

Green_Grocer_10185 LED Lighting Kit

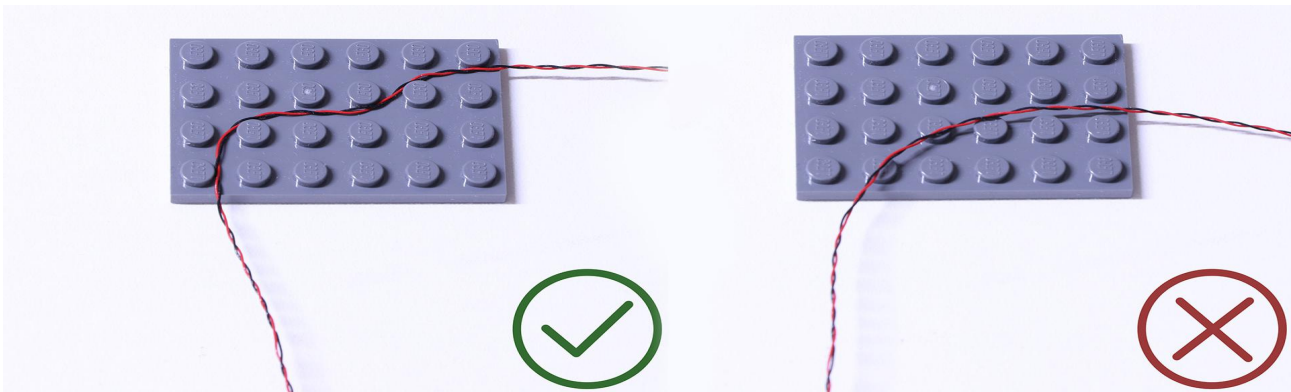
Package contents:

- 1x Lamp Post with 30cm Dot Light installed
- 2x White 30cm Dot Lights
- 5x White 15cm Dot Lights
- 8x LED Strip Lights
- 7x LEGO Plates 1x6 (for mounting Strip Lights)
- 7x 15cm Connecting Cables
- 2x 30cm Connecting Cable
- 10x Adhesive Squares
- 2x 6-port Expansion Boards
- 1x AA Battery Pack (Requires 3x AA Batteries)

Note:

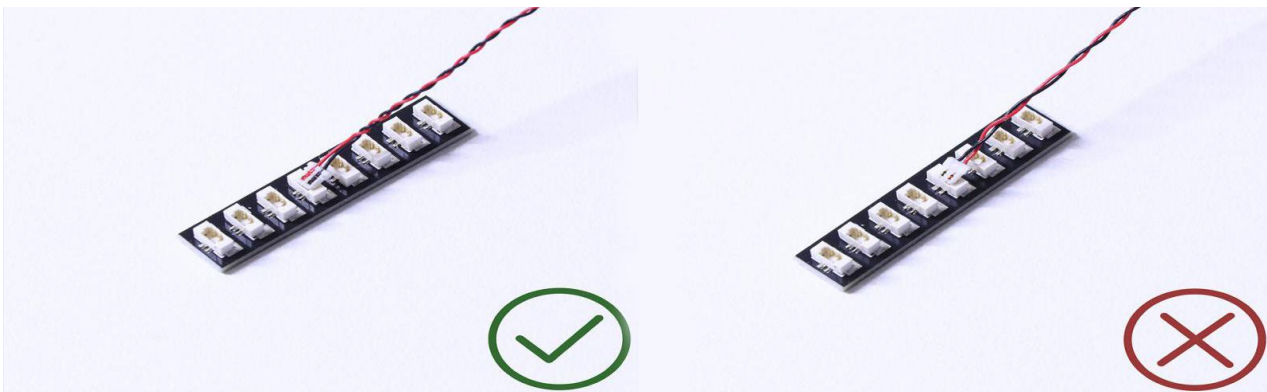
Place wires on the surface or under the LEGO building blocks.

