

Light My Bricks : Ecto-1 & 2 LED Lighting Kit



Here is the instructions document for the Lego Ecto-1 & 2 LED lighting kit. Please read and follow the steps carefully to ensure this lighting kit is installed properly.

Package contents:

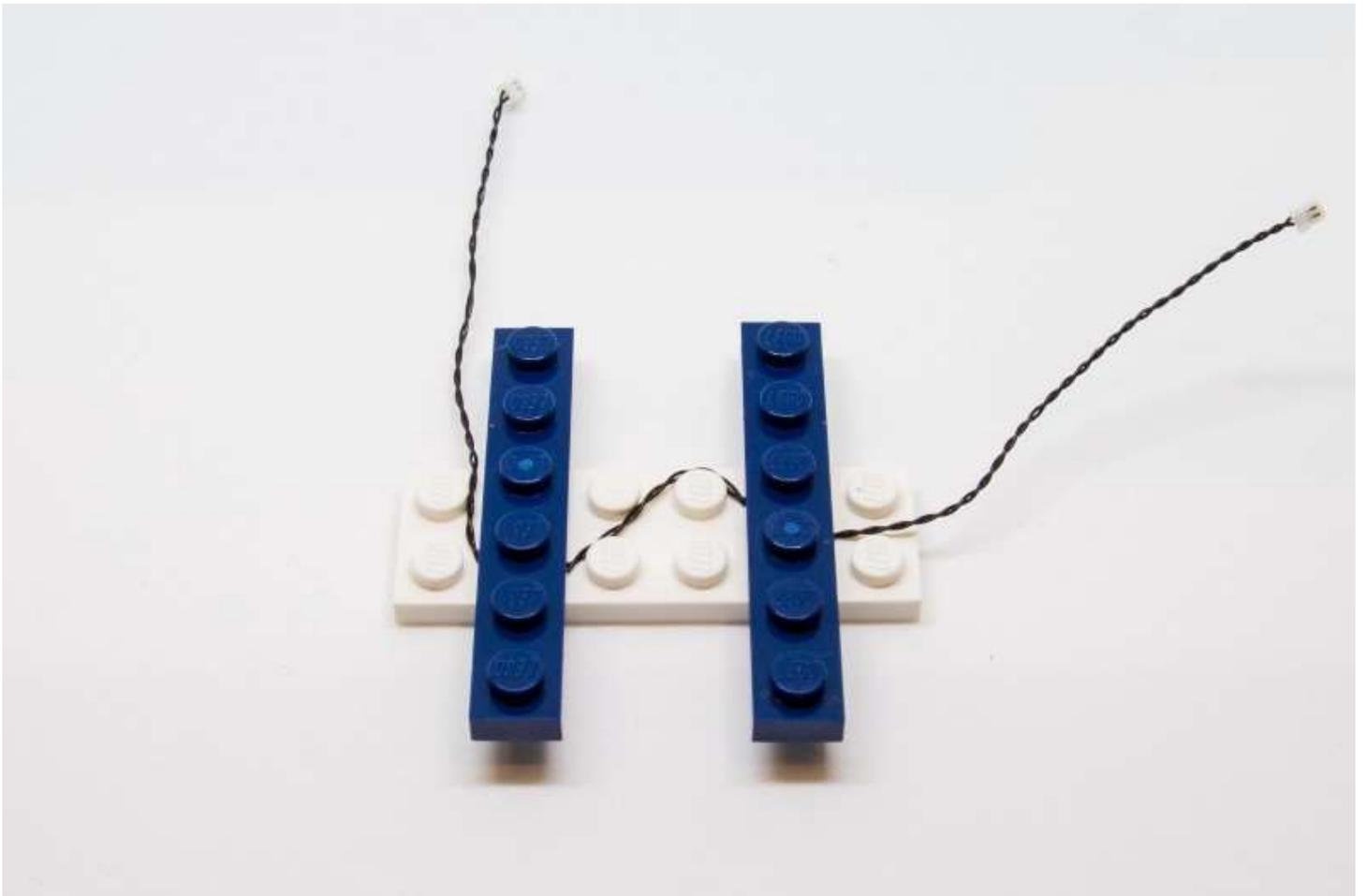
- 5x White 30cm Bit Lights
 - 2x White 15cm Bit Lights
 - 4x Flashing 15cm Bit Lights
 - 1x 12-port Expansion Board
 - 1x Flat Battery Pack (2x CR2032 batteries included)
-

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.

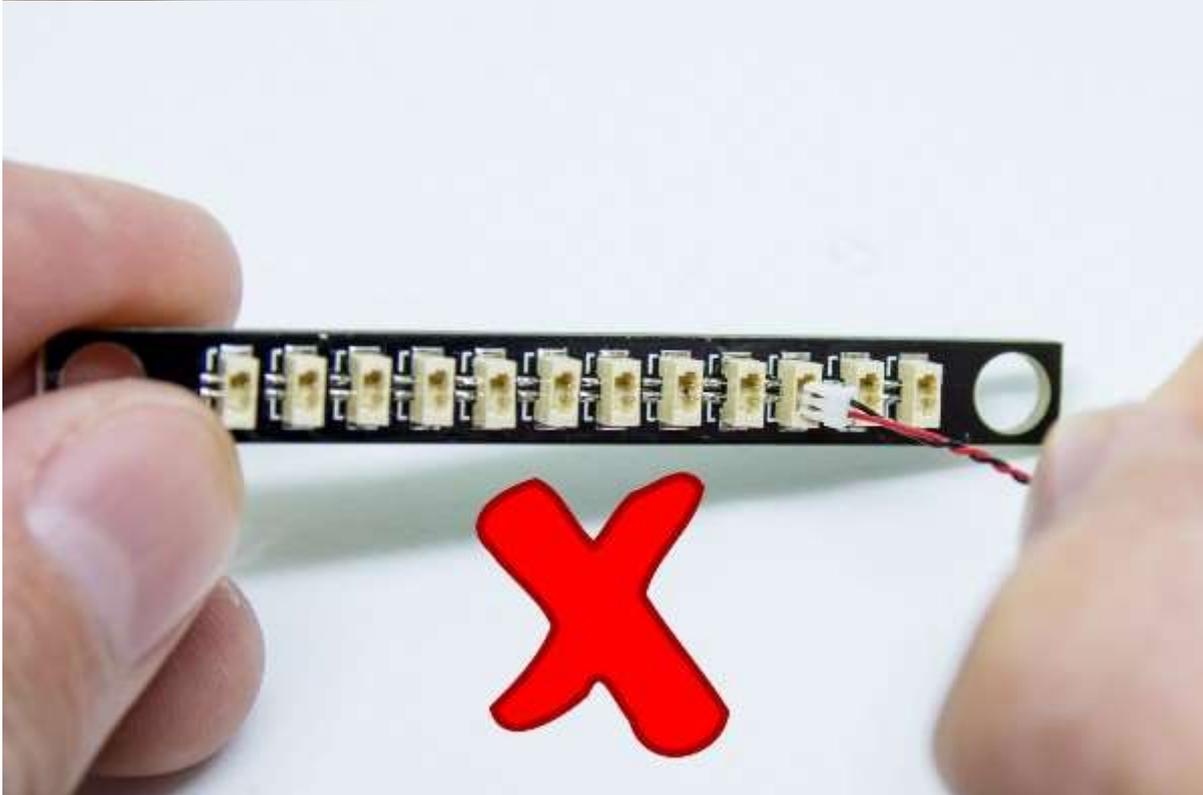
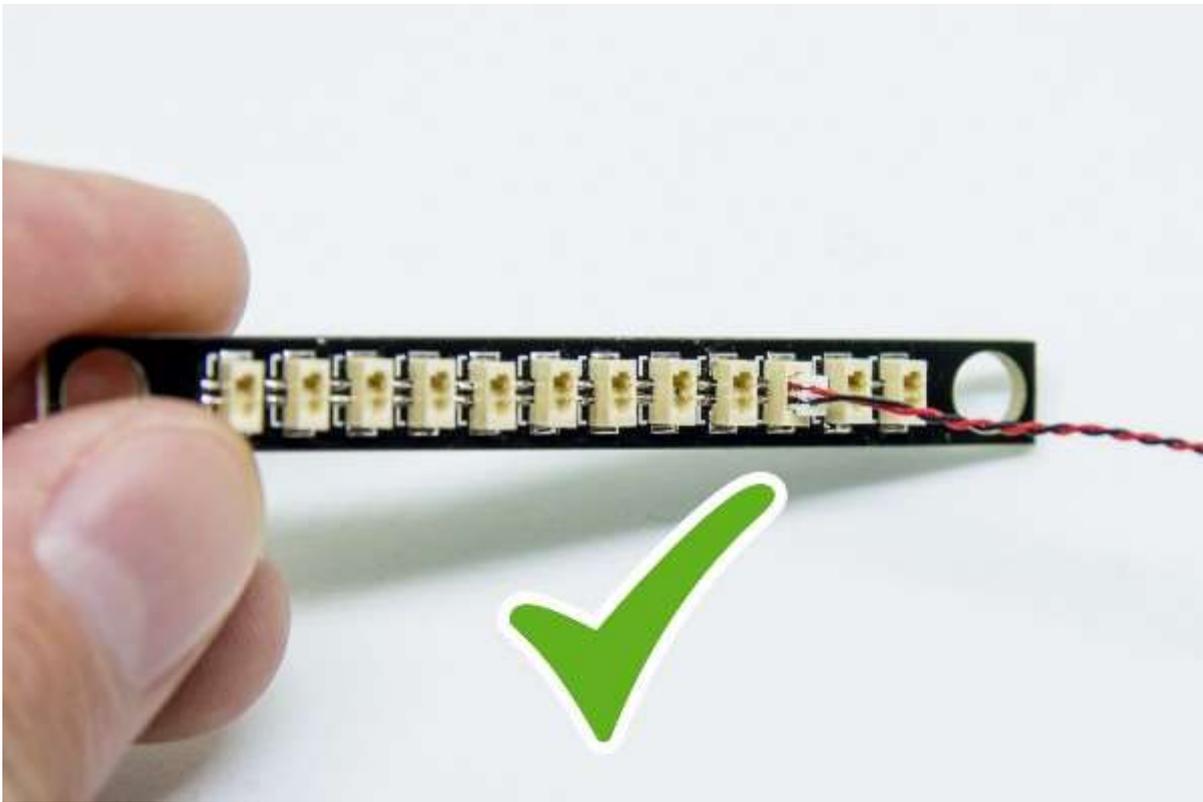




CAUTION: Forcing LEGO® to connect over a cable can result in damaging the cable and light.

Connecting cable connectors to Expansion Boards

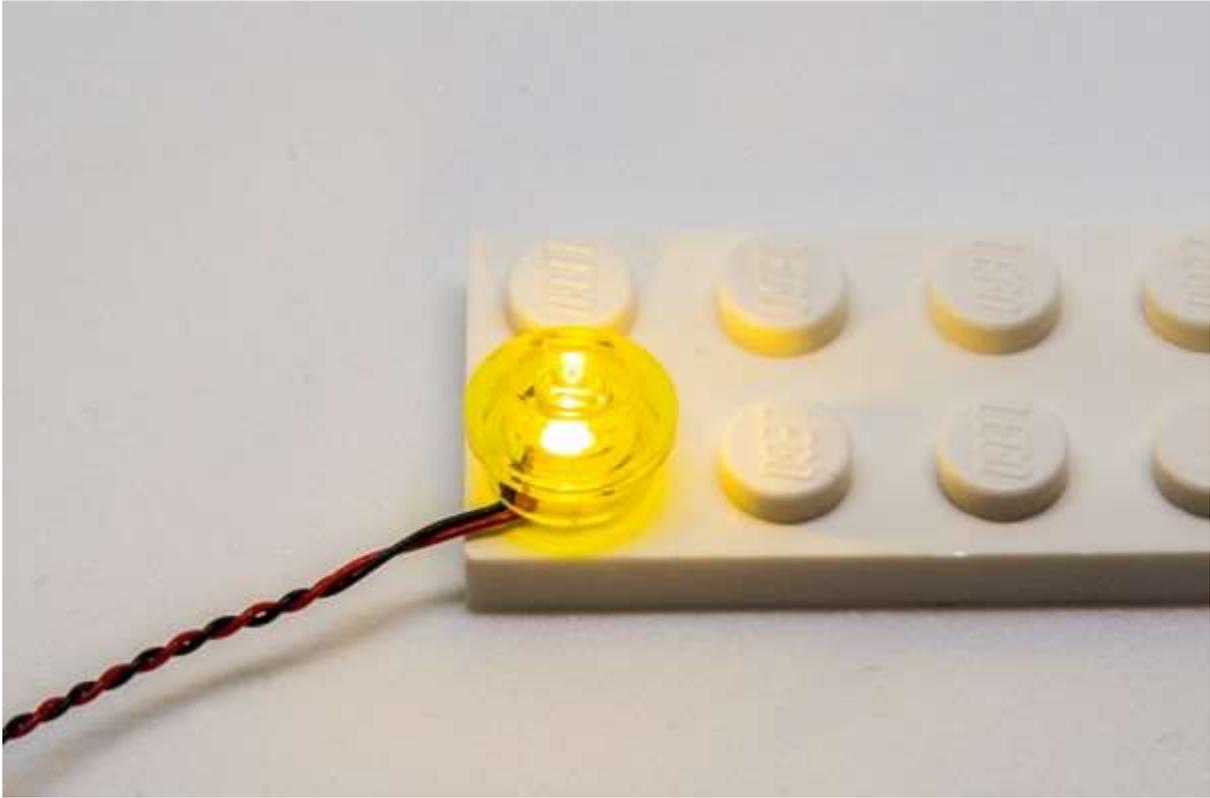
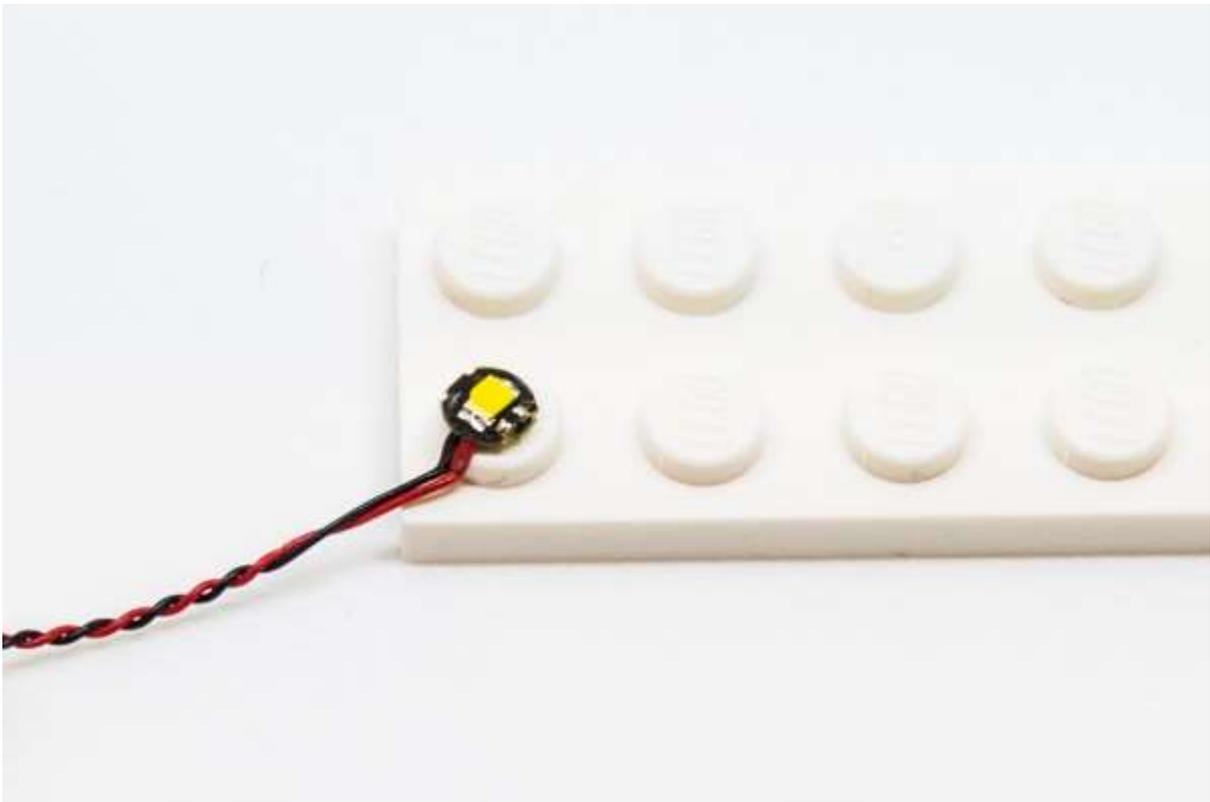
Take extra care when inserting connectors to ports of Expansion Boards. Connectors can be inserted only one way. With the expansion board facing up, look for the soldered “=” symbol on the left side of the port. The connector side with the wires exposed should be facing toward the soldered “=” symbol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

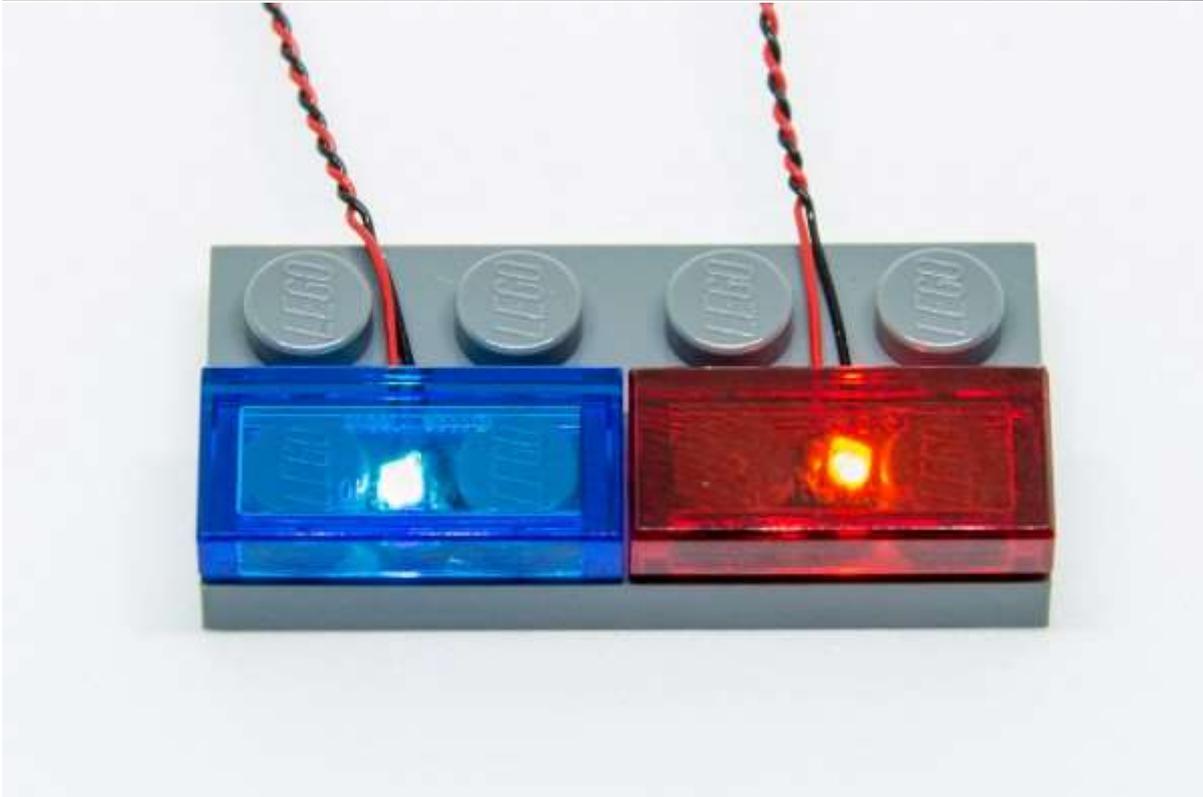
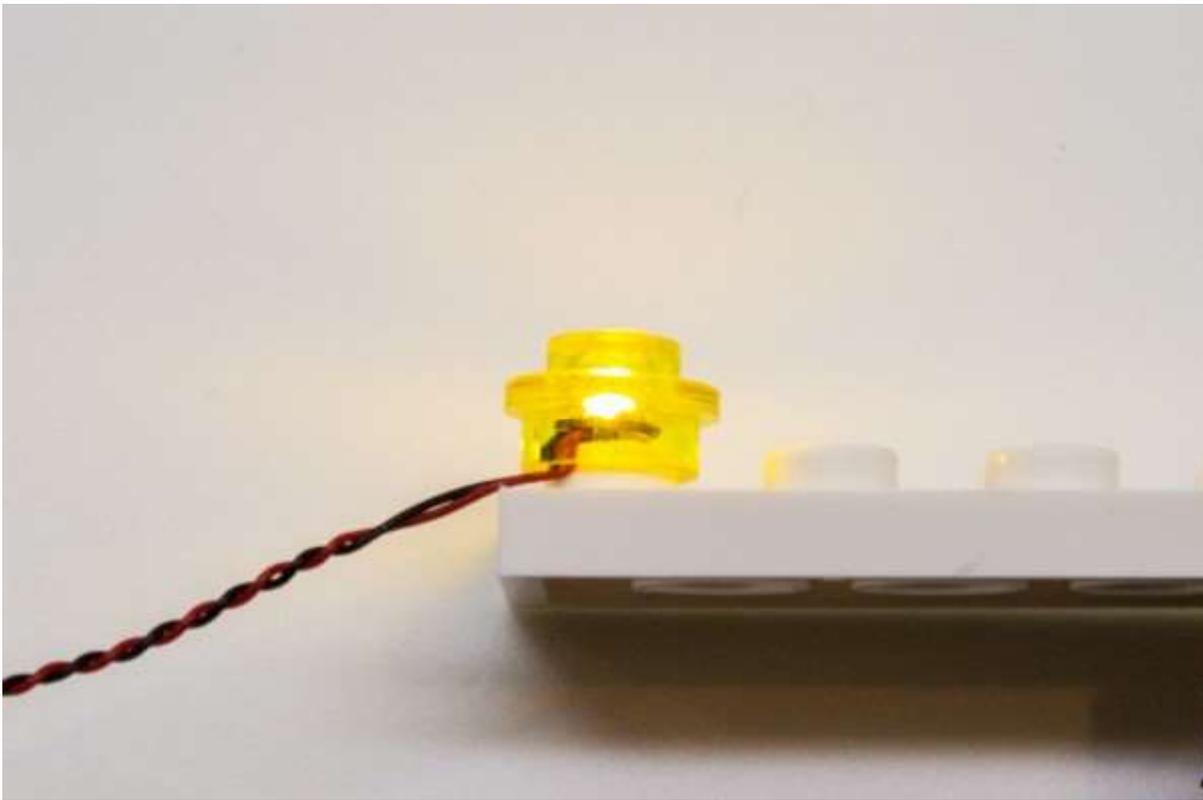


WARNING: Incorrectly inserting the connector can result in bent pins inside the port or possible overheating of the expansion board when connected.

