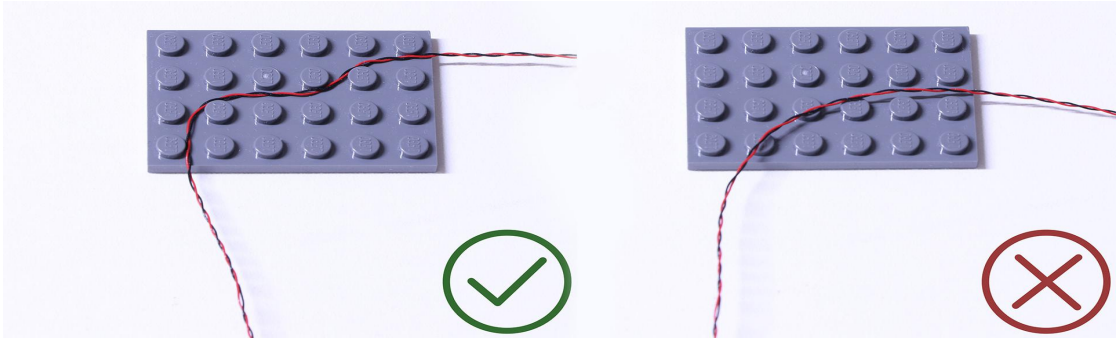
GHOSTBUSTERS ECTO 1 & 2 #75828

Package contents:

- 5x Dot Lights (with 30cm cable)
- 2x Dot Lights (with 15cm cable)
- 4x Flashing Dot Lights (with 30cm cable)
- 1x 12-port Expansion Board
- 1x Flat Battery Pack (2x CR2032 batteries included)

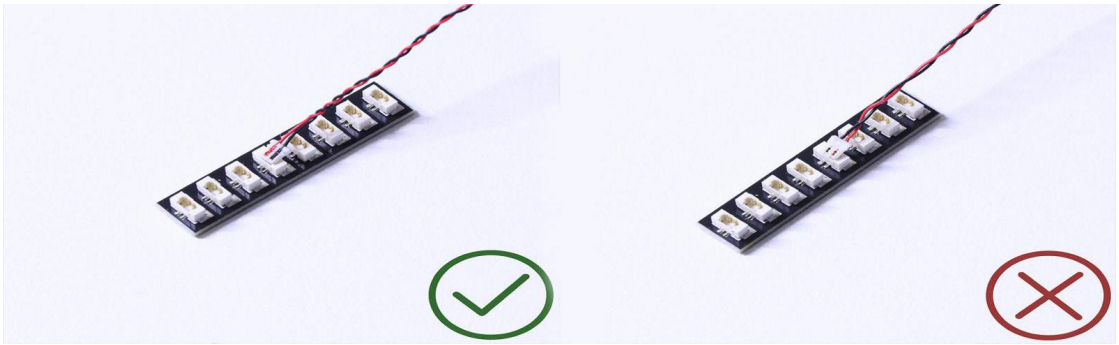
Note:

Place wires on the surface or under the LEGO building blocks.
The wire can be place between the building blocks or under the block, but they should be placed between the studs correctly.

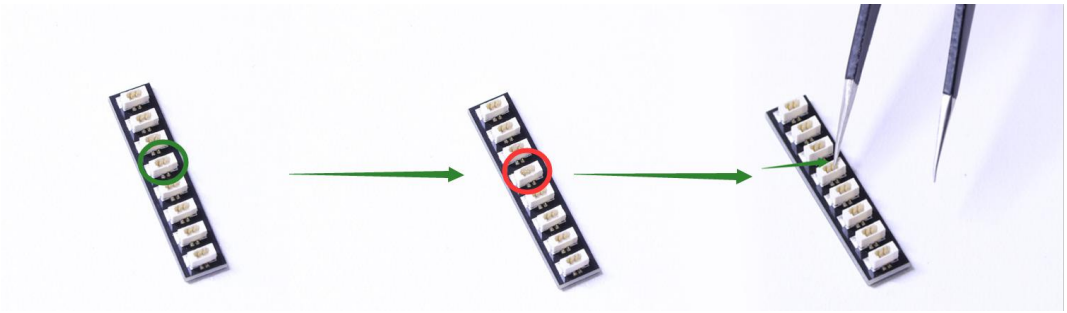


Insert the connectors to the ports.

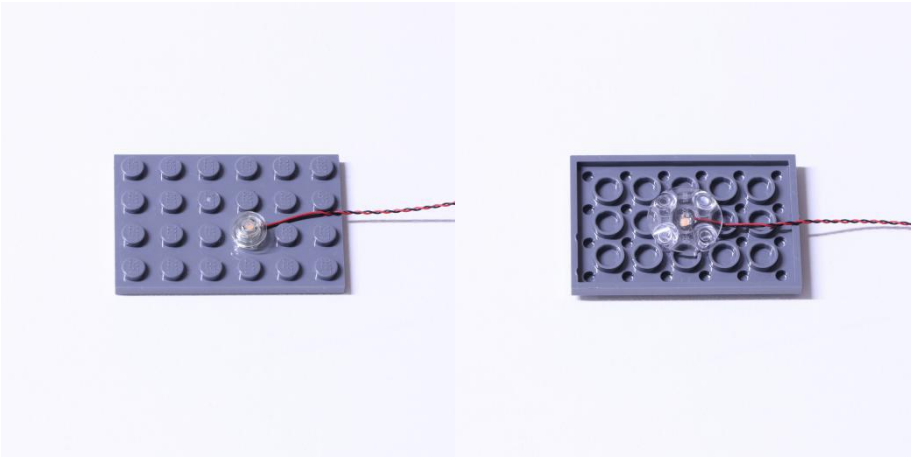
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and if you feel hard to insert, please stop, 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.

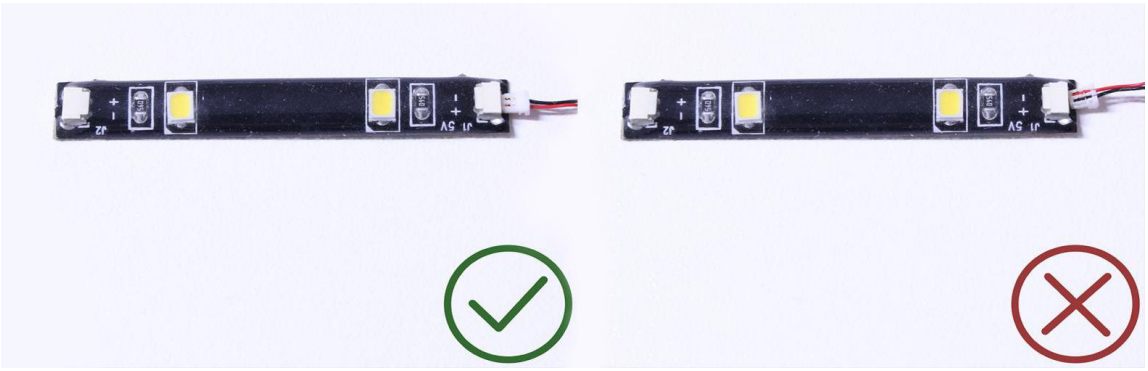


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put they either on the top of the studs or between studs.

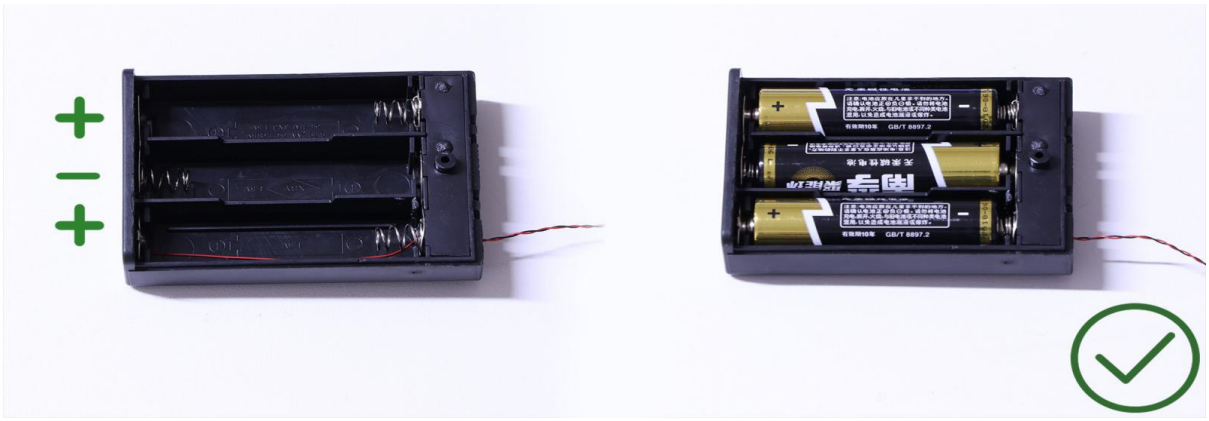


Connecting cable connectors to Strip Lights

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.



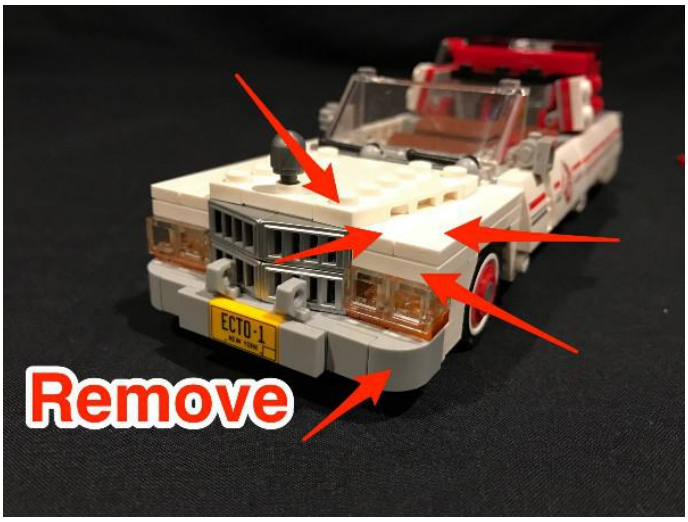
Finally, please pay attention to the positive and negative terminals of the battery when installing the battery case.

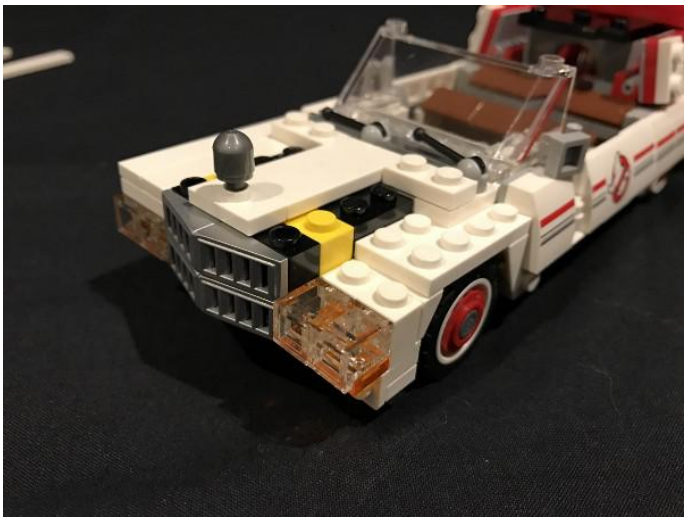


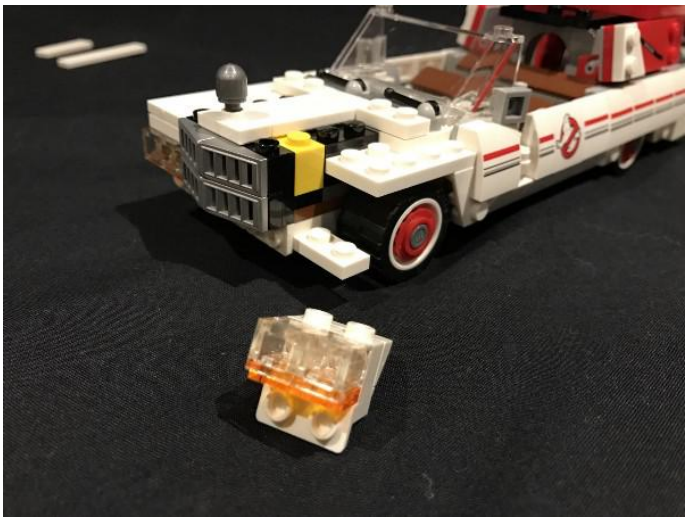
OK, Let’s Begin!