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

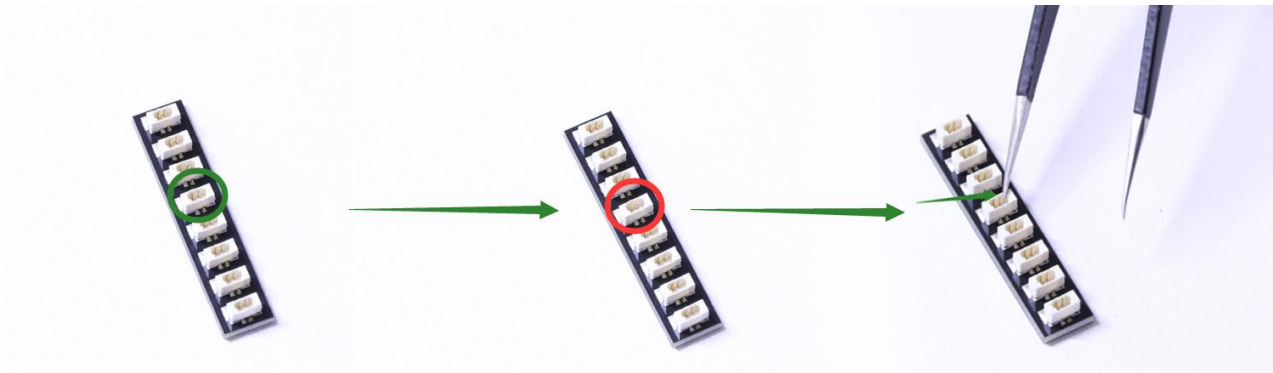


Insert the connectors to the ports.

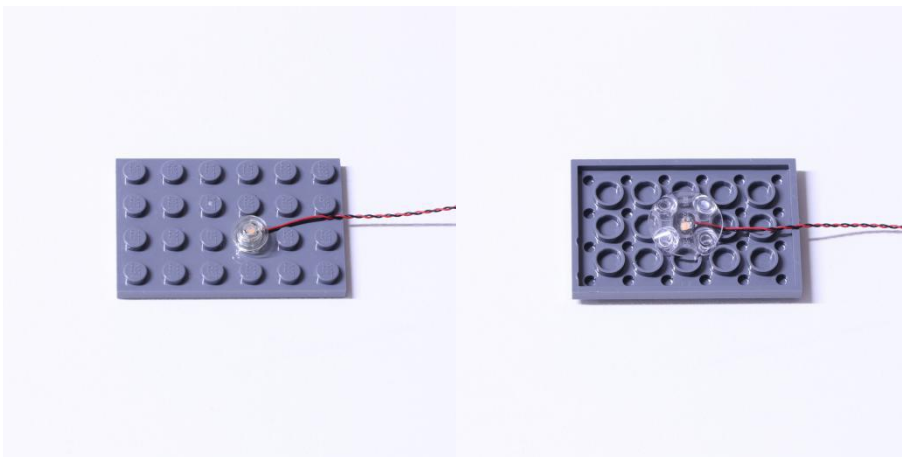
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and if you feel hard to insert, please stop,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

