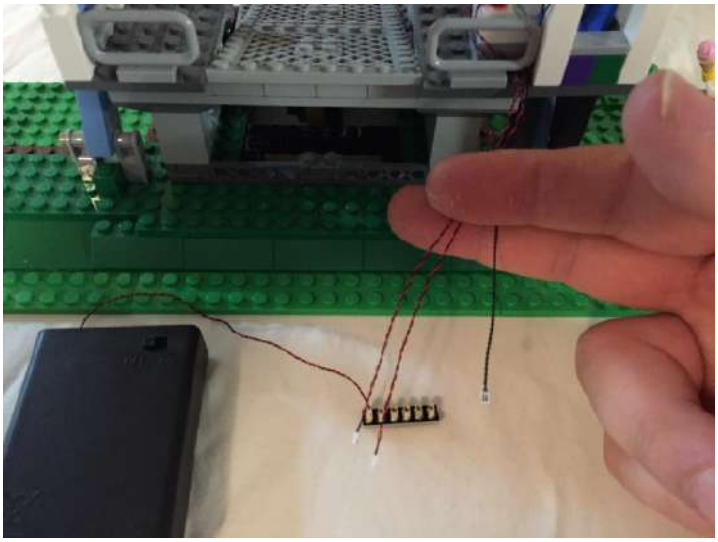


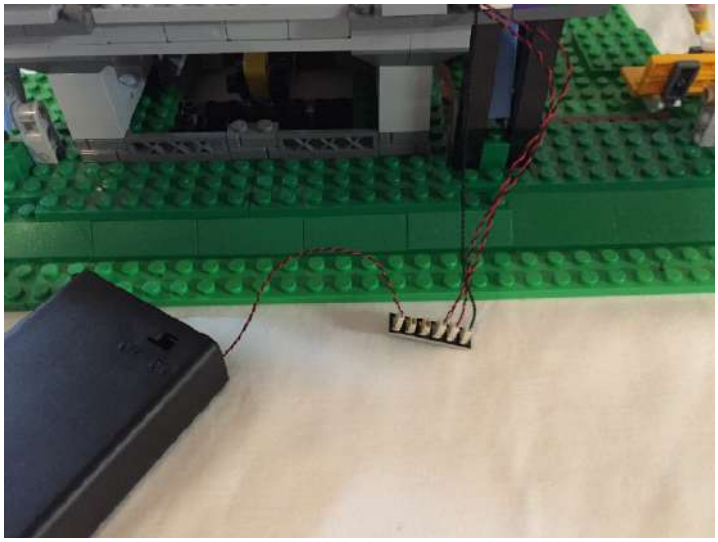
Gather the wires together from the **Flashing White Bit Lights** and the **15cm Connecting Cable.**
Hold them in the corner as seen in the picture and replace the light grey bar piece.



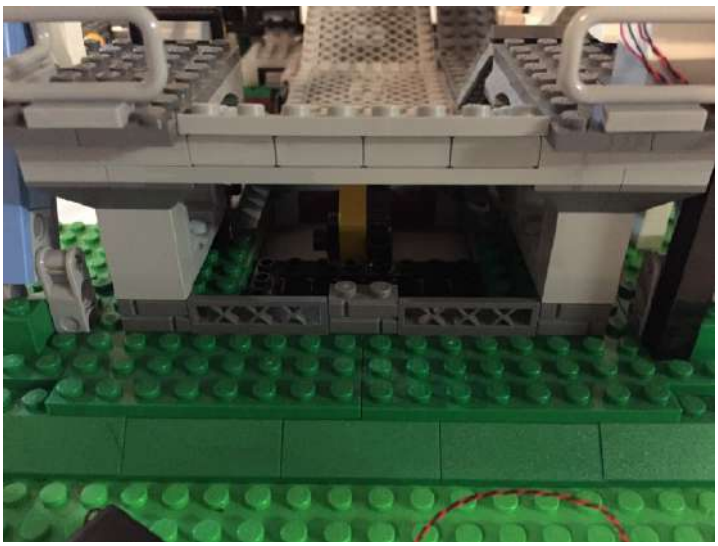


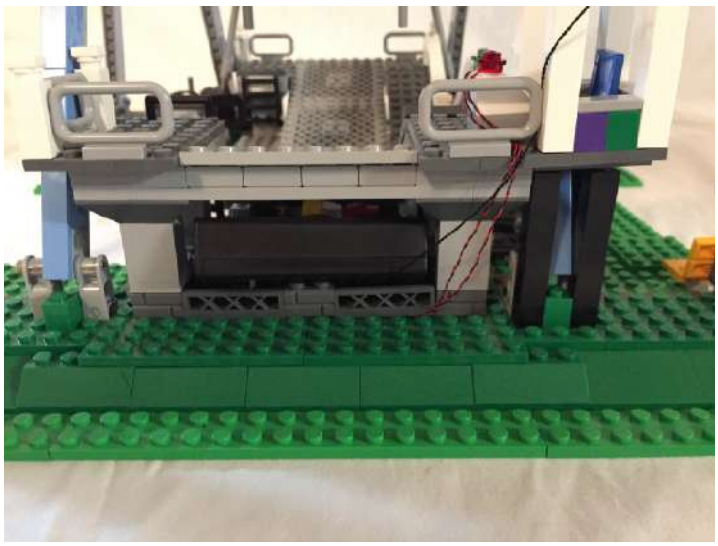
Grab the **6 port Expansion Board** and the **AA Battery Pack**.
Connect the **AA Battery Pack** to the **6 port Expansion Board.**