Instructions for installing this kit

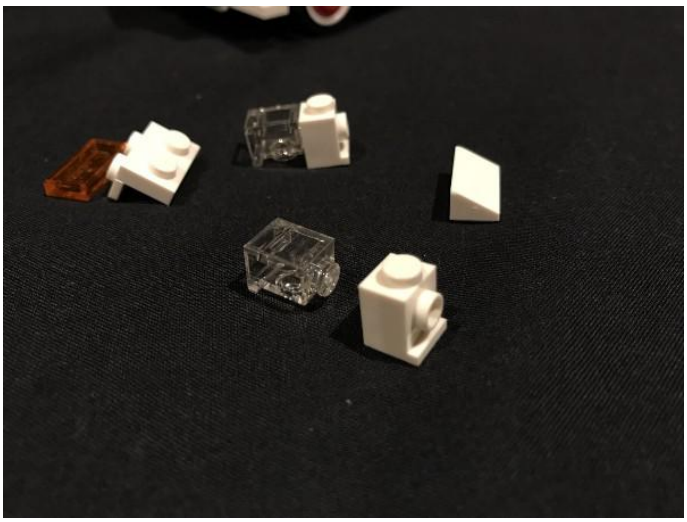
1.) We will start with installing headlights to Ecto-1. Start by removing the following pieces to allow us to then remove one of the headlight sections as per below.

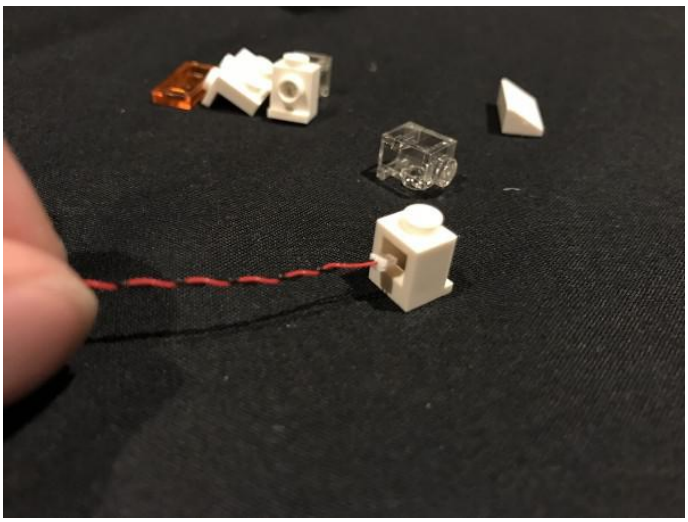


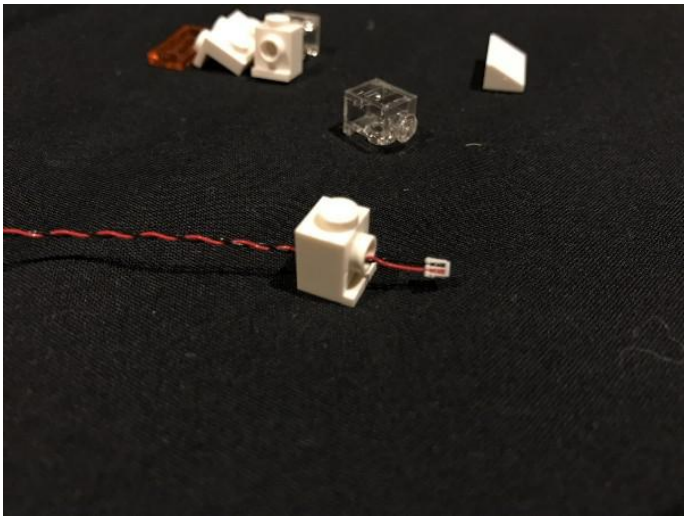


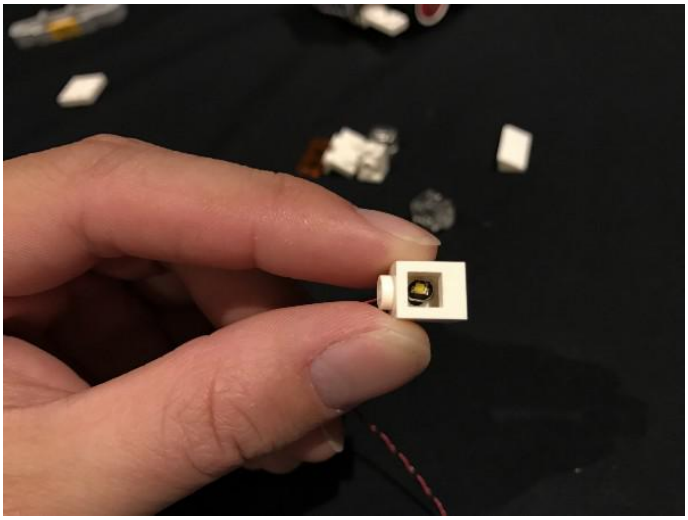


2.) Disassemble the headlight piece and then take one dot light with 30cm cable and thread the connector side of the cable through the back of the white 1x1 brick with hole. Pull it all the way through from the front side of the brick until the LED component is sitting nicely in the inside of the brick. Ensure the LED component is facing the correct way.

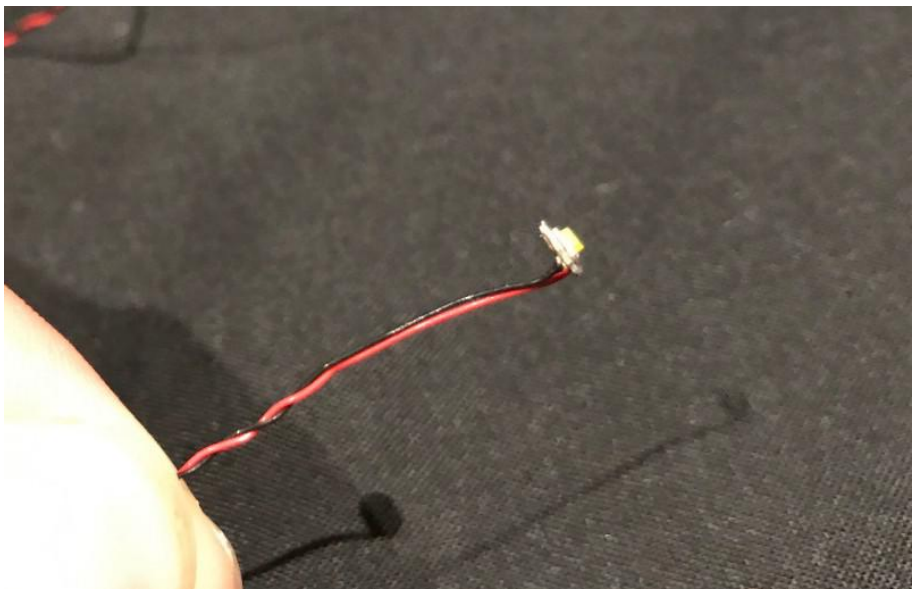




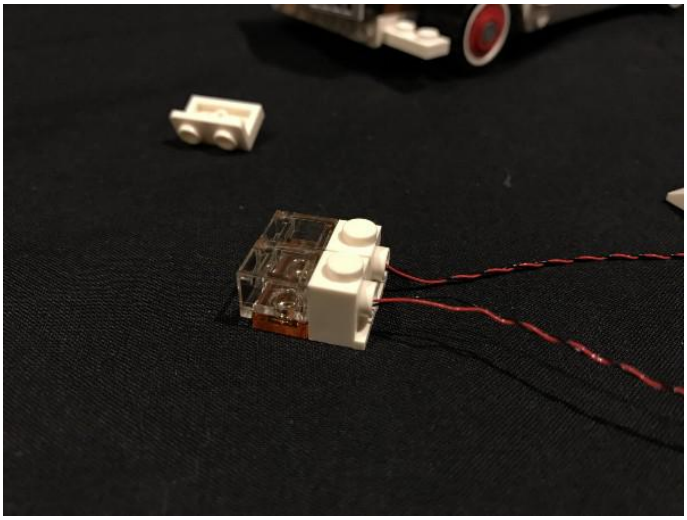


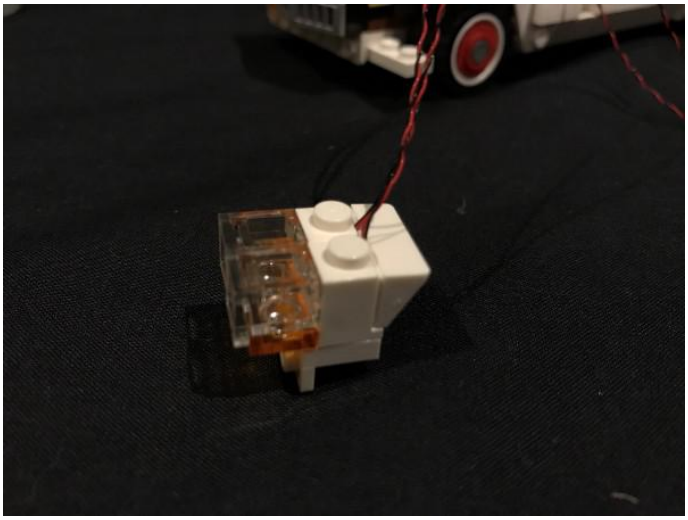


You may need to bend the cable down on a 90 degree angle to ensure the LED component will face forward correctly



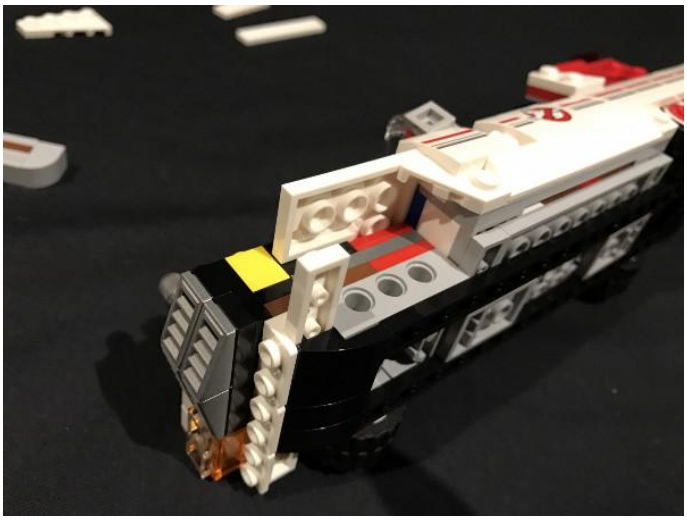
3.) Repeat this process to install the second dot light to this headlight section. Then reconnect the surrounding pieces of the headlight ensuring the cables for the dot lights are facing up in between the white triangular brick and 2 white bricks as per below.