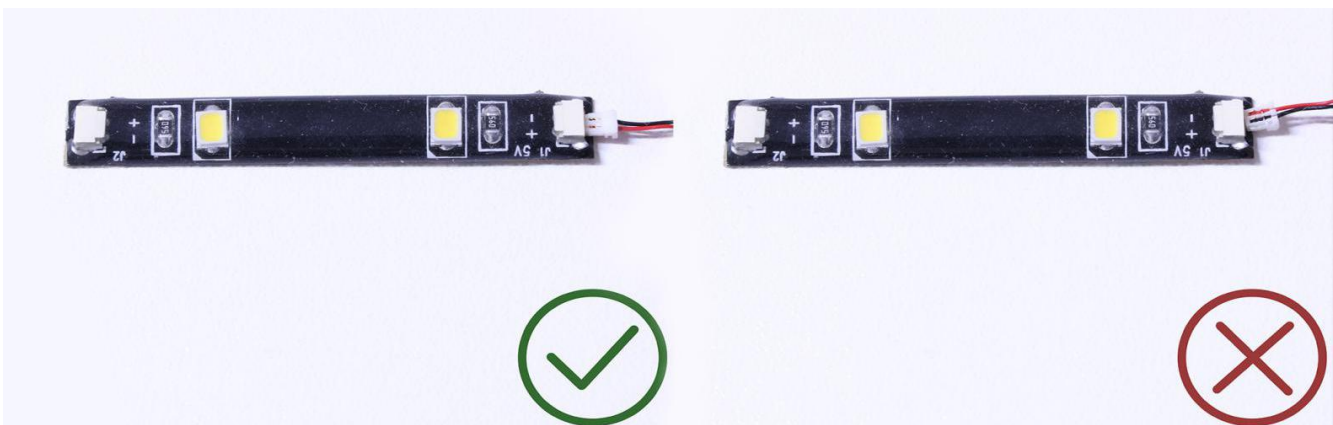


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put them either on the top of the studs or between studs.

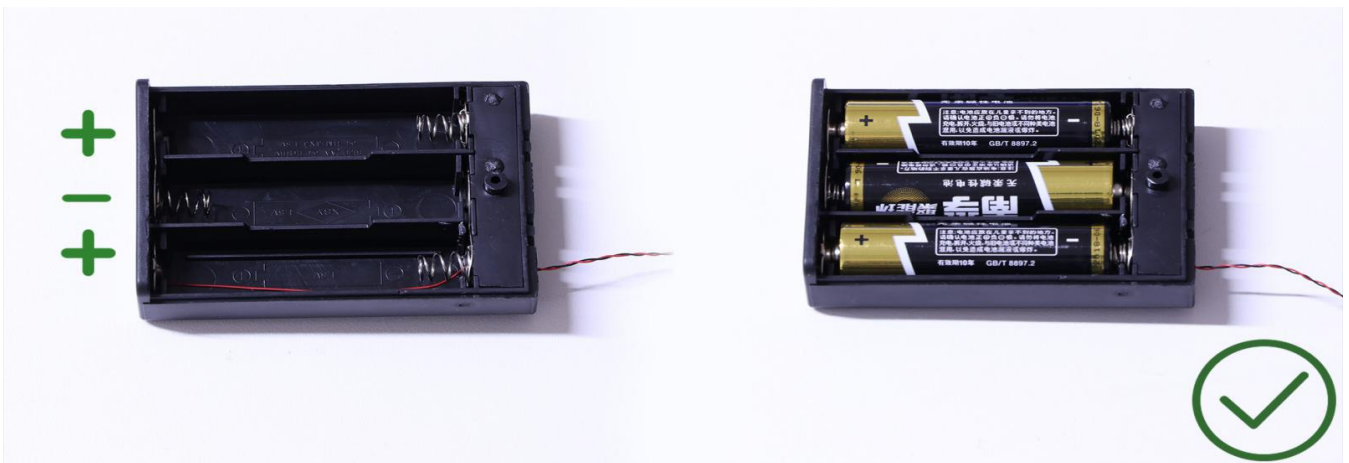


Connecting cable connectors to Strip Lights

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.



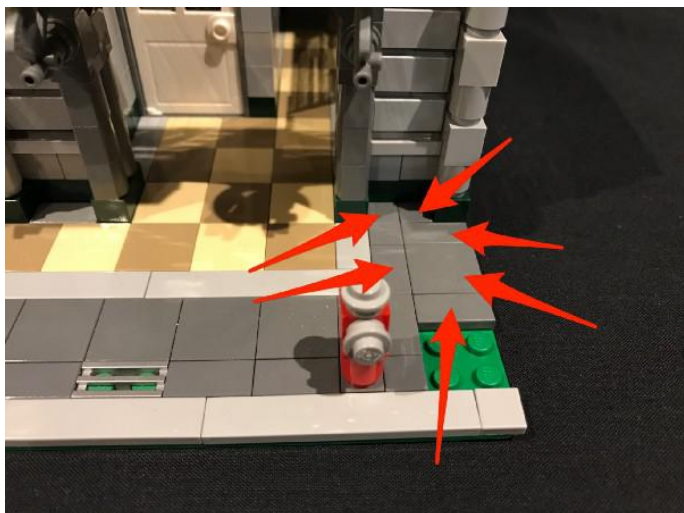
OK, Let's Begin!

