

## Winter\_Holiday\_Train\_10254 LED Lighting Kit

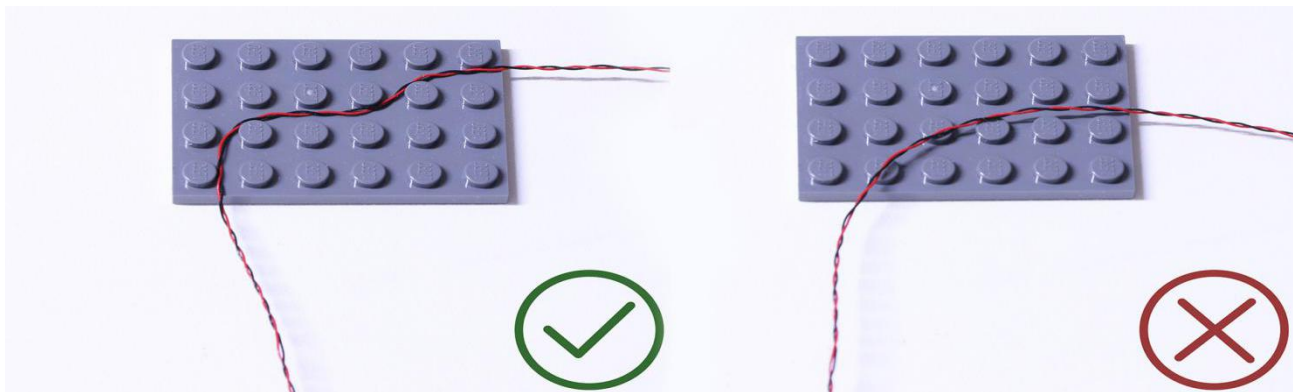
### Package contents:

- 5x White 15cm Dot Lights
- 7x Flashing White 15cm Dot Lights
- 2x Multi Colour Light Strings
- 2x 6-Port Expansion Board
- 1x 12-Port Expansion Board
- 1x 30cm Connecting Cable
- 1x 15cm Connecting Cables
- 10x Adhesive Squares
- Power Source
- AA Battery Pack (Requires 3x AA Batteries)
- or
- Vonado Power Functions Cable

### Note:

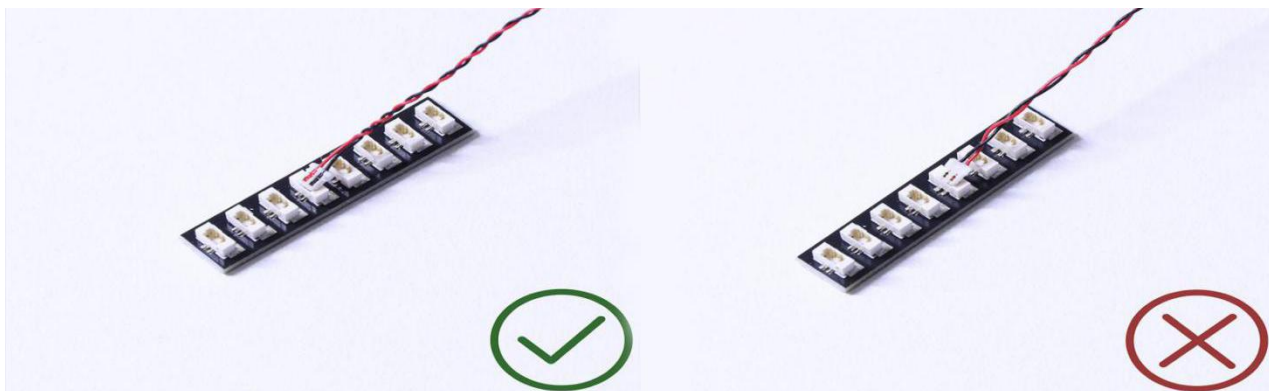
Place wires on the surface or under the LEGO building blocks.

The wire can be placed between the building blocks or under the block, but they should be placed between the studs correctly.

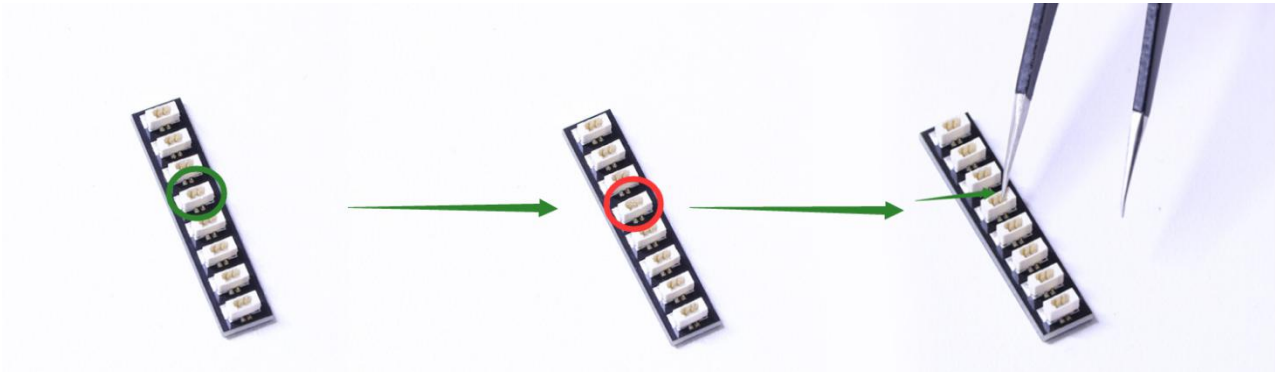


Insert the connectors to the ports.

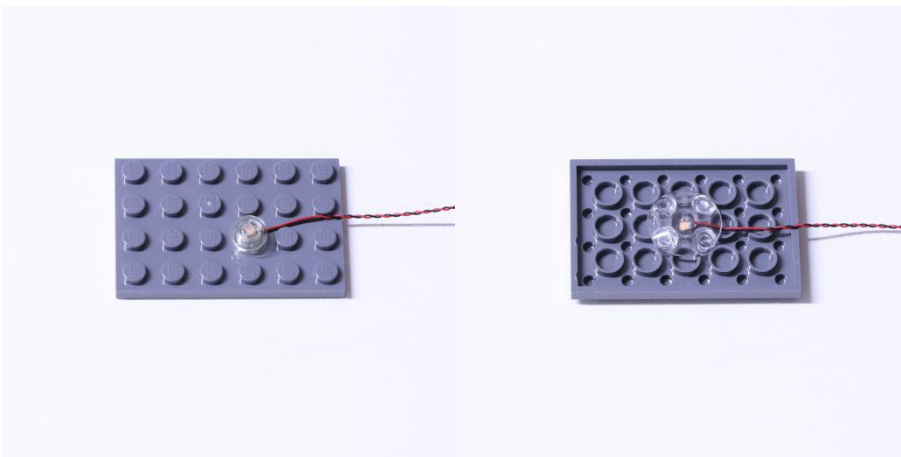
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and if you feel hard to insert, please stop, and don't force it, for that may result in bent pins inside the port or overheating of the expansion board.



At this point, use the tweezers to straighten the bent pins.

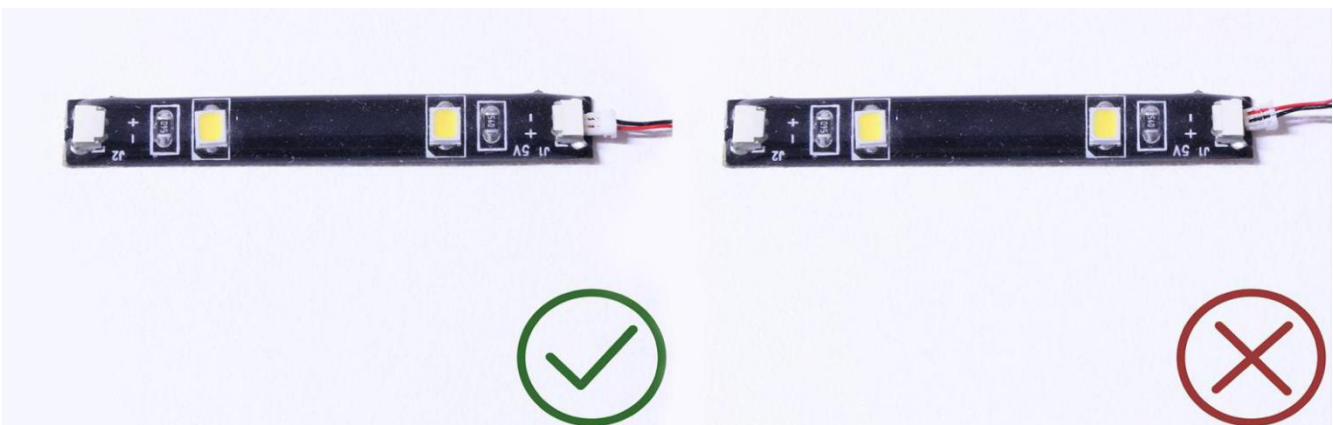


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put them either on the top of the studs or between studs.

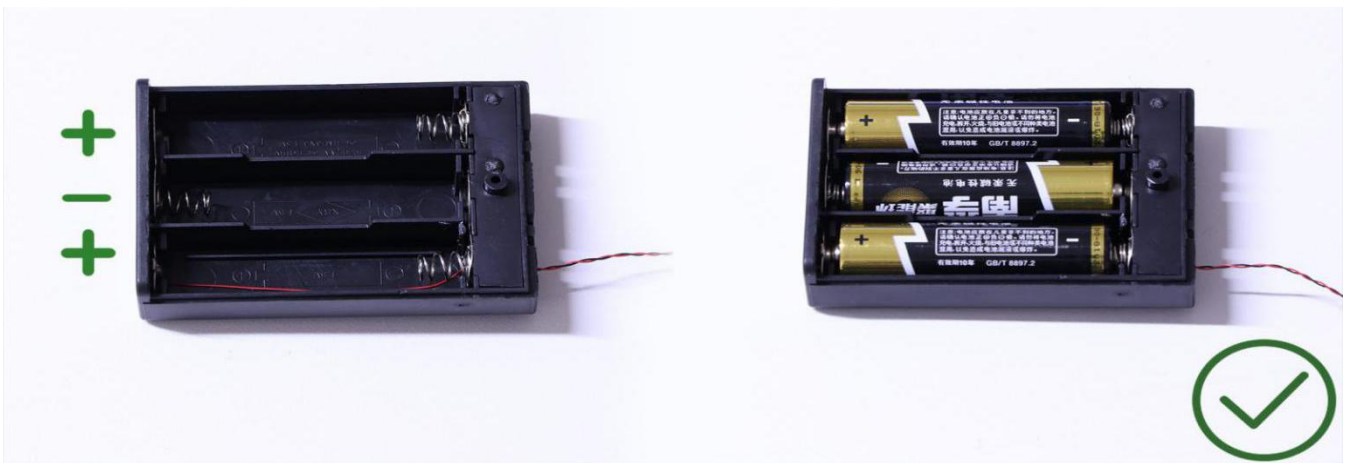


## Connecting cable connectors to Strip Lights

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.



Finally, please pay attention to the positive and negative terminals of the battery when installing the battery case.

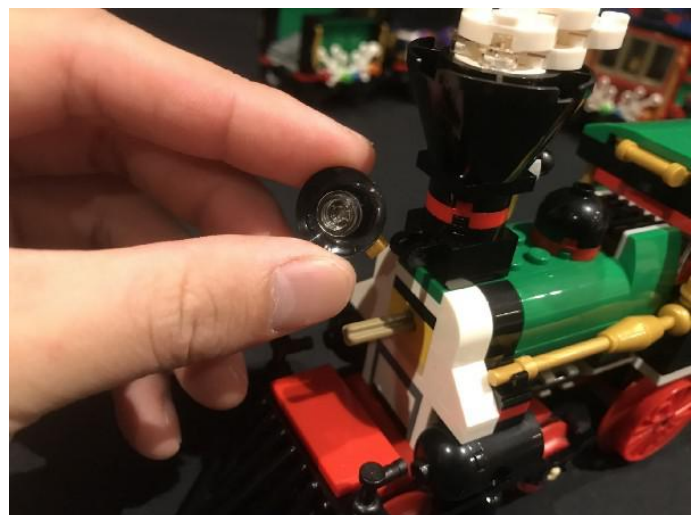


OK, Let's Begin!

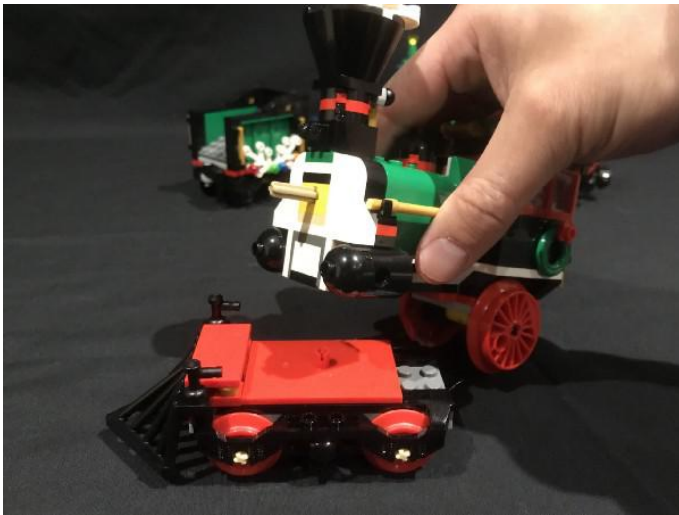
### Instructions for installing this kit

- 1.) Start by removing the front sections of the train as per below in order for us to install the front lights.

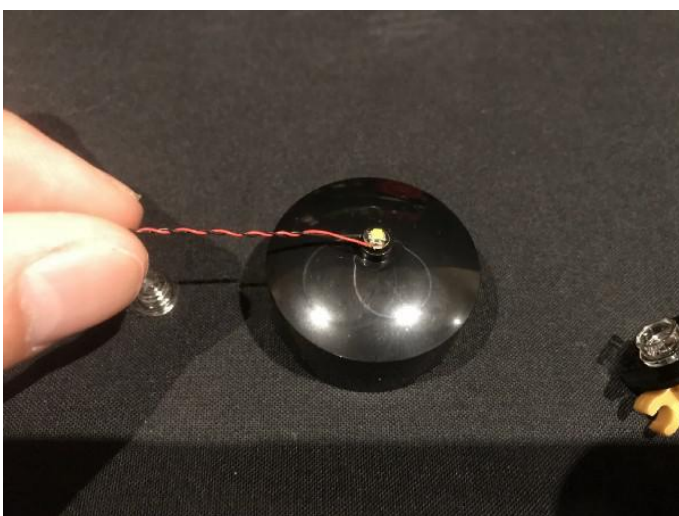








2.) Remove the trans clear plate and then take a White 15cm Dot Light and place it directly over the stud of the black piece. Reconnect the trans clear plate over the top to secure it in place.

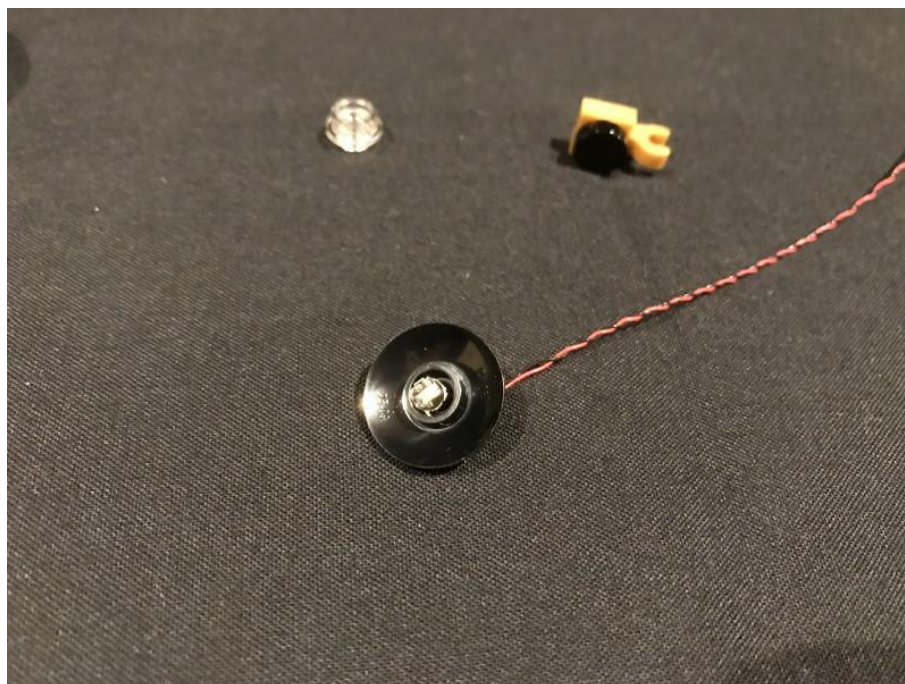
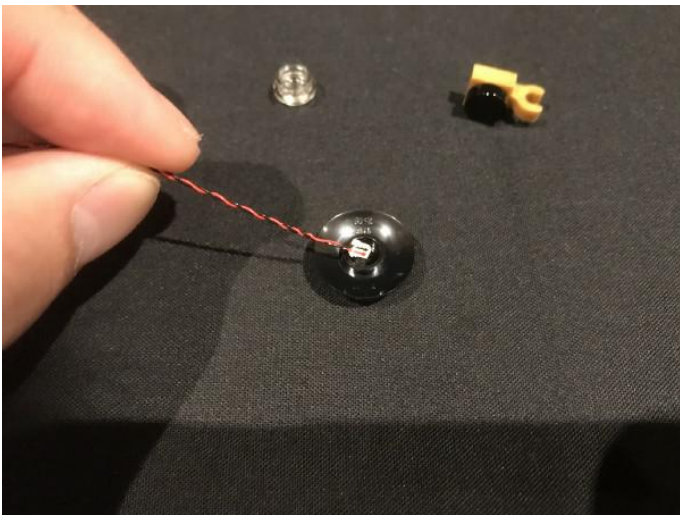


Disassemble pieces of the light section that sits above.



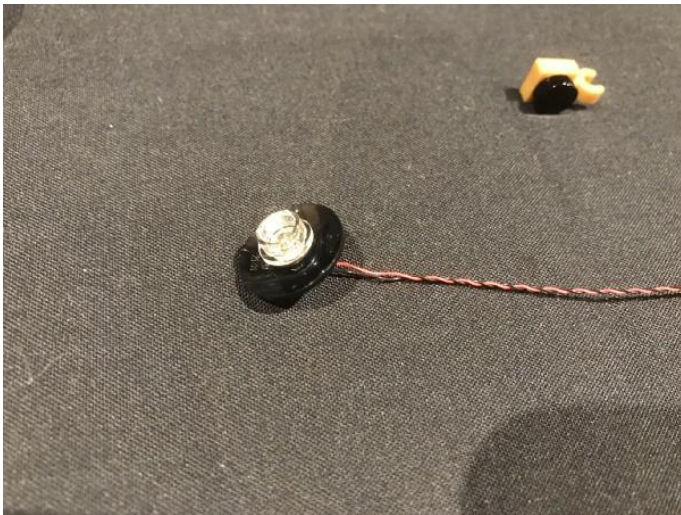


Take another White 15cm Dot Light and thread the connector side through the hole of the black dish piece. Thread the cable all the way through until the LED is right up against the hole as per below.