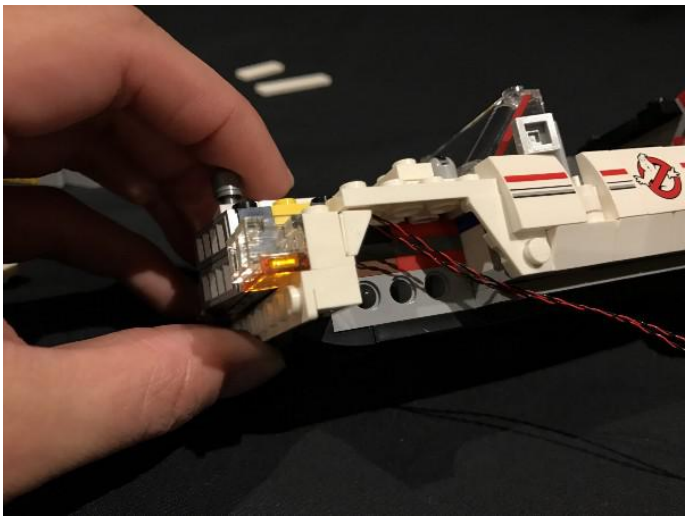




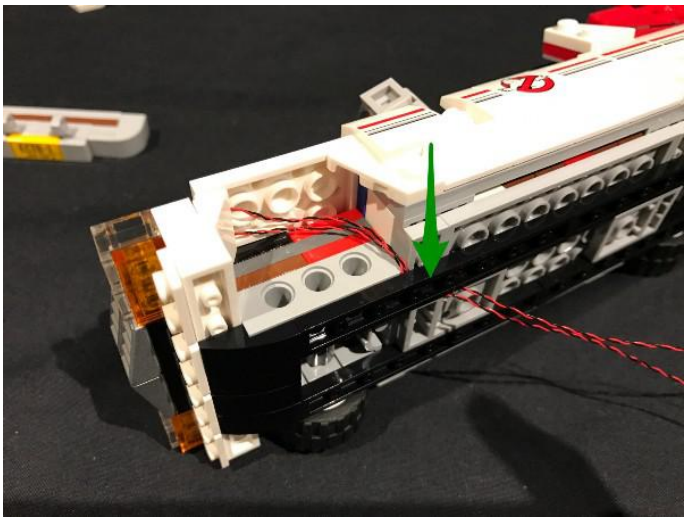
4.) Before we can reconnect the headlight section back, remove the wheel from the same side then

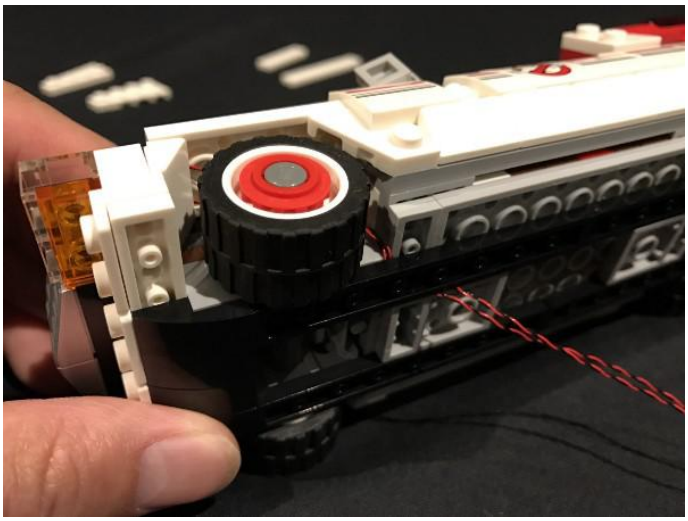
reconnect the headlight with installed lights ensuring the cables are facing toward the inside of the car.





Pull the cables toward the back and then down toward the middle, underneath the car. Secure the cables down by connecting them under the black LEGO 1x8 plate, then reconnect the whee

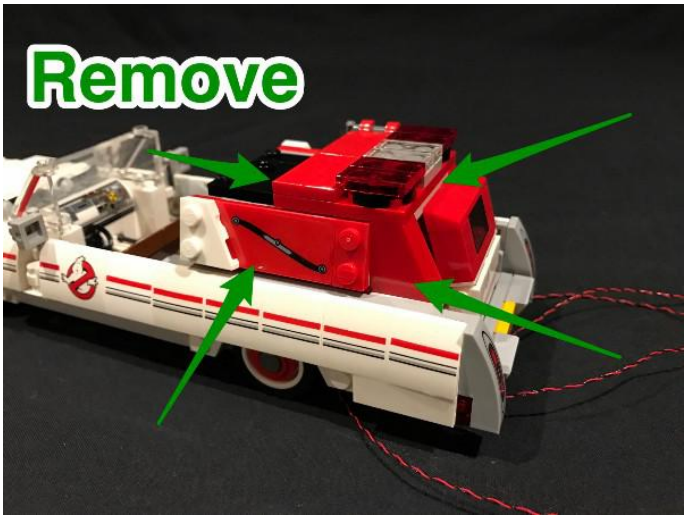


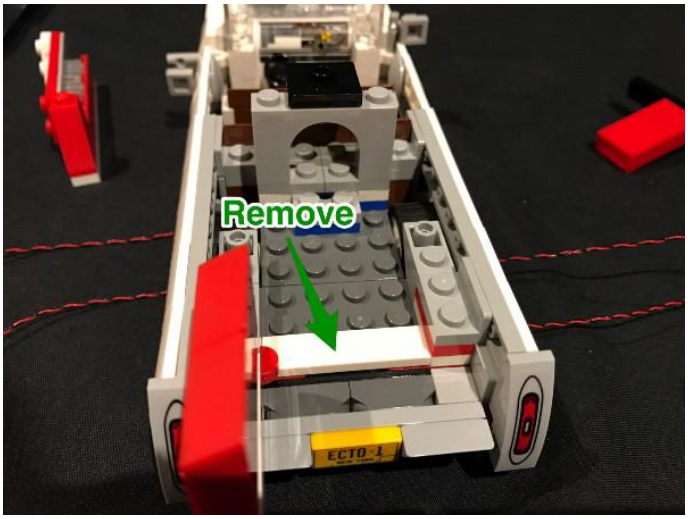


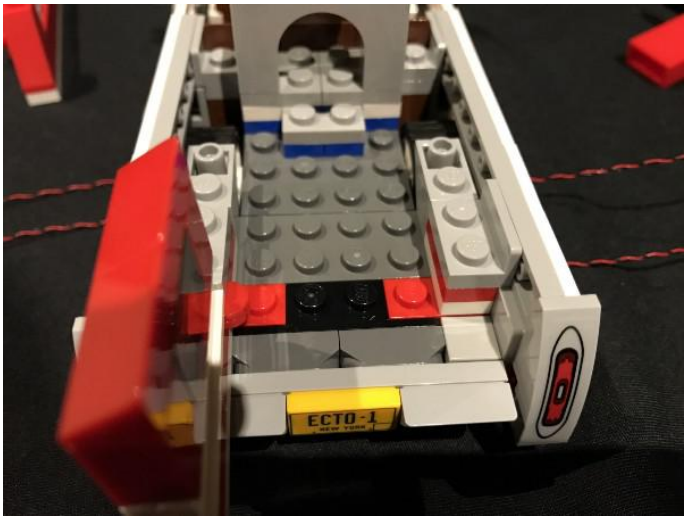
5.) Repeat previous steps to install another 2 dot lights (with 30cm cable) to the headlight section on the left of the car.

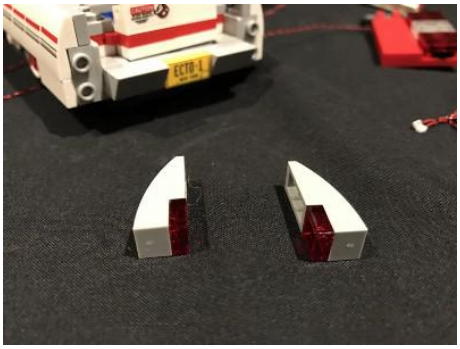
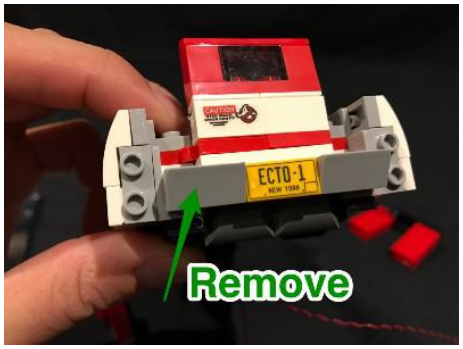
Once you have both headlight sections installed, reconnect the LEGO pieces surrounding the bonnet of the car.

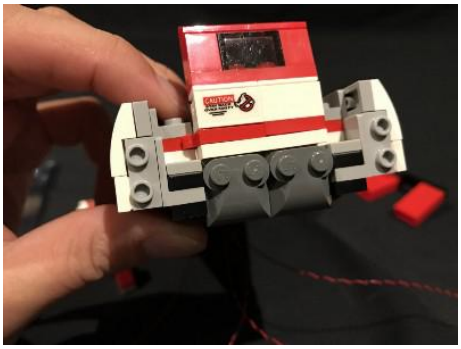
6.) We will now install lights to the tail lights. Start by removing the following pieces toward the back of the car, then remove the two sections of the tail lights followed by the back bumper with plate attached.



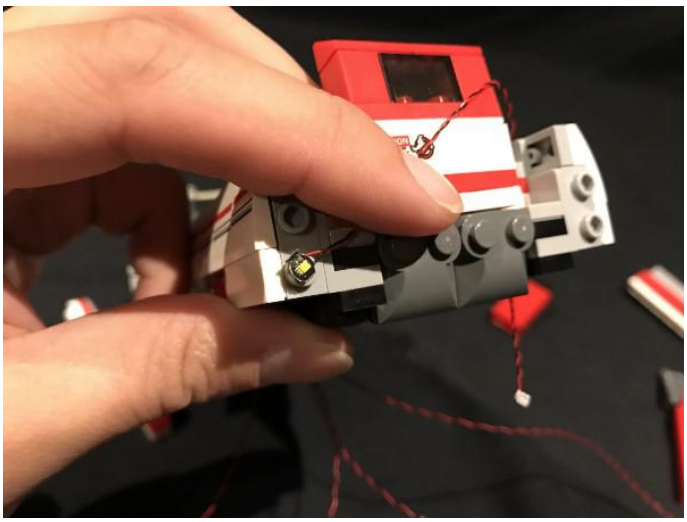
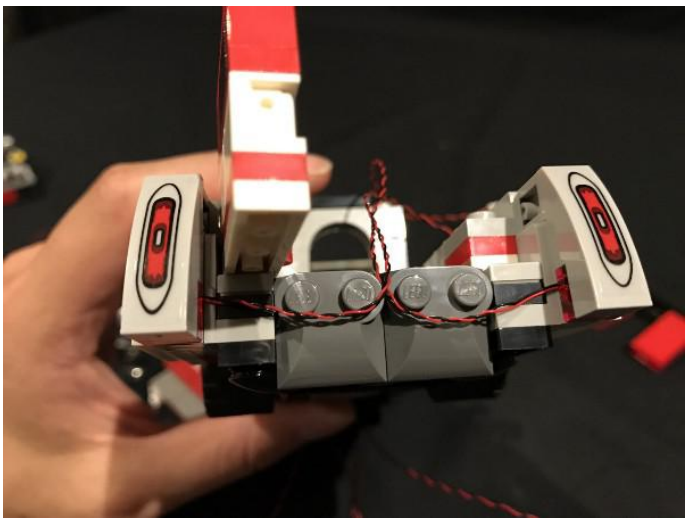