Instructions for installing this kit

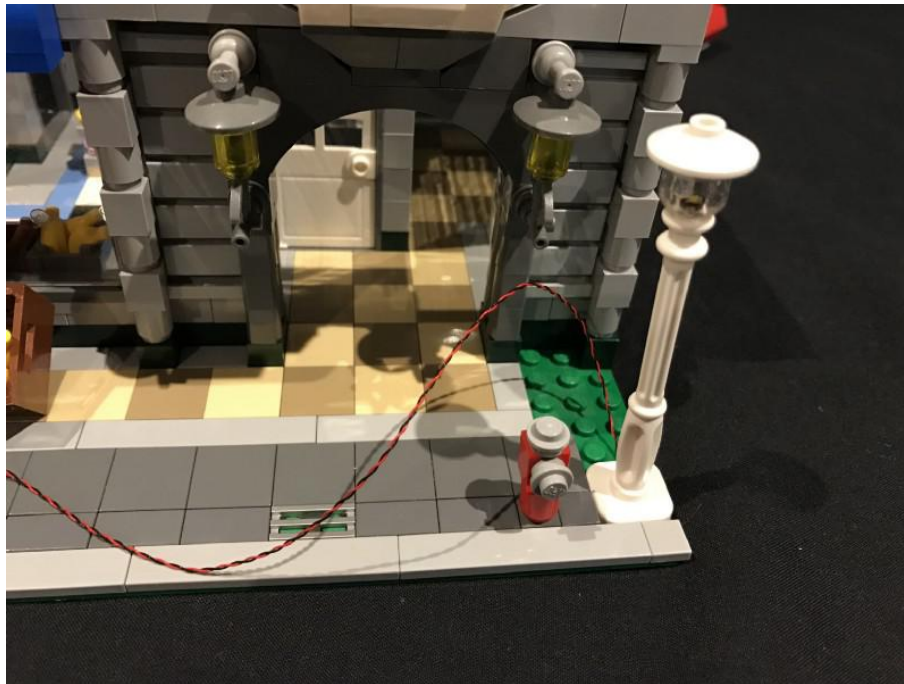
1.) This lighting kit is installed from ground up so start by removing the second and third floor, followed by the lamp post.



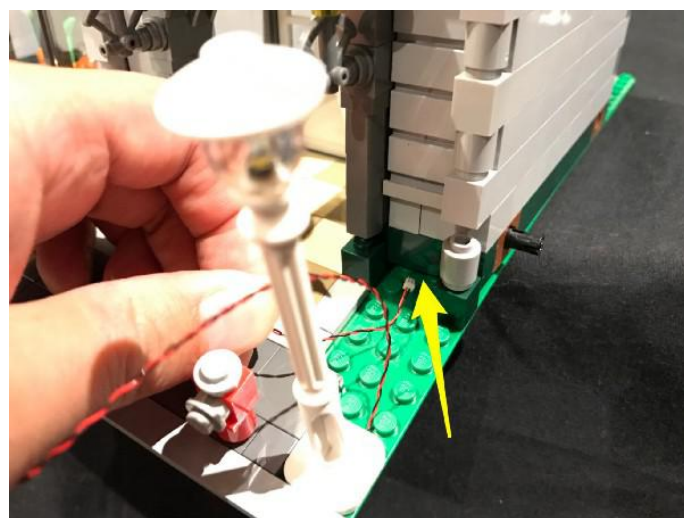
Remove the following tiles in front of the building as well as the section of mailboxes from inside the building



2.) Replace the stock lamp post with the Vonado lamp post with Dot Light installed and ensure the cable is facing toward the building.



Gently bend the corner of the base plate down so that the building slightly disconnects from the base plate creating a gap in between allowing you to thread the lamp post cable underneath the wall.



Pull the lamp post cable up from inside of the building.