Reconnect pieces which make up this front light

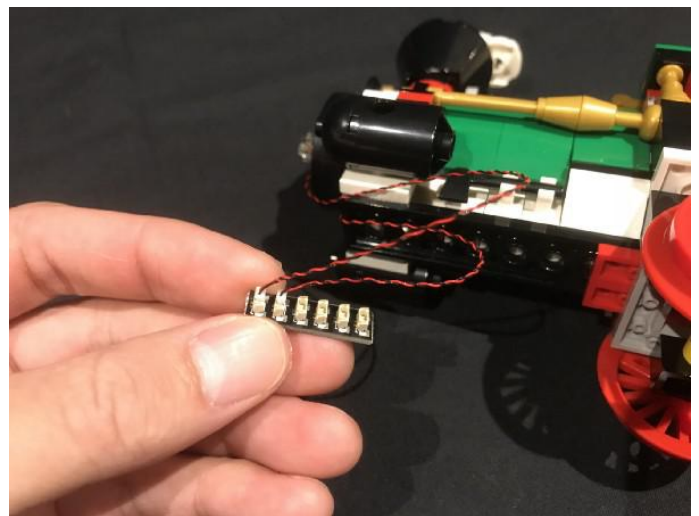
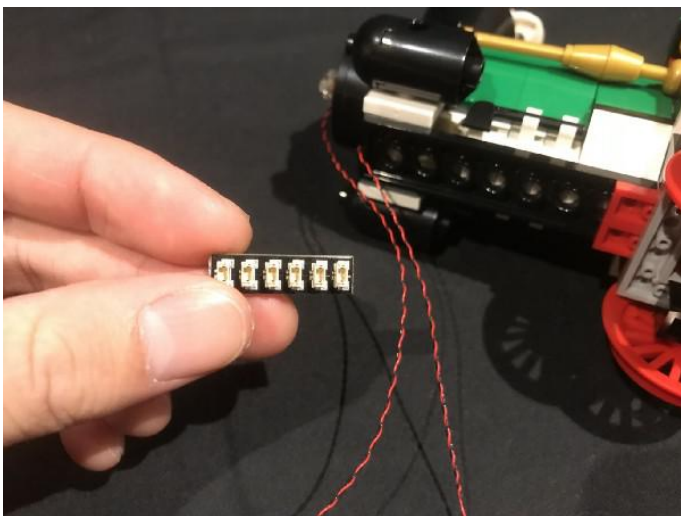




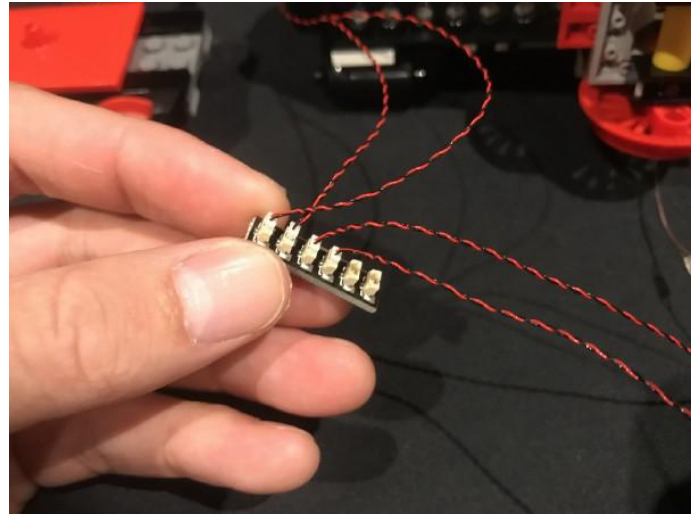
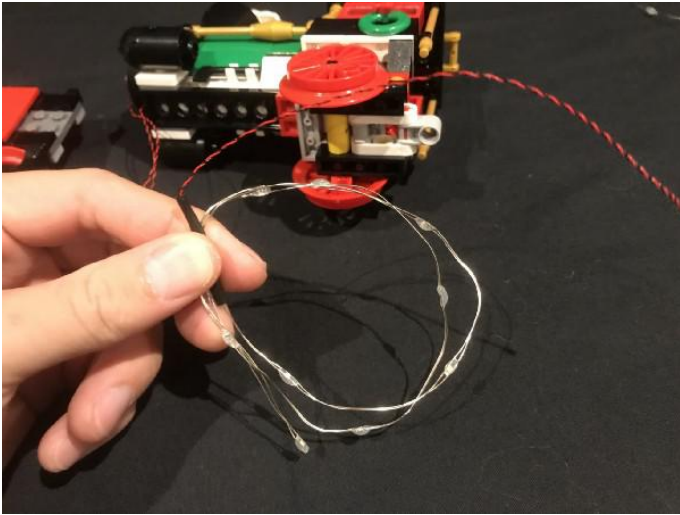
3.) Reconnect both light sections back to the front of the train starting with the top light and ensure both cables are facing down.



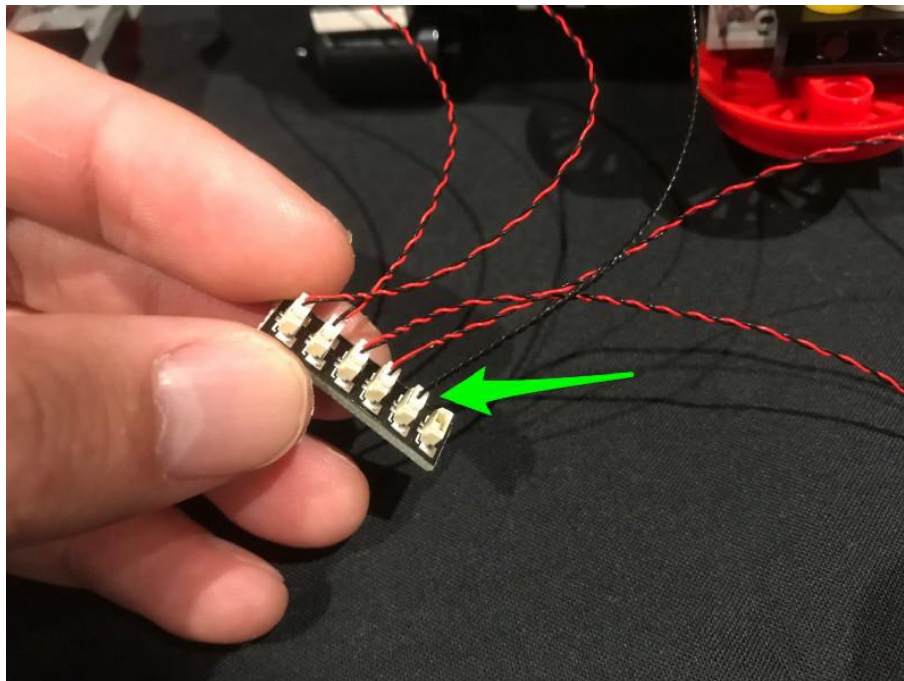
4.) Take a 6-port Expansion Board and connect the two lights to the ports.



Take the 2x Multi Colour Light Strings and connect these to the next available ports on the expansion board

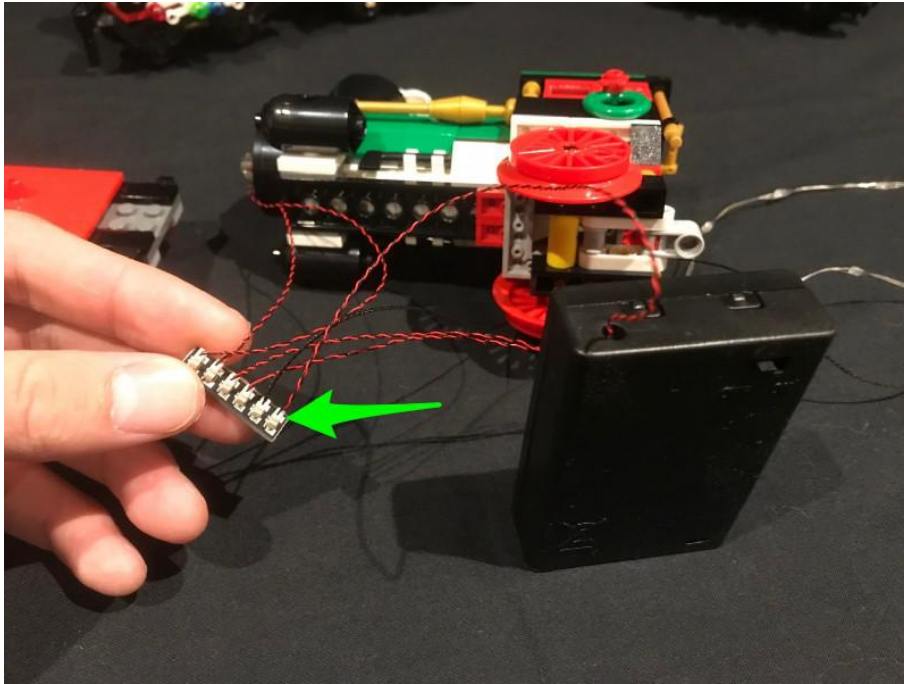


Take a 30cm Connecting Cable and connect one end to the next available port on the expansion board.

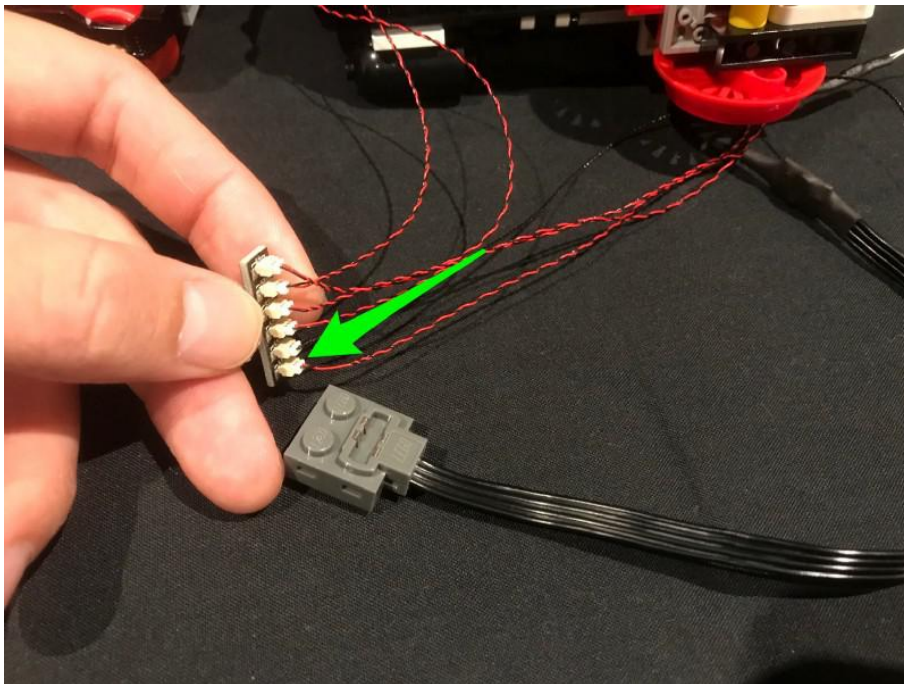


If you have chosen to power using the AA Battery Pack then insert 3x AA Batteries to it and then connect the battery pack cable to the remaining port on the expansion board.

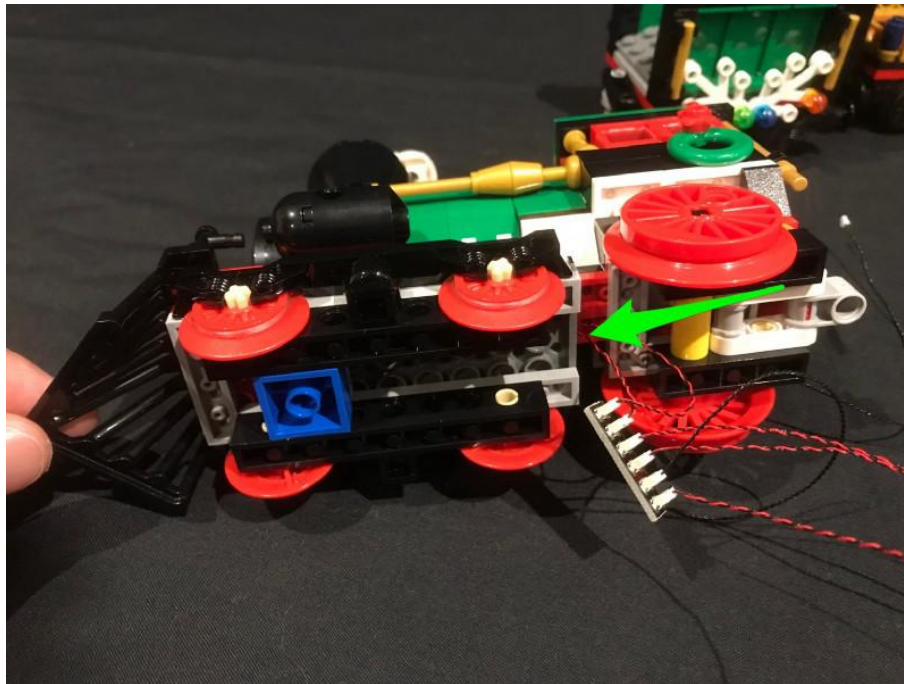




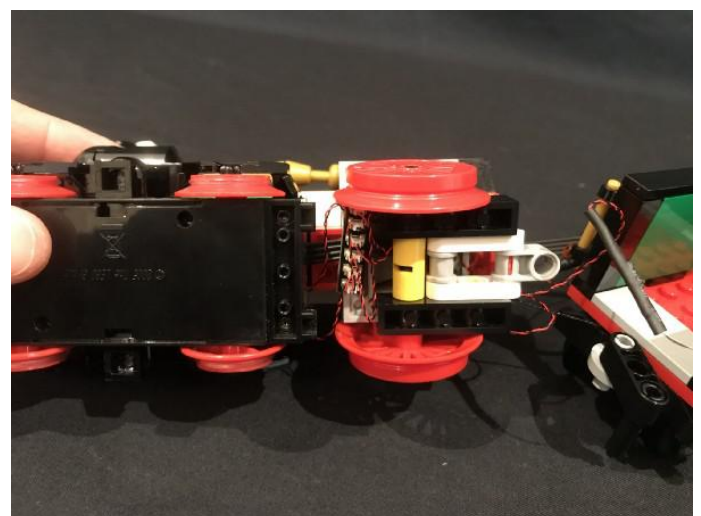
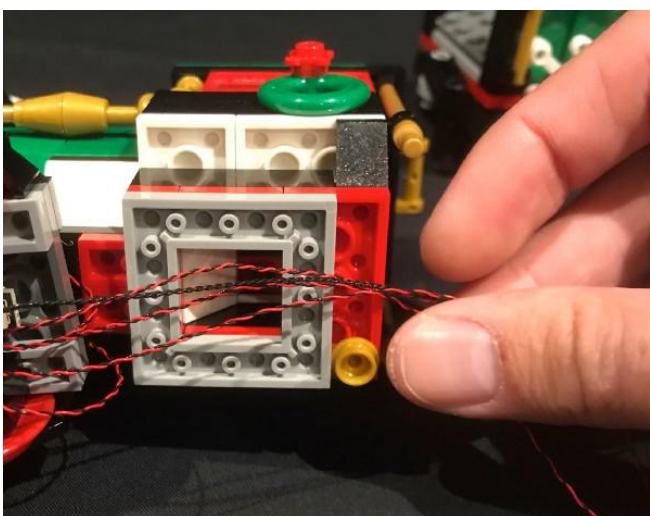
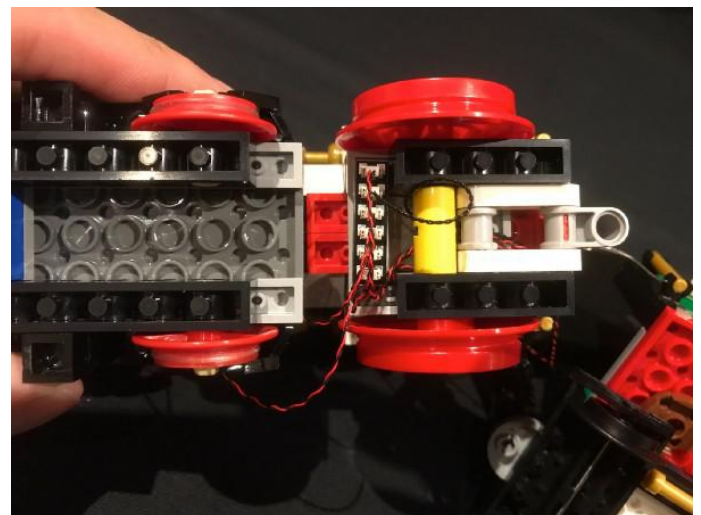
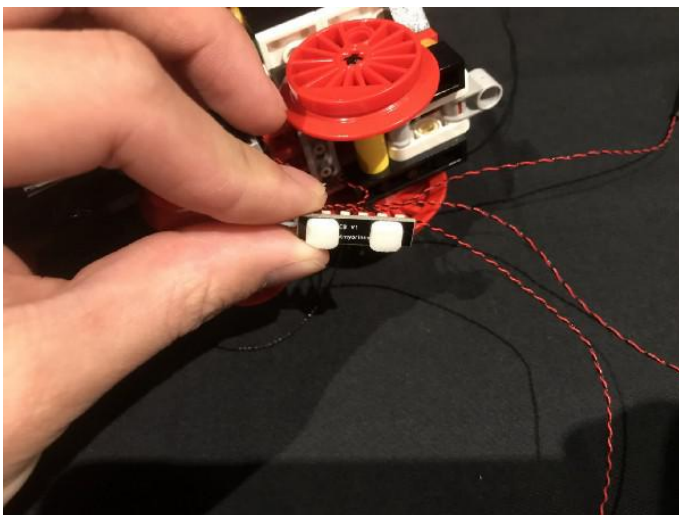
If you have chosen to power using the Vonado Power Functions Cable, then take this cable and connect it to the remaining port on the expansion board (instead of the AA battery pack)



5.) Reconnect the front wheels of the train ensuring the cables for the two front lights are neatly laid in between as per below