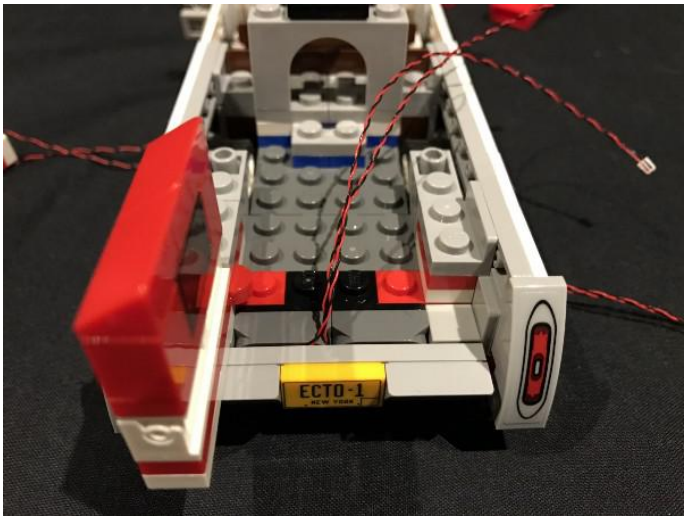
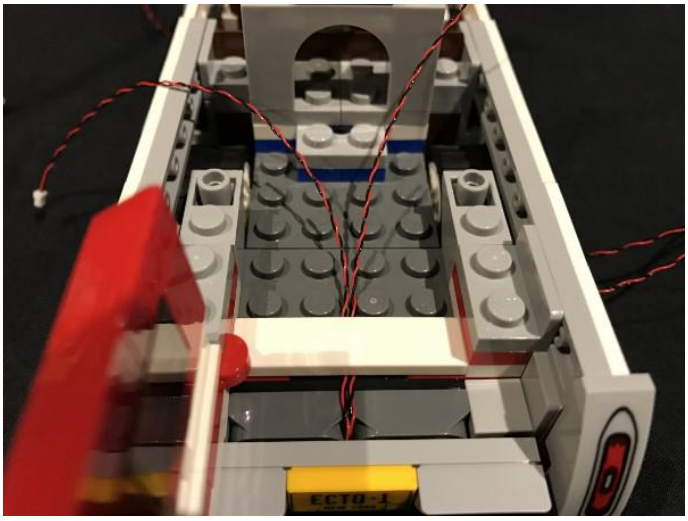





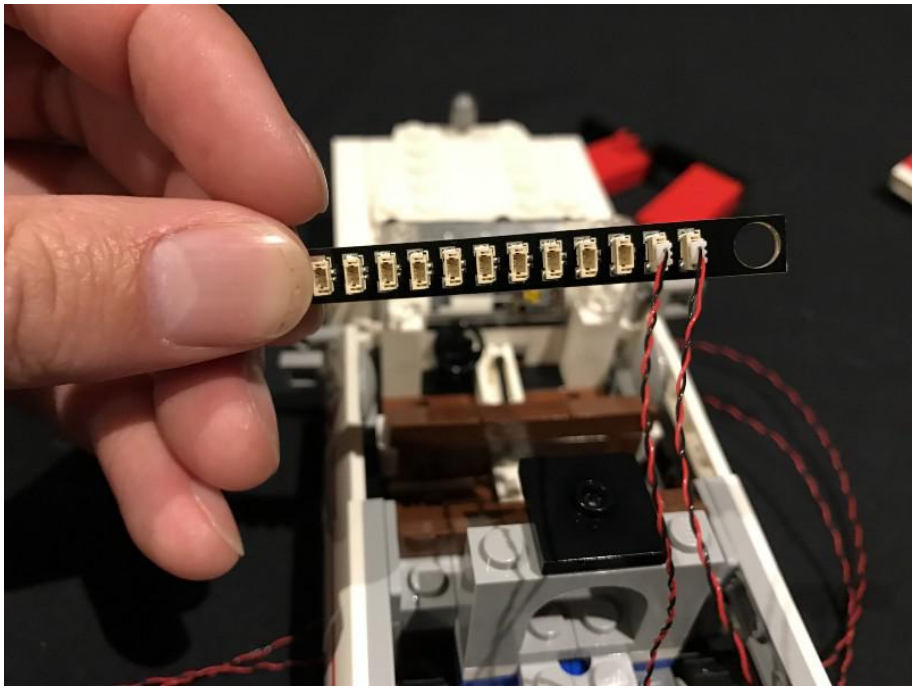
7.) Take one dot light (with 15cm cable) and place it on top of the bottom stud underneath the tail light. Secure it in place by reconnecting the tail light section directly over the top ensuring the cable is facing the inside of the car and LED component is facing the correct way up. Repeat this process for the other tail light and once complete, lay the 2 cables underneath the studs and then up the middle into the back of the car.

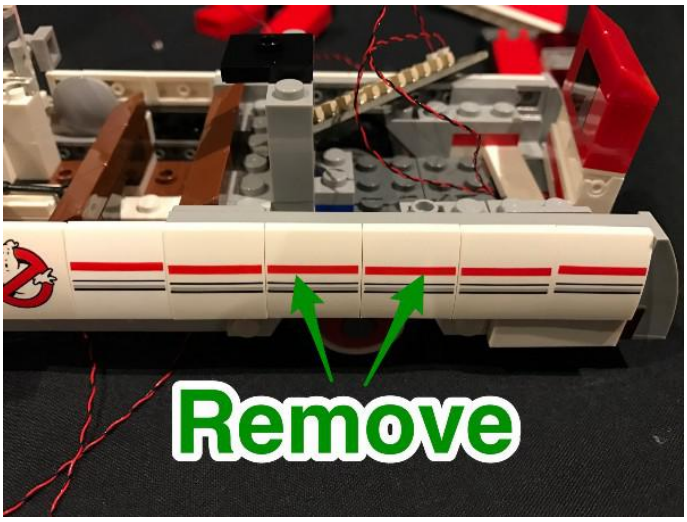
8.) Secure the cables in place by reconnecting the back bumper and flat white plate ensuring the cables are laid in between studs.

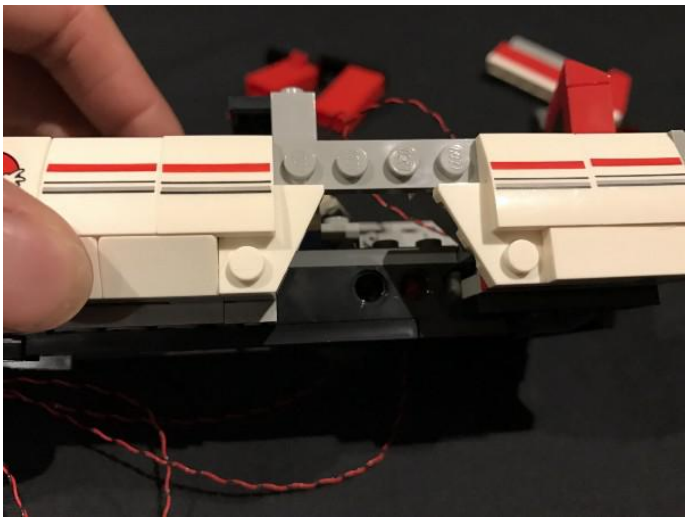



9.) Connect the other ends of the two tail light cables into to first available ports on the 12–port expansion board

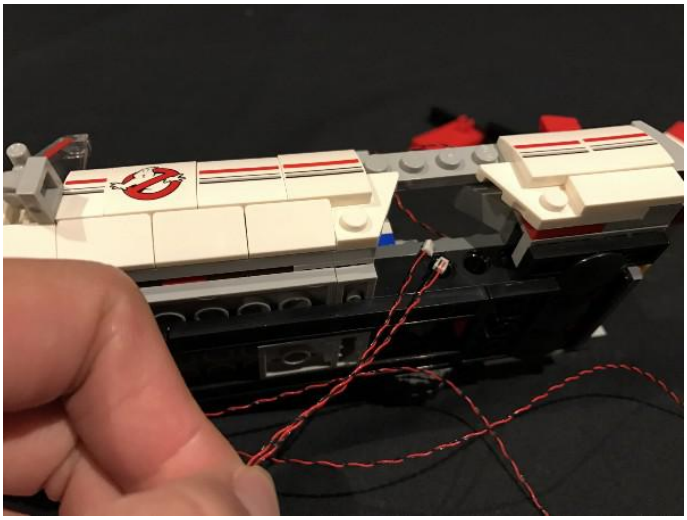
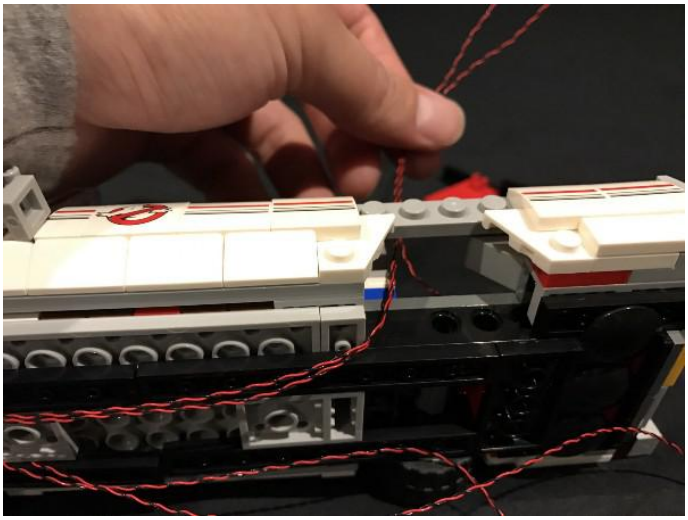
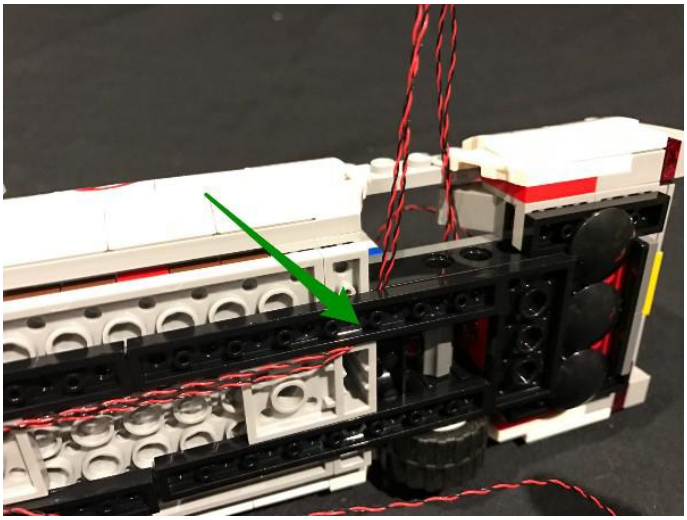


10.) We now need to thread the cables from the headlights toward the back of the car. First remove the following pieces, to allow us to then remove one of the wheels.