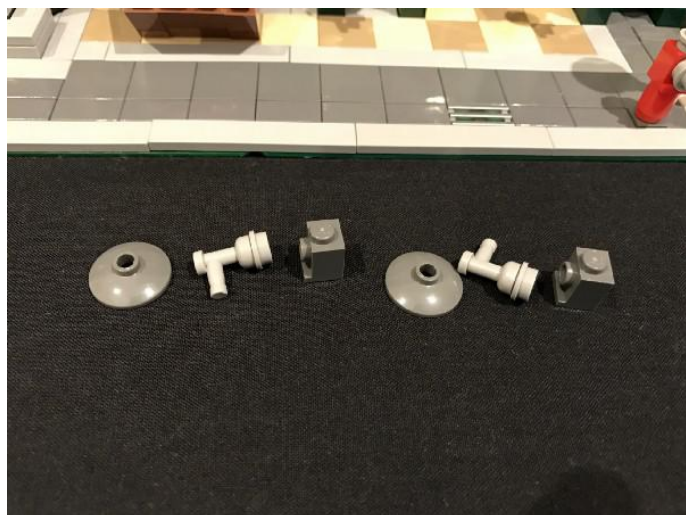
Ensure the lamp post cable is neatly laid straight and in between the studs of the base plate then reconnect the building and base plate back together. Reconnect the LEGO tiles we removed earlier as well as the section of mailboxes inside the building. The cable should be in between the mailboxes and the wall (in the corner).



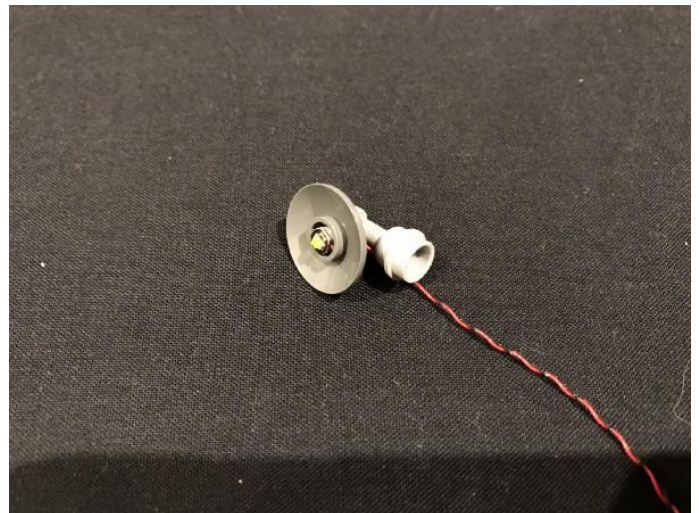
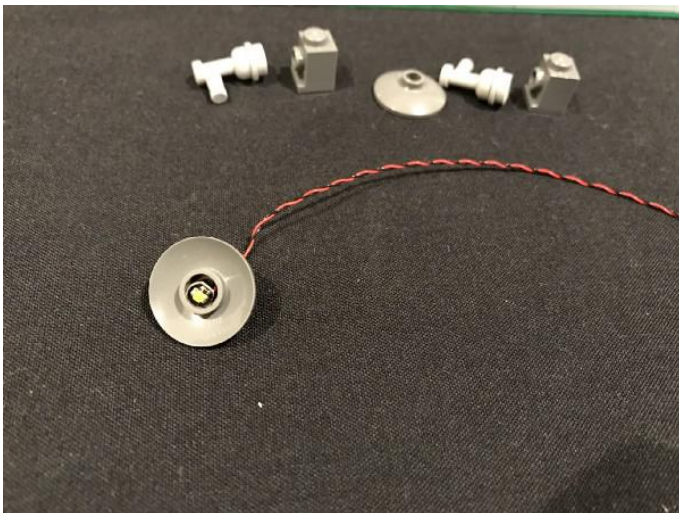
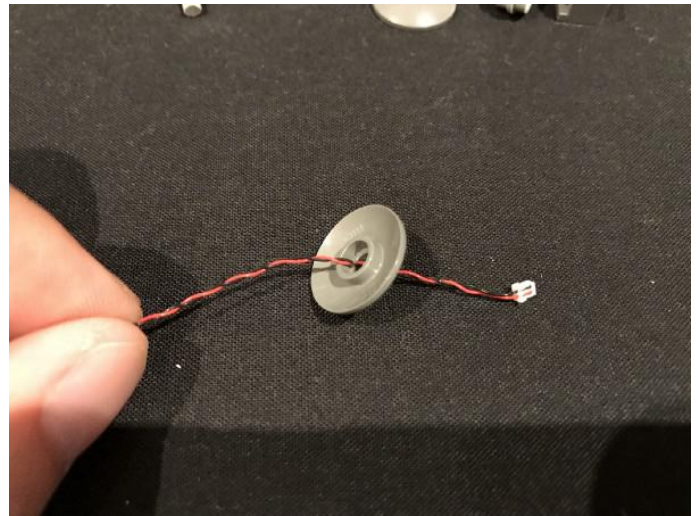
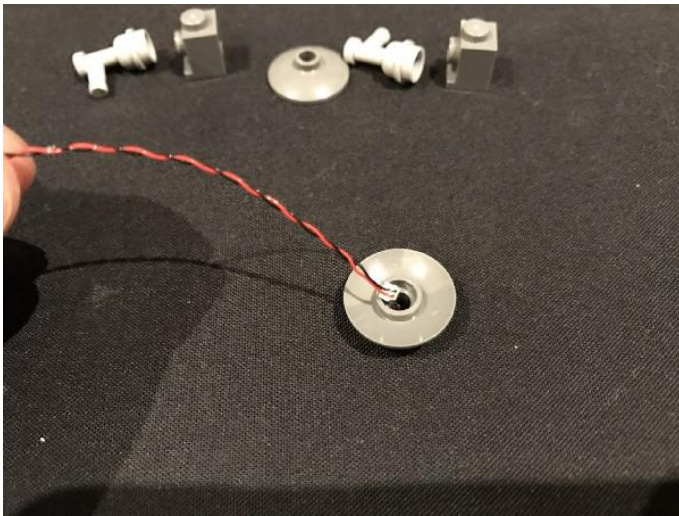
3.) We will now install lights to the 2 lamps at the front. Start by disconnecting the following sections to give us access to remove the two lamp shade sections from each side.