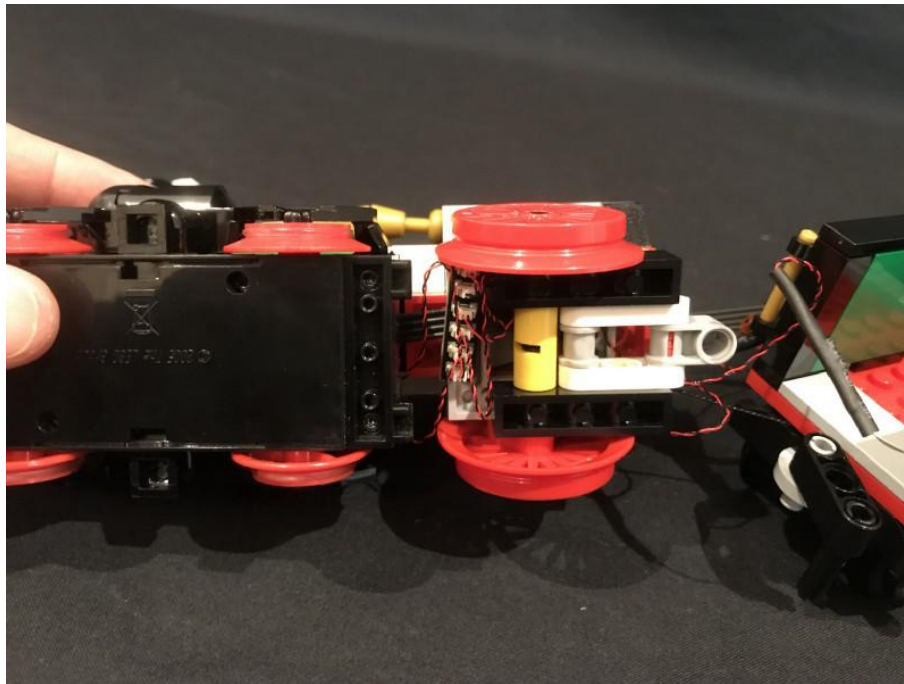
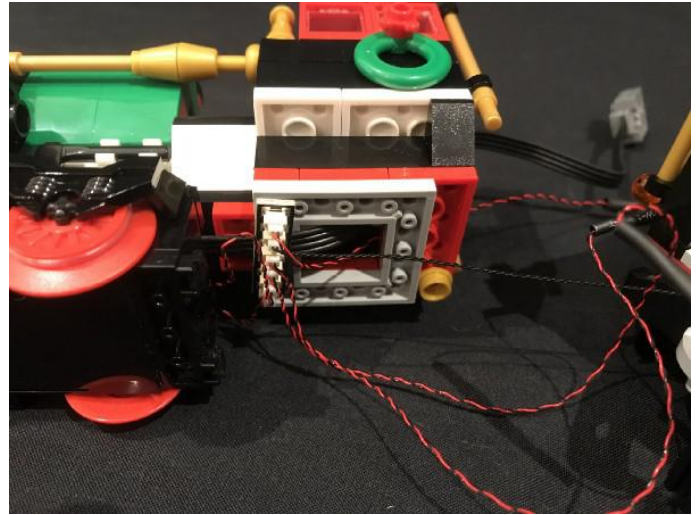
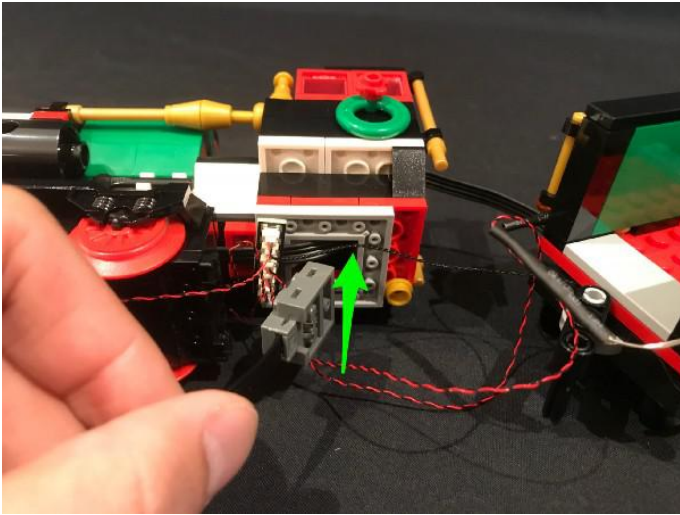


Using 2x Adhesive Squares, stick the expansion board underneath the train in the below position. Neaten all the cables and secure them underneath the back wheels section.



If you are using the Vonado Power Functions Cable, then thread the LEGO connector up through the inside of the train before mounting the expansion board.

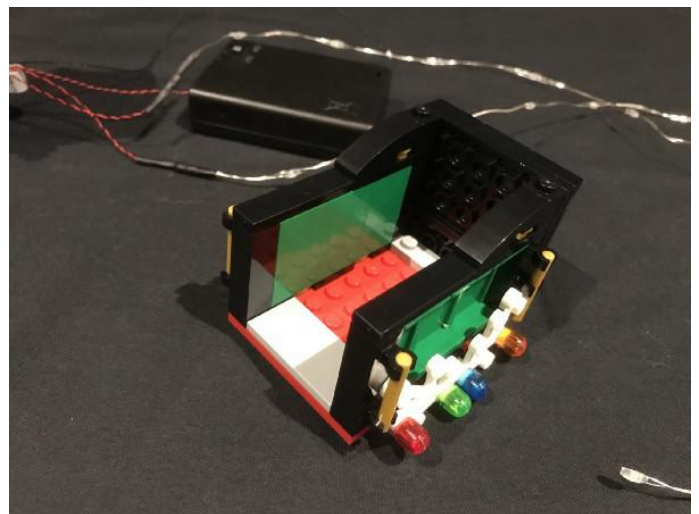
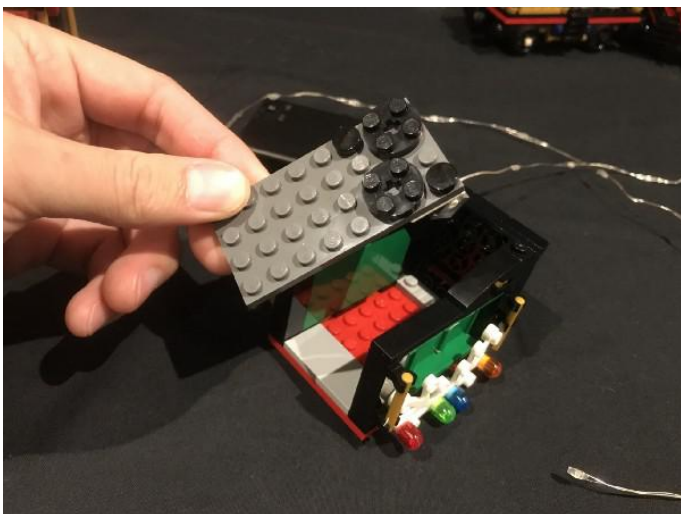
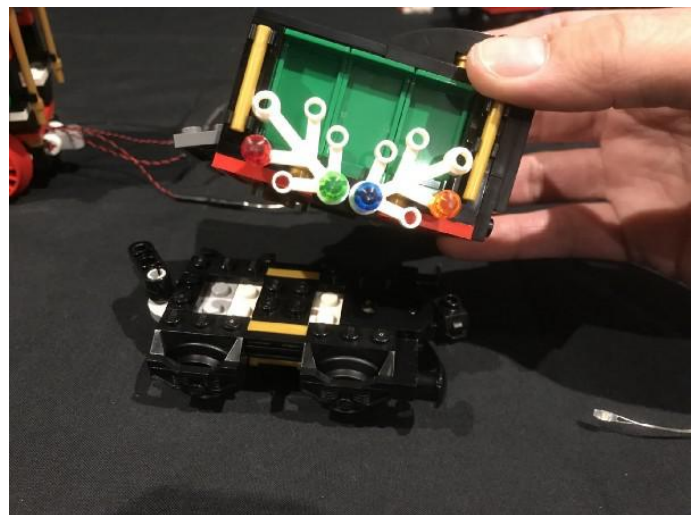
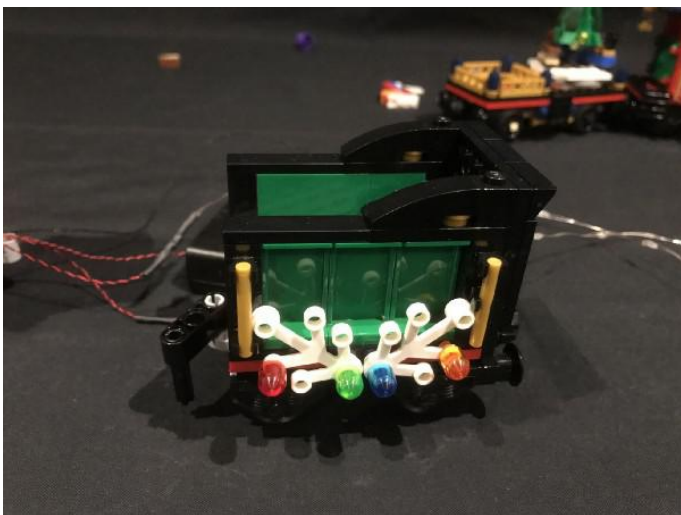




Turn on the battery pack (or connect the power functions cable to power pack) and test that all lights connected are working OK.



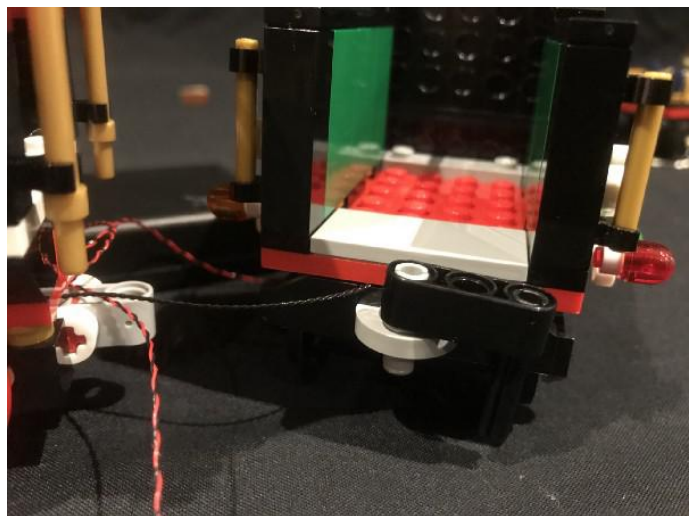
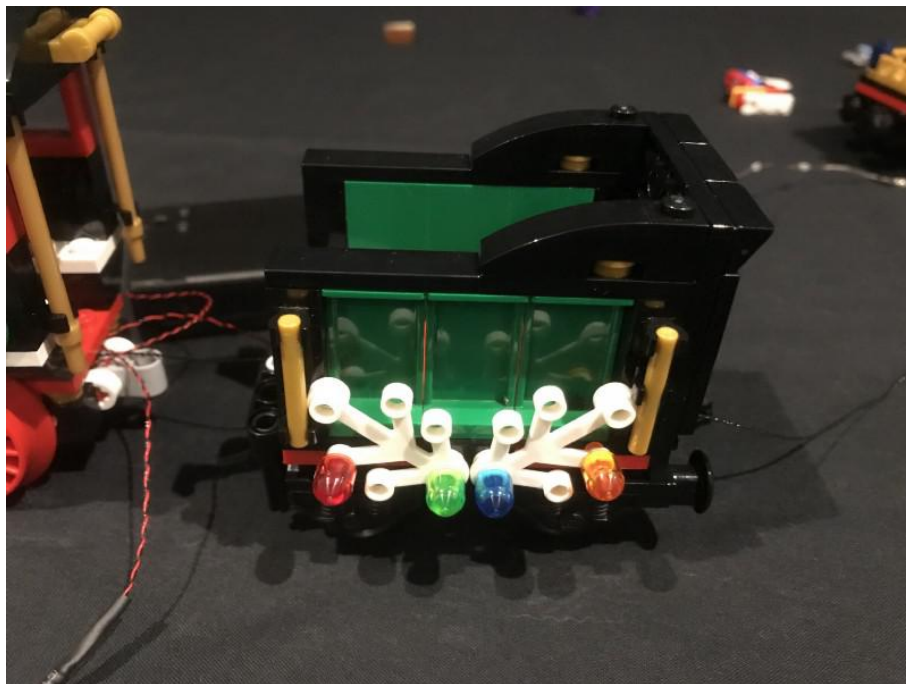
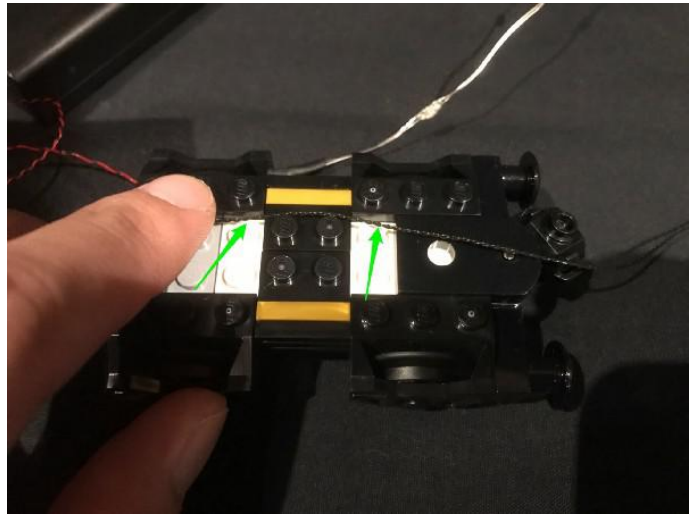
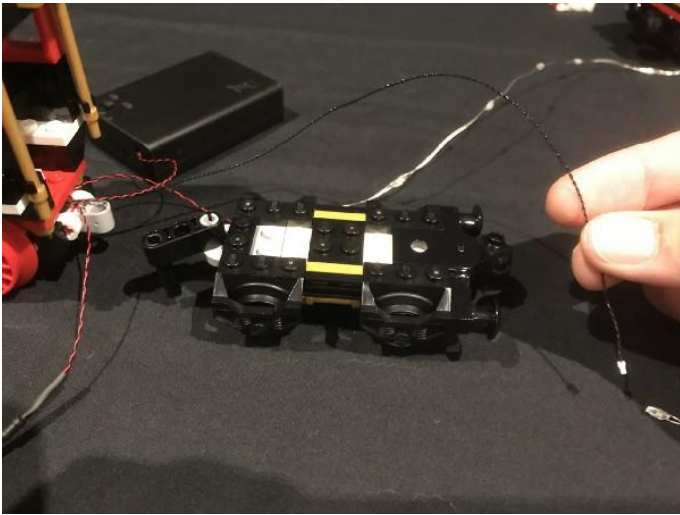
6.) Take the next carriage and then remove the top section as well as the inside section as per below.



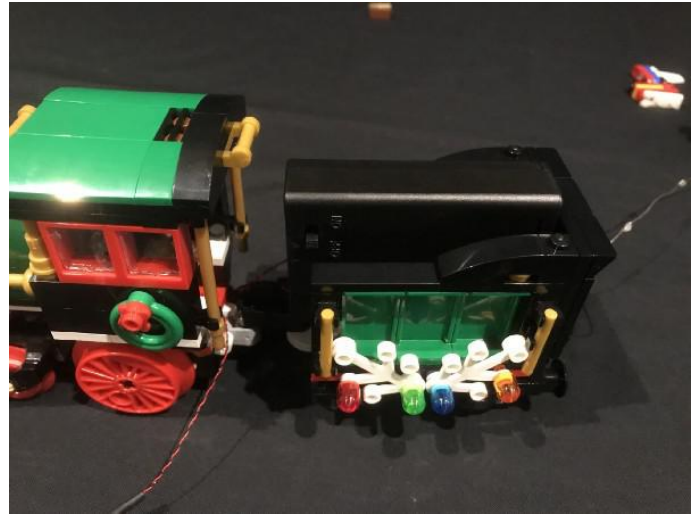
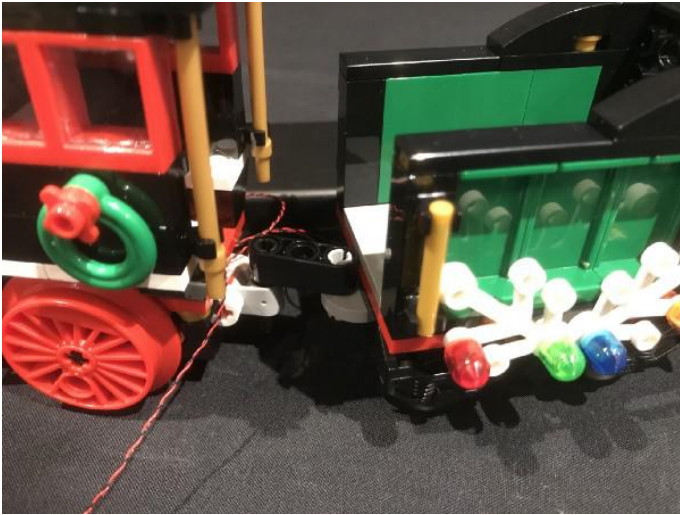
7.) Pull the 30cm connecting cable all the way across from the front carriage and neatly lay it in between studs before reconnecting the top section over the top. Try not to leave too much cable slack between the first and second carriage as we need as much cable length as possible in order to reach to



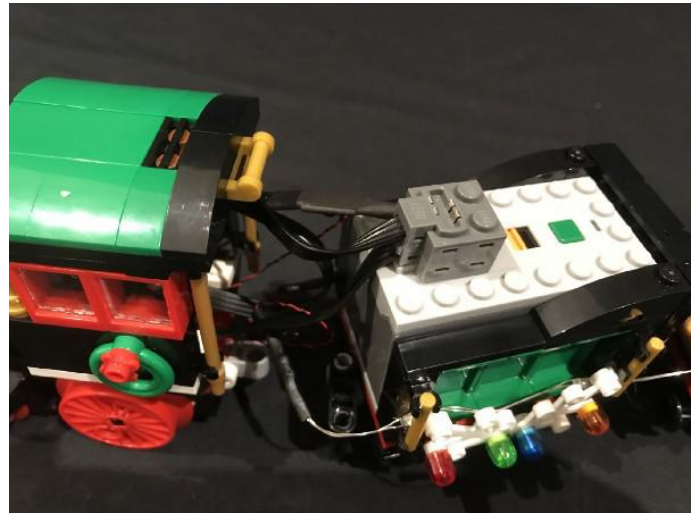
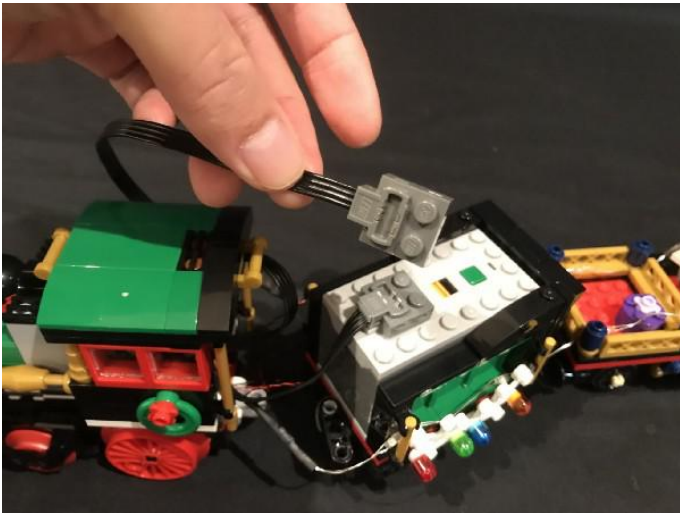
the remaining carriages.