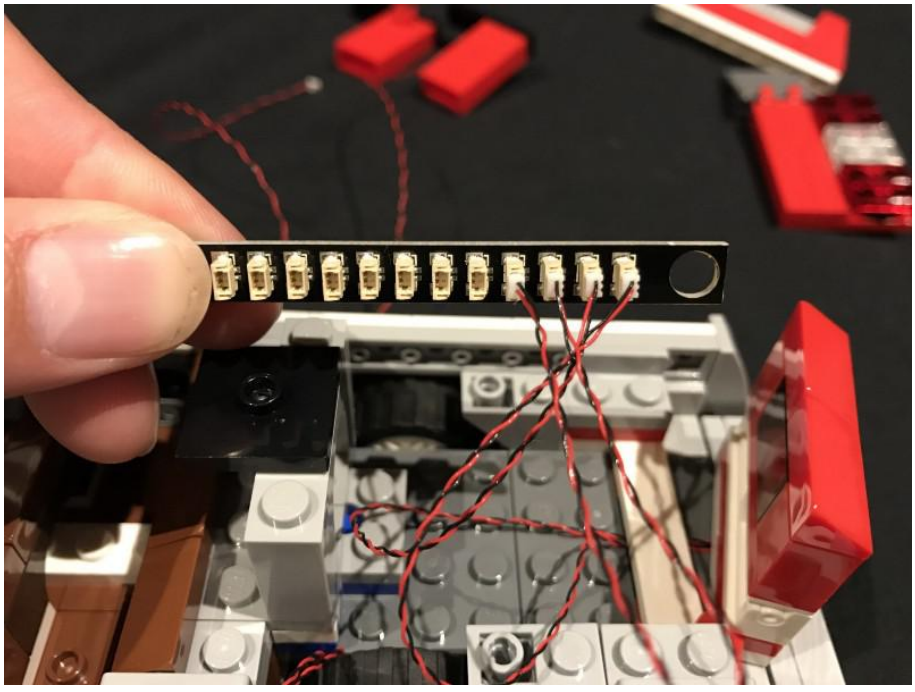




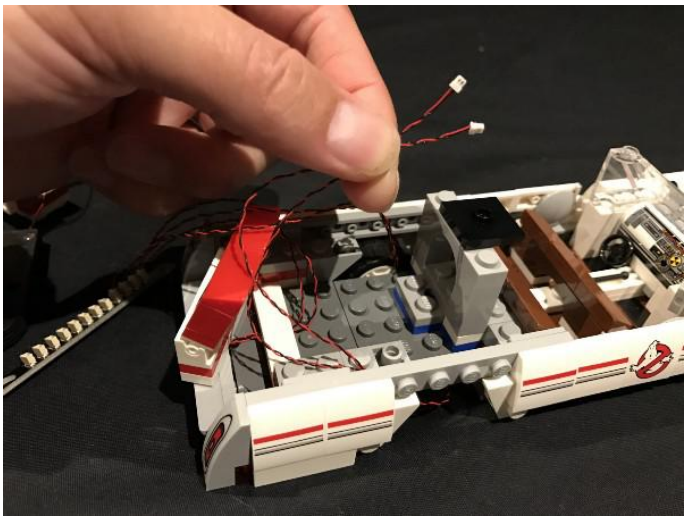
11.) Take the first 2 cables from the right headlight and then thread them up the spacing where we removed the wheel, then secure these cables underneath the black LEGO 1x8 plate as per below. Reconnect the wheel over the top.

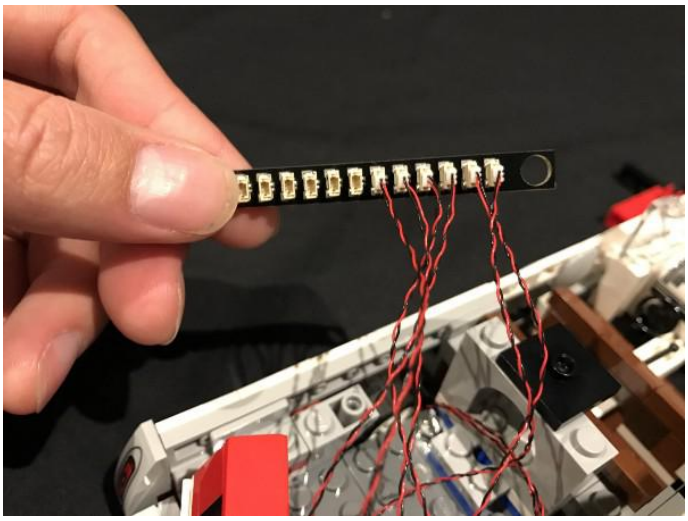





Pull the cables up from the inside of the car and then connect them into the next available ports on the 12-port expansion board

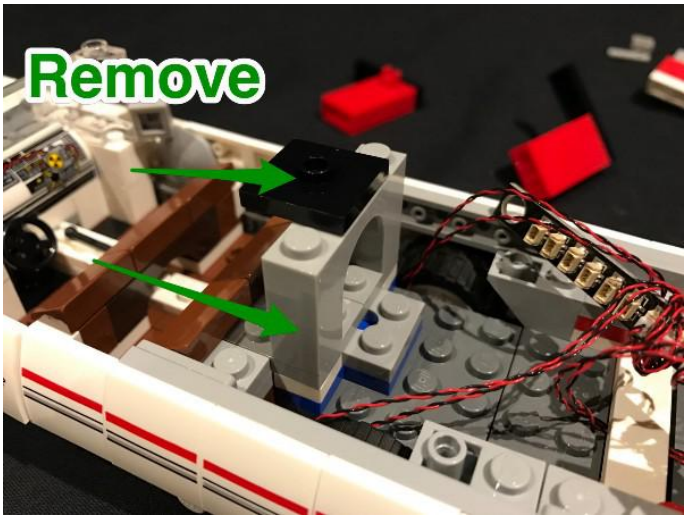


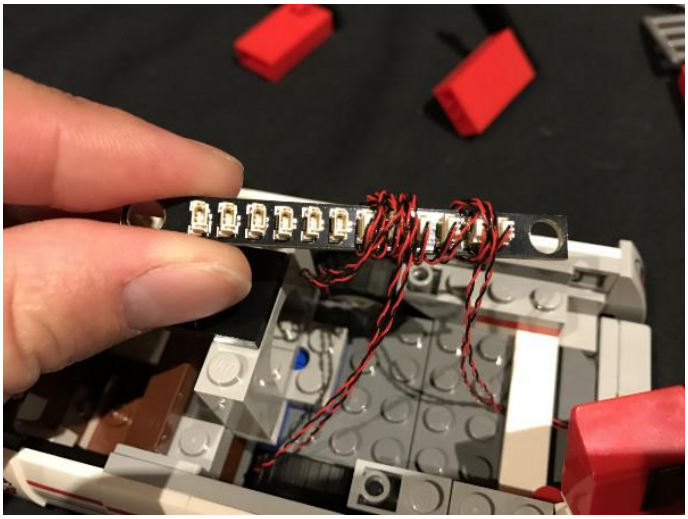
12.) Repeat the same process to thread the 2 light cables from the other side the car up behind the wheel, then secure it like we did underneath the other black LEGO 1x8 plate. Connect these 2 cables into the next available ports on the expansion board.



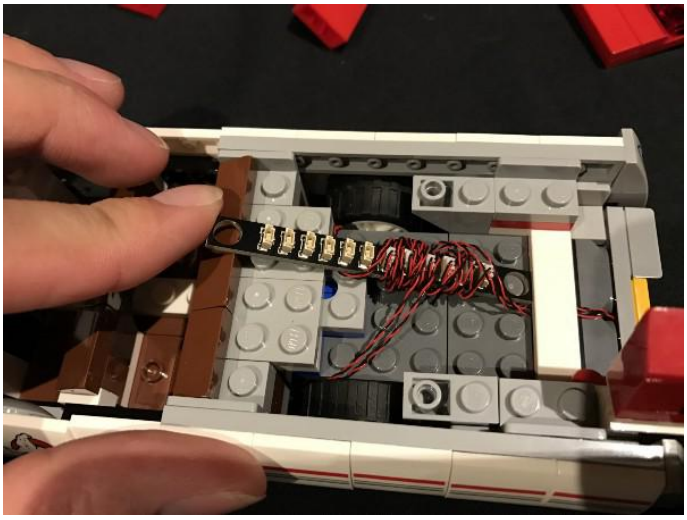


13.) Remove the following pieces from the back of the car and then wind all cables around the expansion board as per below. This will reduce any excess cable we do not require.

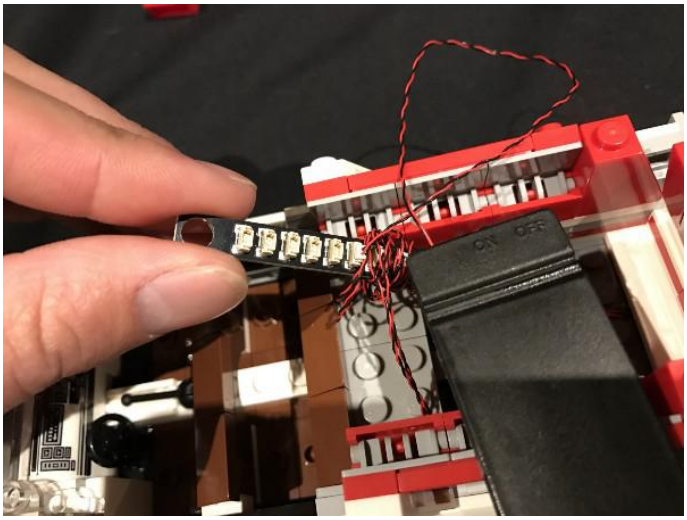


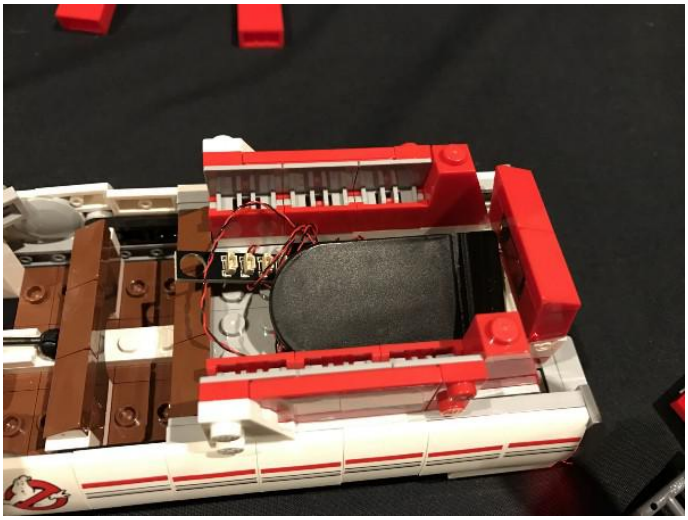


14.) Place the expansion board with wound up cables in the centre of the car and then reconnect the pieces on the side.

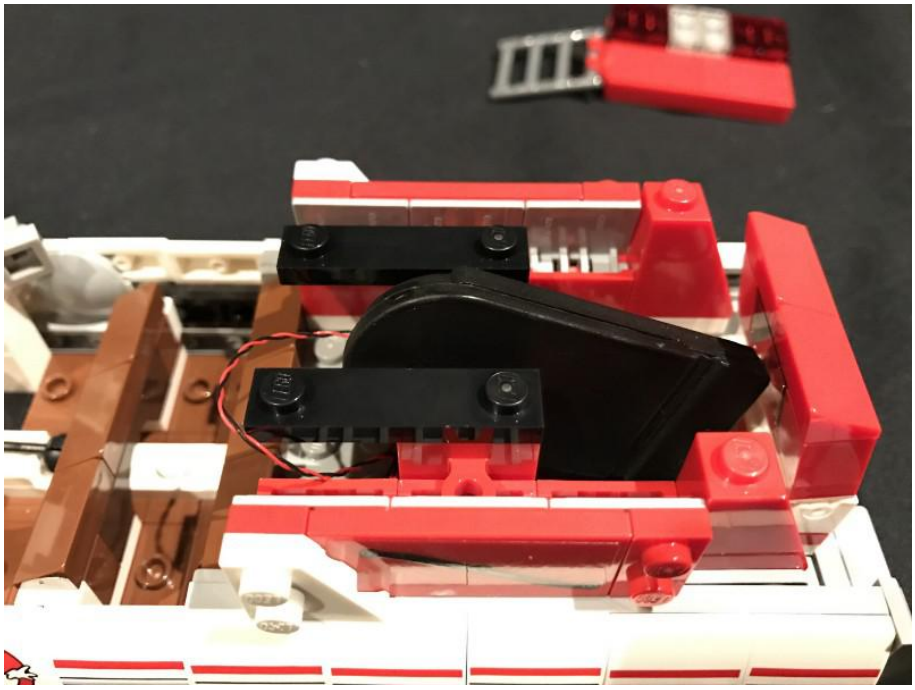


15.) Take the flat battery pack and insert 2x CR2032 batteries to it, then connect the battery pack cable into the next available port on the expansion board. Neatly place the battery pack in the back of the car ensuring that the battery switch is facing the back so that it is easily accessed when we want to turn on this light kit.