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!

Instructions for installing this kit

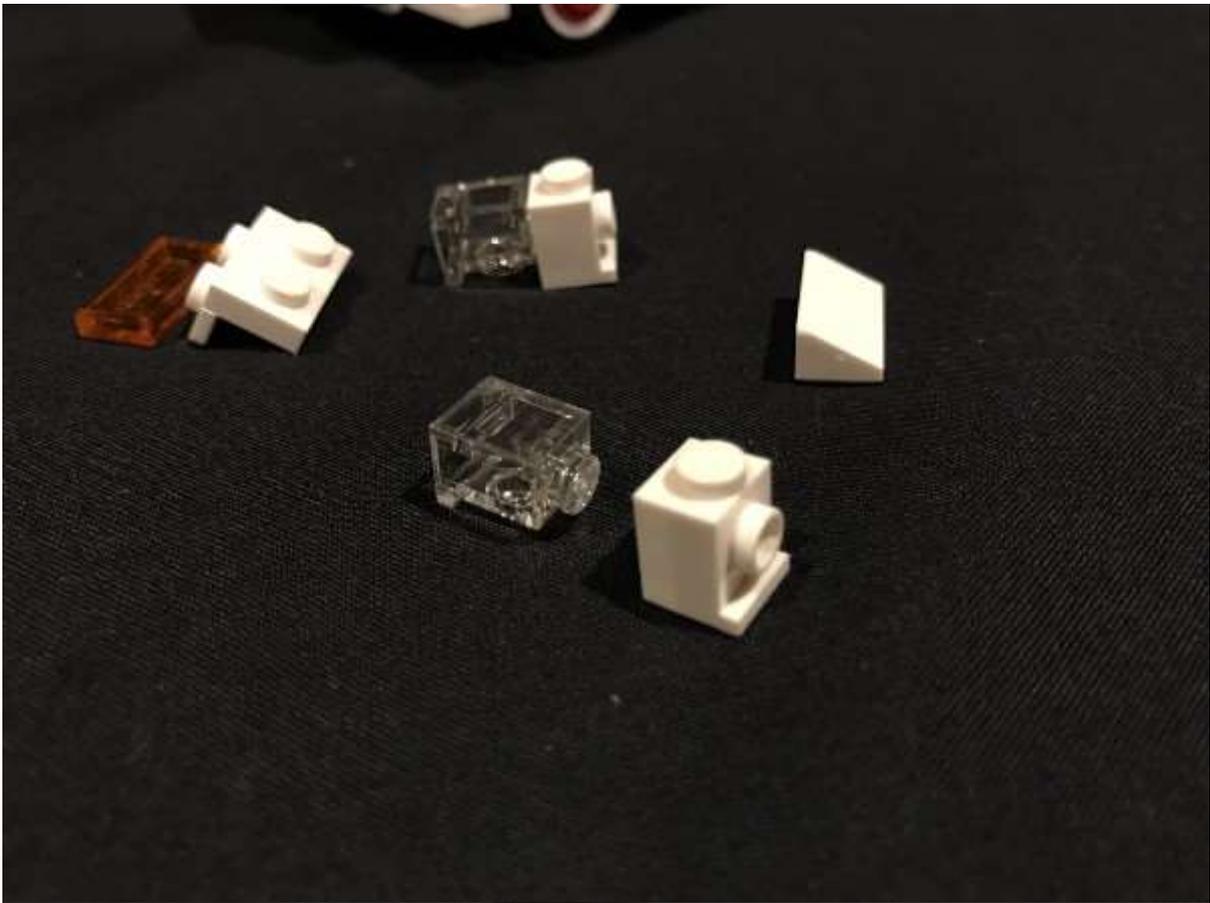
1.) We will start with installing headlights to Ecto-1. Start by removing the following pieces to allow us to then remove one of the headlight sections as per below.

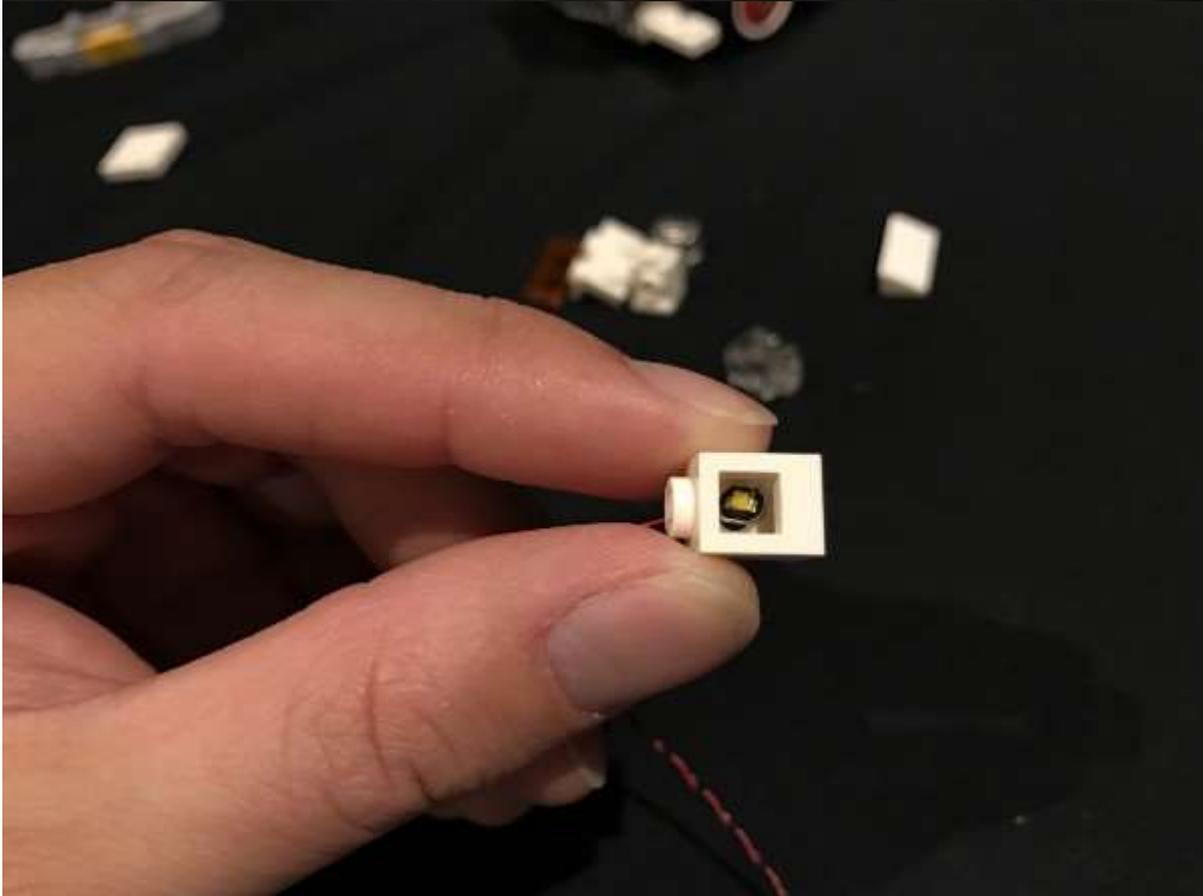
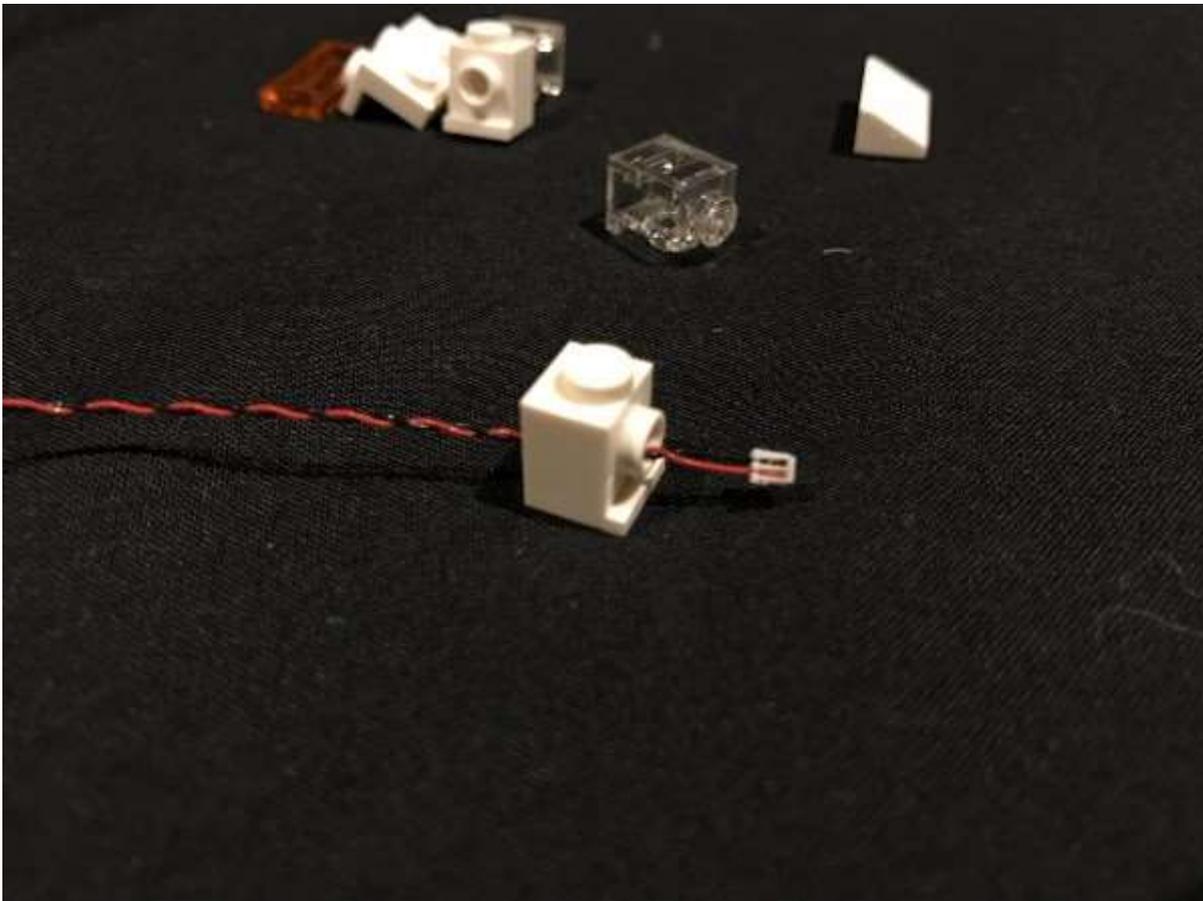


Remove

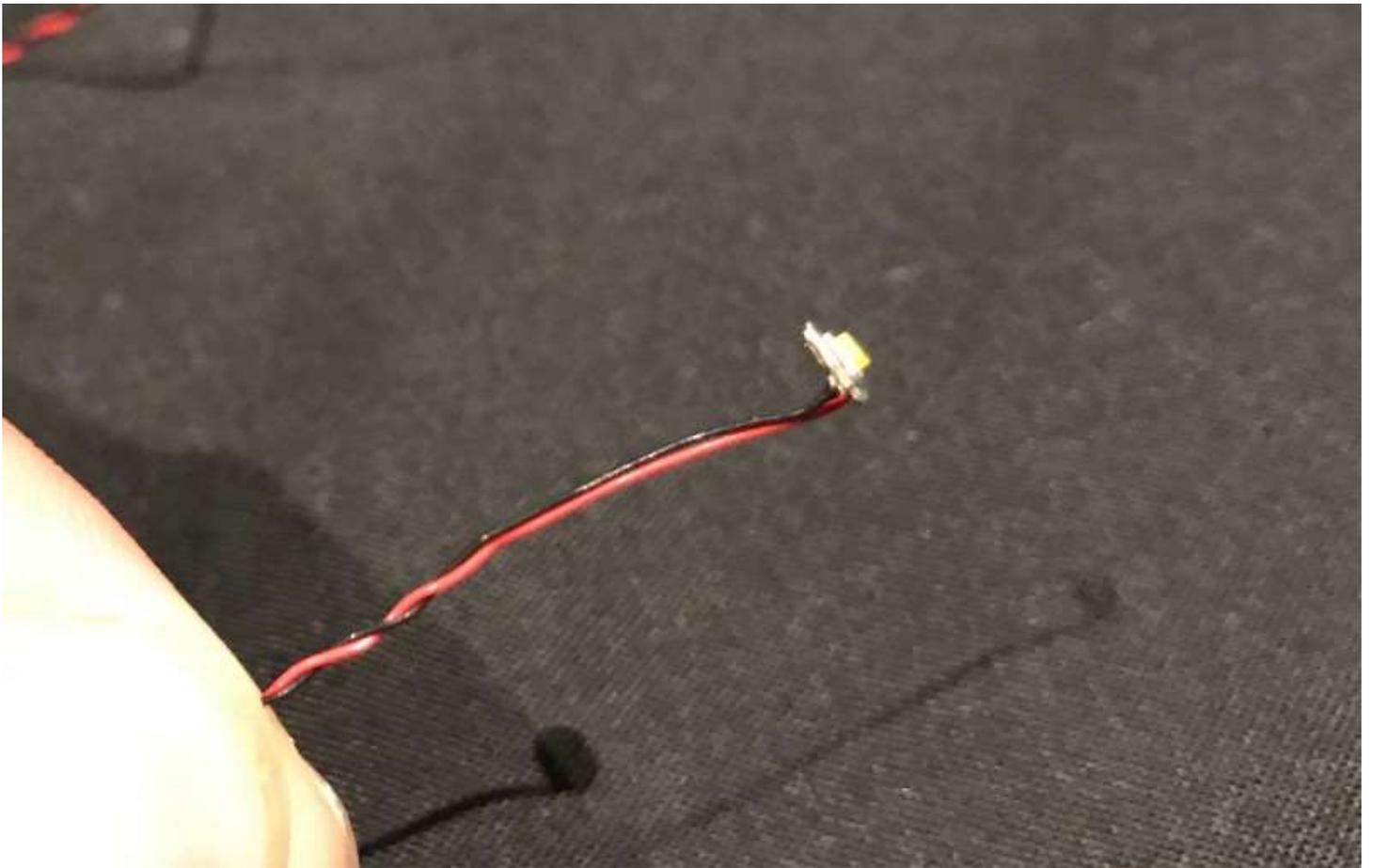


2.) Disassemble the headlight piece and then take one **bit light with 30cm cable** and thread the connector side of the cable through the back of the white 1×1 brick with hole. Pull it all the way through from the front side of the brick until the LED component is sitting nicely in the inside of the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

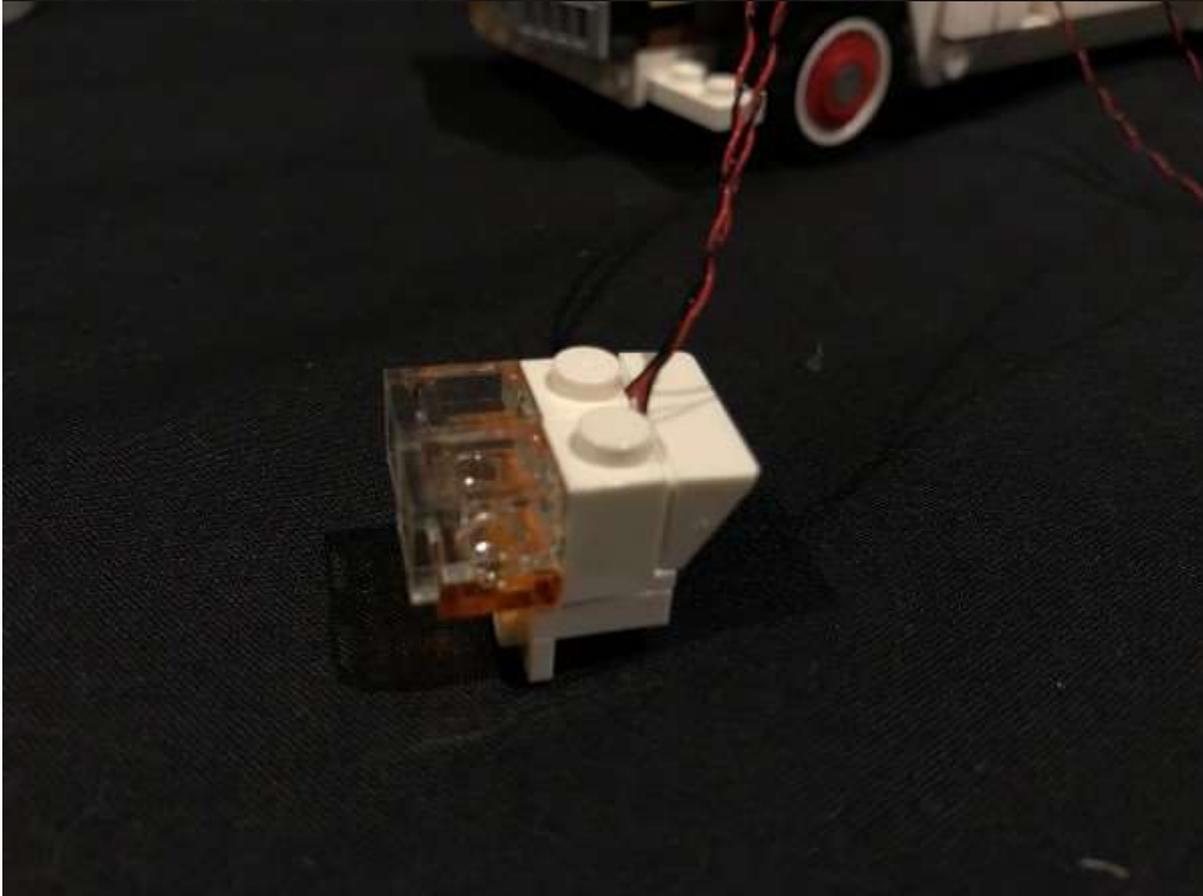
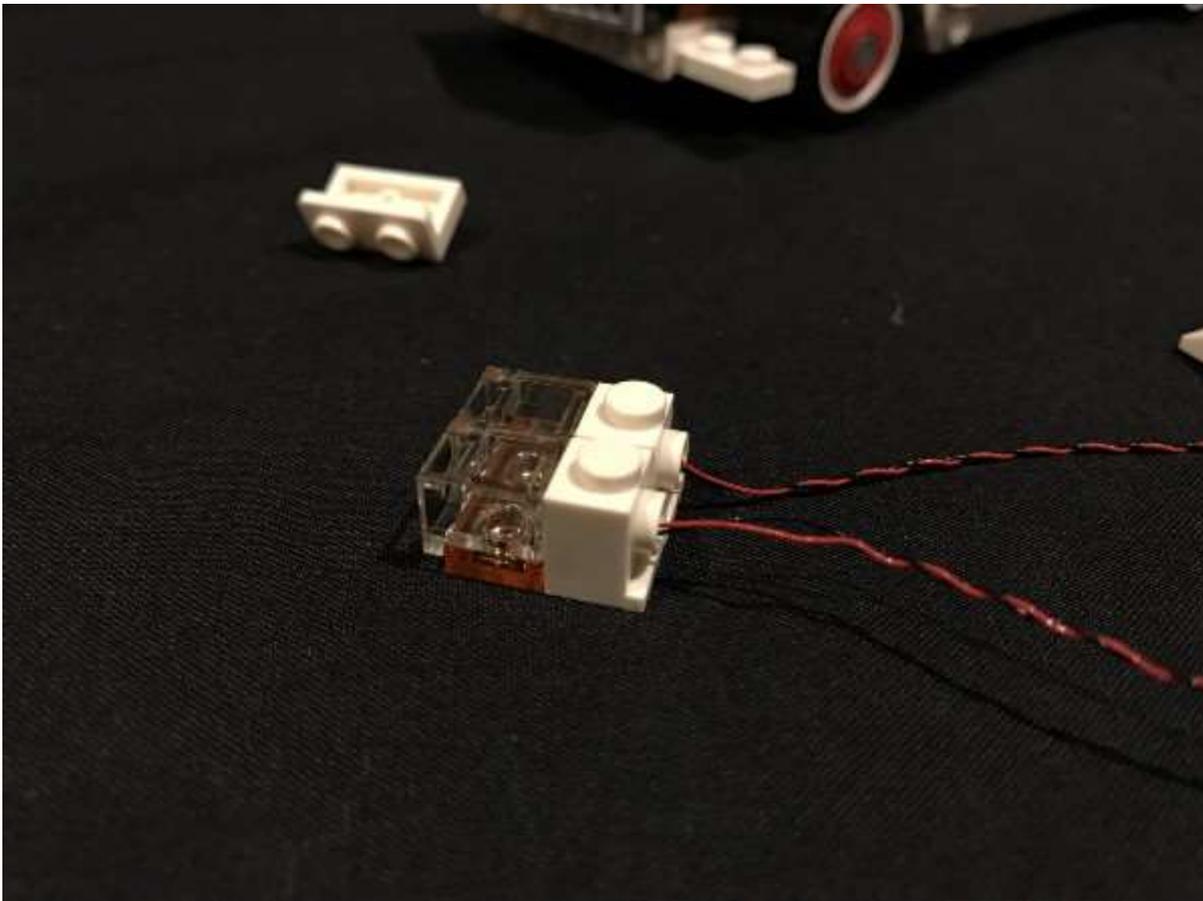