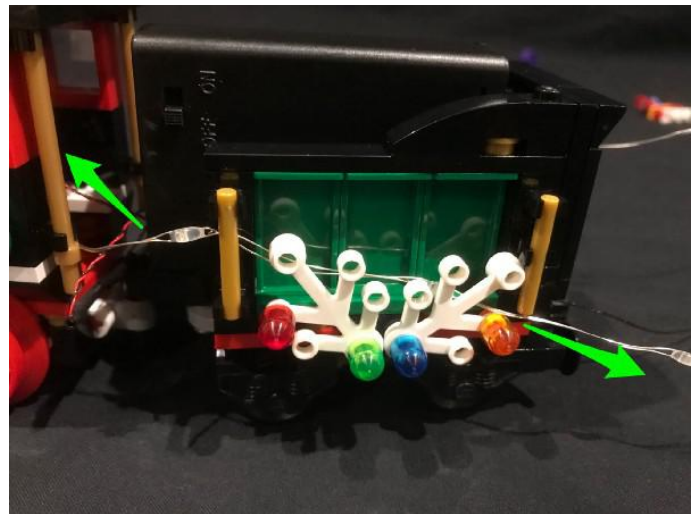
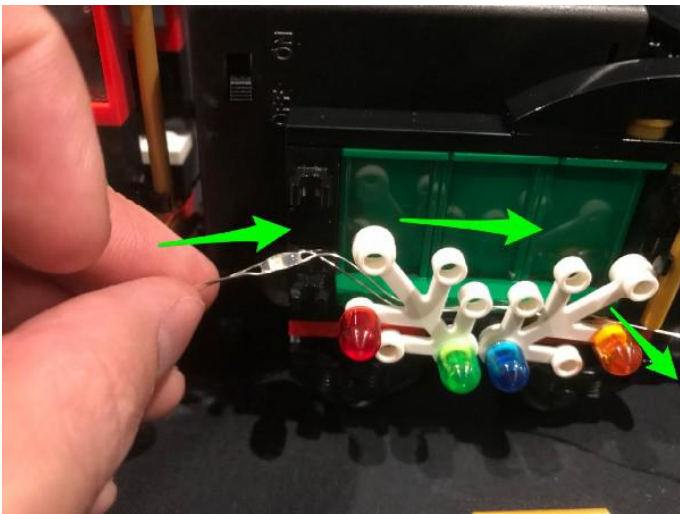
Hook the second carriage onto the first carriage and then place the AA Battery Pack inside the carriage as per below.



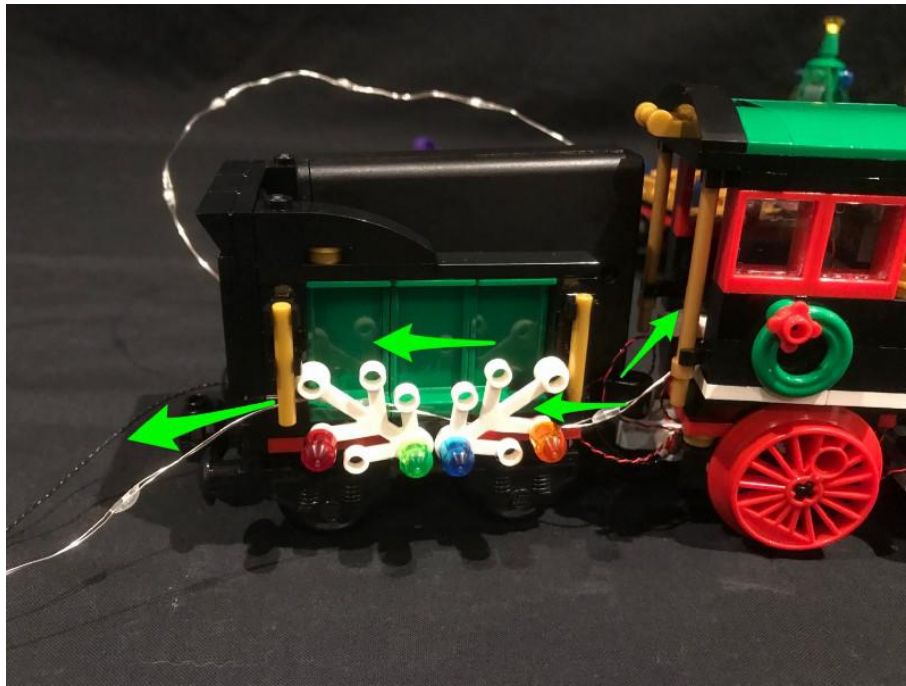
If you are using the Power Functions Cable, you can connect this onto the power pack and then neaten cables by tucking them into the inside of the front carriage.



Feed the two Multi Colour Light Strings through and behind the white and gold LEGO pieces on each side of the carriage. Tuck the ends of the light strings into the first carriage.

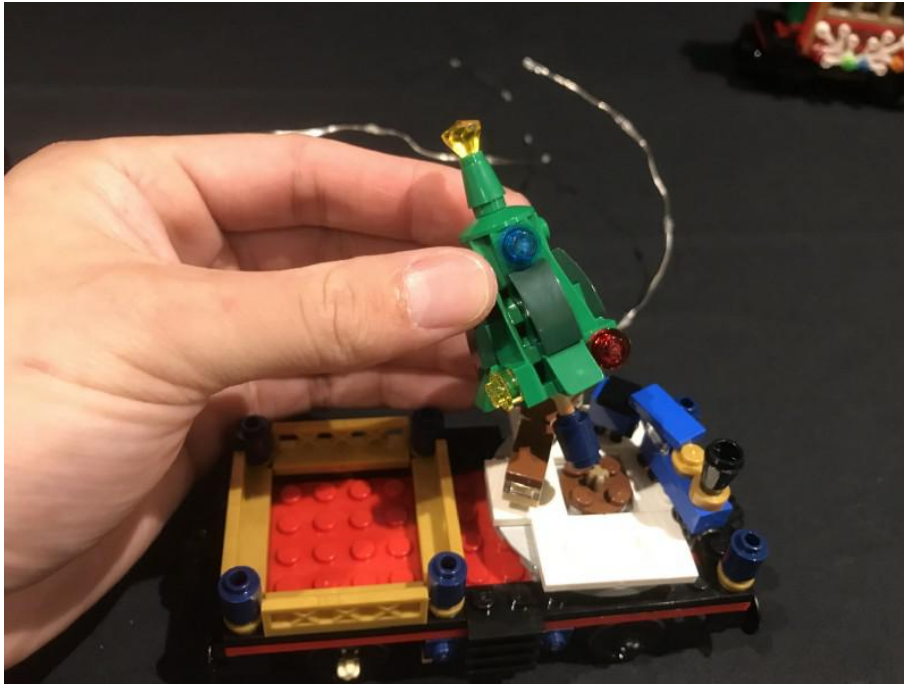




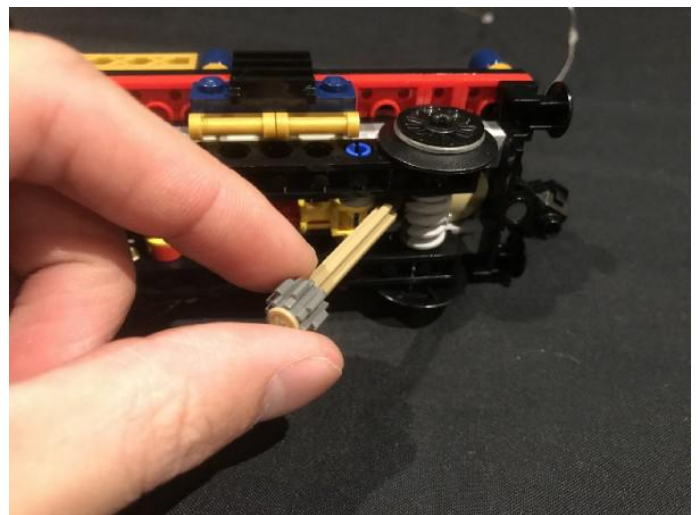
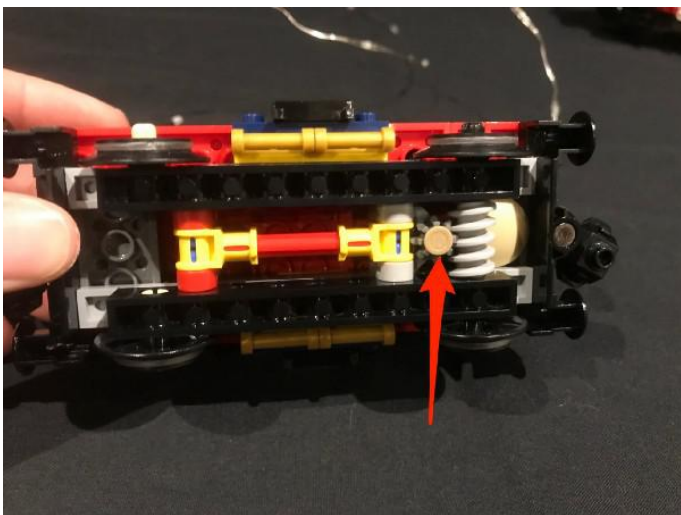


8.) Take the third carriage and then remove the loose pieces from the front before removing the Christmas tree section.





Turn the carriage over and then remove the technic bar from underneath.

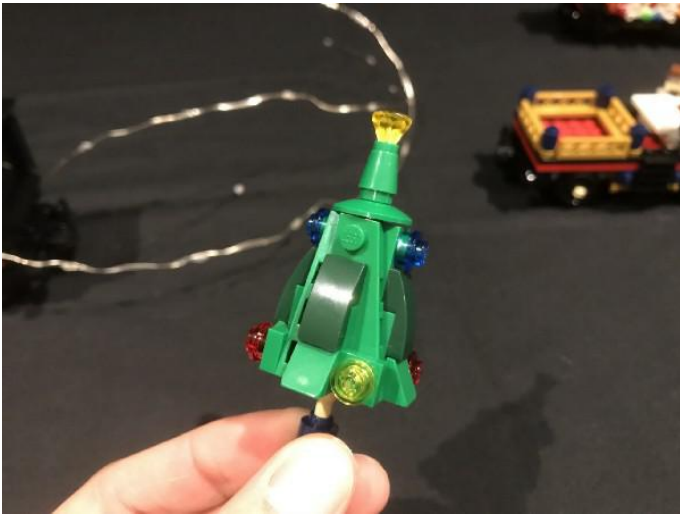


The Christmas tree will be unable to spin with this light kit installed therefore, we need to remove and discard the cog piece from the technic bar to prevent the tree from turning.

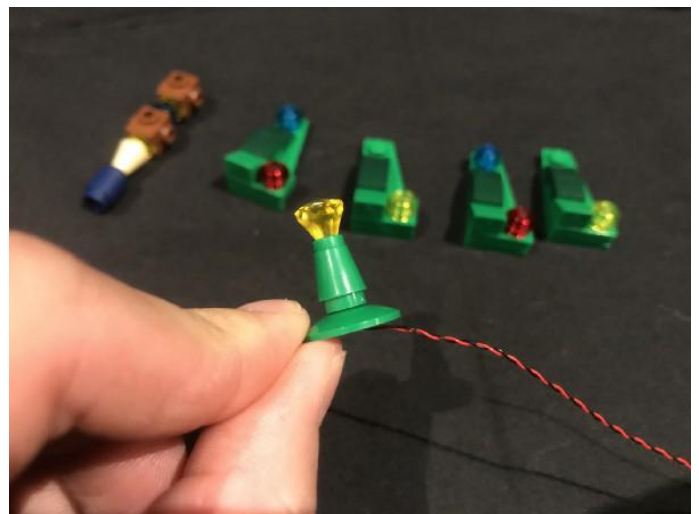
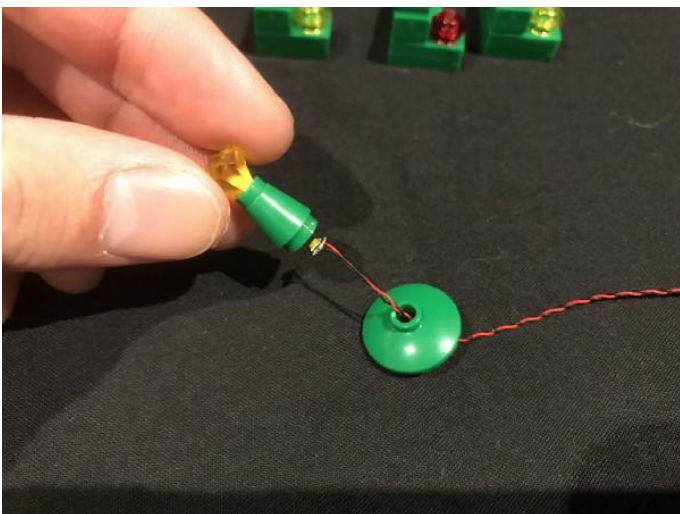
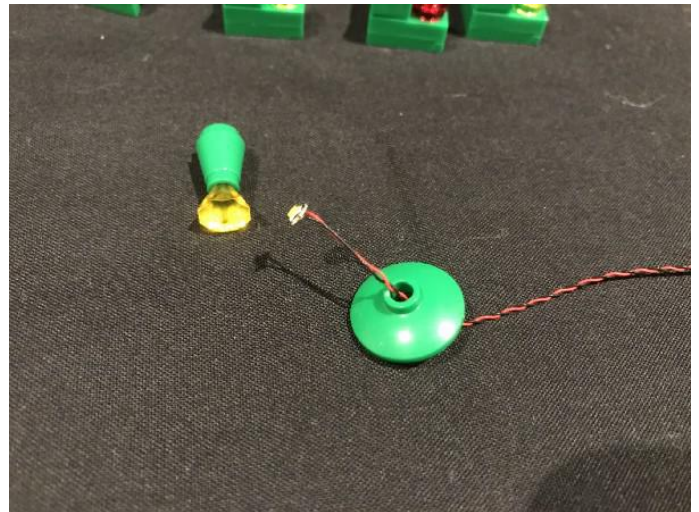
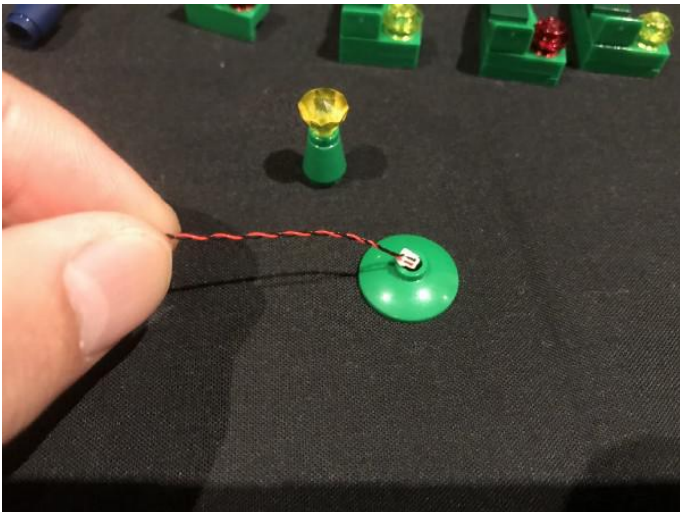




9.) Disconnect the top and sides of the Christmas tree then disassemble pieces as per below



Take a Flashing White 15cm Dot Light and thread the connector side through the top of the green dish. Thread the cable all the way through and then bend the LED on a 90 degree angle so that the LED is facing up.. Place the top section over the LED and then push down and connect it to secure it in place.



Reconnect the top section to the structure of the Christmas tree ensuring the cable is laid in between studs as per below.

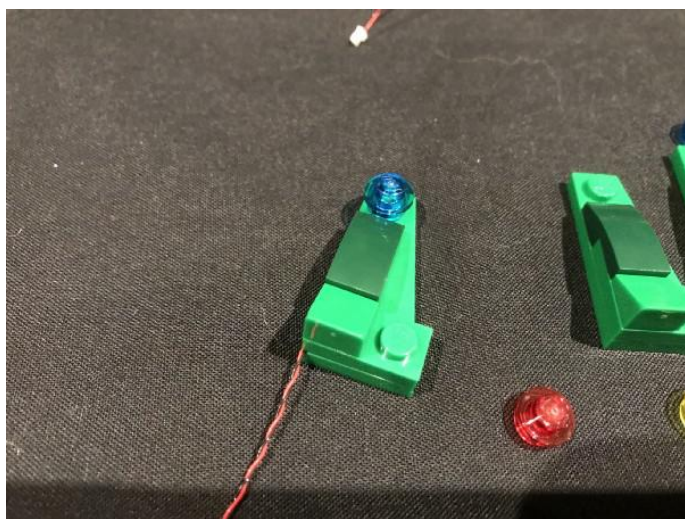
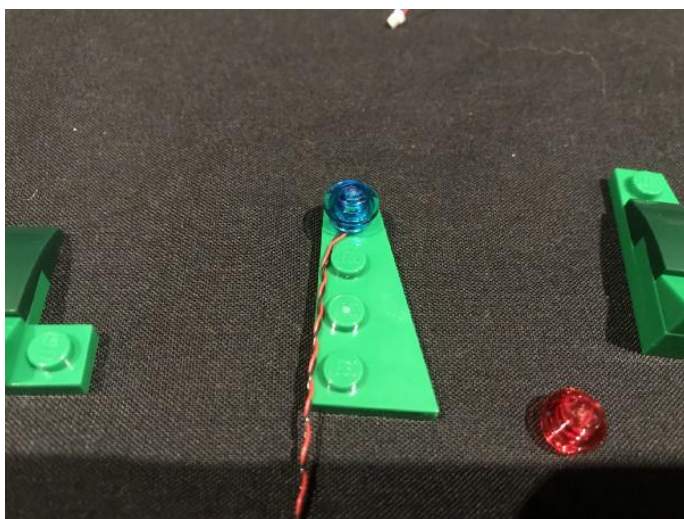
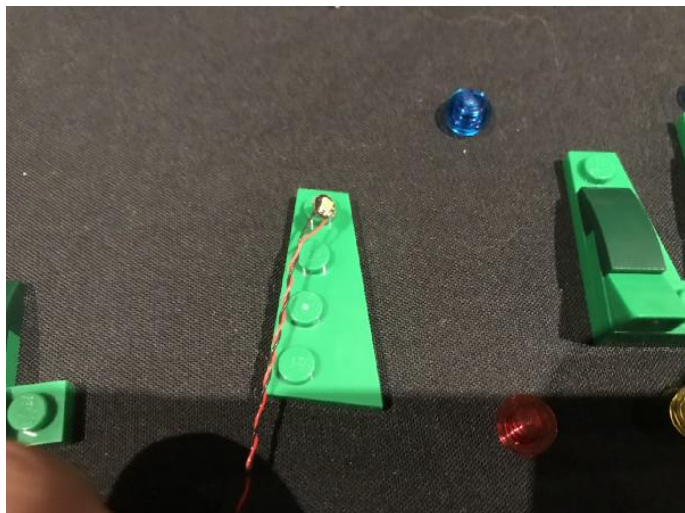
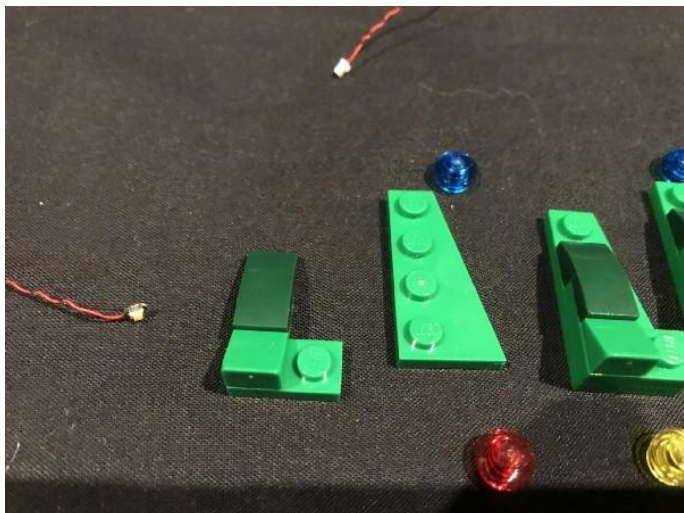


10.) Disconnect the trans coloured round plates from all four sides of the tree.