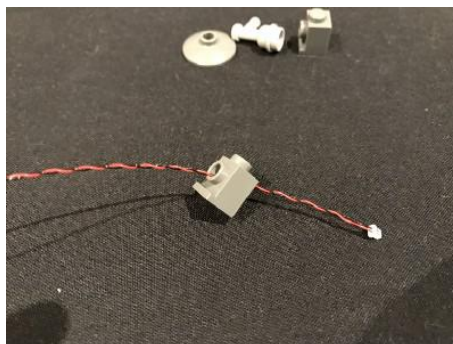
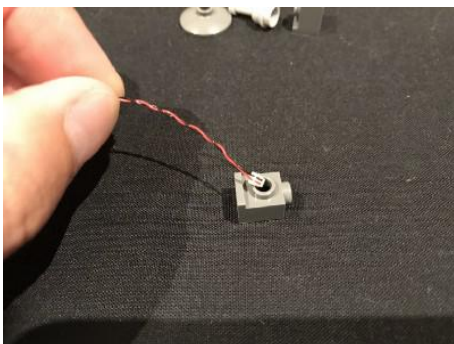
Disassemble the lamp shade sections as per below



4.) Take one White 15cm Dot Light and thread the connector side of the cable through the base of the grey dish piece. Thread it all the way through until there is about half a cm between the LED component and the hole. Reconnect the tap piece all the way through and then push the LED Component so that it is flat against the base of the dish.