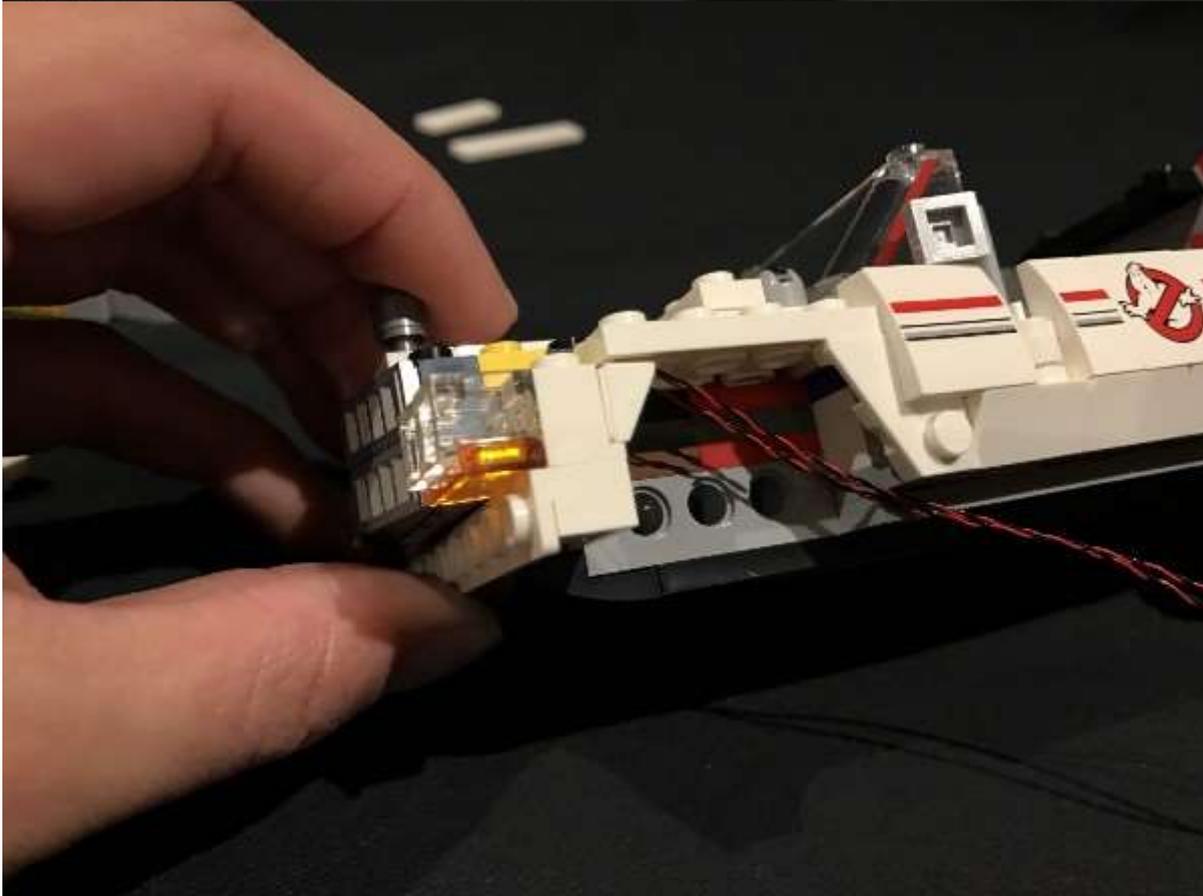
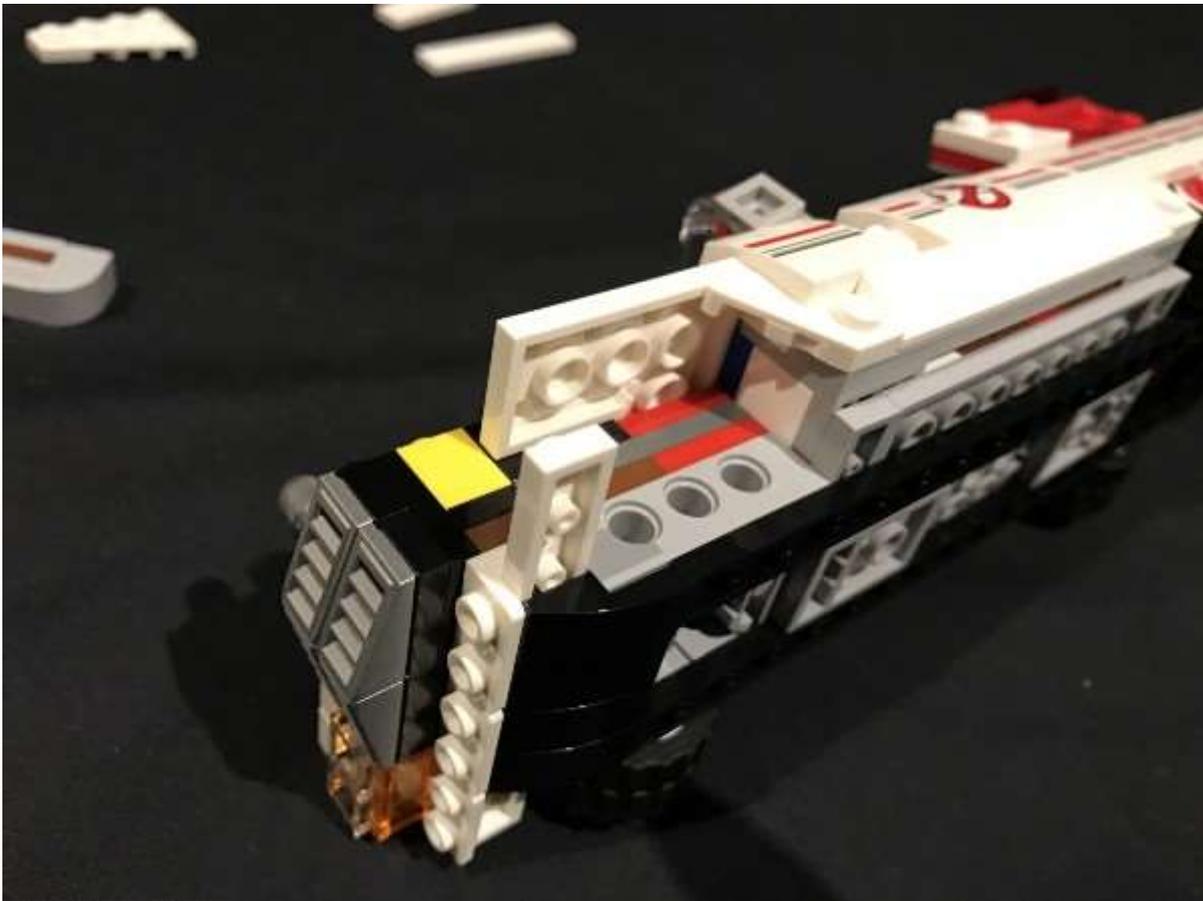
You may need to bend the cable down on a 90 degree angle to ensure the LED component will face forward correctly



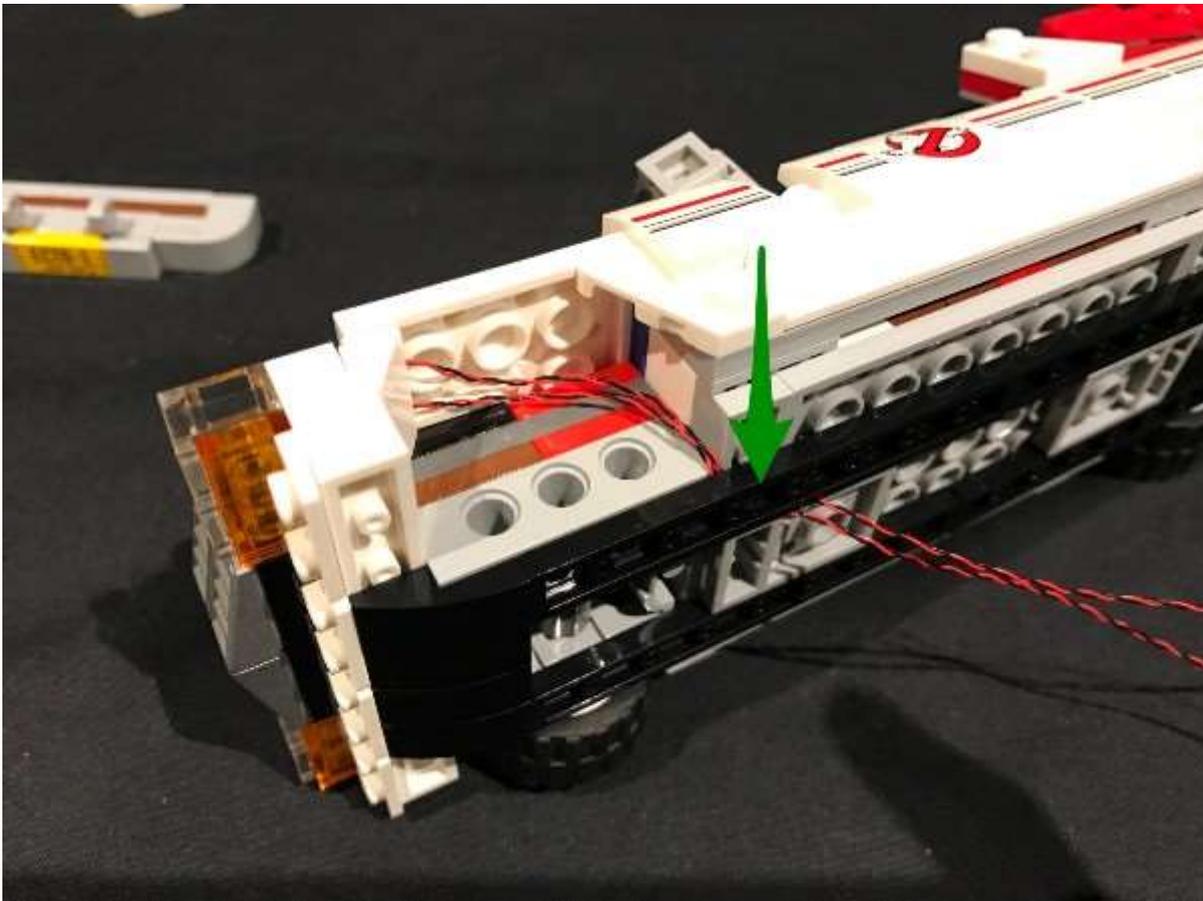
3.) Repeat this process to install the second bit light to this headlight section. Then reconnect the surrounding pieces of the headlight ensuring the cables for the bit lights are facing up in between the white triangular brick and 2 white bricks as per below.



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 1×8 plate, then reconnect the wheel



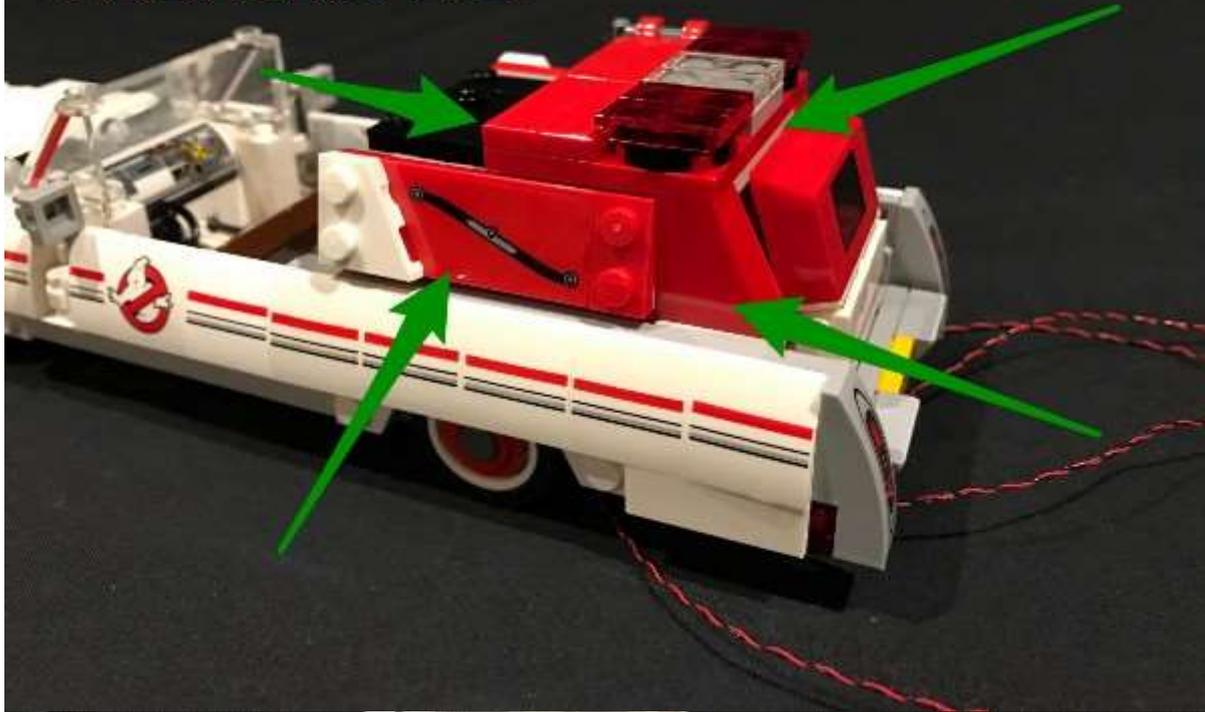
5.) Repeat previous steps to install another 2 bit lights (with 30cm cable) to the headlight section on the left of the car.

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.

Remove

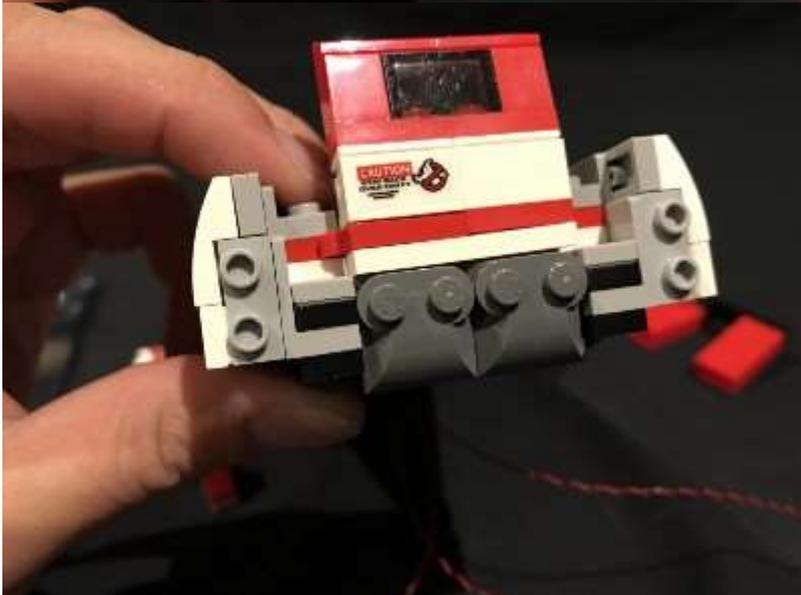
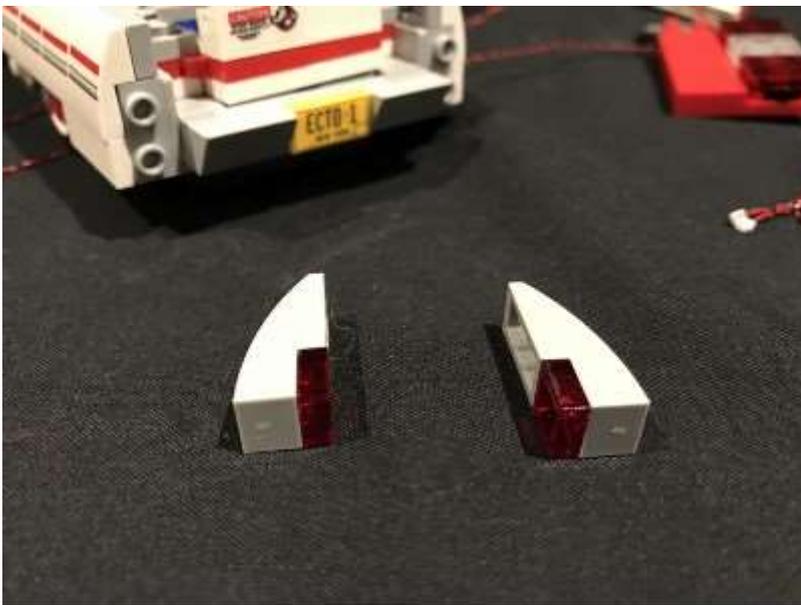


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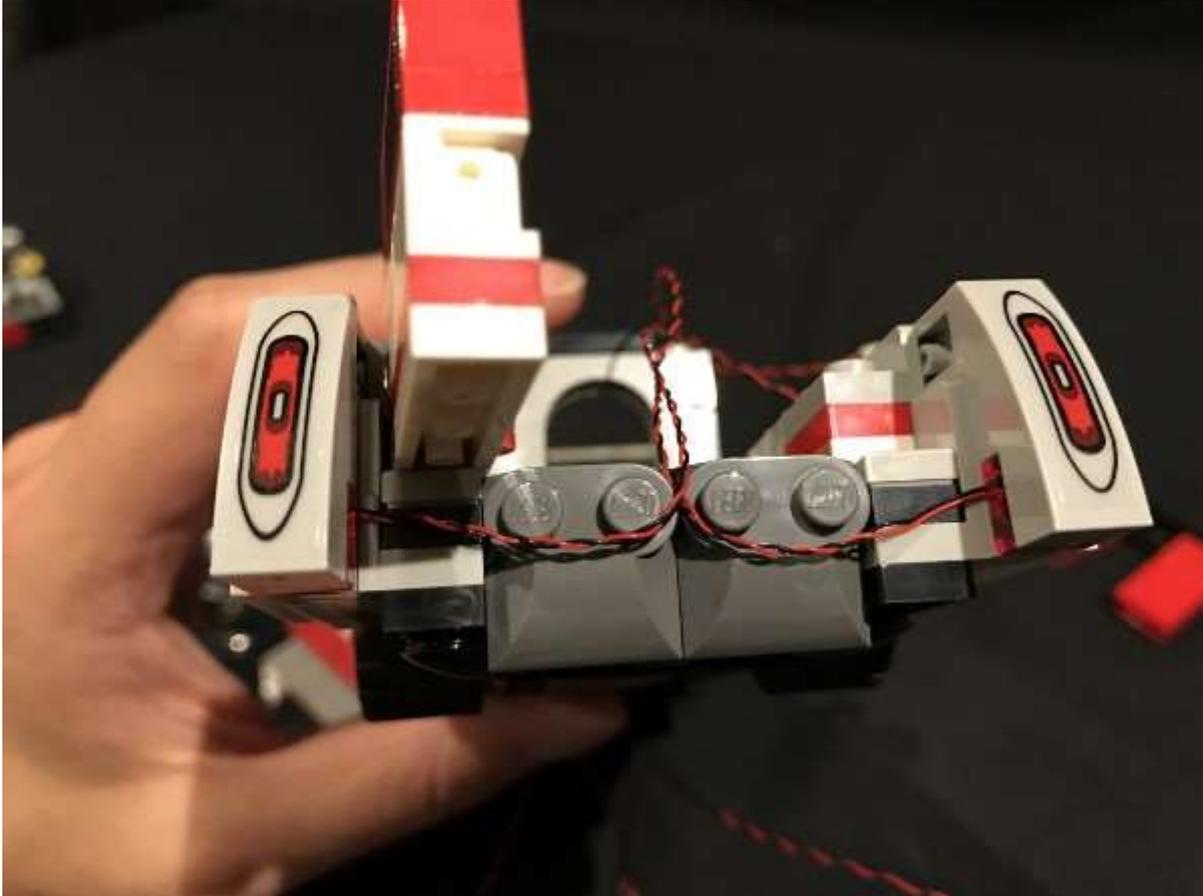
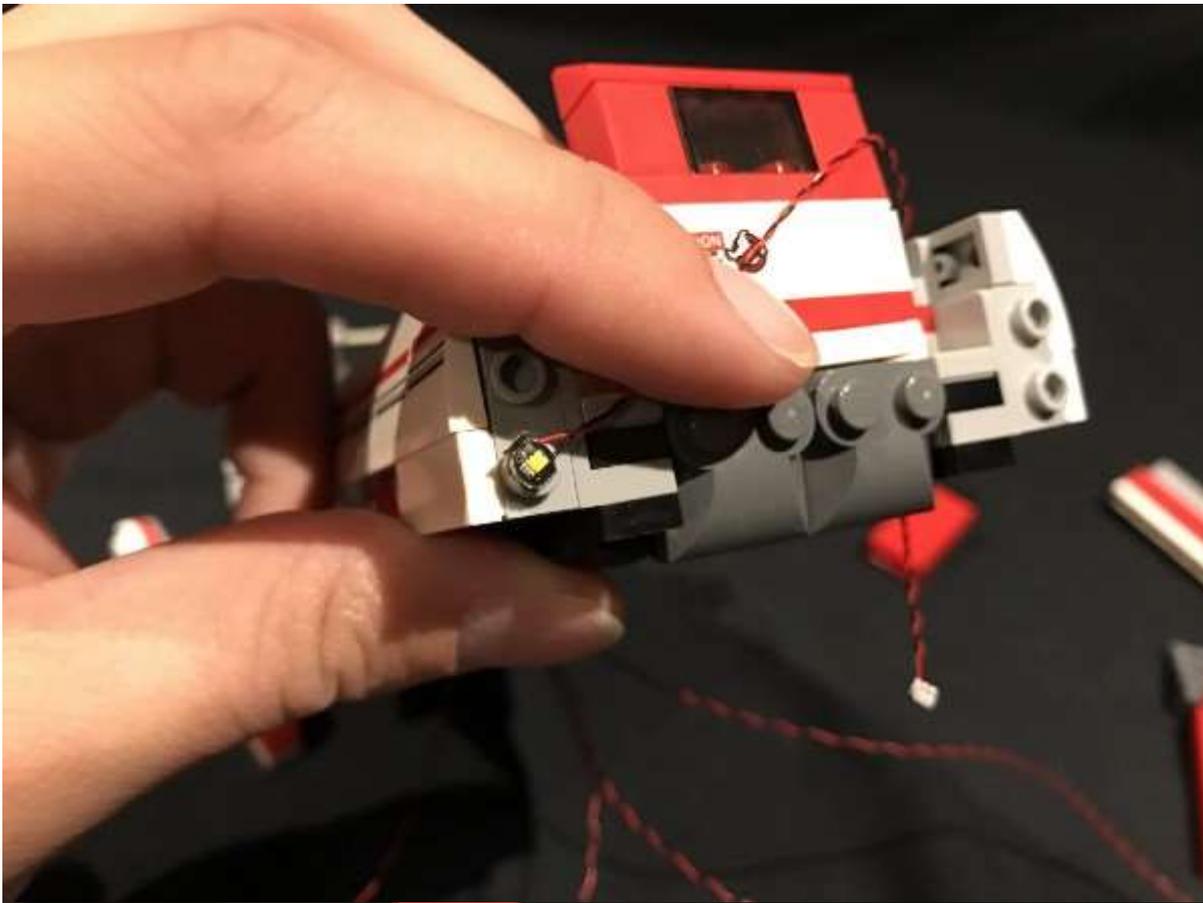