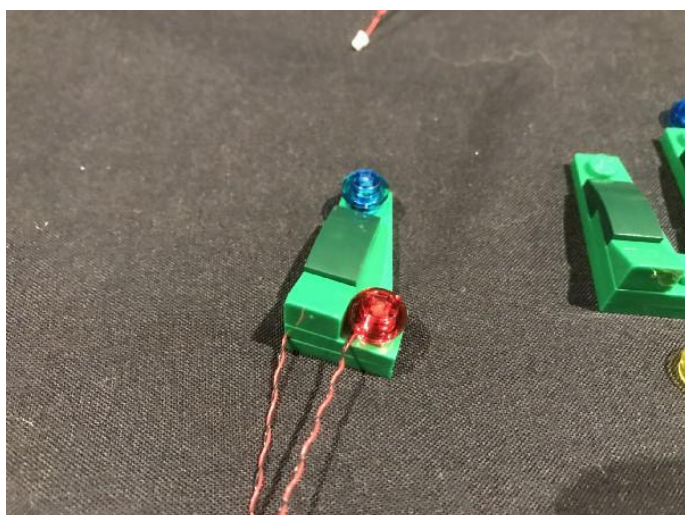
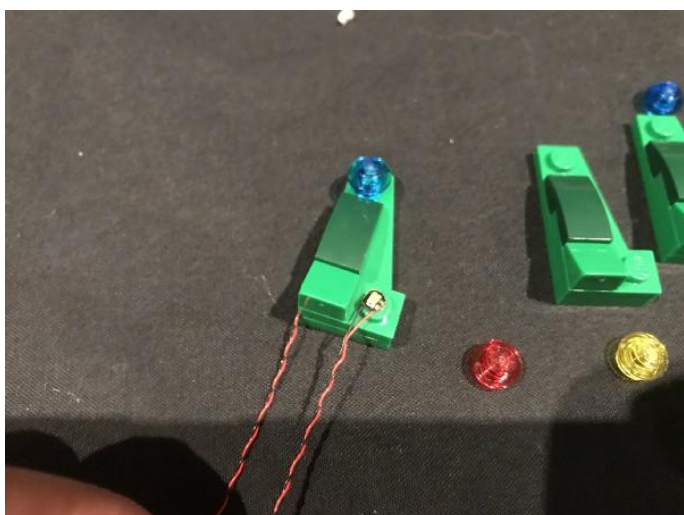


Remove the top plate from the first side (as per below) and then take a Flashing White 15cm Dot Light and place it directly over the top stud (with cable facing down). Secure the LED in place by reconnecting the trans blue round plate over the top followed by top plate we removed earlier ensuring the cable is laid in on the outside of the studs.



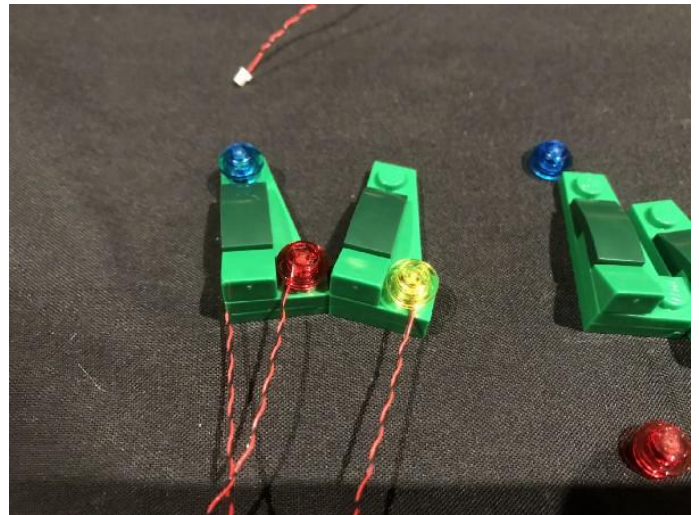
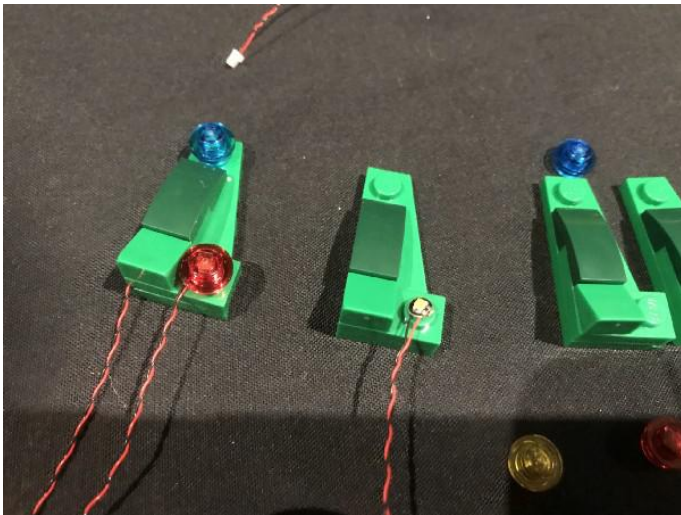


Take another Flashing White 15cm Dot Light and place it directly over the bottom right stud. Secure it in place by reconnecting the trans red round plate over the top as per below

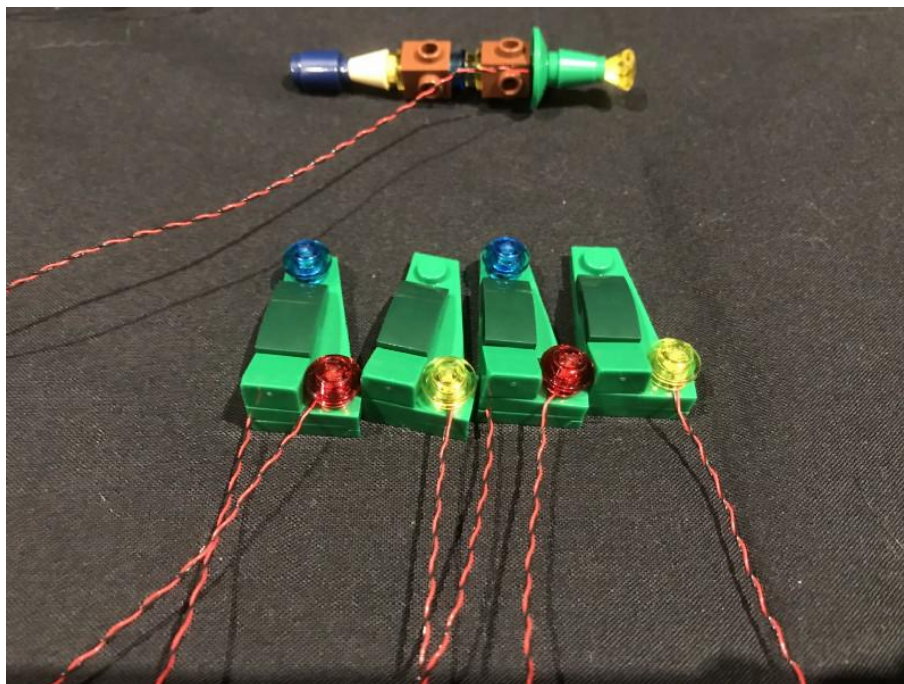


11.) Take another Flashing White 15cm Dot Light and place it directly over the bottom stud on the next plate. Secure it in place by reconnecting the trans yellow round plate over the top.

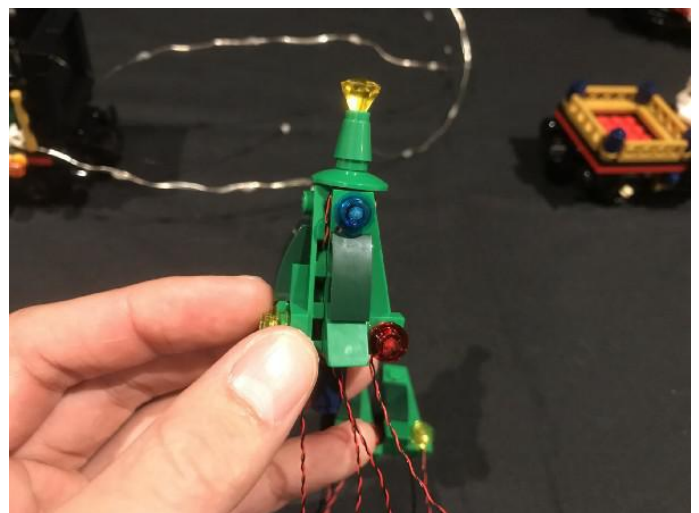




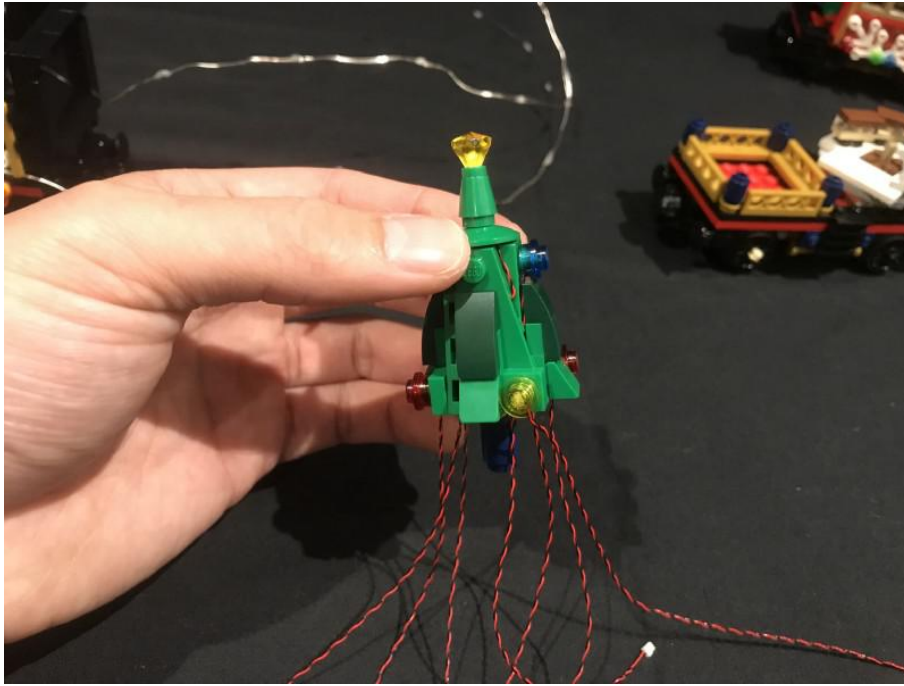
12.) Repeat this process to install another 3x Flashing White 15cm Dot Lights over the next 2 sides.



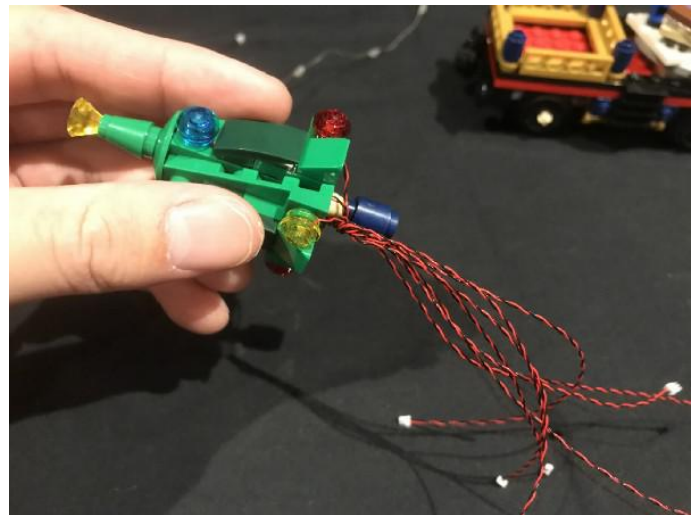
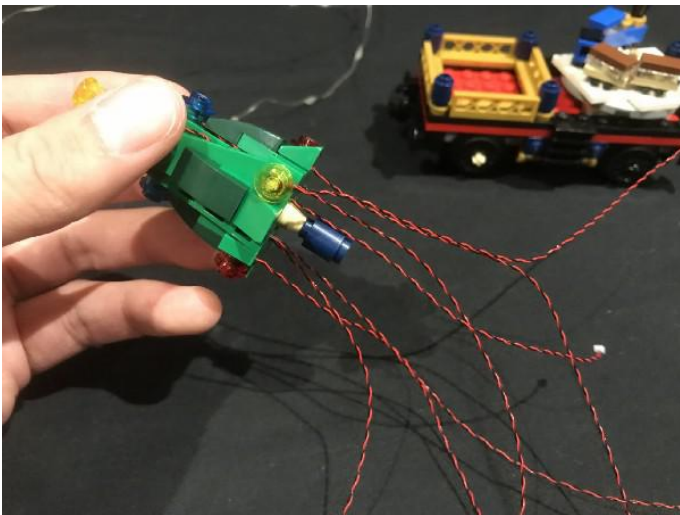
13.) Reconnect each side back to the structure of the tree ensuring the cable from the top light is laid in between pieces as per below

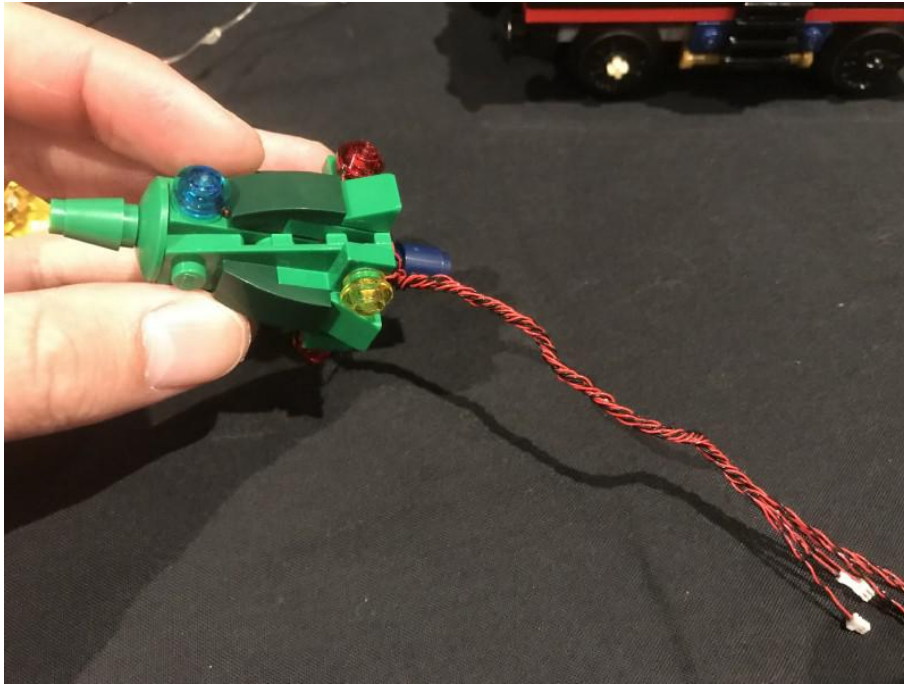




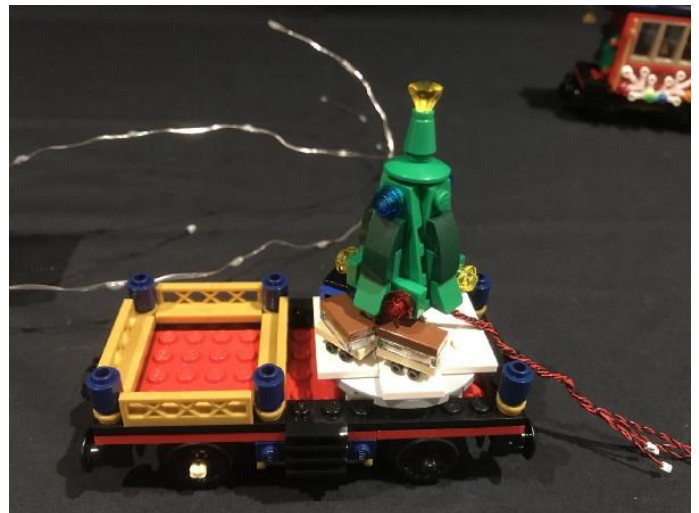
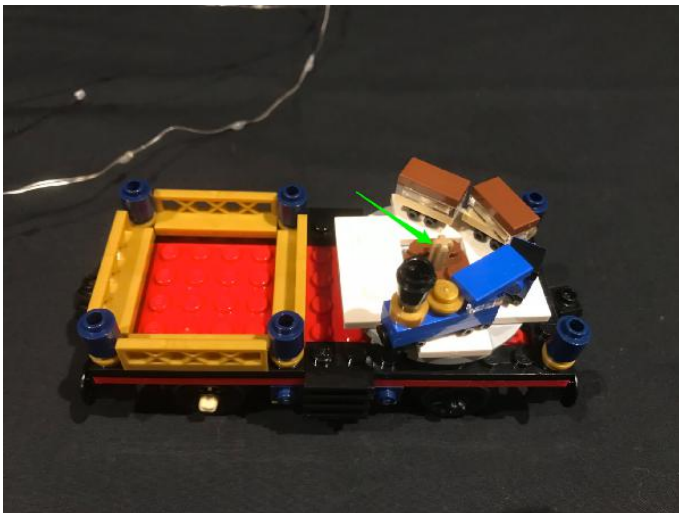


14.) Take all 7 cables and then twist them around each other at the base of the tree so that they all come together forming one larger cable.