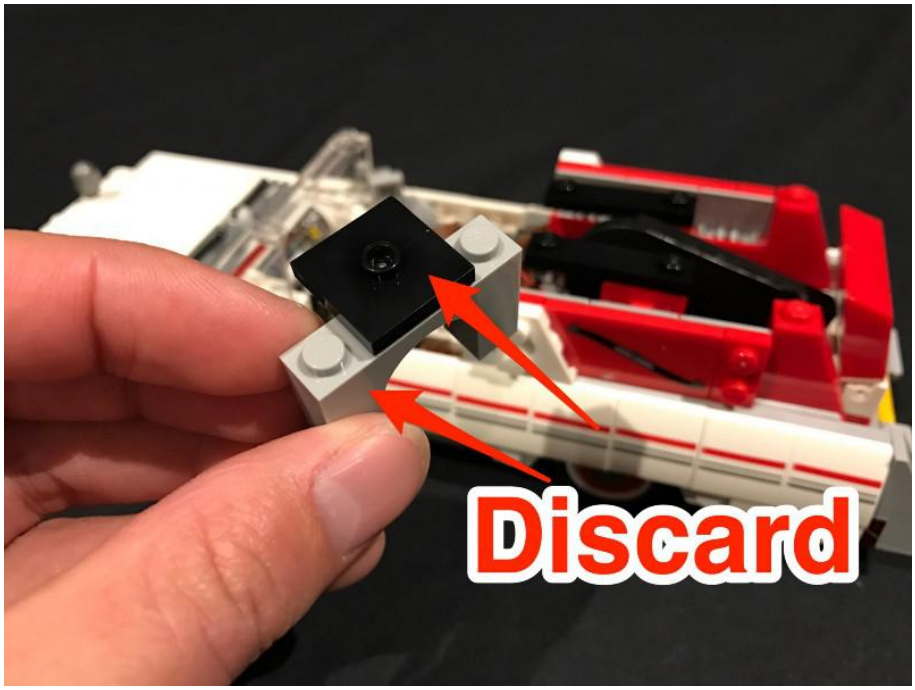




Reconnect the following pieces on the side.

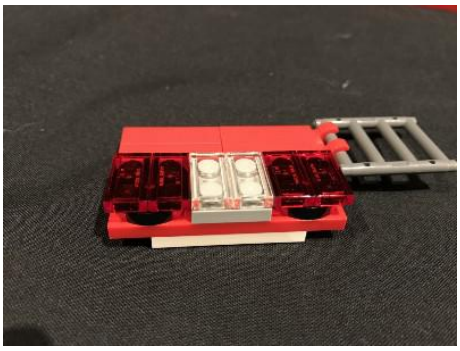
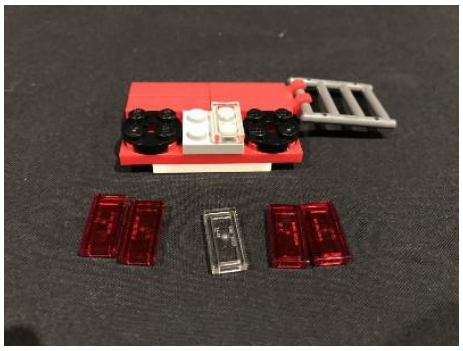
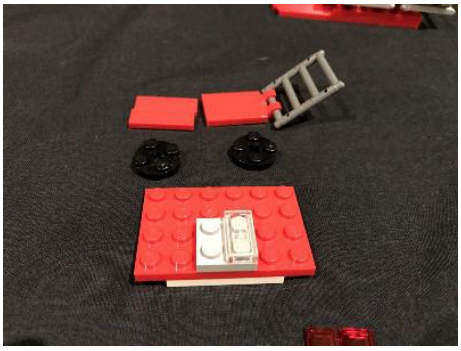


Remember this section we removed earlier?

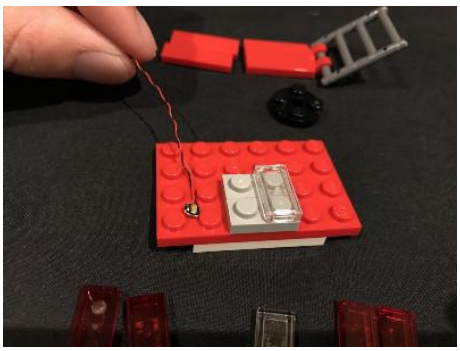
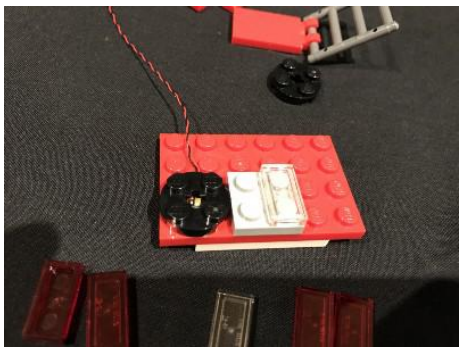
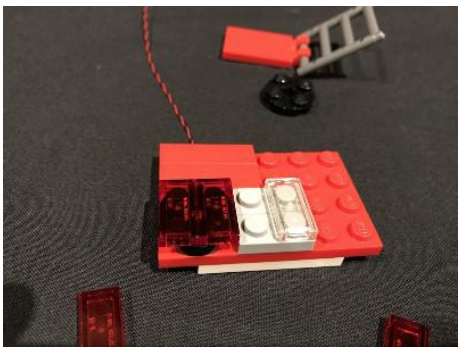


We will not be reconnecting this as we want to leave enough room in the back of the car for the expansion board and battery pack. We can discard these pieces. Don't worry, we will still be able to connect the roof on properly later on.

16.) We will now move on to lighting sections of the roof starting with the back section. Disassemble the roof pieces as per below

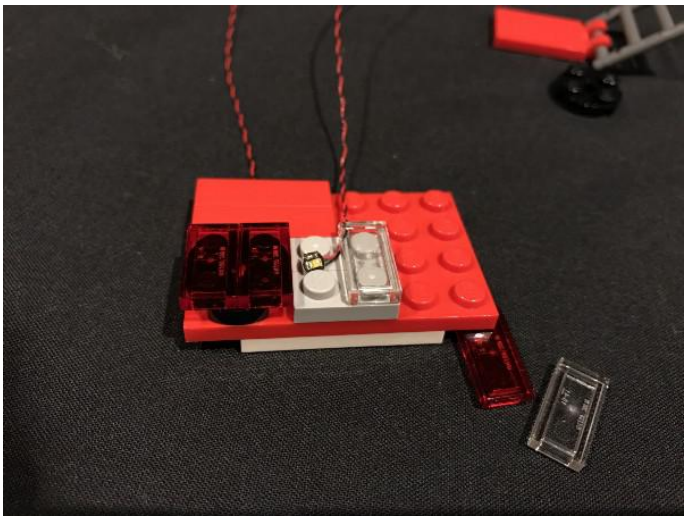




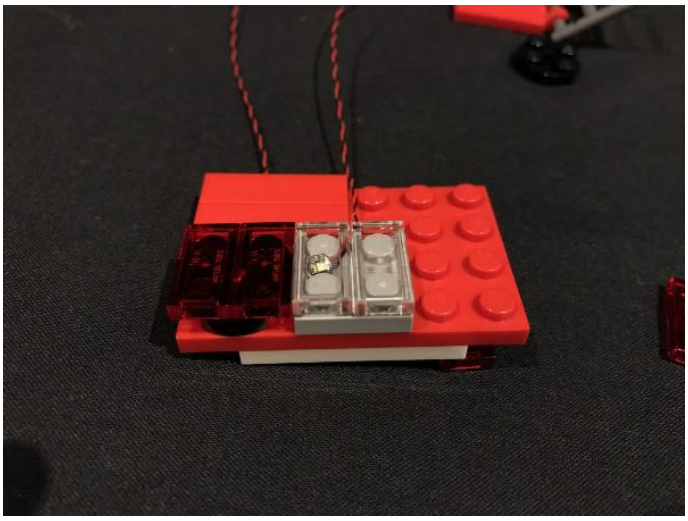
Take 1x flashing dot light with 15 cm cable and place the LED component directly over the red stud as per below. Secure it in place by reconnecting the round black 2x2 plate over the top ensuring the LED component is clearly visible through the middle hole and that the cable is facing toward the front of the car. Reconnect the two trans red plates over the top.

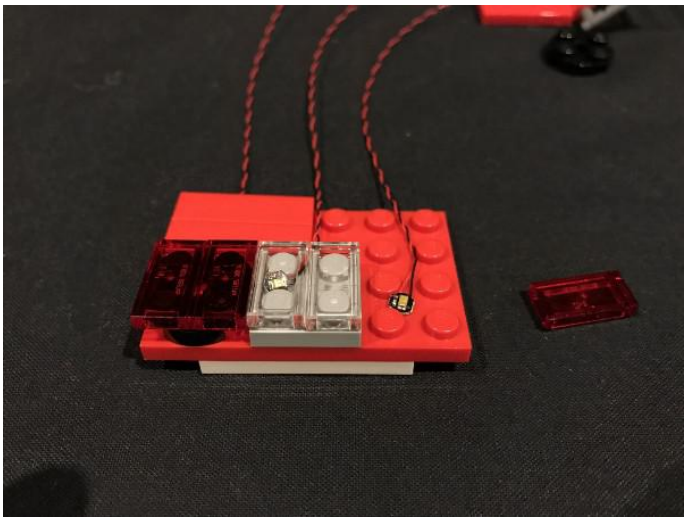
17.) Take another flashing dot light with 15cm cable and place the LED component between the 2 grey

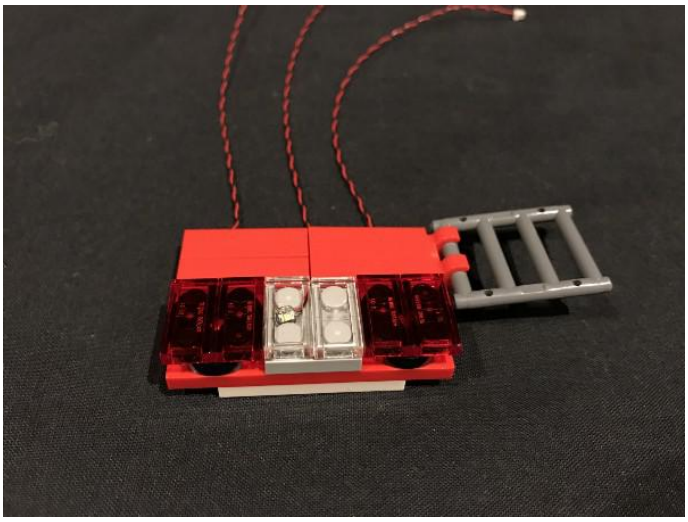
studs on the left, as per below. Secure this in place by reconnecting the clear trans 2x2 plate over the top ensuring the cable is facing the same way as the other dot light and neatly laid in between the LEGO studs.