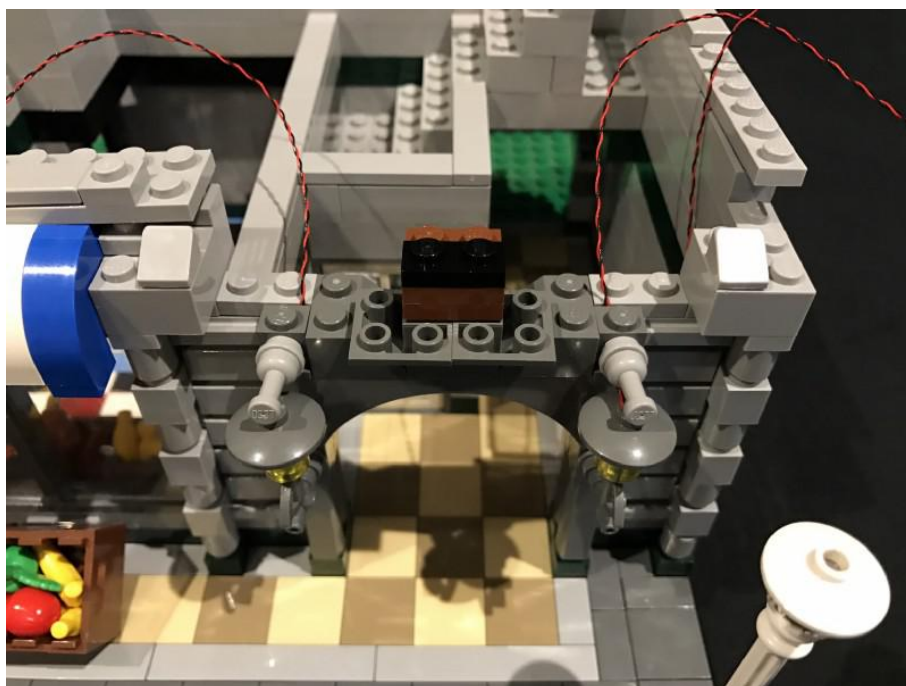
5.) Thread the cable through the front of the grey 1x1 brick with hole and then reconnect this back to the lamp shade section.



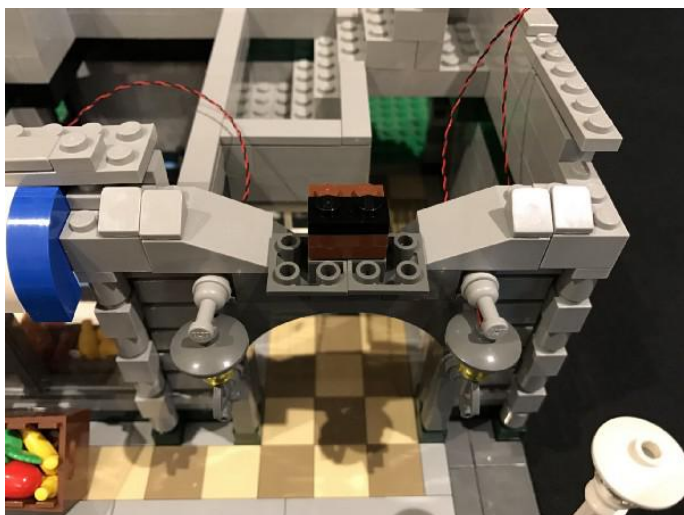
Reconnect this section back to the front of the building ensuring the cable is laid behind.



6.) Repeat the previous steps to install another White 15cm Dot Light to the right side.