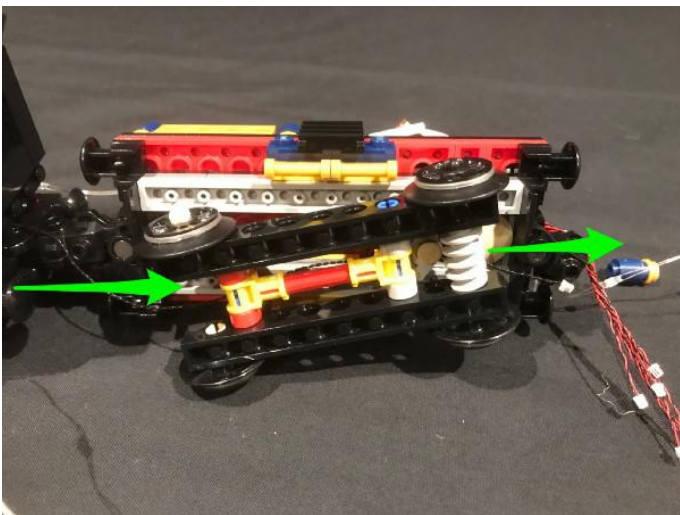
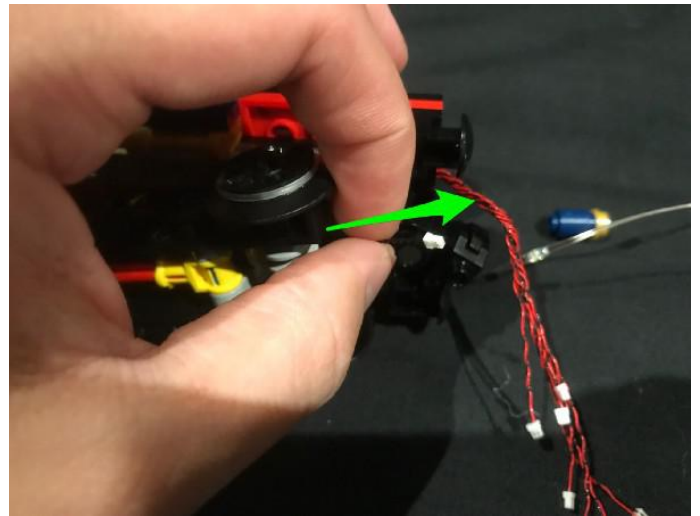
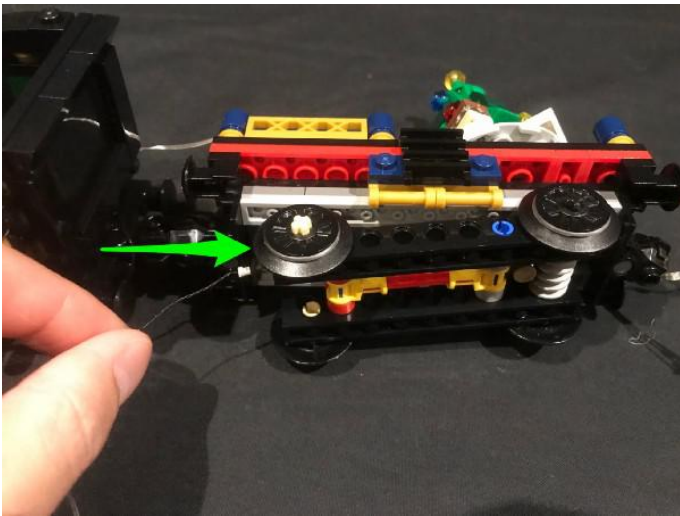
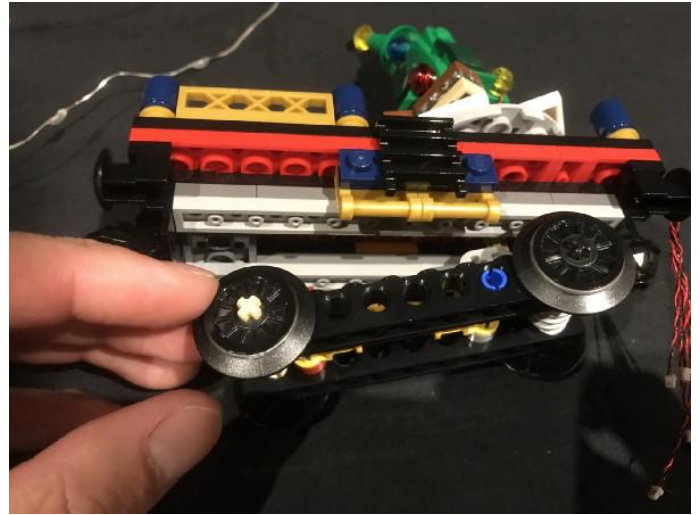
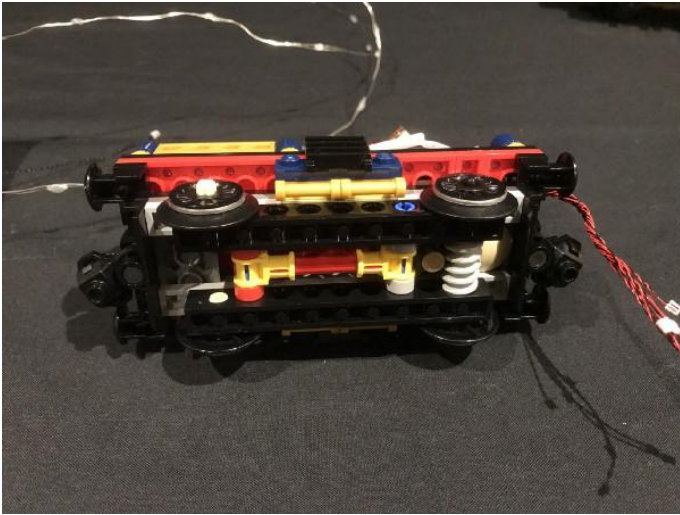


15.) Re-insert the technic bar we removed earlier underneath the carriage and then reconnect the tree on top of the carriage ensuring the cable is facing toward the back.

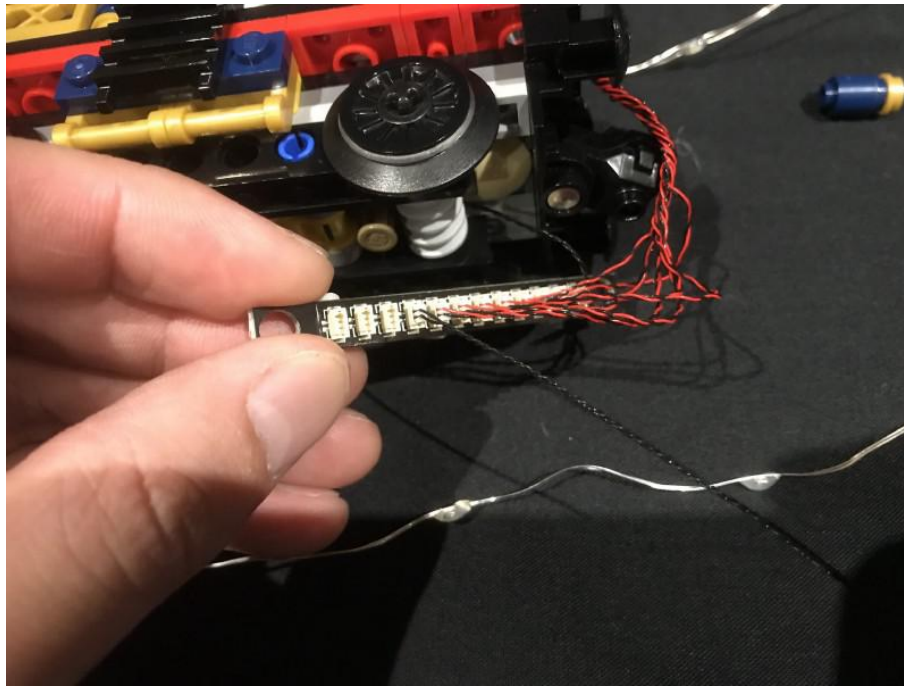
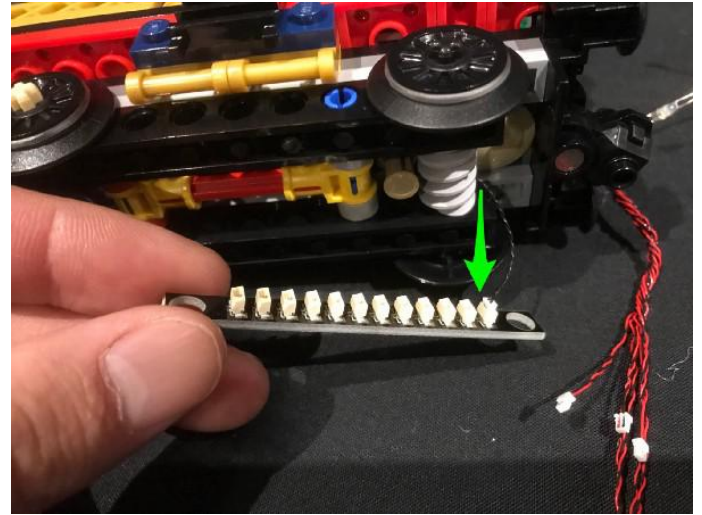
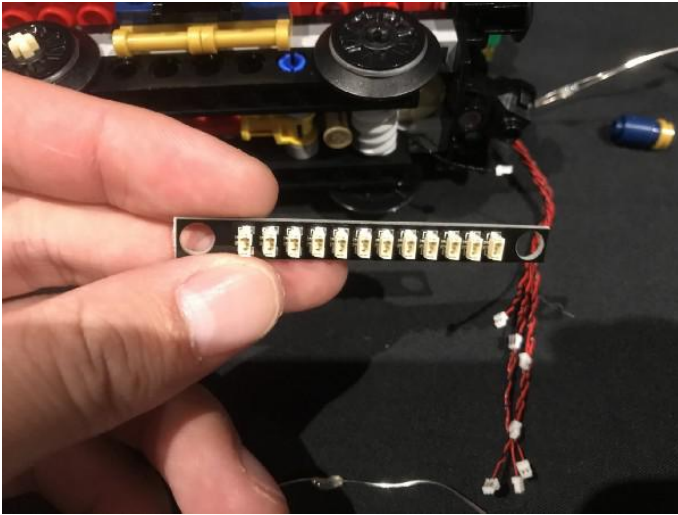


16.) Turn the carriage over again and then slightly remove the left side of the wheel section. Locate the other end of the 30cm connecting cable from the front carriage and then pull it across and thread it through the middle of the carriage. Pull it all the way out from the other side and then reconnect the wheel section back to the carriage to secure the cable in place. Before doing so, ensure the cable is laid in between studs.



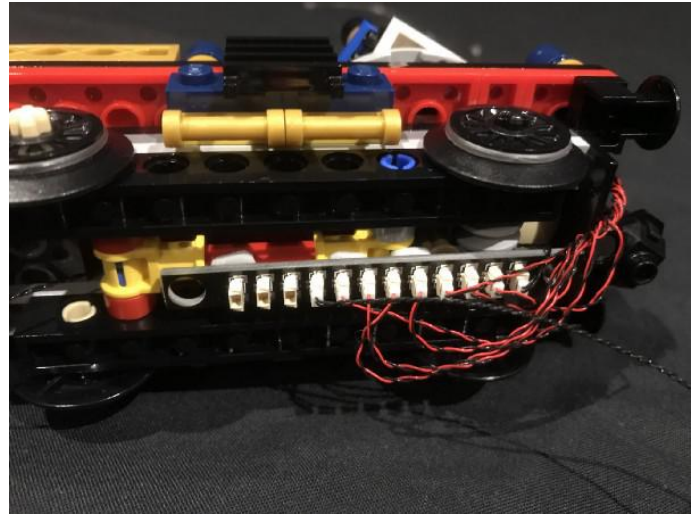
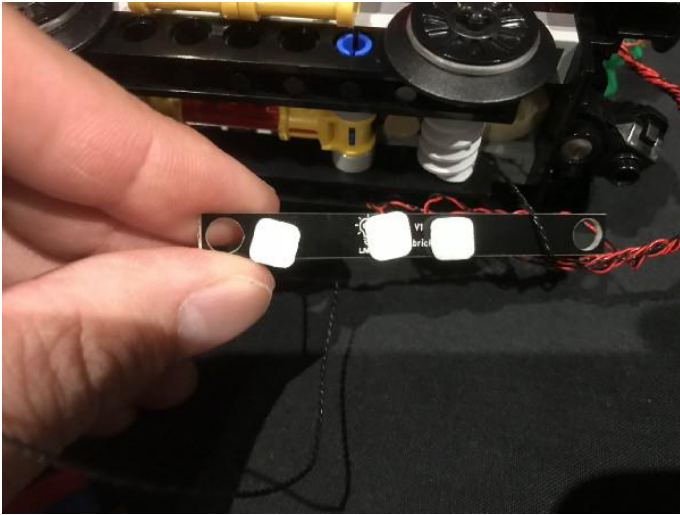


17.) Take a 12-port Expansion Board and connect the 30cm connecting cable to the first port (from the right) then connect all the cables from the Christmas tree to the other spare ports.



18.) Take a 15cm Connecting Cable and connect it to the next available port along the expansion board then mount the expansion board underneath the carriage in the below position using 4x Adhesive Squares. Neatly tuck in all the cables by pushing them up to prevent them from hanging down and dragging along the tracks. Turn the carriage back over and connect it to the second carriage.

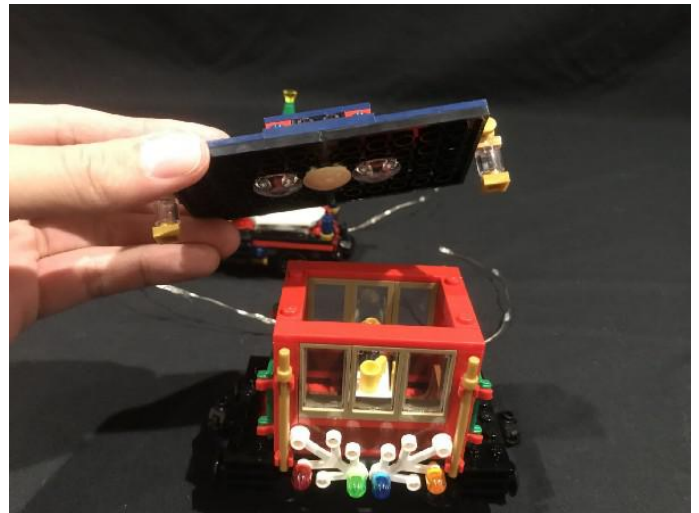




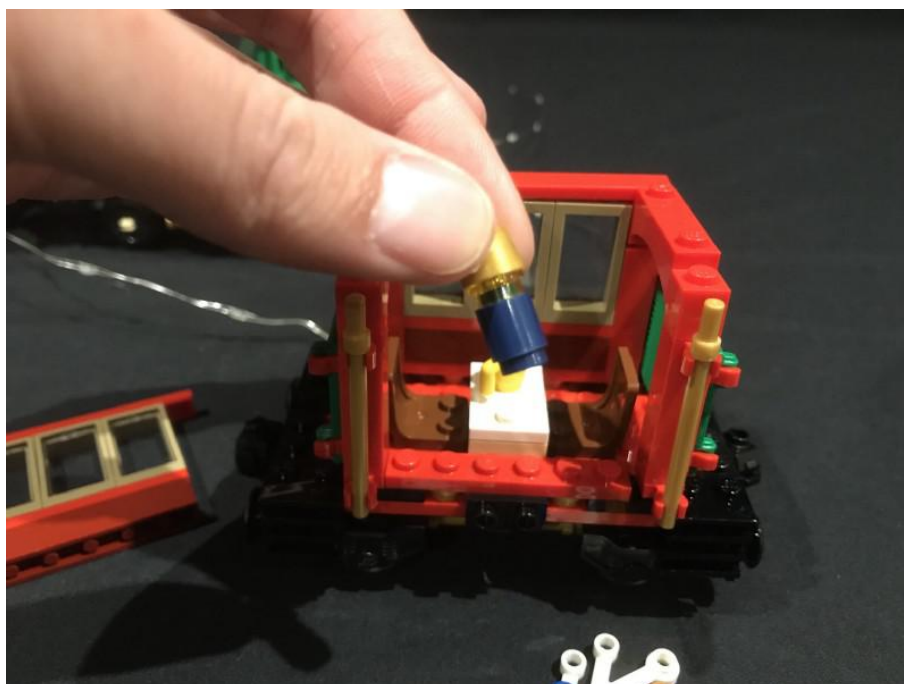
Turn on your battery pack and test to ensure all the lights currently connected are working OK



19.) Take the last carriage and remove the roof as well as side window sections as per below



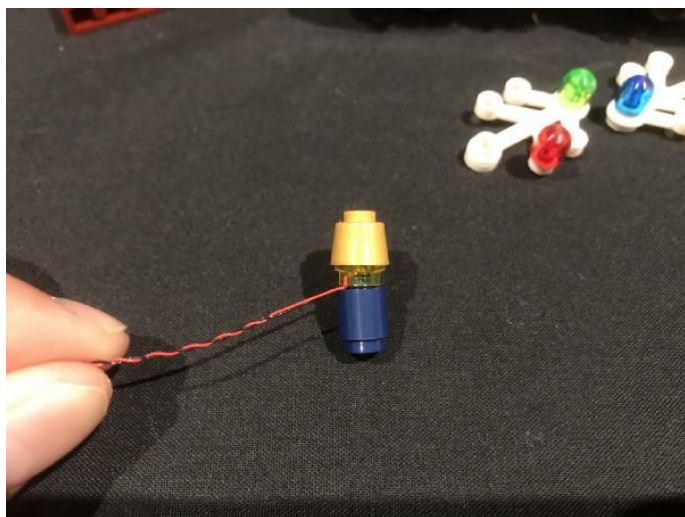
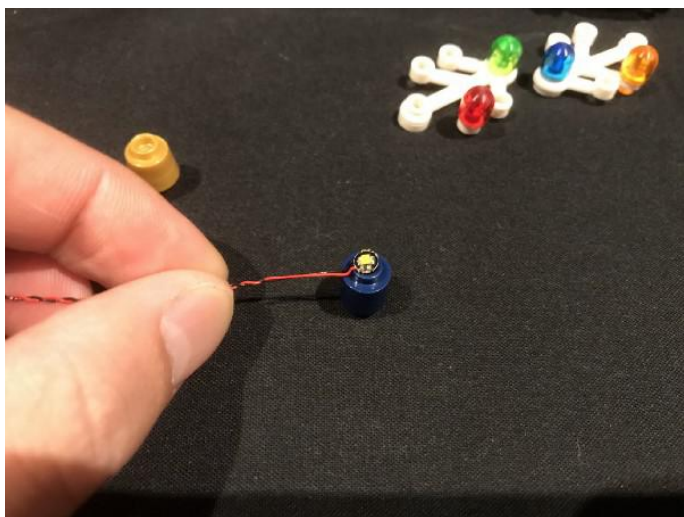
20. ) Remove the lamp and then disassemble it as per below