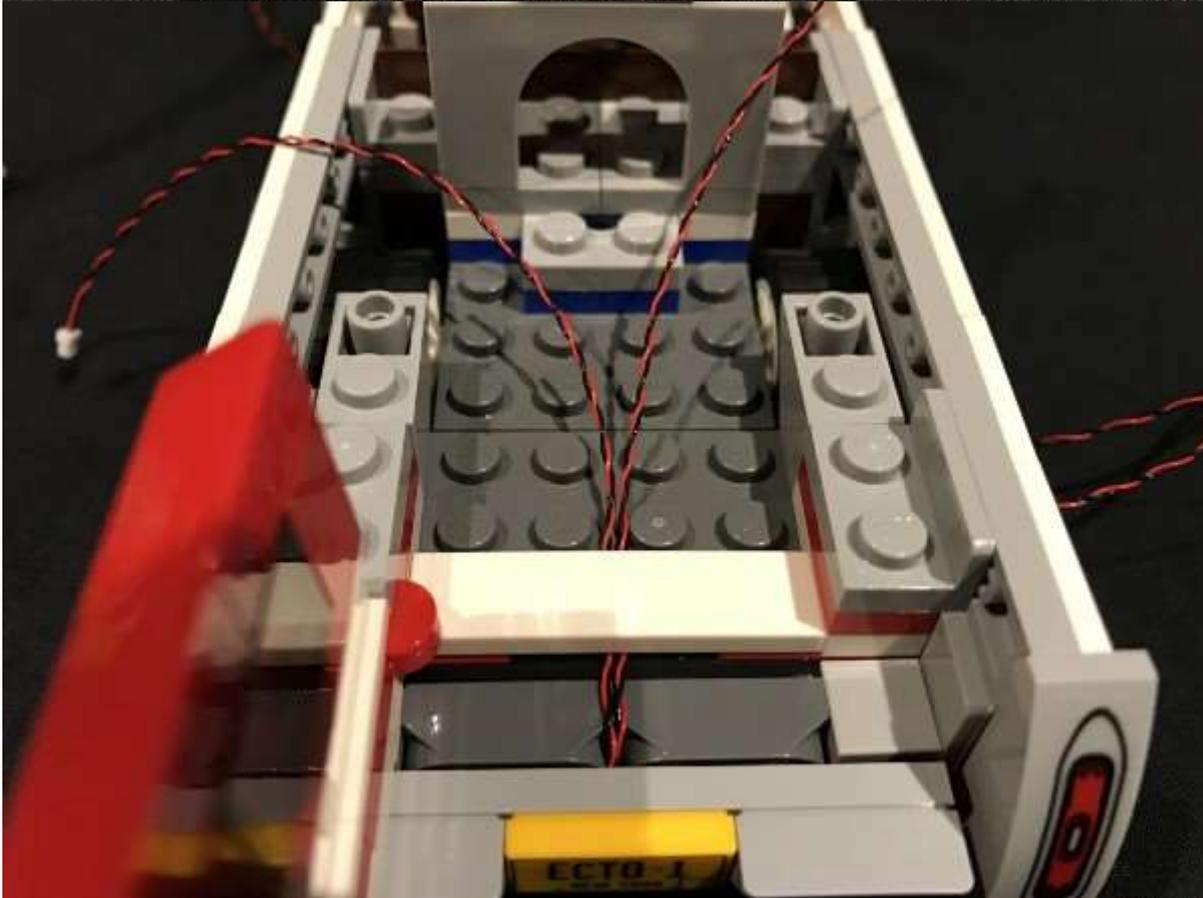
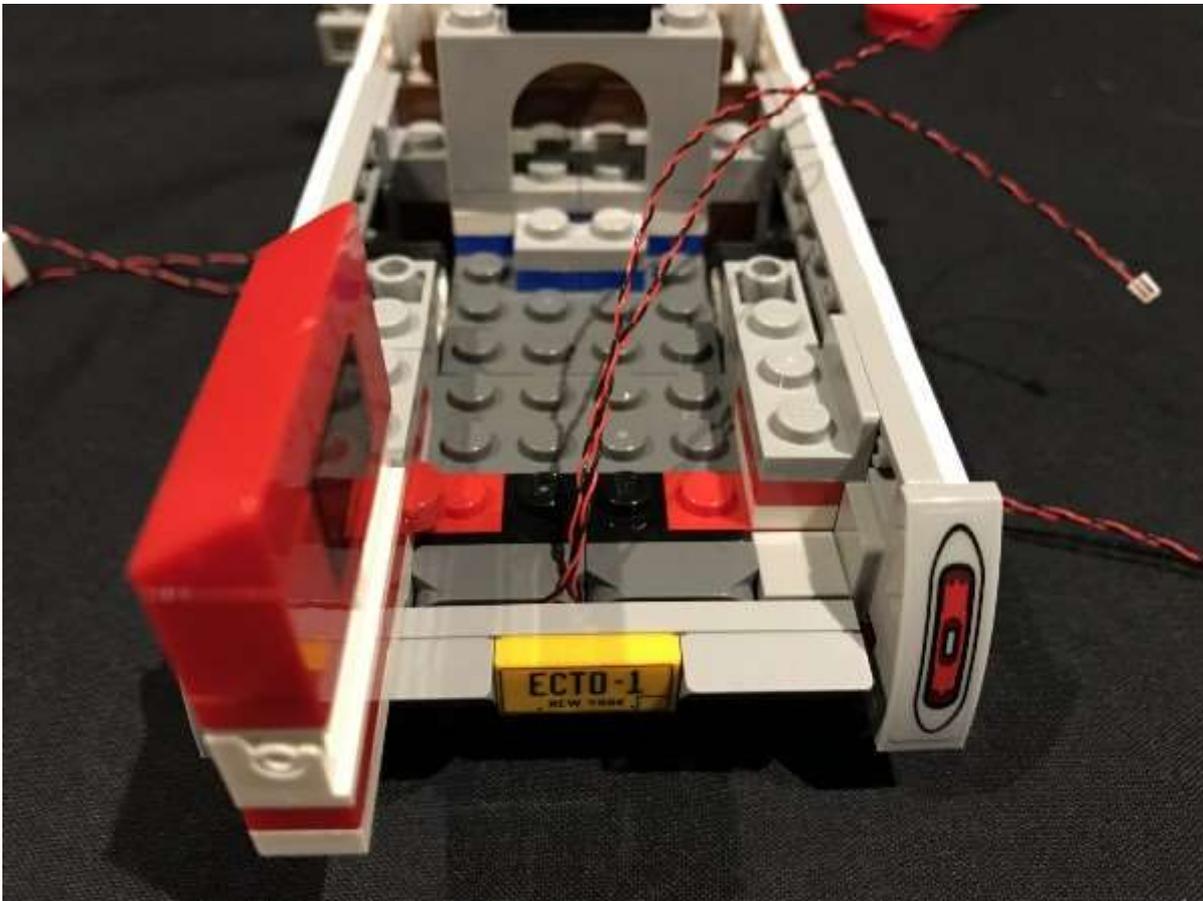
Remove



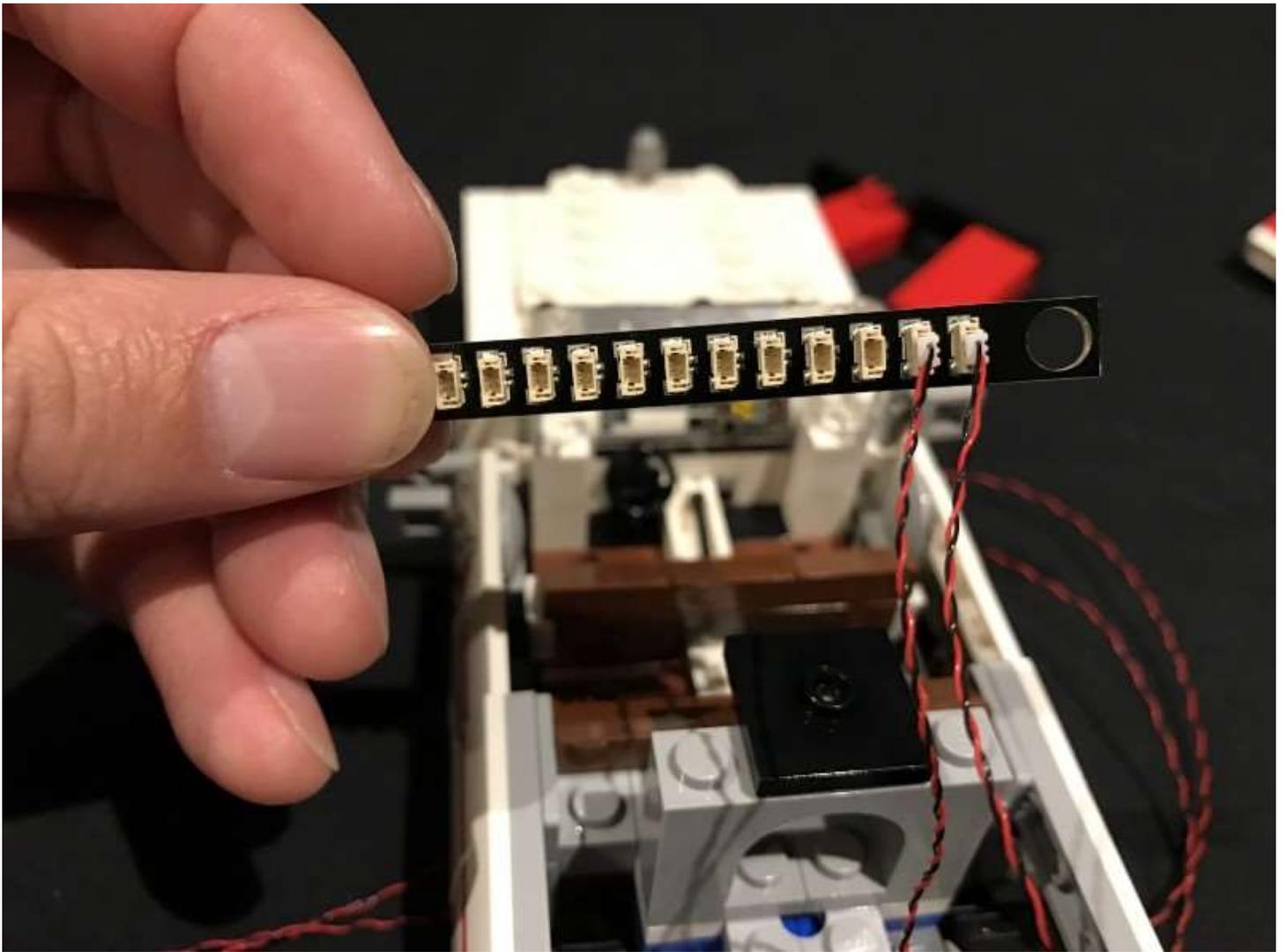
7.) Take one **bit light (with 15cm cable)** and place it on top of the bottom stud underneath the tail light. Secure it in place by reconnecting the tail light section directly over the top ensuring the cable is facing the inside of the car and LED component is facing the correct way up. Repeat this 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.



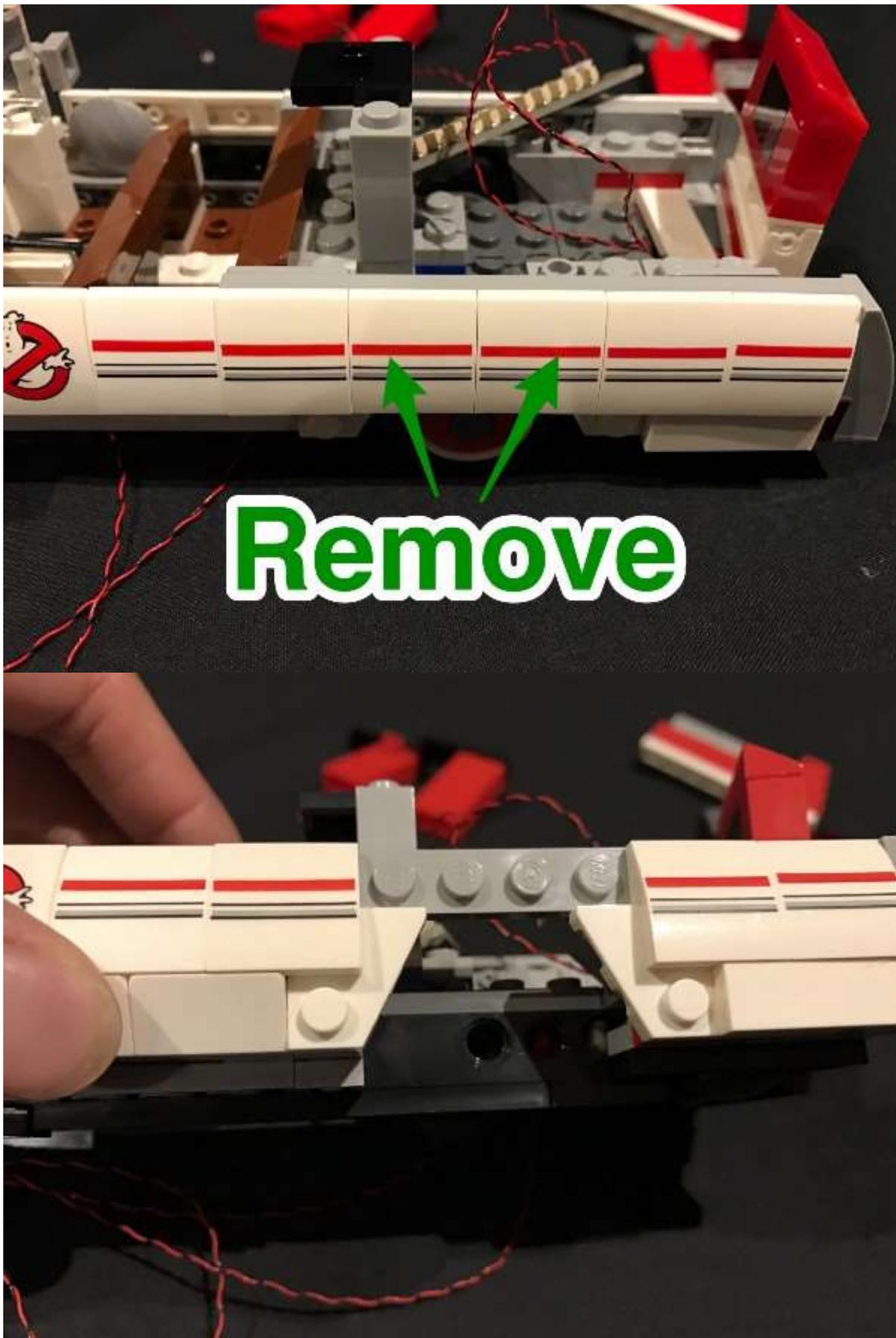
8.) Secure the cables in place by reconnecting the back bumper and flat white plate ensuring the cables are laid in between studs.



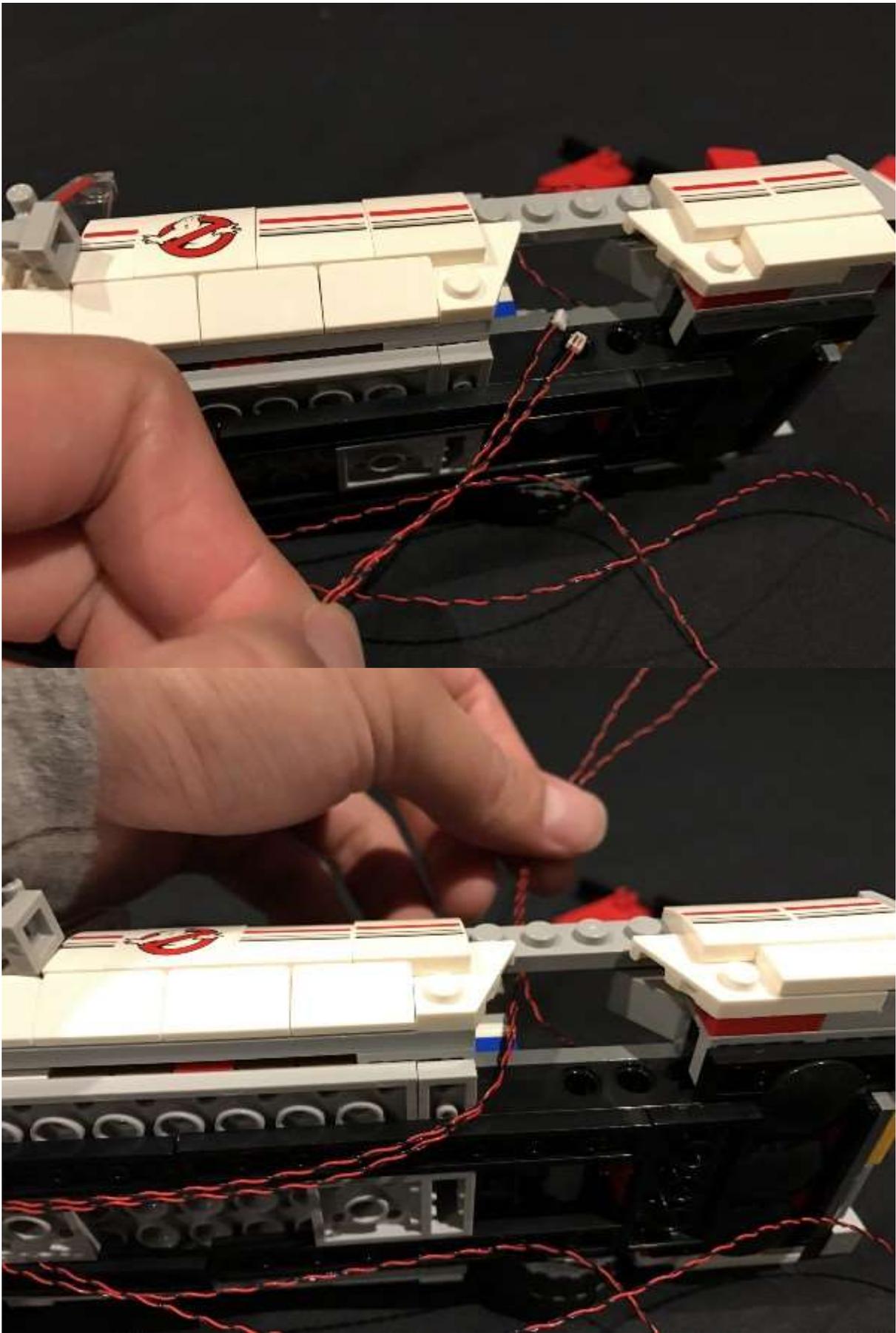
9.) Connect the other ends of the two tail light cables into to first available ports on the **12-port expansion board**

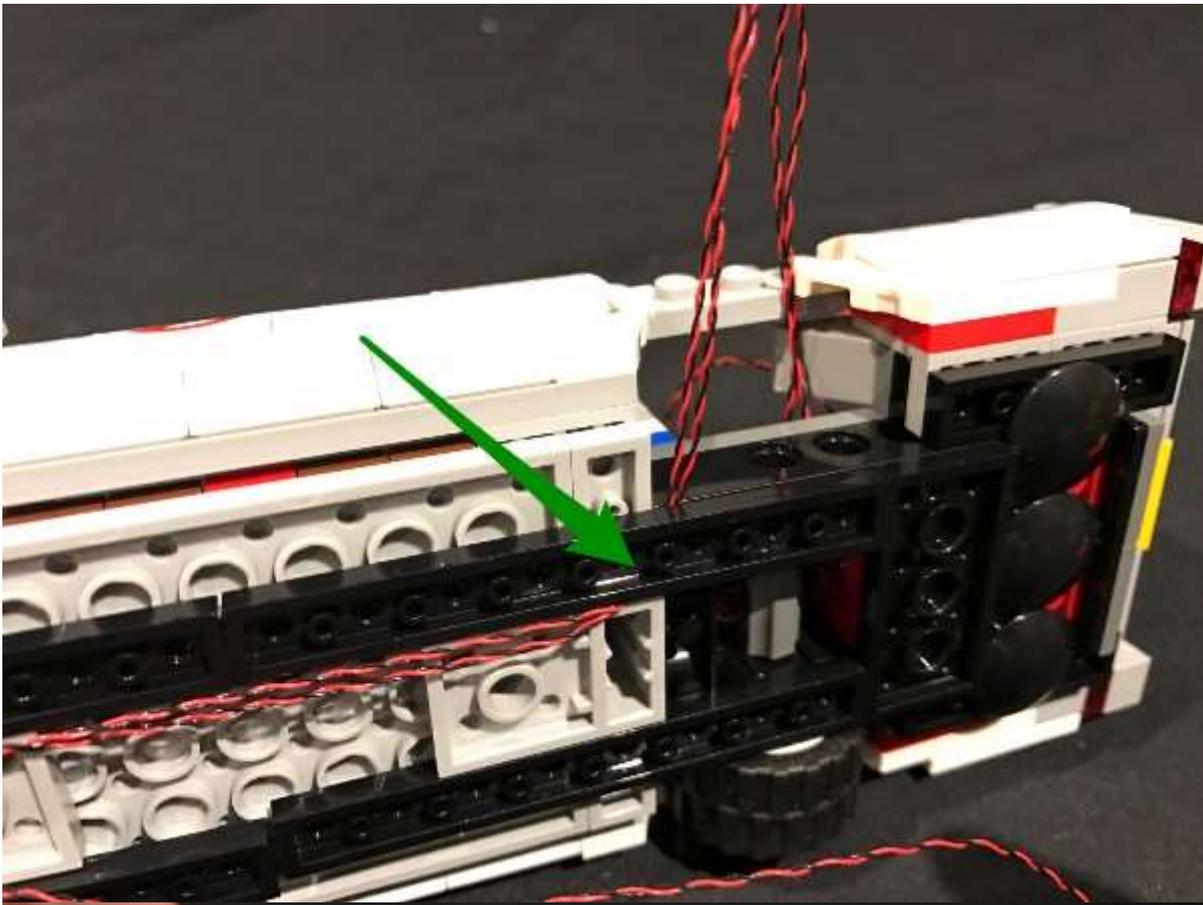


10.) We now need to thread the cables from the headlights toward the back of the car. First remove the following pieces, to allow us to then remove one of the wheels.