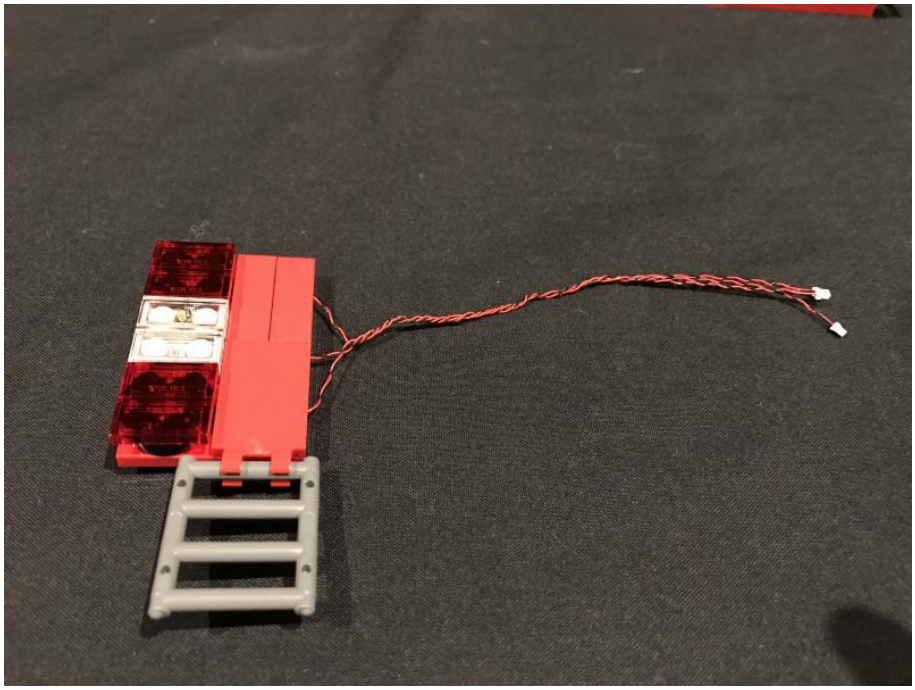


18.) Install another flashing dot light with 15cm cable to the next section, following the same process as the dot light on the left side (step 16). Reconnect the surrounding pieces of this section of the roof remembering to to lay all cables neatly in between studs.

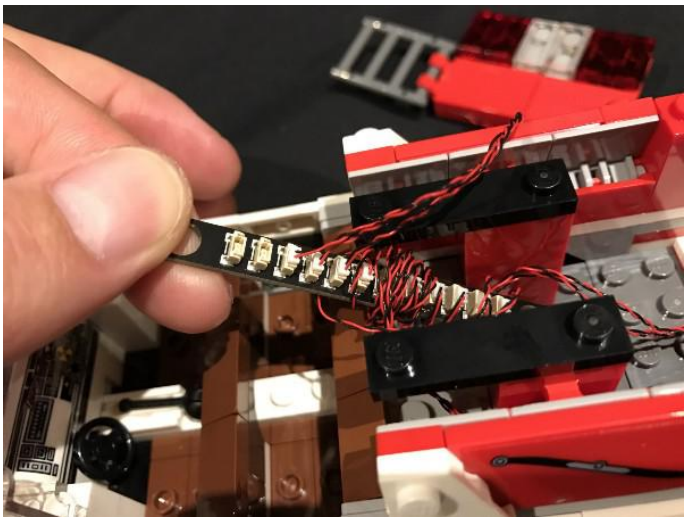


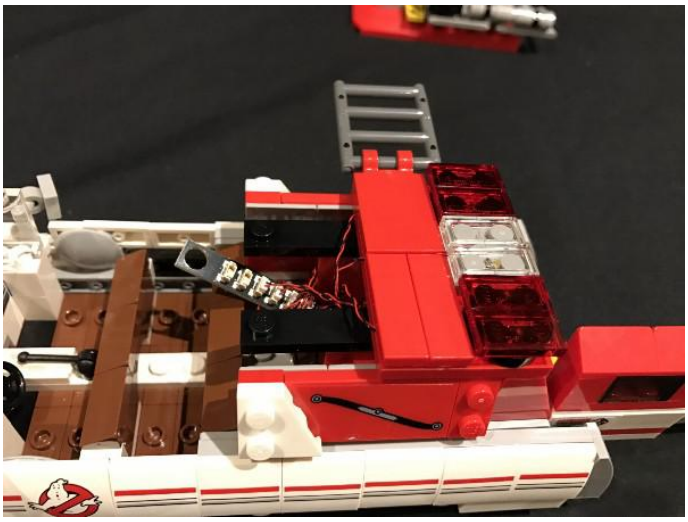


19.) Take the 3 cables from the roof and wind them around each other so that they all come together forming one large cable.

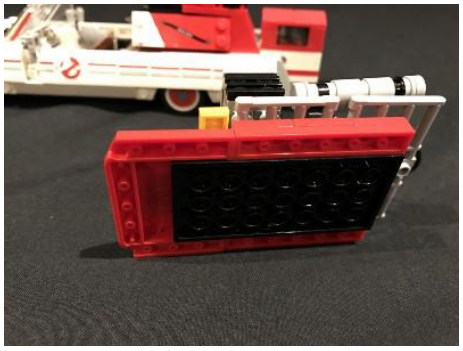


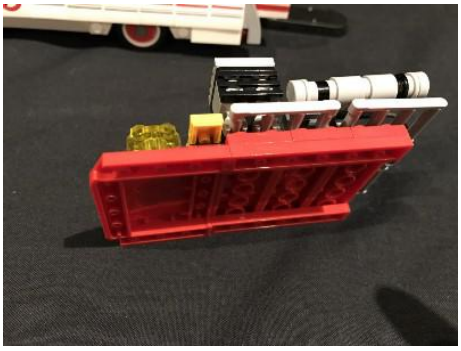
Connect the 3 cables into the next available ports on the expansion board then reconnect this section back to the car

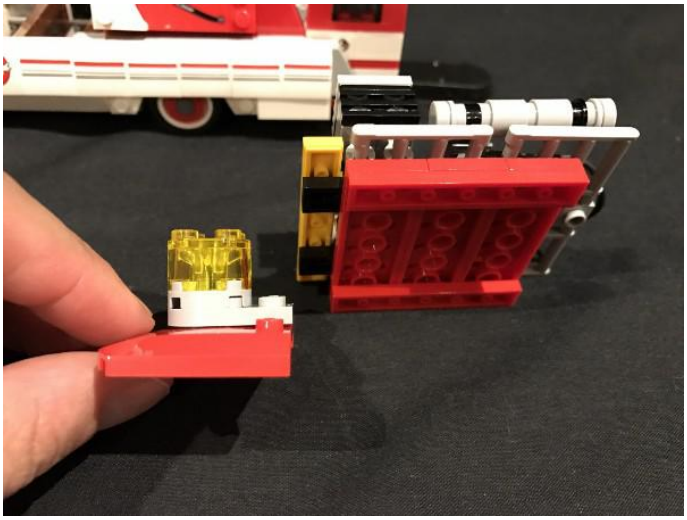


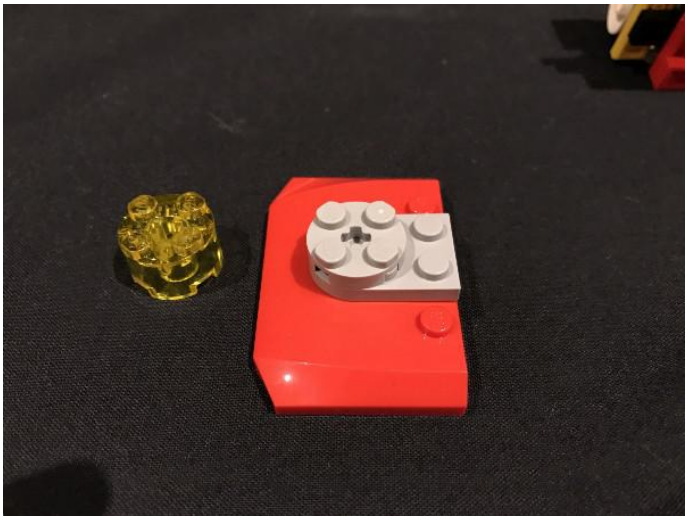


20.) We will now move onto installing another flashing light to the beacon at the front. Disconnect the front section of the roof by first removing the black plate underneath then remove the yellow beacon piece.

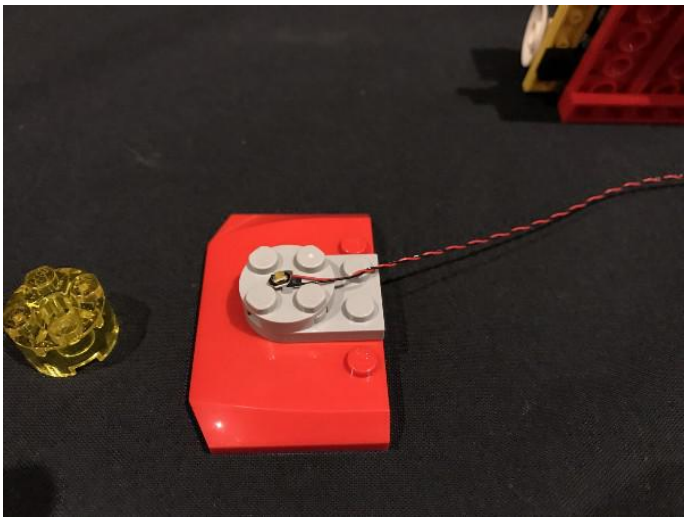


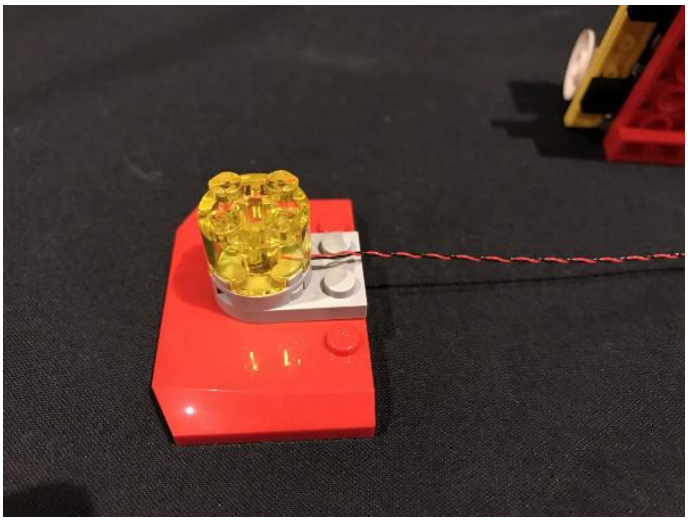




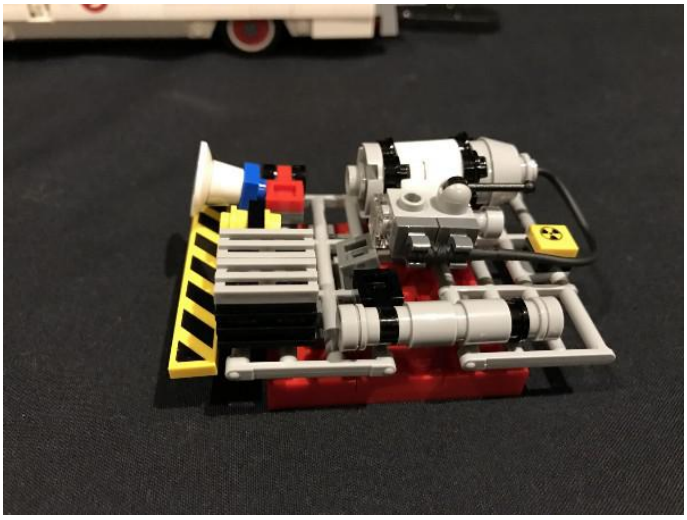


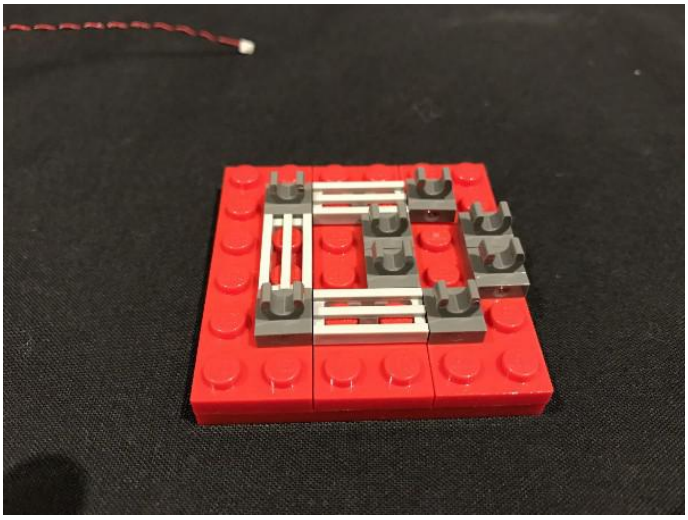
21.) Take the remaining flashing dot light with 15cm cable and place the LED component in the middle of the grey round 2x2 plate. Reconnect the yellow beacon piece over the top ensuring the cable is facing toward the back and laid neatly in between the studs.