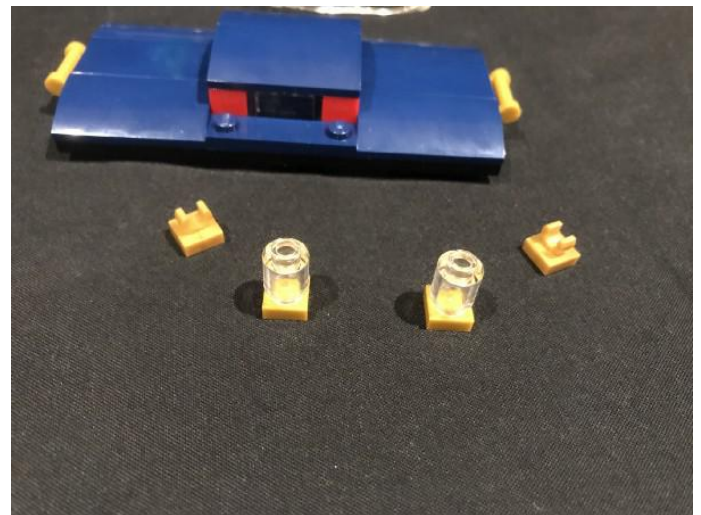
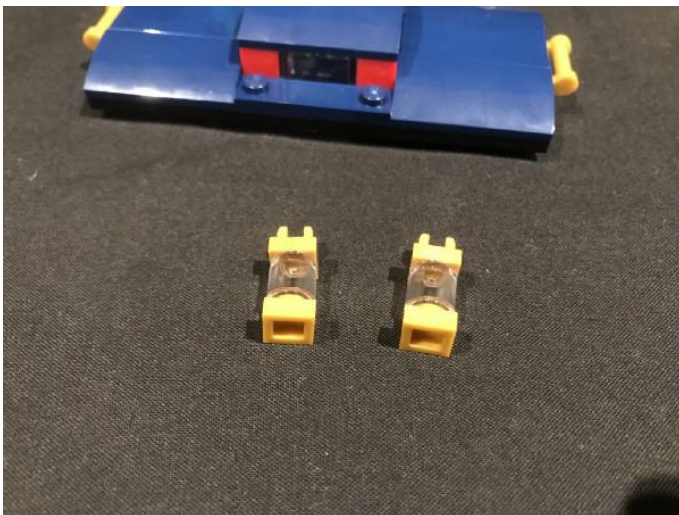
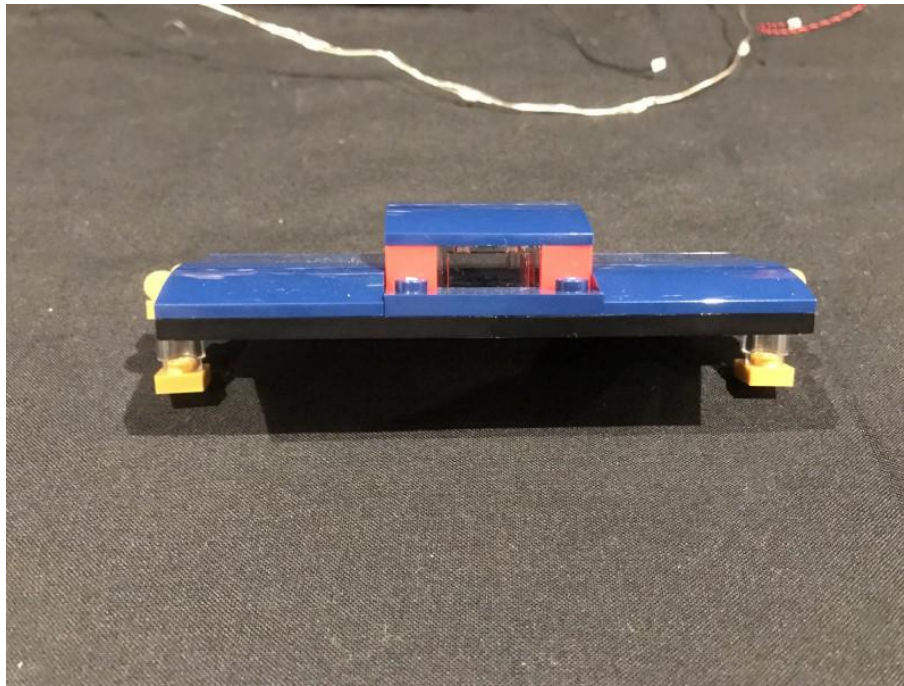


Take a White 15cm Dot Light and place it directly over the blue stud. Reconnect the top section of the lamp to secure it in place and then reconnect the lamp to the inside of the carriage as well as the side window sections.

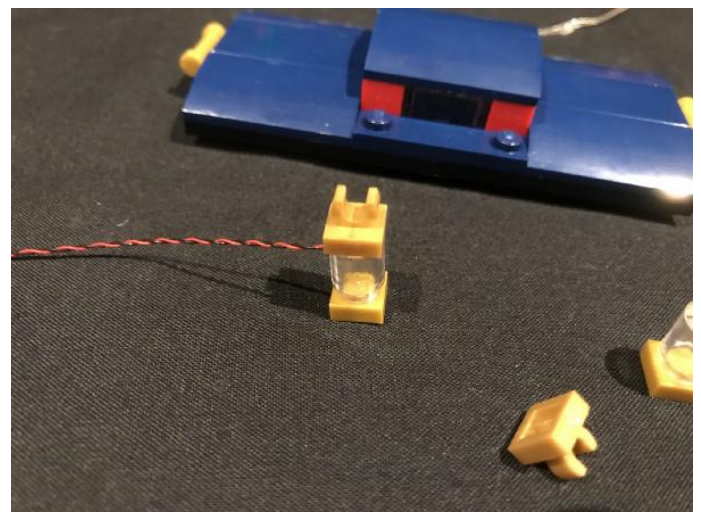
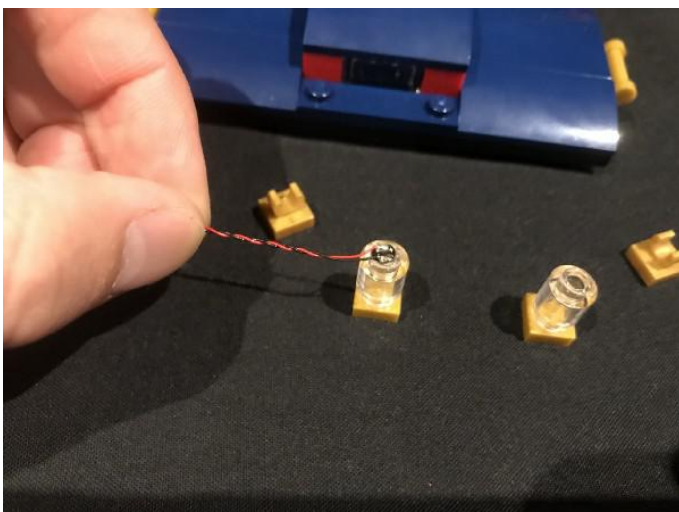


21.) Remove the two lamps from the roof and then disassemble pieces as per below

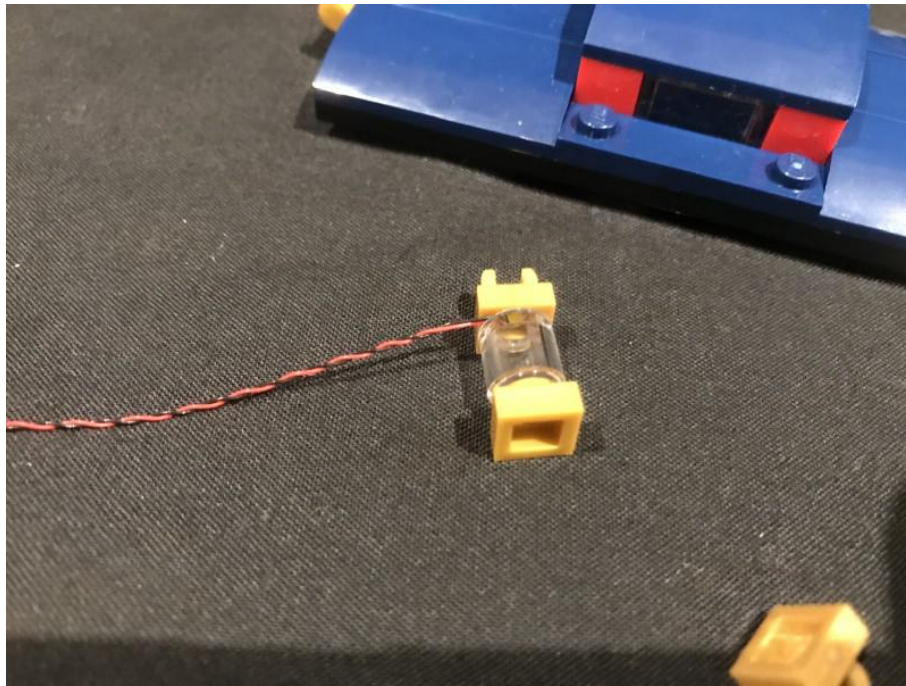




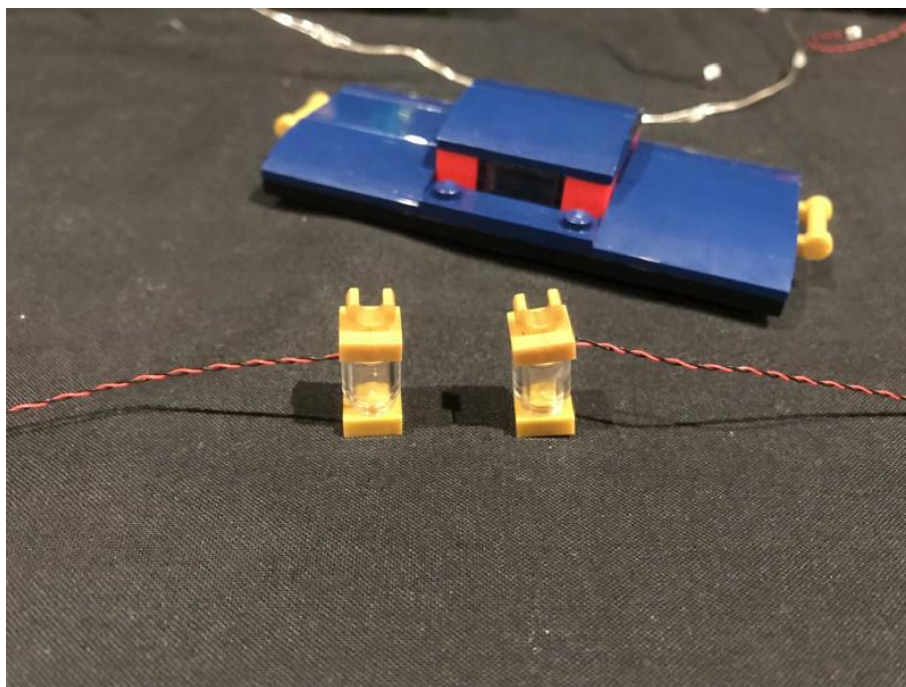
Take a White 15cm Dot Light and then place it (Facing down) directly over the trans clear round brick. Ensure the Dot Light is facing down before reconnecting the top plate with clip on top to secure it in place.



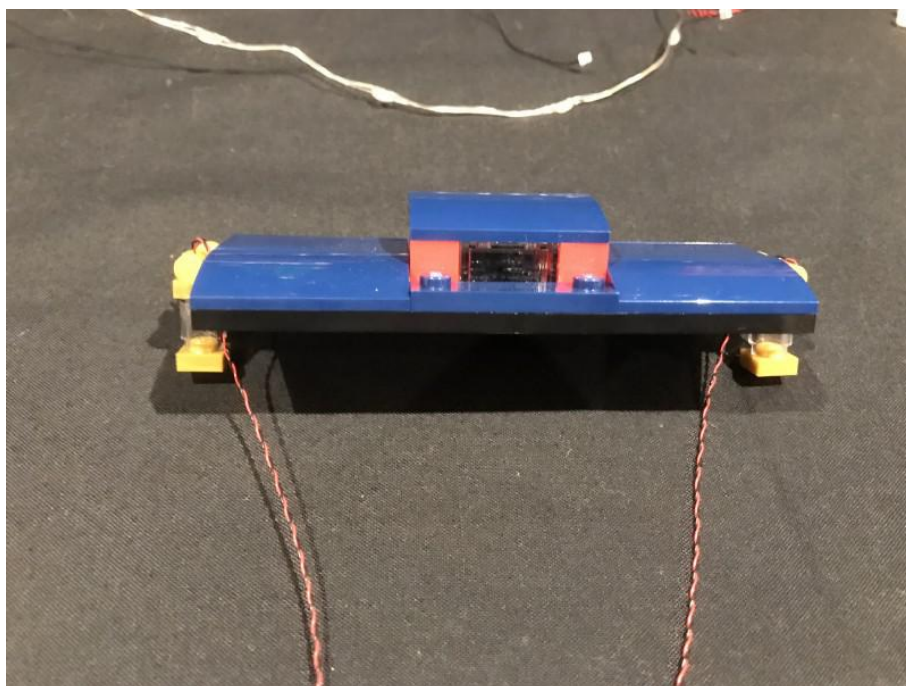
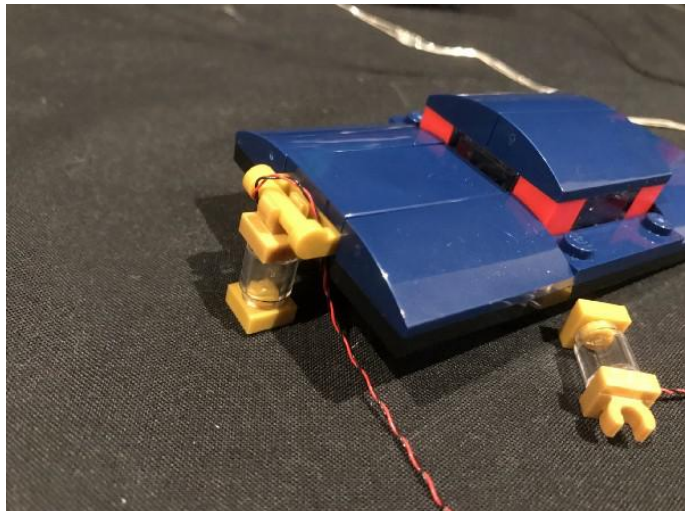
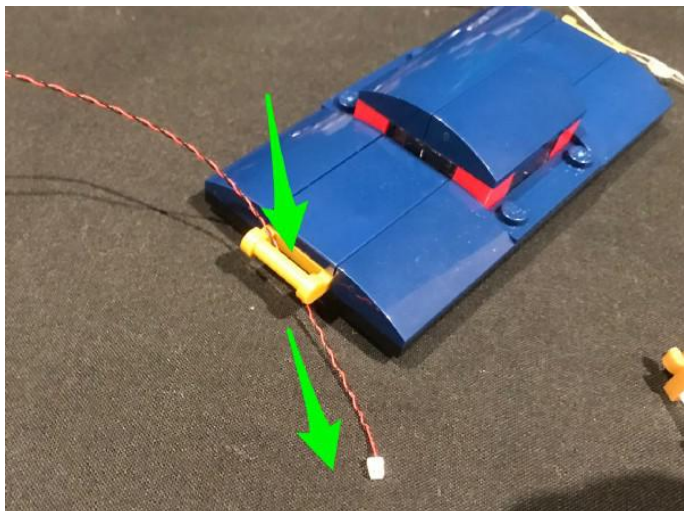




Repeat this step to install another White 15cm Dot Light to the other roof lamp ensuring the Dot Light is facing down over the trans clear round brick.