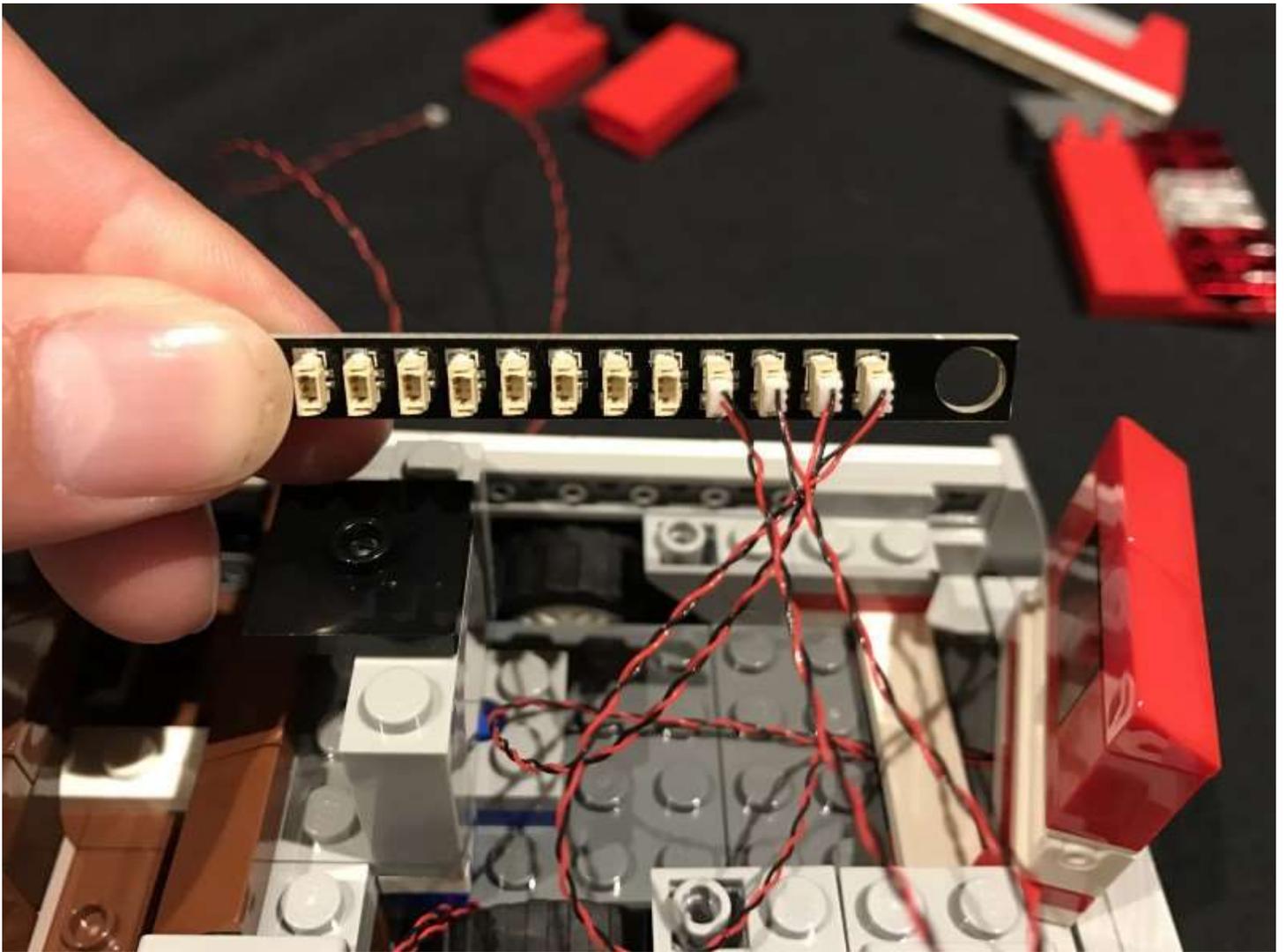


11.) Take the first 2 cables from the right headlight and then thread them up the spacing where we removed the wheel, then secure these cables underneath the black LEGO 1×8 plate as per below. Reconnect the wheel over the top.

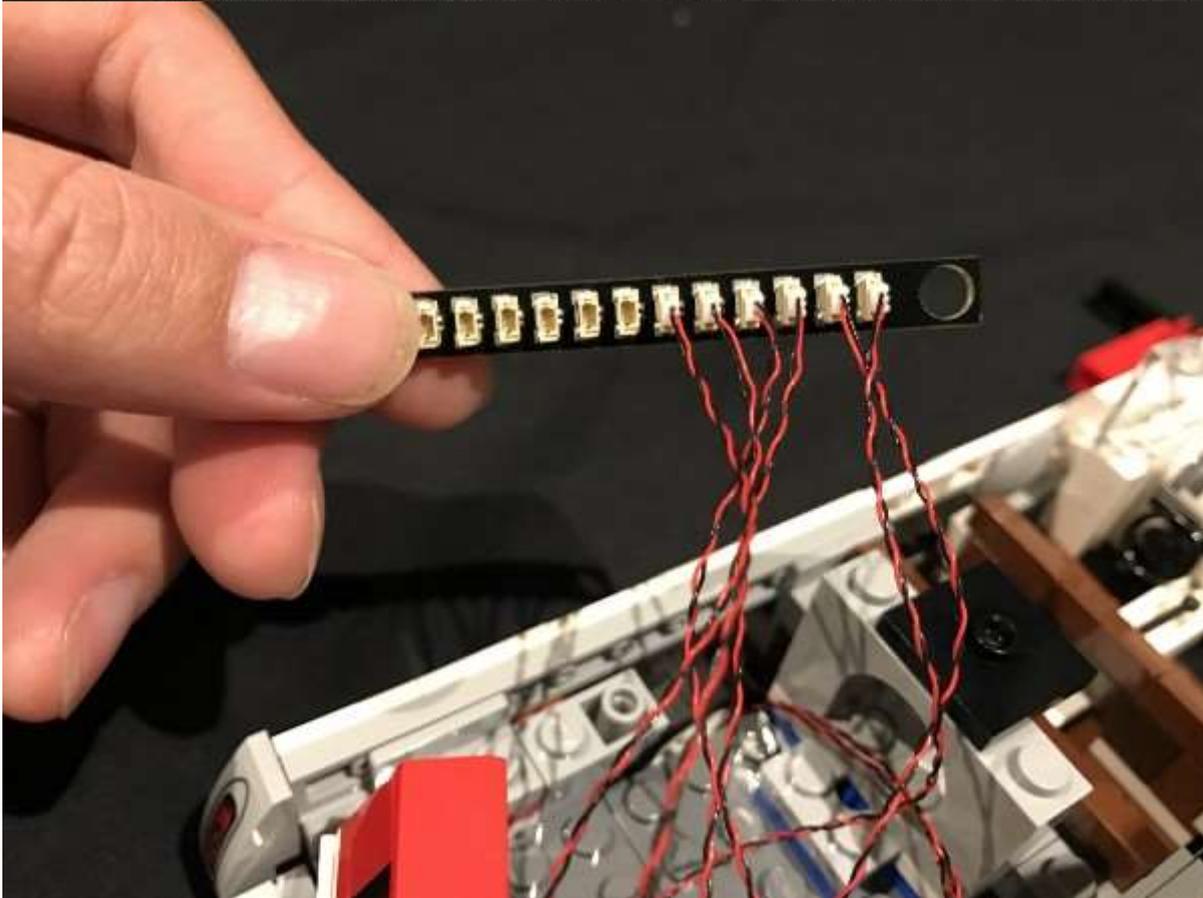
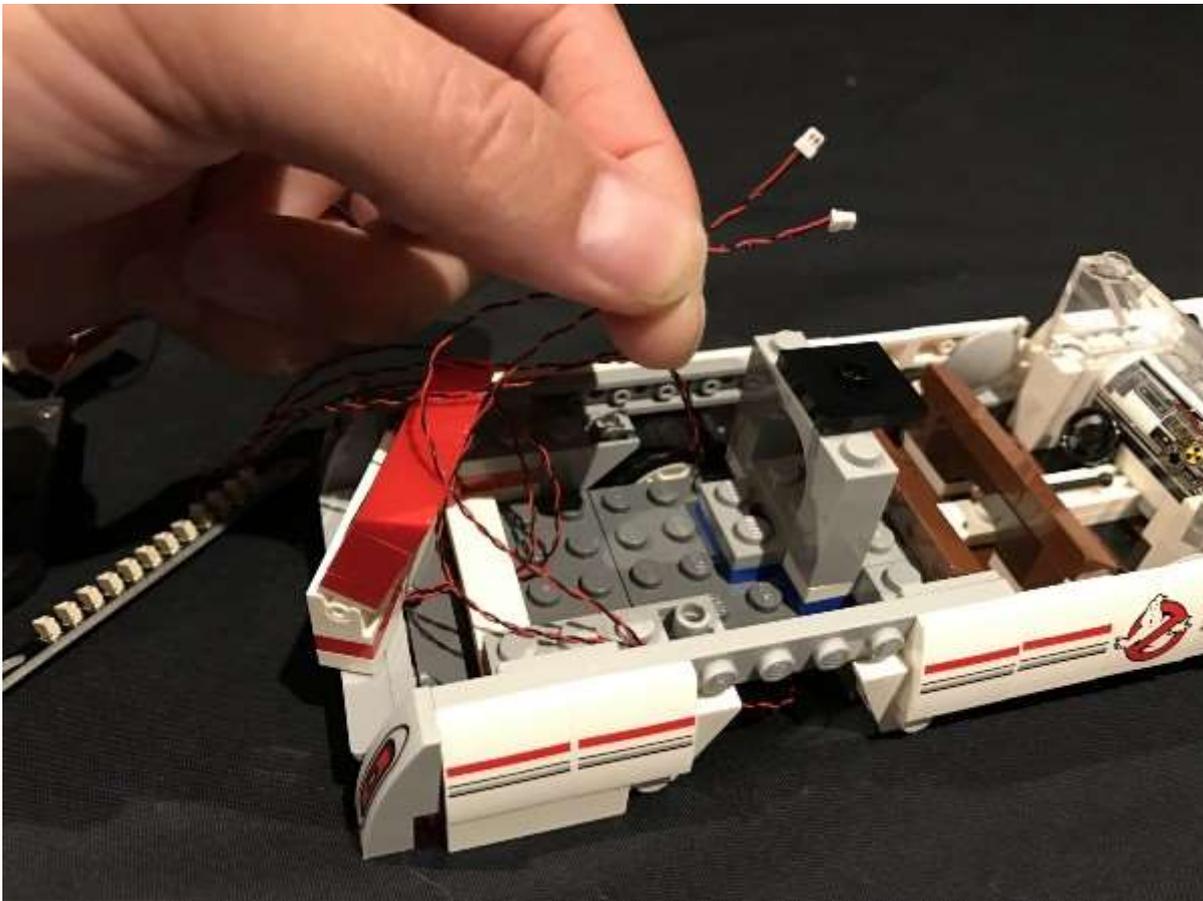




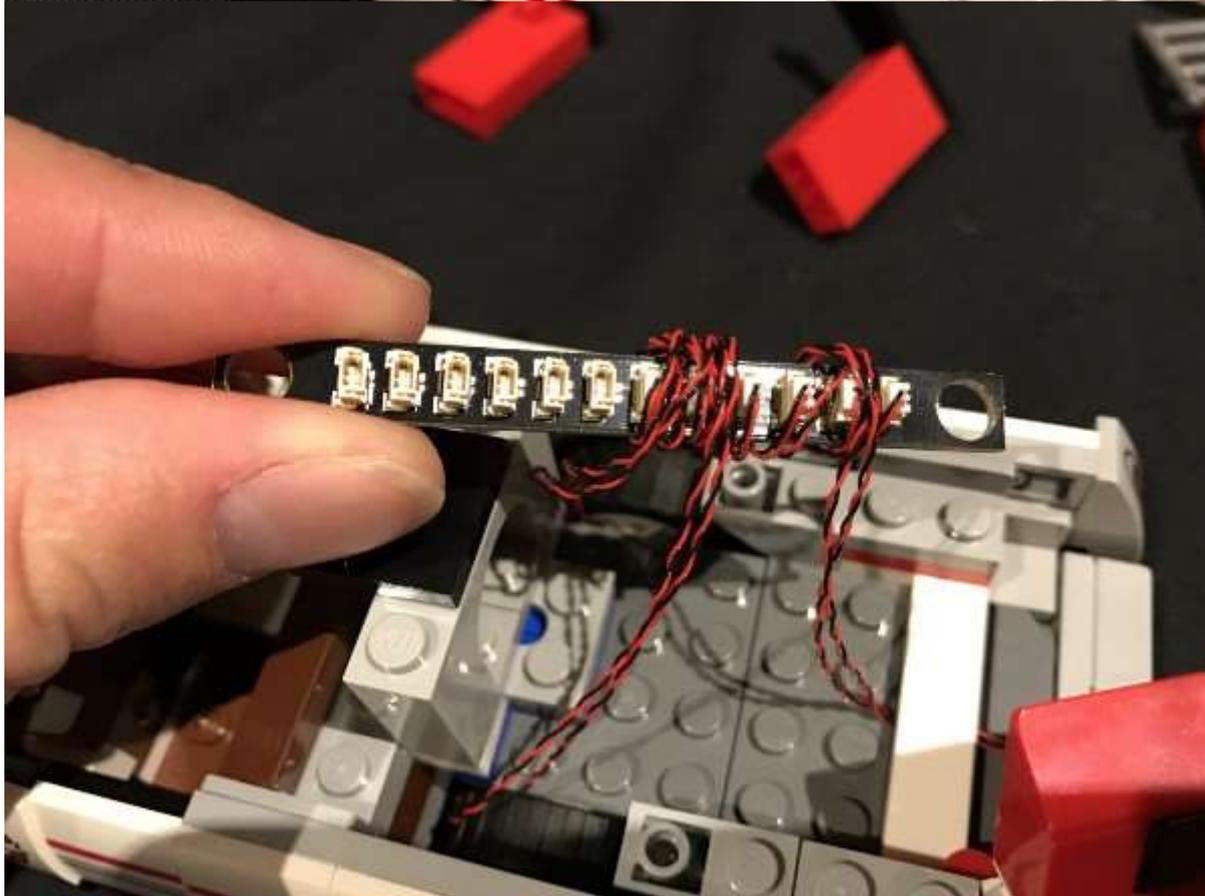
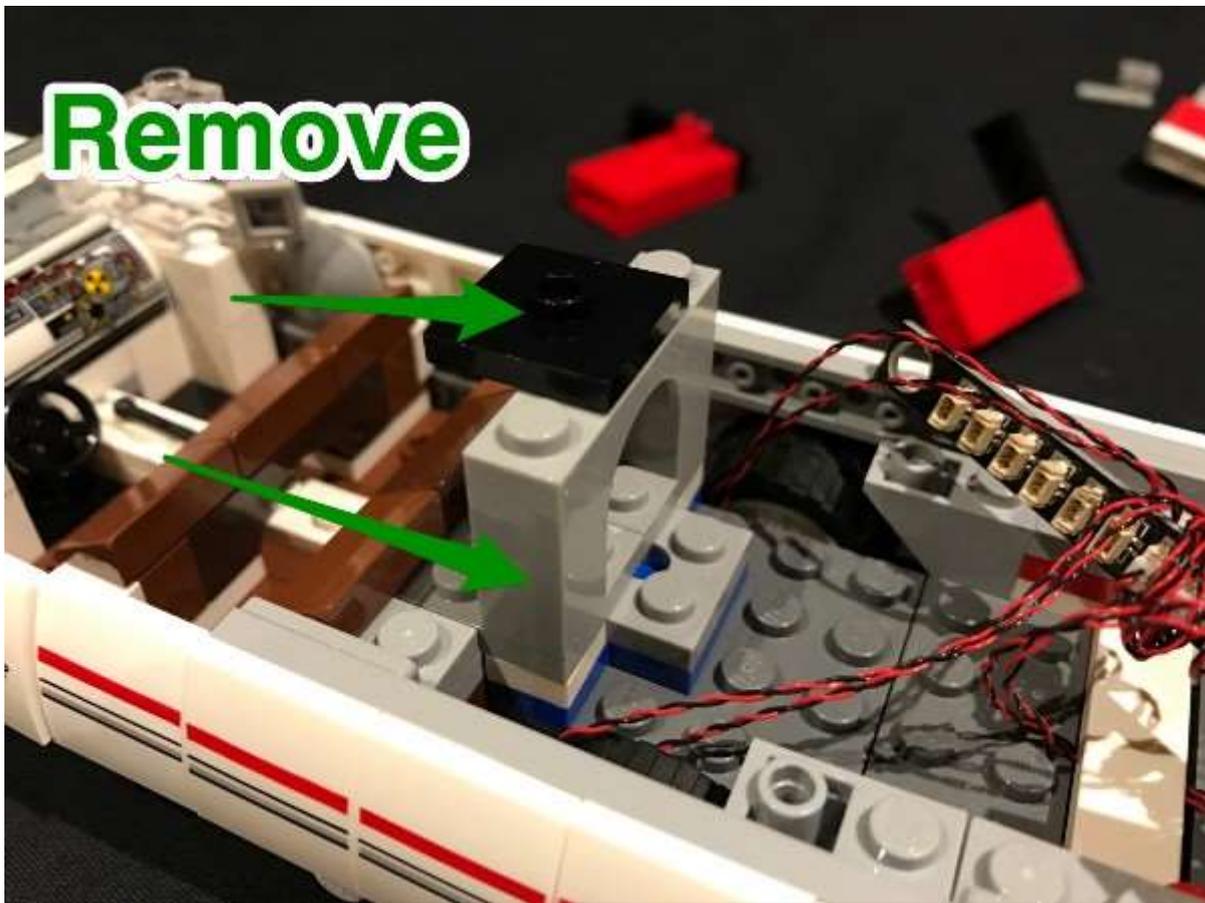
Pull the cables up from the inside of the car and then connect them into the next available ports on the 12-port expansion board



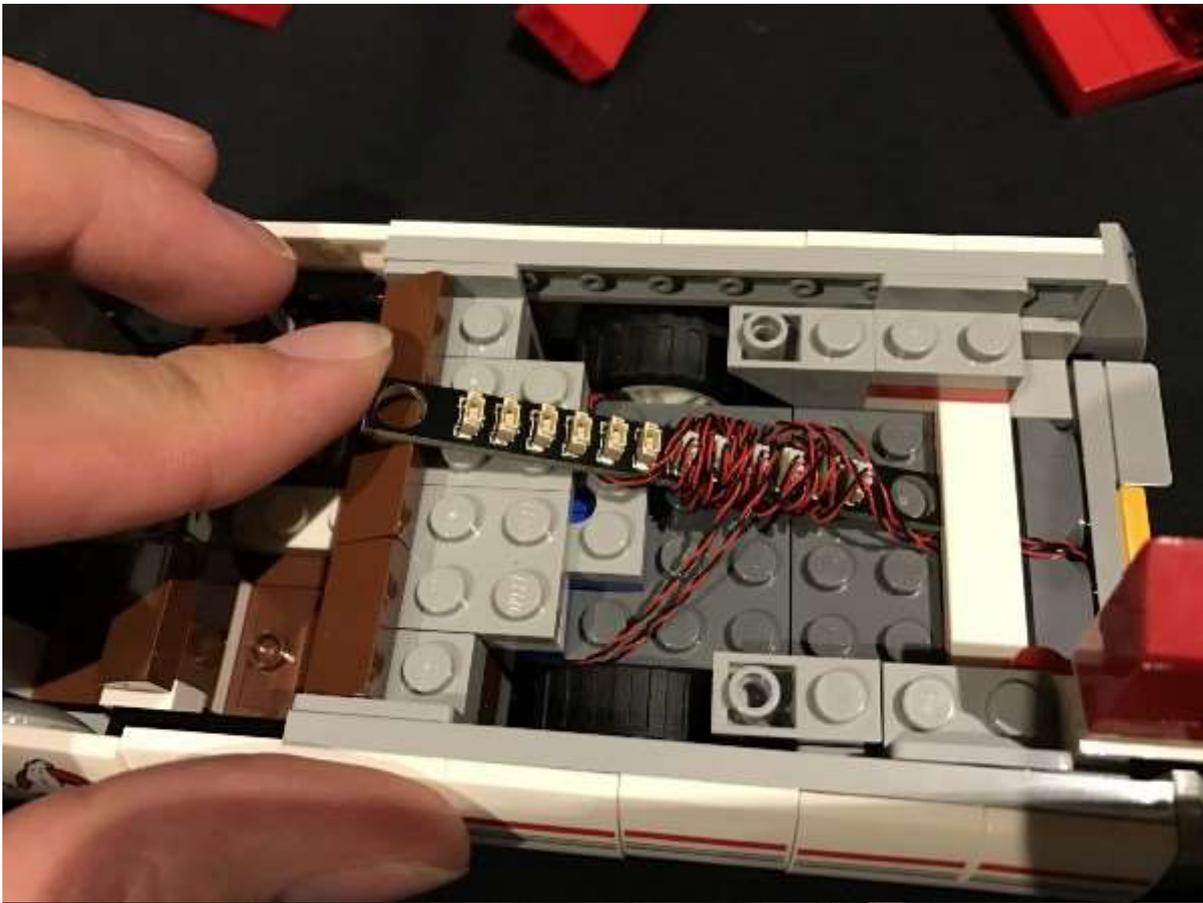
12.) Repeat the same process to thread the 2 light cables from the other side the car up behind the wheel, then secure it like we did underneath the other black LEGO 1×8 plate. Connect these 2 cables into the next available ports on the expansion board.