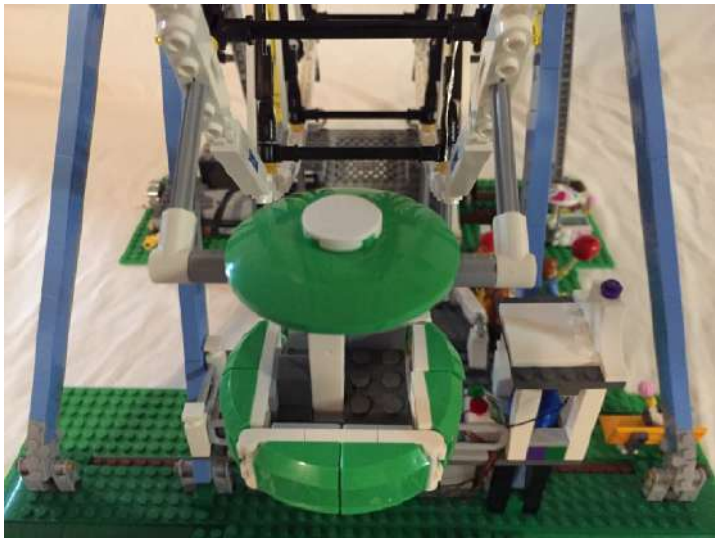


Grab the wires from the **Flashing White Bit Lights** and the **15cm Connecting Cable** and connect them to the **6 port Expansion Board.**

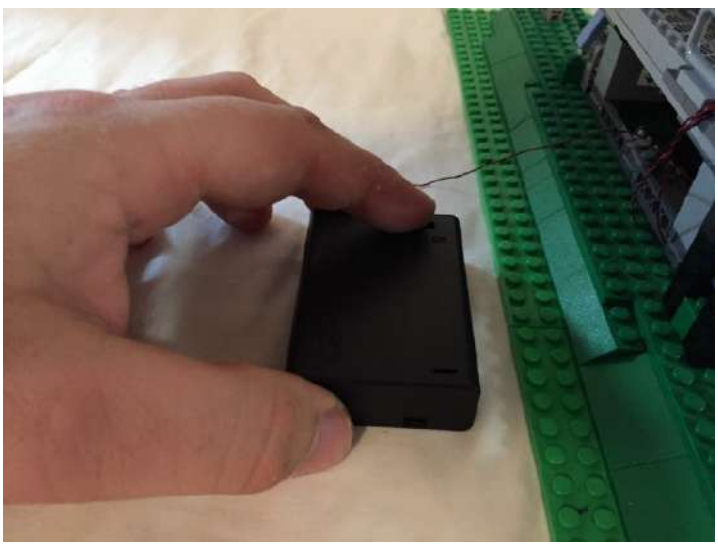


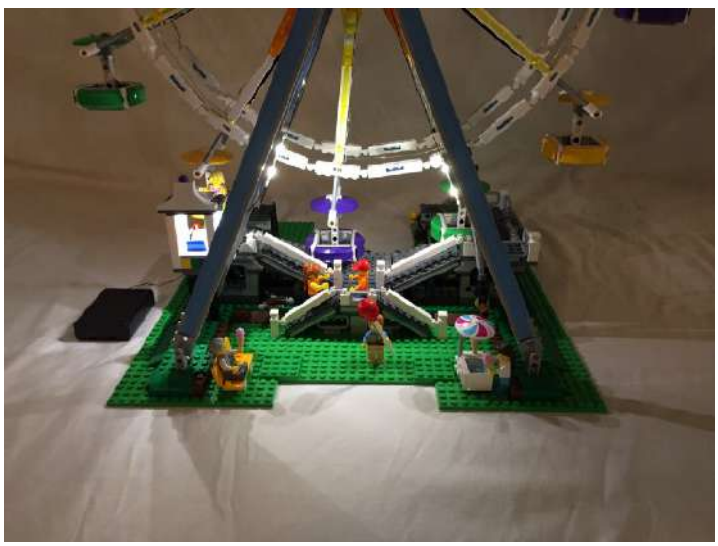


Hide the **AA Battery Pack** and **6 Port Expansion Board** in the available space underneath the ramps.



Now all you have to do is reattach your gondolas and you are good to go!





Switch on the **AA Battery Pack** to light up the bottom of the model.

Switch on / plug in your USB Power Bank to light up the wheel!

. . .

Note: A USB Power bank was chosen to power the wheel because it can be recharged in place by running a cable to it.
Having to pull the wheel apart every time you needed to change batteries would have been a pain.
We also wanted to maintain the Ferris Wheel's ability to spin freely whilst being lit up.

We hope you enjoy this Light Kit!

. . .

LIGHT MY
BRICKS

LIGHT MY
BRICKS