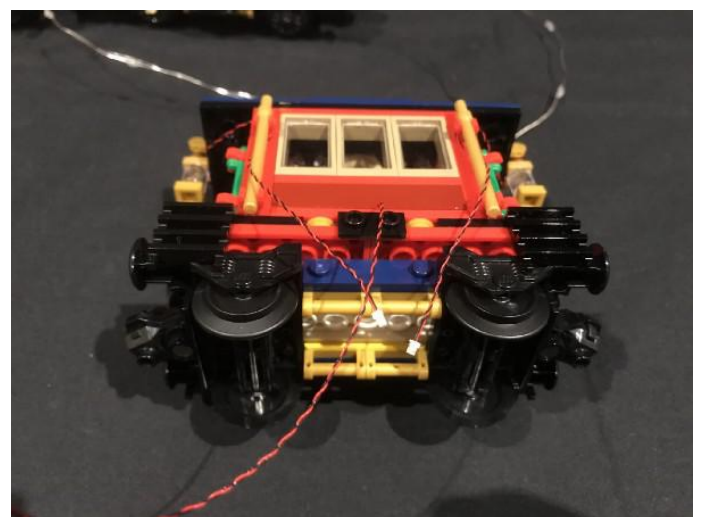
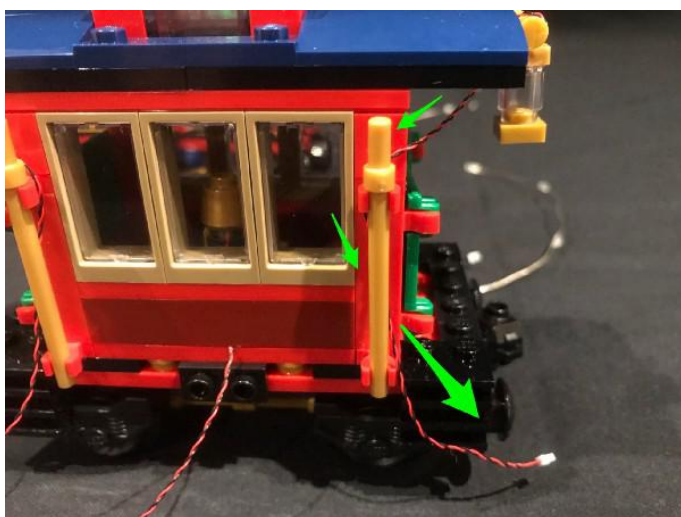
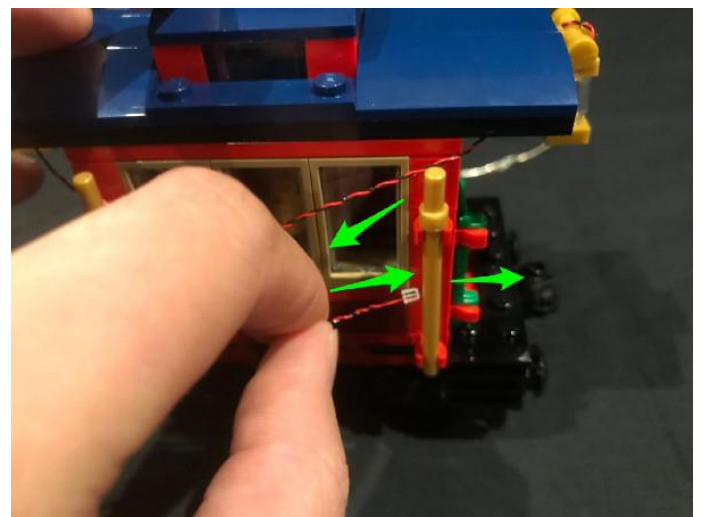
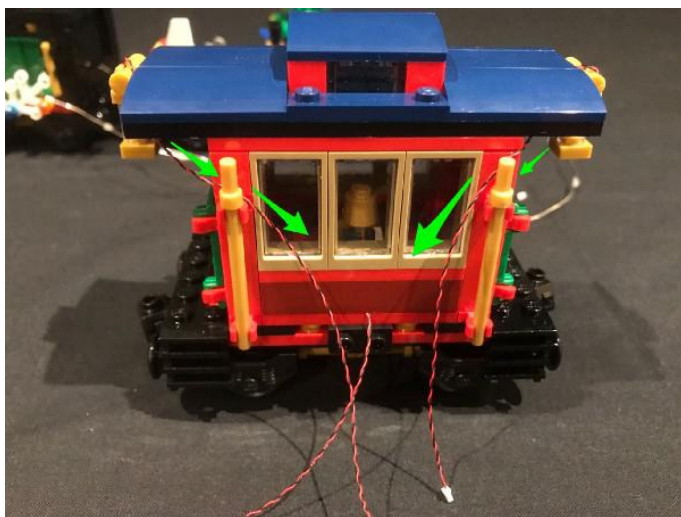
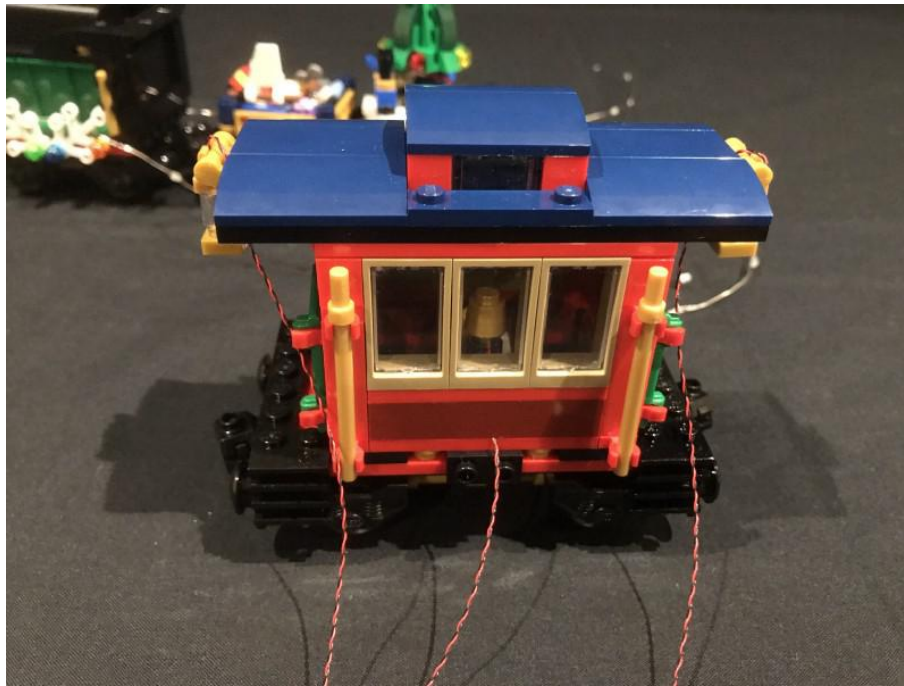


22.) Thread the cable for each light through the top of the roof in between gold bar and side of the roof. Pull the cable all the way down from underneath before reconnecting the lamp back in place to each side.

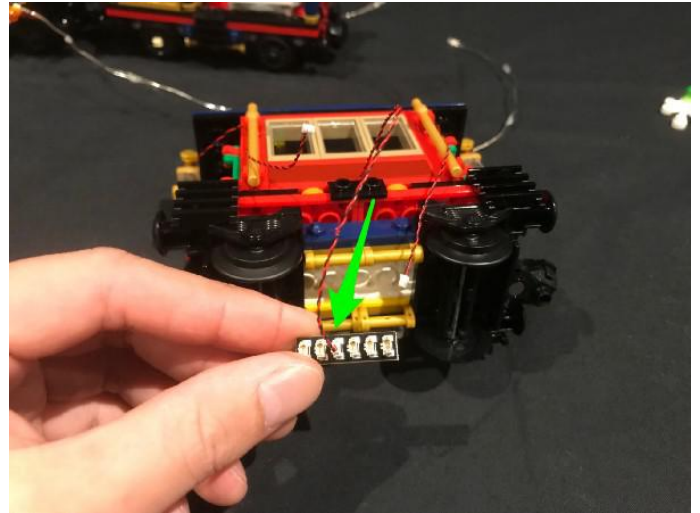
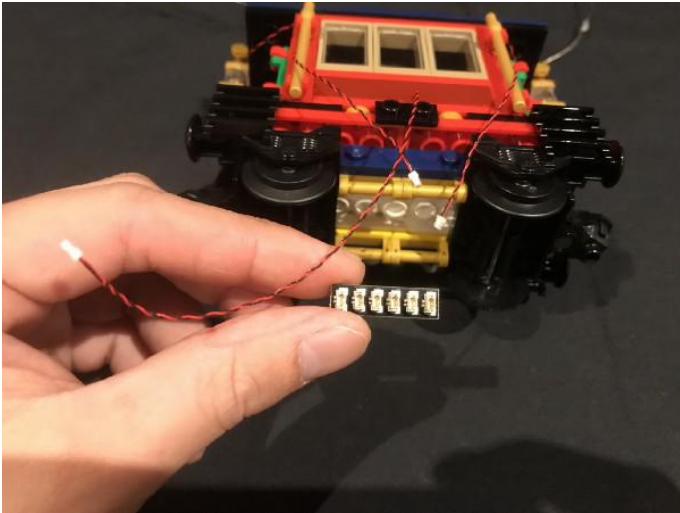


23.) Reconnect the roof to the carriage then pull each roof lamp cable down behind the gold bars and then thread them back through to the outside as per below

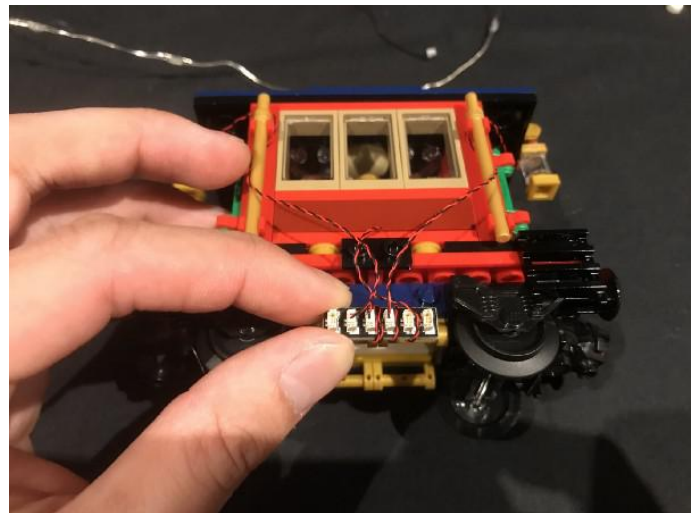
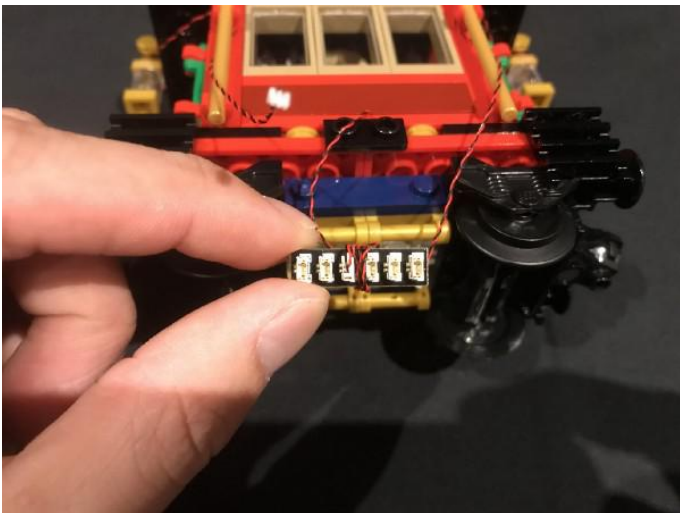




24.) Turn the carriage over and then connect the lamp cable from the inside of the carriage to one of the middle ports of the 6-port Expansion Board.



Wind the cable around the expansion board a few times to eliminate excess cable. When the board is roughly at the same length of the remaining two cables, connect them to the expansion board.

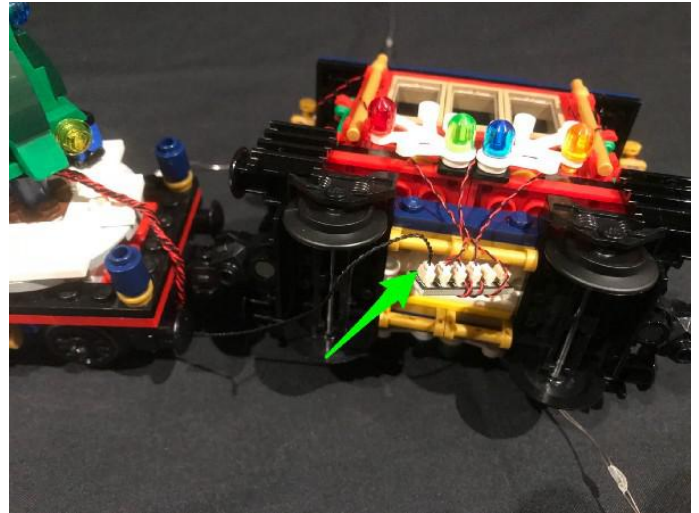
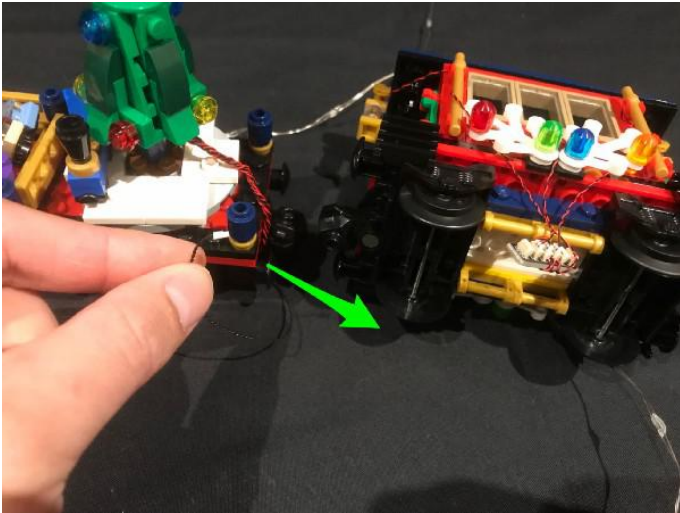


Reconnect the white LEGO pieces ensuring the cables from the lights are laid neatly behind.

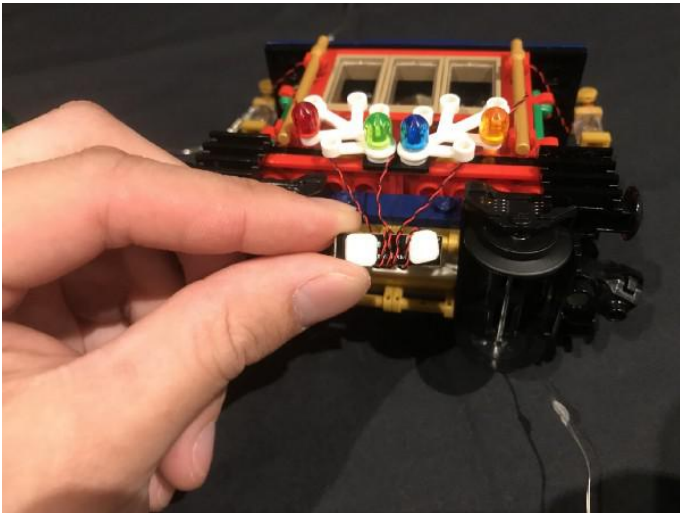




25.) Take the 15cm Connecting cable from the carriage in front and connect this to a spare port on the 6-port expansion board.



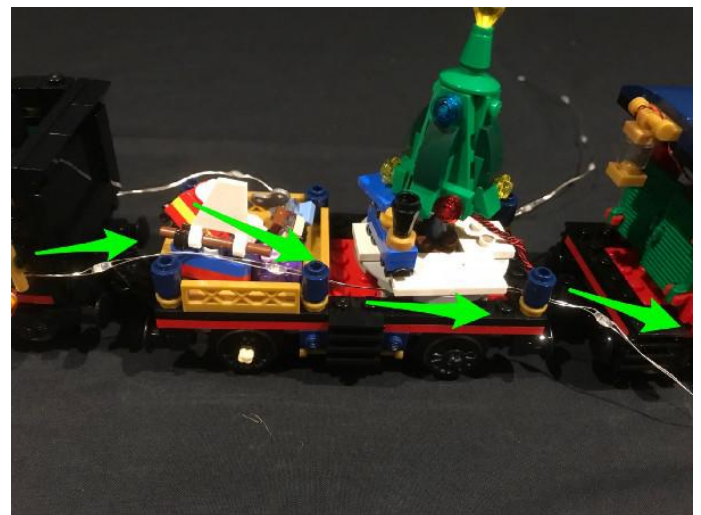
Use 2x Adhesive Squares to mount the expansion board underneath the back carriage in the below position



Turn the carriage over and then connect it to the rest of the train.

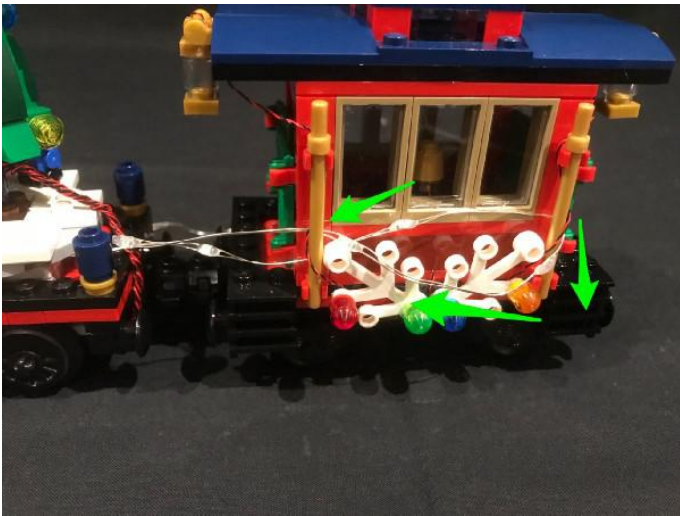
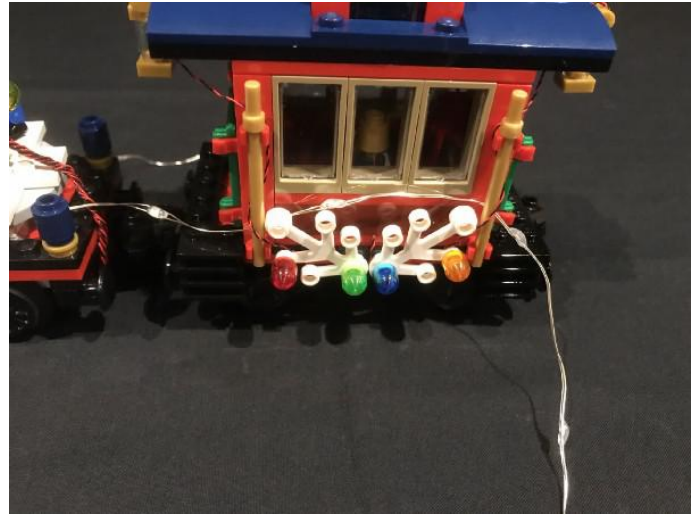
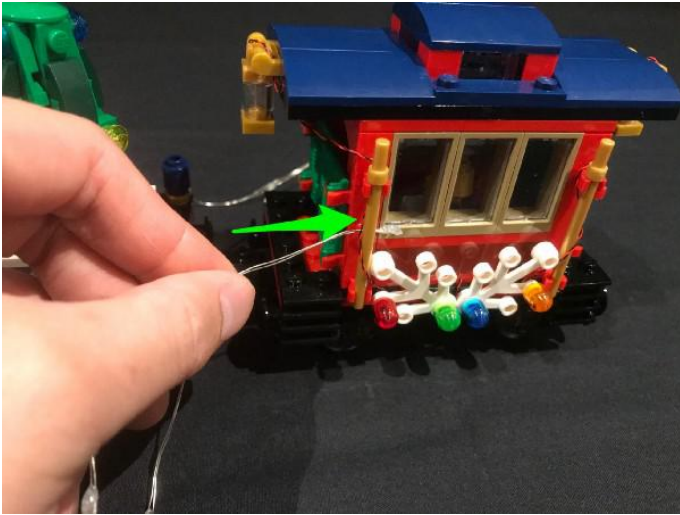


26.) Follow the below images to thread the remaining length of the two multi colour light strings along each side of the carriage.



Loop each light string behind the gold bars on the back carriage and then pull each string to the back before threading them back through to the front of the carriage. Thread and secure each light string around sections of the carriage as you see fit.





This finally completes installation of the Winter Holiday Train Light Kit. Now turn on your light kit via your battery pack or power functions and ENJOY!