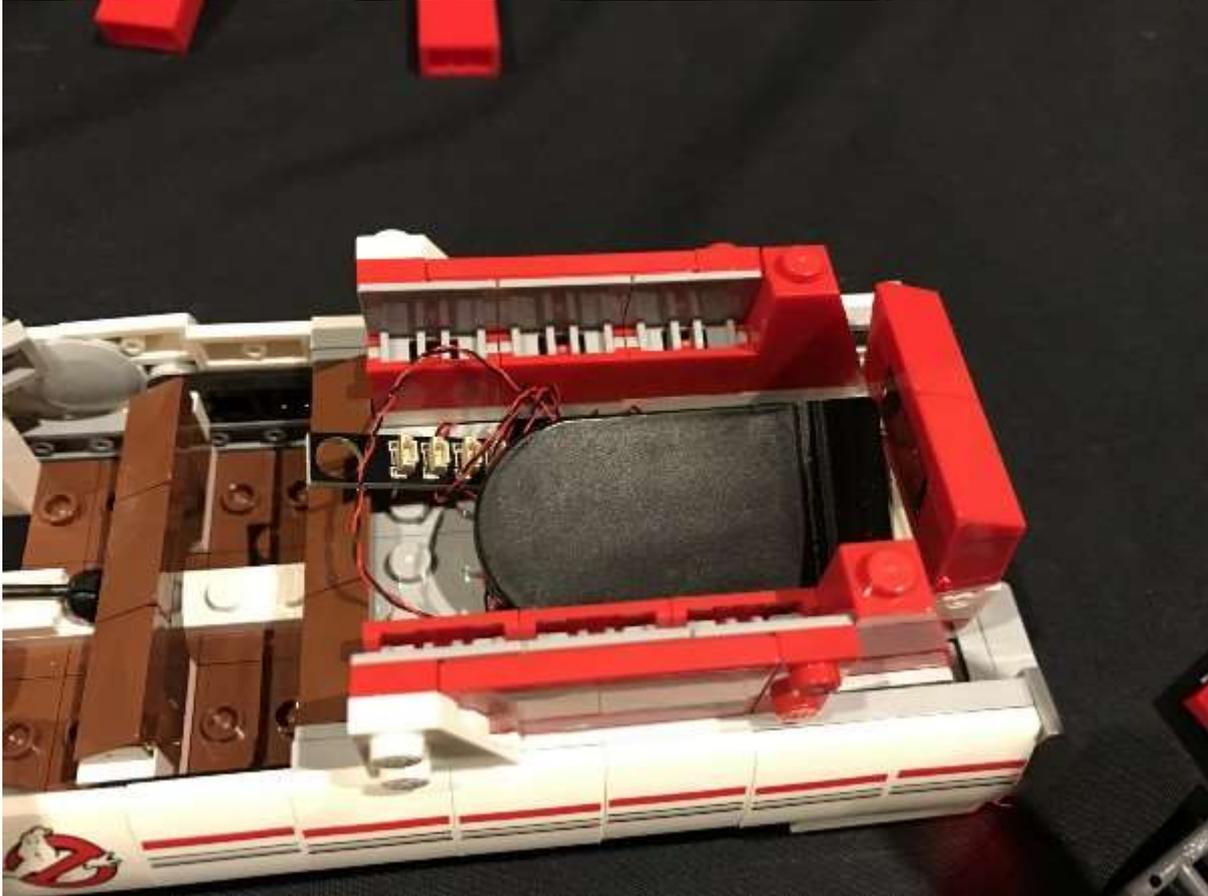
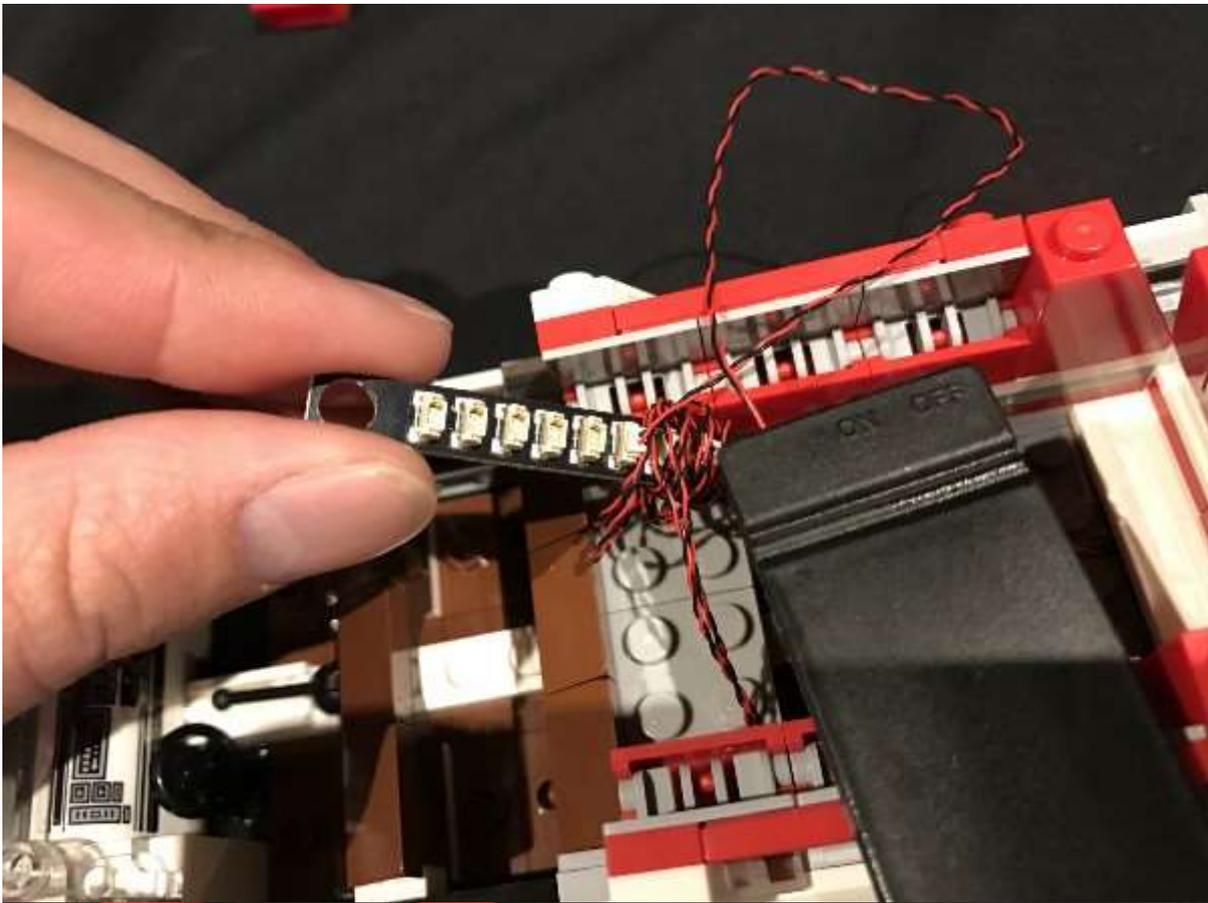
13.) Remove the following pieces from the back of the car and then wind all cables around the expansion board as per below. This will reduce any excess cable we do not require.



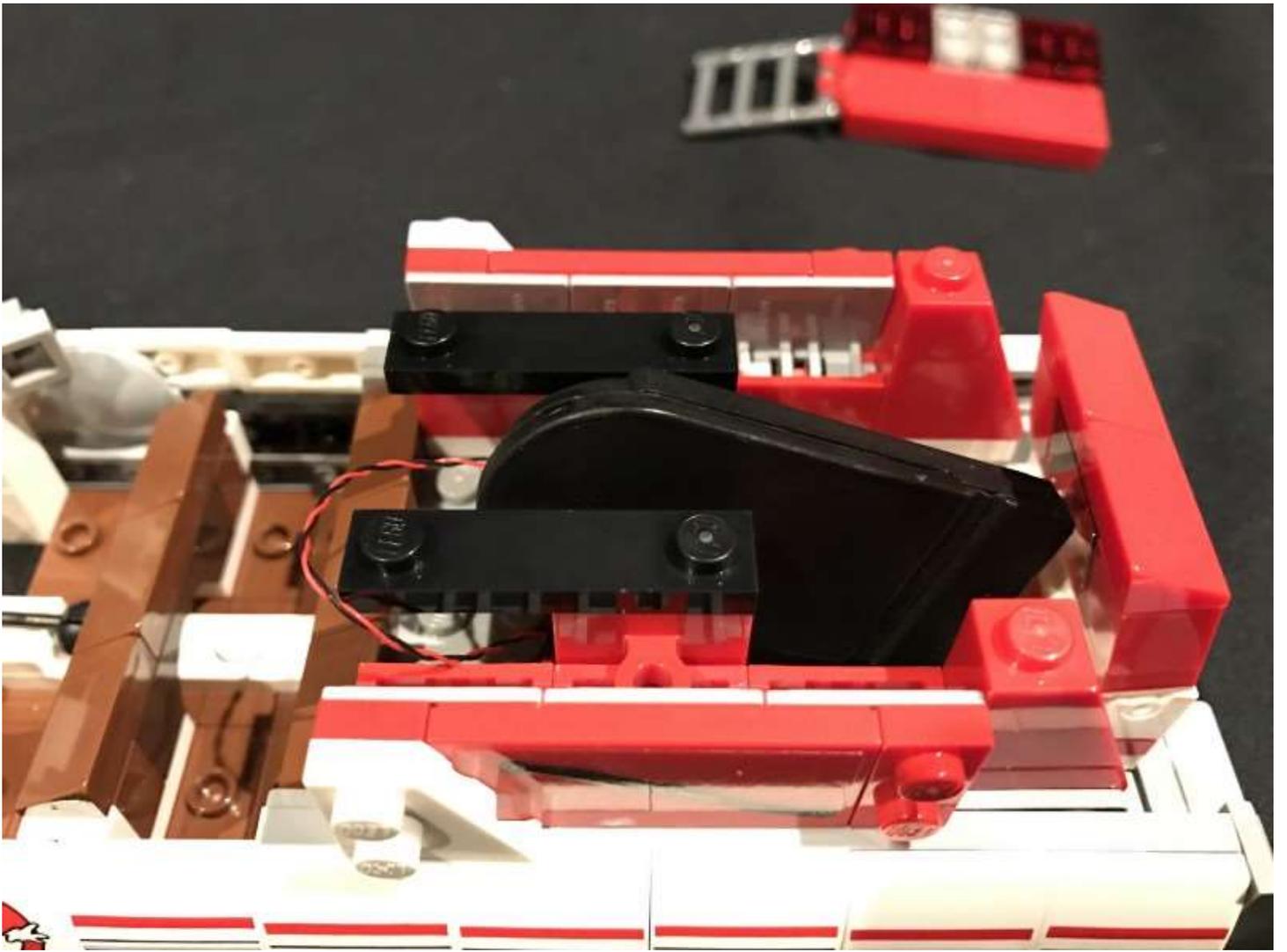
14.) Place the expansion board with wound up cables in the centre of the car and then reconnect the pieces on the side.



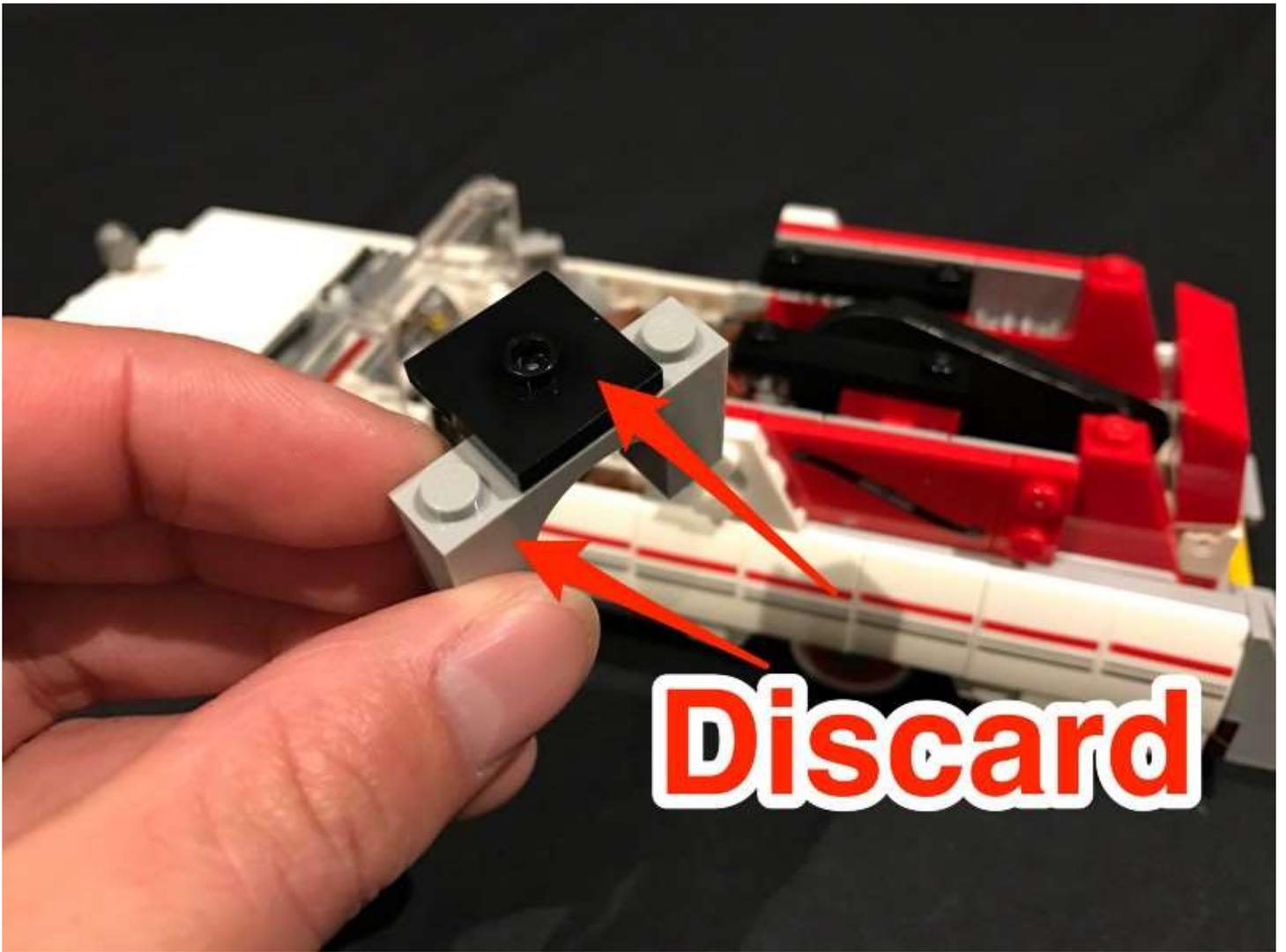
15.) Take the flat battery pack and insert 2x CR2032 batteries to it, then connect the battery pack cable into the next available port on the expansion board. Neatly place the battery pack in the back of the car ensuring that the battery switch is facing the back so that it is easily accessed when we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



Reconnect the following pieces on the side.



Remember this section we removed earlier?

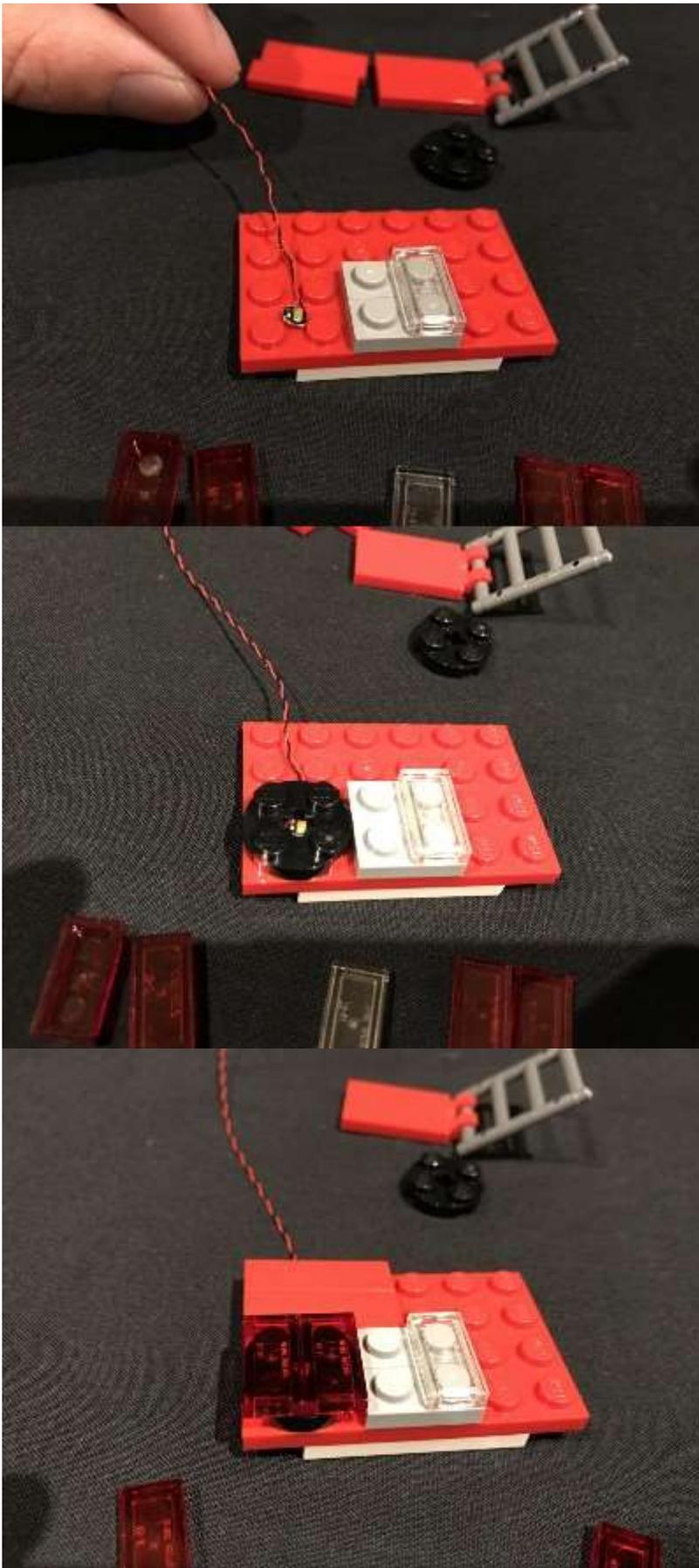


We will not be reconnecting this as we want to leave enough room in the back of the car for the expansion board and battery pack. We can discard these pieces. Don't worry, we will still be able to connect the roof on properly later on.

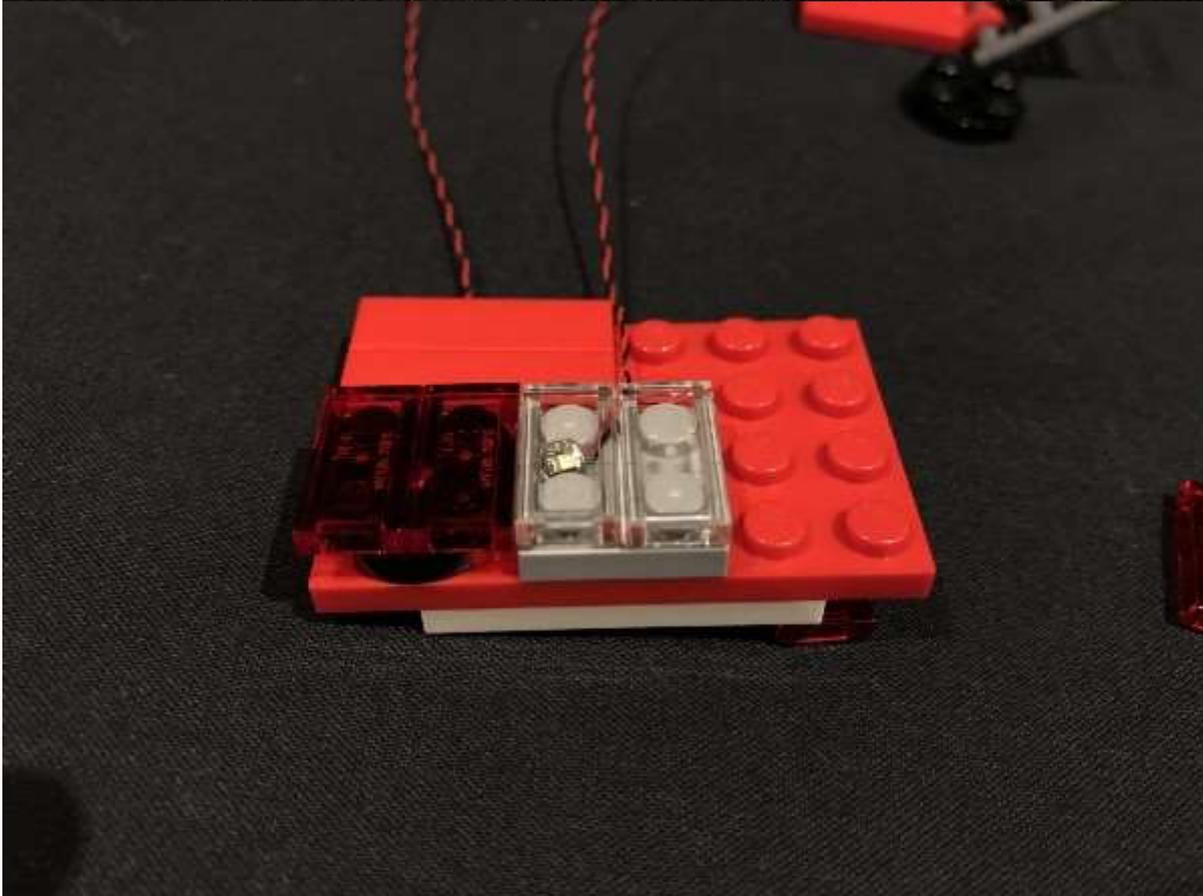
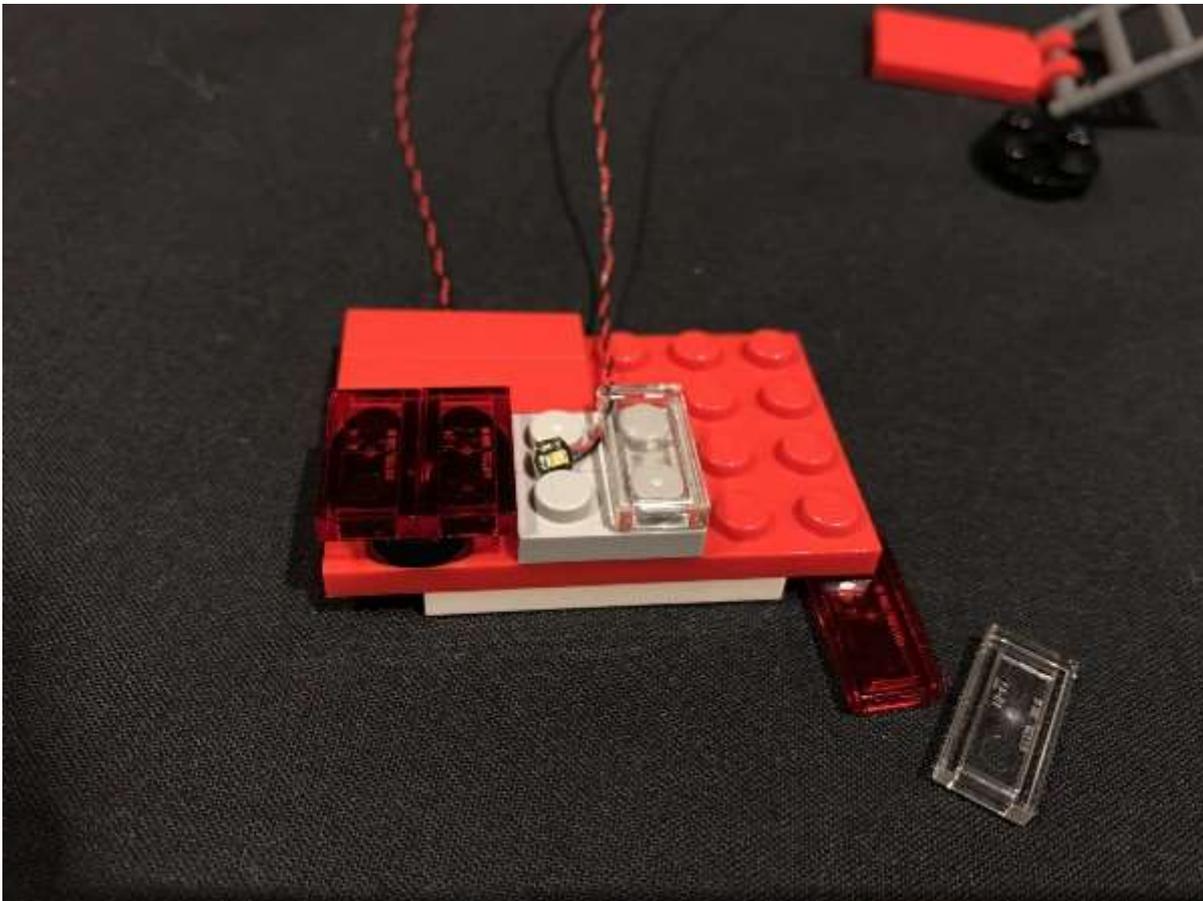
16.) We will now move on to lighting sections of the roof starting with the back section. Disassemble the roof pieces as per below