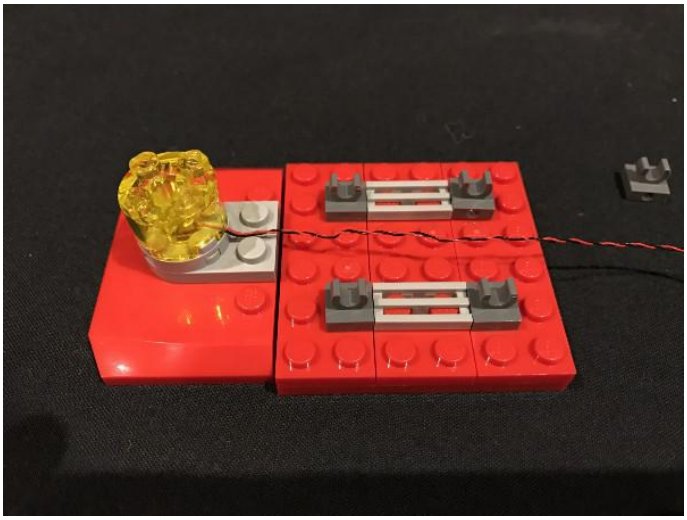


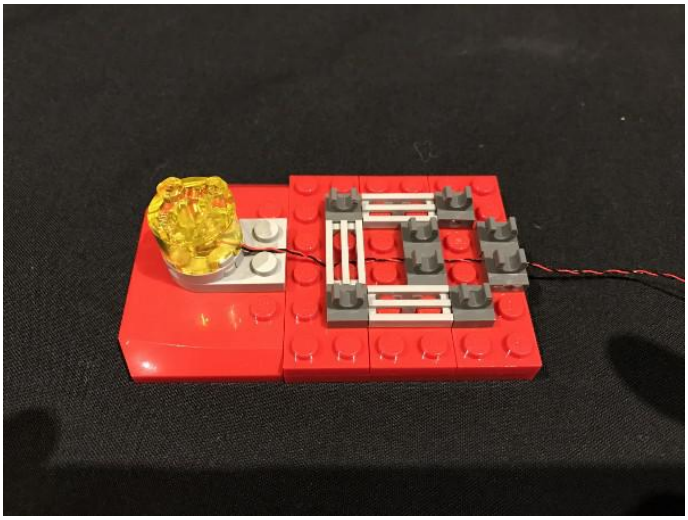
22.) Take the middle section of the roof and remove the roof racks with equipment.



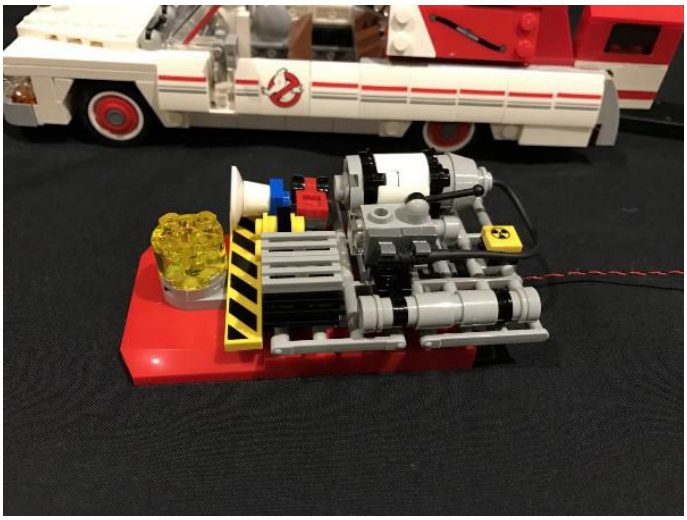


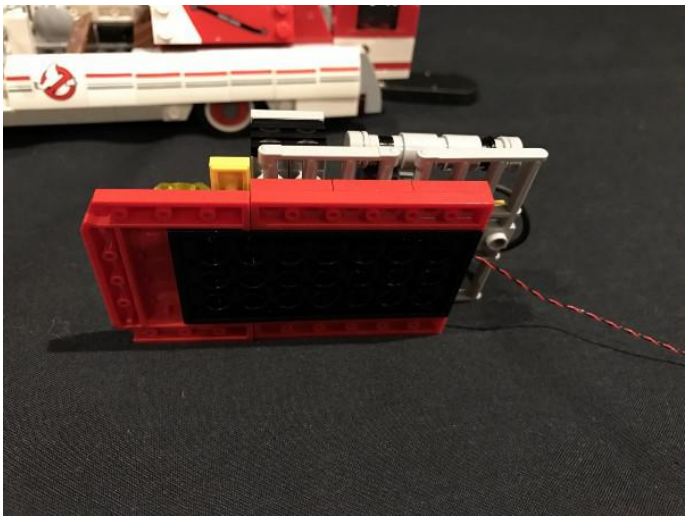
23.) Remove extra pieces from the middle roof section to allow us to lay the dot light cable underneath these pieces and in between studs. Reconnect these pieces we removed, securing the dot light cable in place.



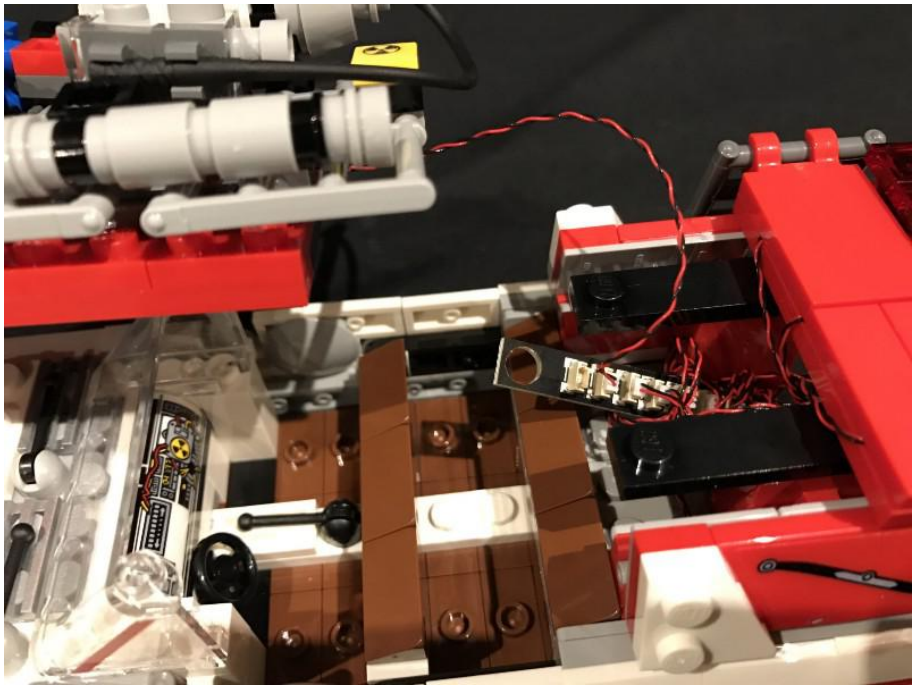


Reconnect the roof rack with equipment, followed by the black plate underneath which holds the 2 sections of the roof together.





24.) Connect this flashing dot light cable for the yellow beacon into the next available port on the expansion board.

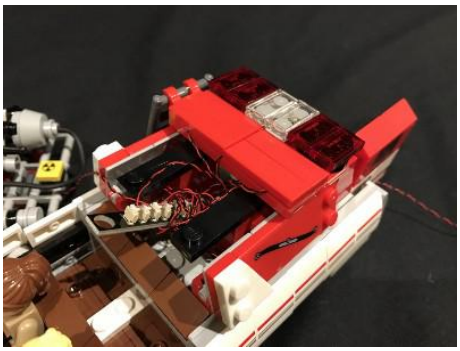


25.) Before we reconnect back the front and middle roof section, we need to install the last dot light to Kevin's motorbike. Start by removing the clear trans round plate from the front, followed by the wheel.

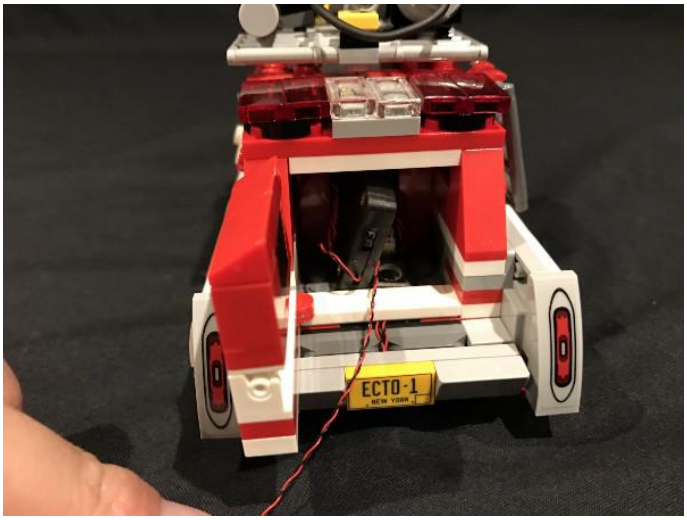
Take the dot light with 30cm cable and place the LED component directly over the white stud and then secure it in place by reconnecting the clear trans round plate over the top.

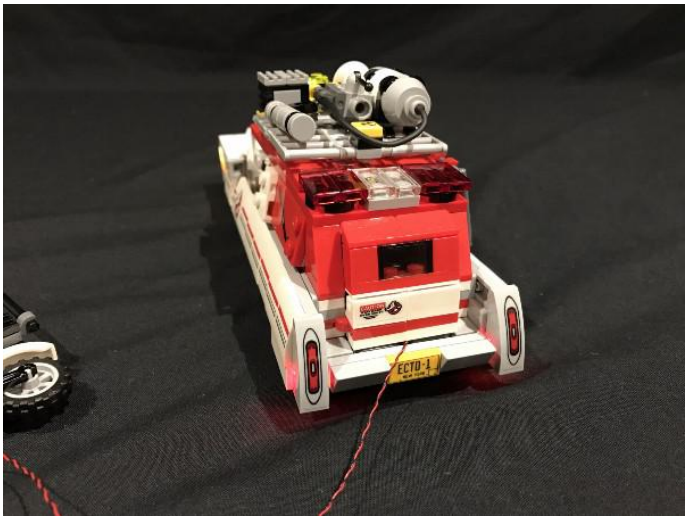
Secure the cable in place by threading the cable underneath the black bike frame as per below. Reconnect the wheel.

26.) Thread the other end of the dot light cable through the back of the car and then connect it into the last remaining port of the expansion board. You can then reconnect the front and middle section of the roof back but first, don't forget to place the mini figures in ecto-1!



27.) The dot light cable from the motorbike should be coming out the back of the car but the back door should still be able to close comfortably as per below.





This now completes the installation to your Vonado lighting kit for Ecto-1 & 2. Simply open the back door, turn on the battery pack, and ENJOY!