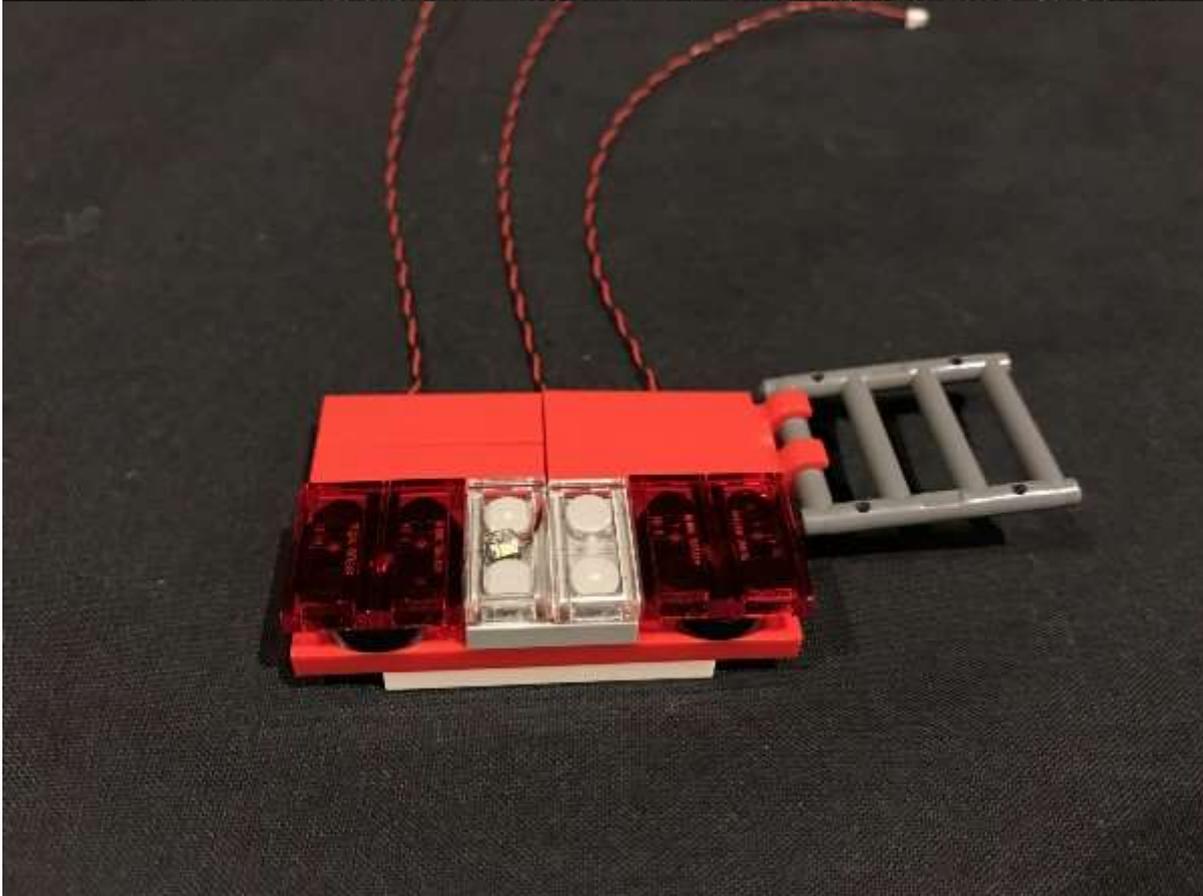
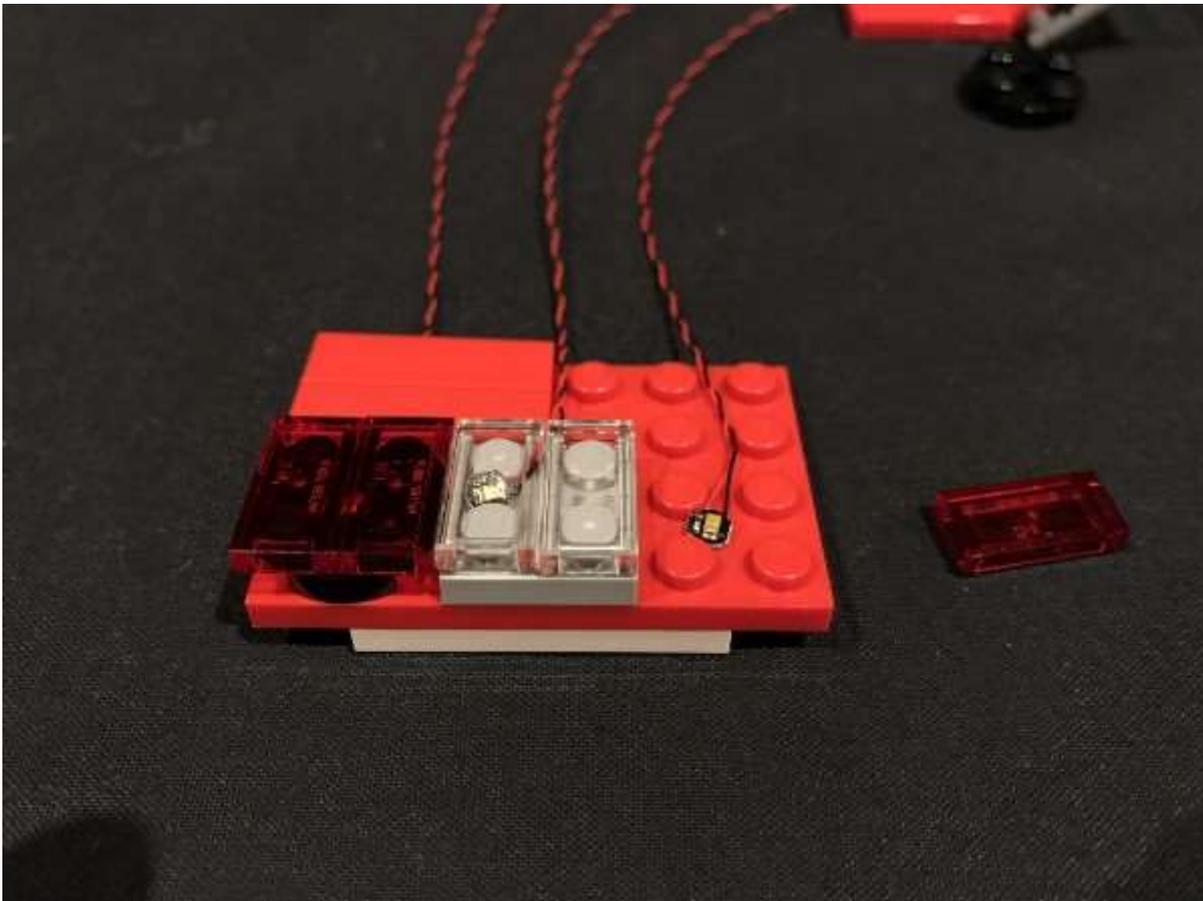
Take 1x **flashing bit light with 15 cm cable** and place the LED component directly over the red stud as per below. Secure it in place by reconnecting the round black 2×2 plate over the top ensuring the LED component is clearly visible through the middle hole and that the cable is facing toward the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



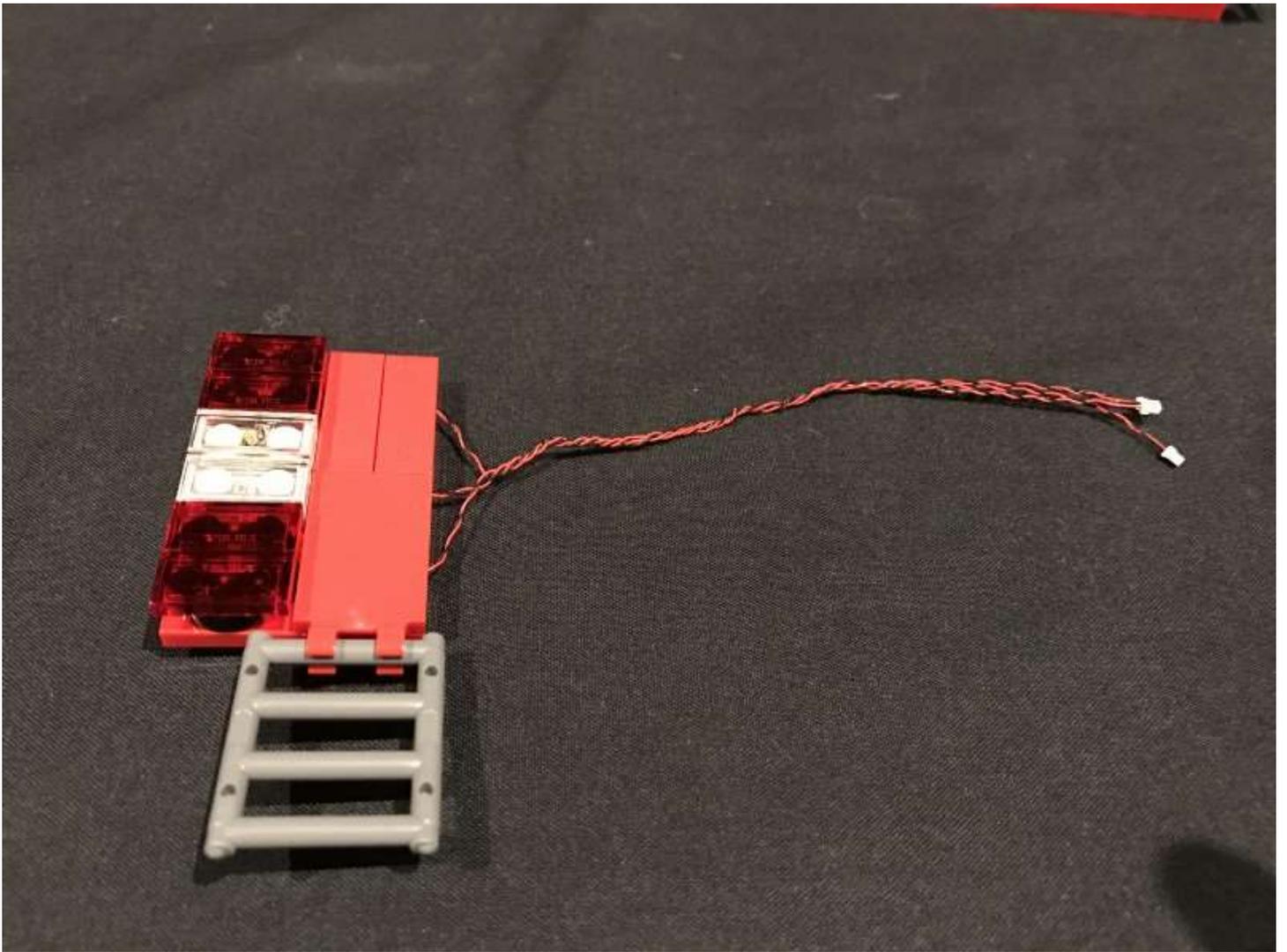
17.) Take another flashing bit light with 15cm cable and place the LED component between the 2 grey studs on the left, as per below. Secure this in place by reconnecting the clear trans 2x2 plate over the top ensuring the cable is facing the same way as the other bit light and neatly laid in between the LEGO studs.



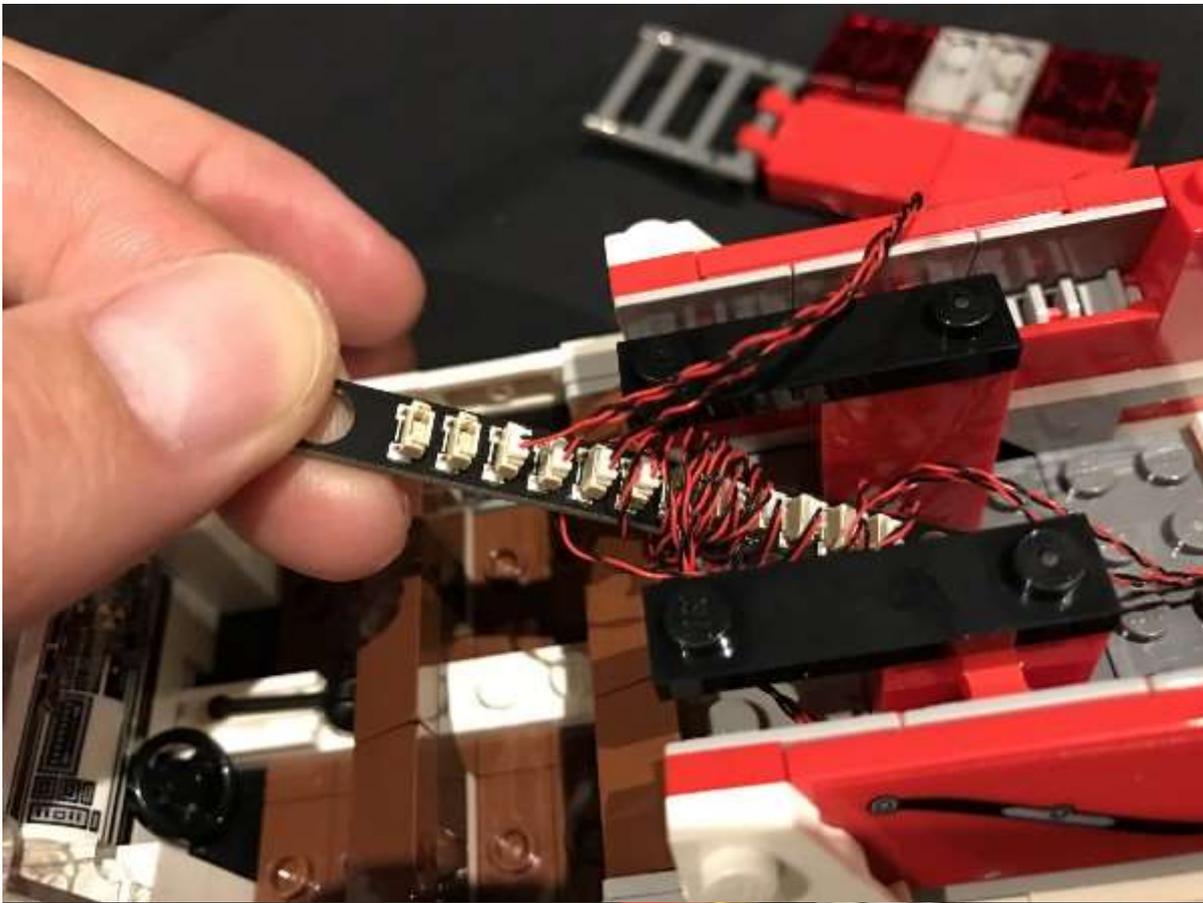
18.) Install another flashing bit light with 15cm cable to the next section, following the same process as the bit light on the left side (step 16). Reconnect the surrounding pieces of this section of the roof remembering to to lay all cables neatly in between studs.



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

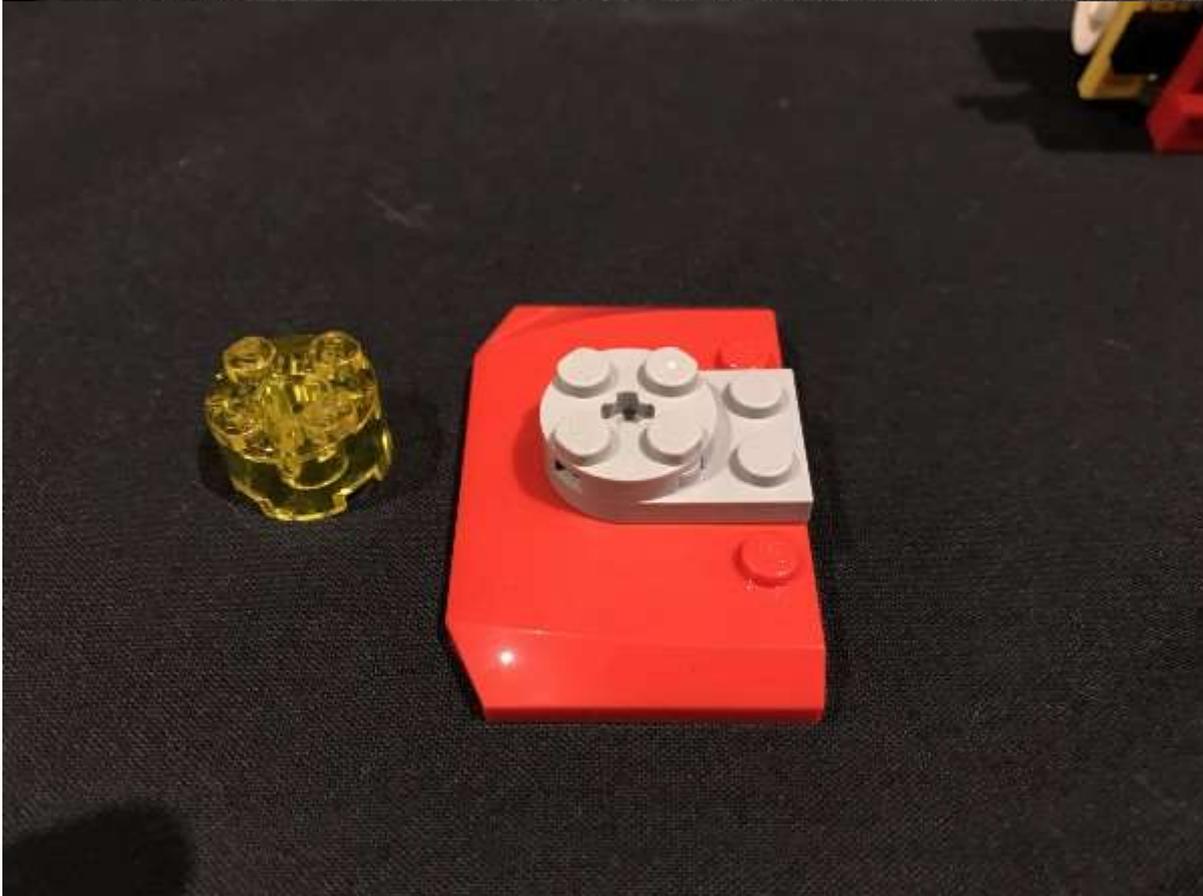
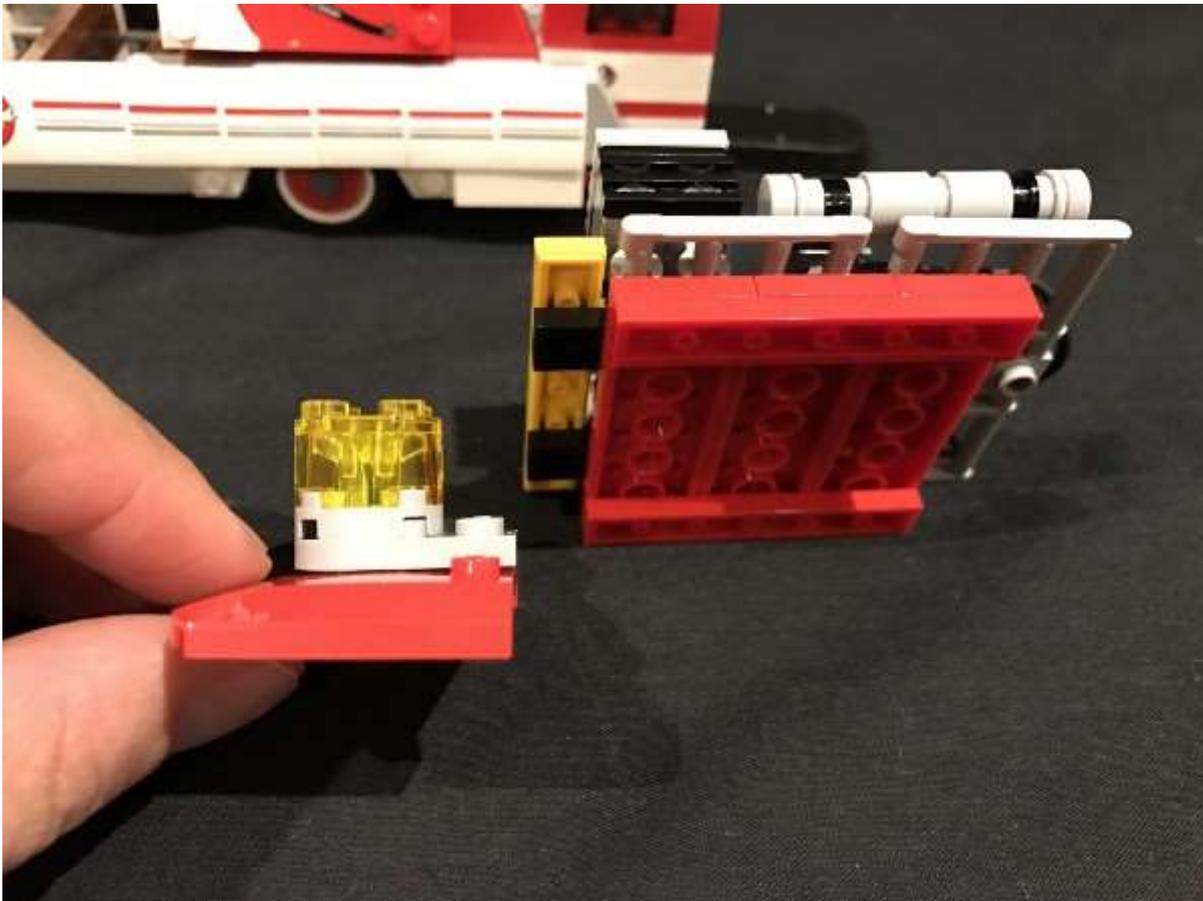


Connect the 3 cables into the next available ports on the expansion board then reconnect this section back to the car

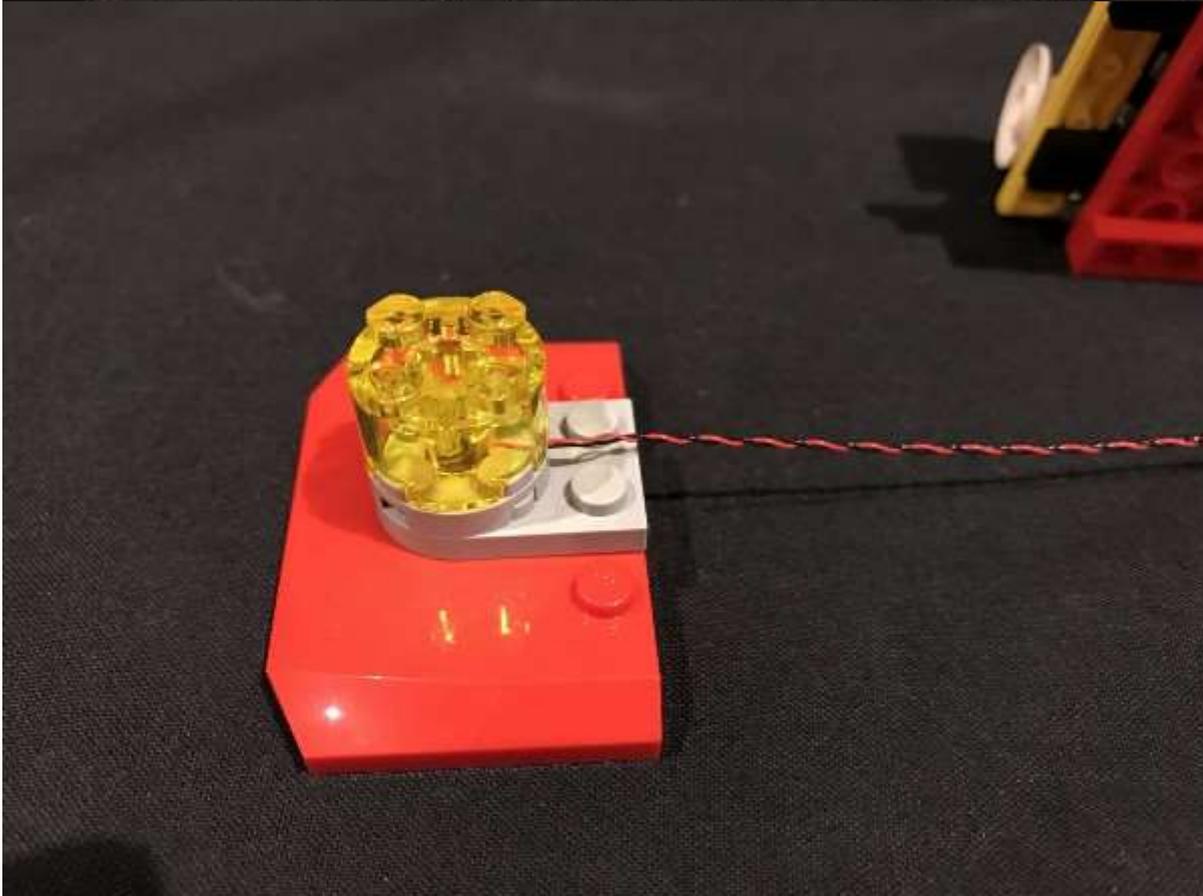
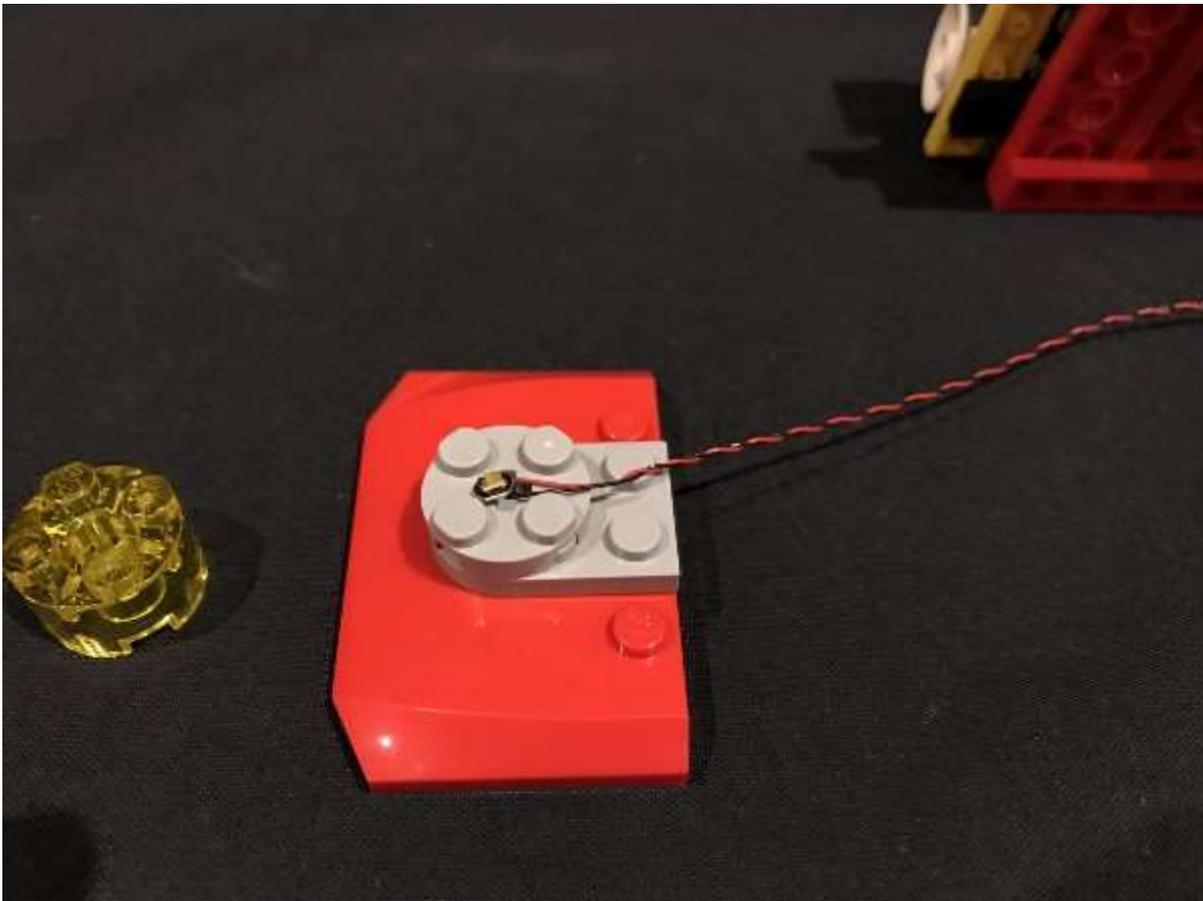


20.) We will now move onto installing another flashing light to the beacon at the front. Disconnect the front section of the roof by first removing the black plate underneath then remove the yellow beacon piece.

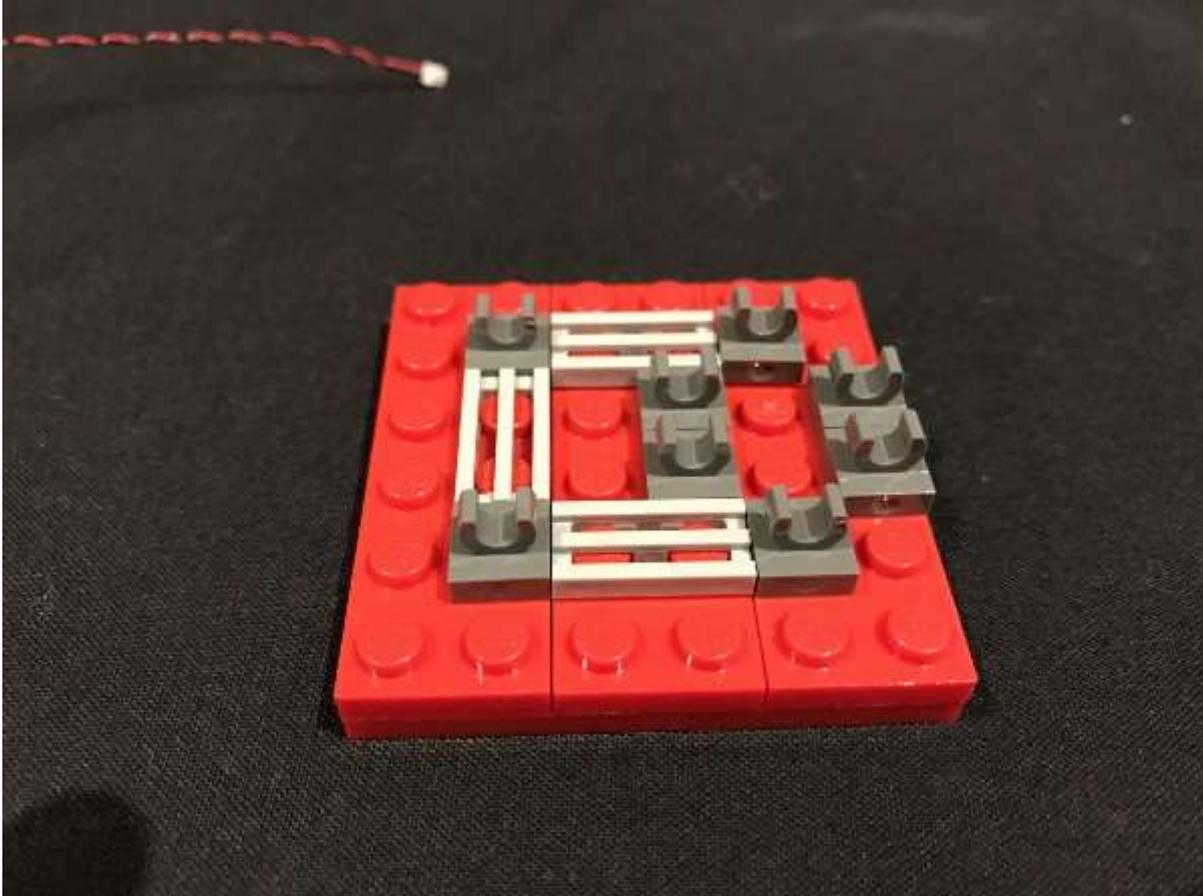




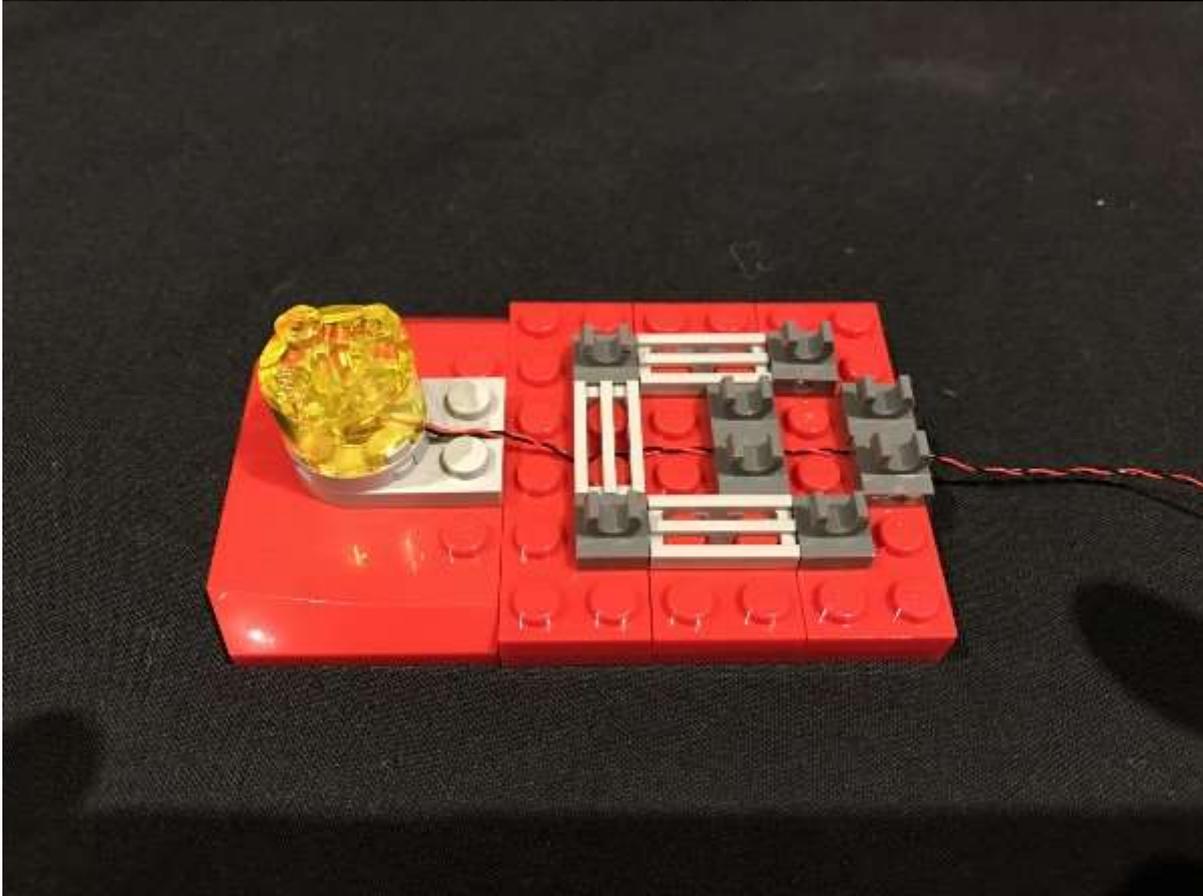
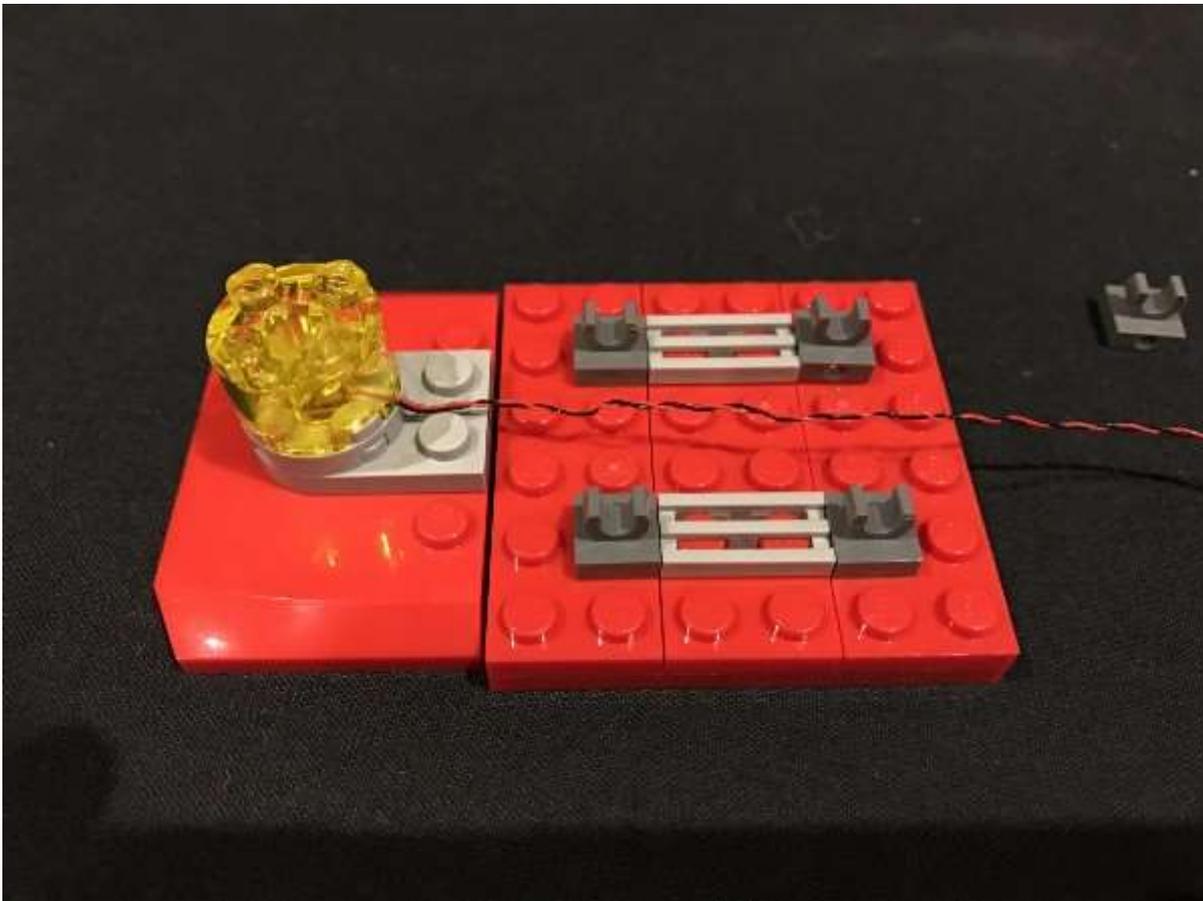
21.) Take the remaining flashing bit light with 15cm cable and place the LED component in the middle of the grey round 2x2 plate. Reconnect the yellow beacon piece over the top ensuring the cable is facing toward the back and laid neatly in between the studs.



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



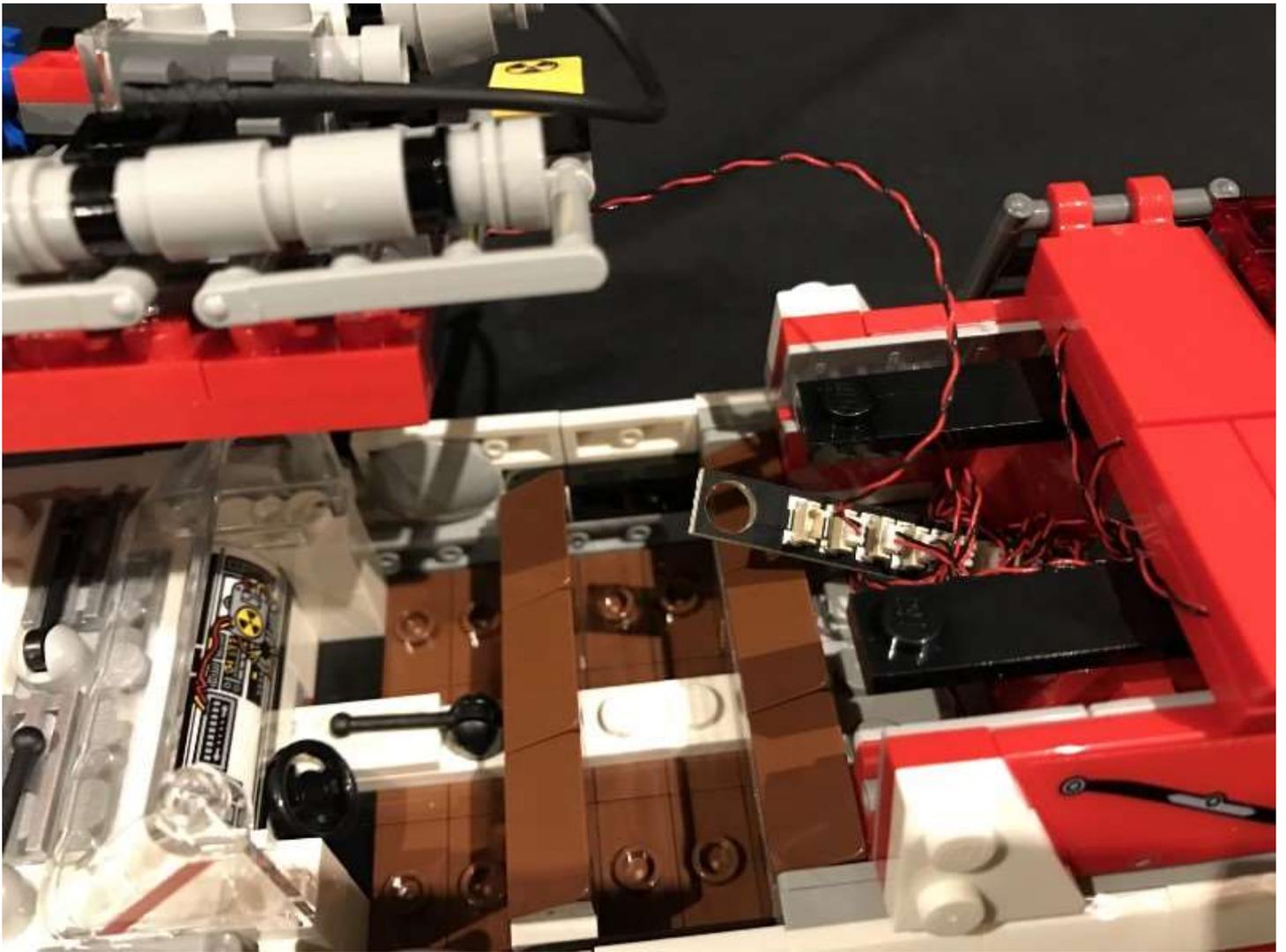
23.) Remove extra pieces from the middle roof section to allow us to lay the bit light cable underneath these pieces and in between studs. Reconnect these pieces we removed, securing the bit light cable in place.



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 bit 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 bit light to Kevin's motorbike. Start by removing the clear trans round plate from the front, followed by the wheel.



Take the **bit 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.



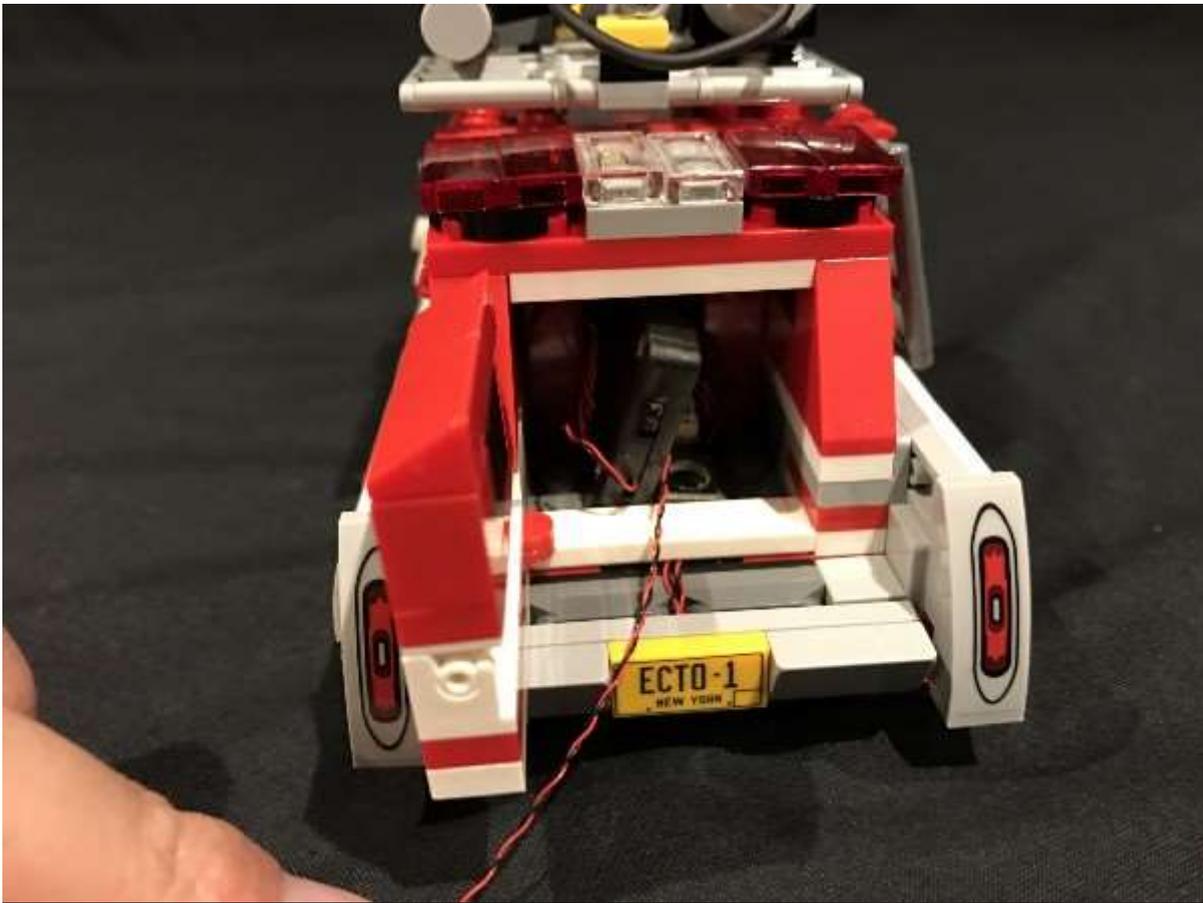
Secure the cable in place by threading the cable underneath the black bike frame as per below. Reconnect the wheel.



26.) Thread the other end of the bit 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 bit 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 Light My Bricks lighting kit for Ecto-1 & 2. Simply open the back door, turn on the battery pack, and ENJOY!