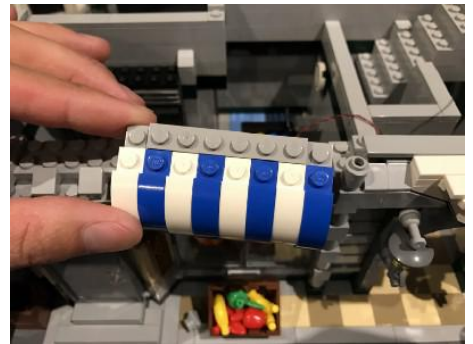
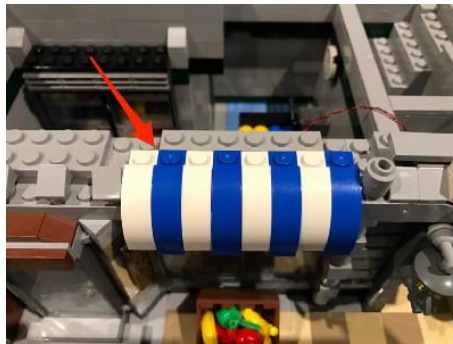
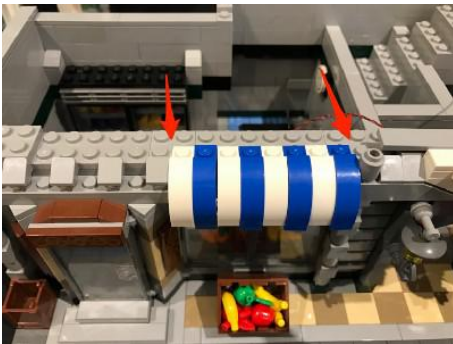
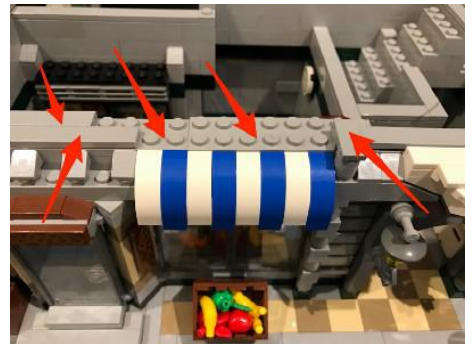
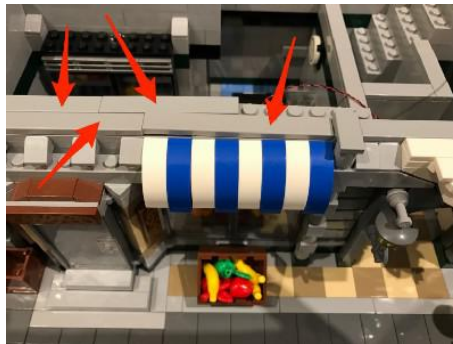


Reconnect surrounding pieces we removed earlier.

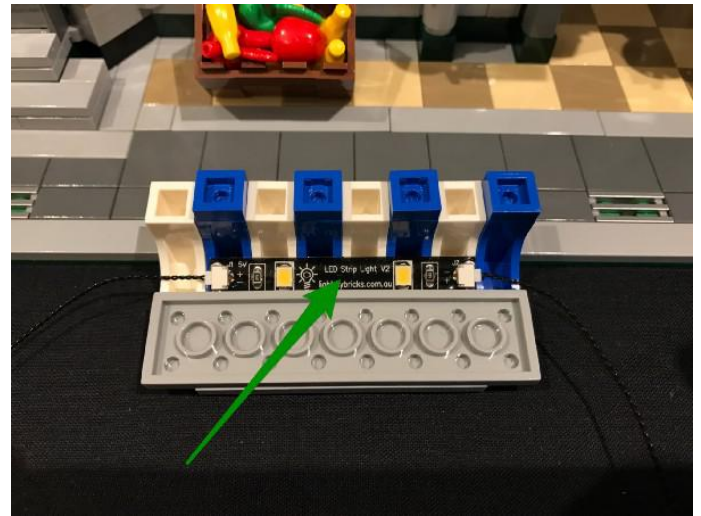
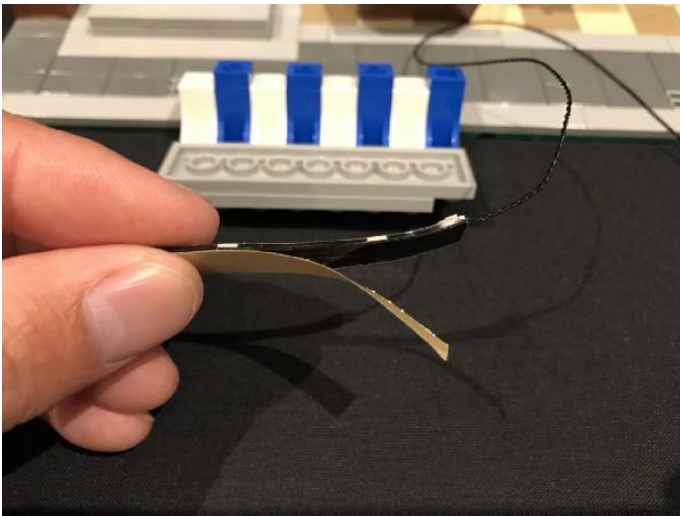
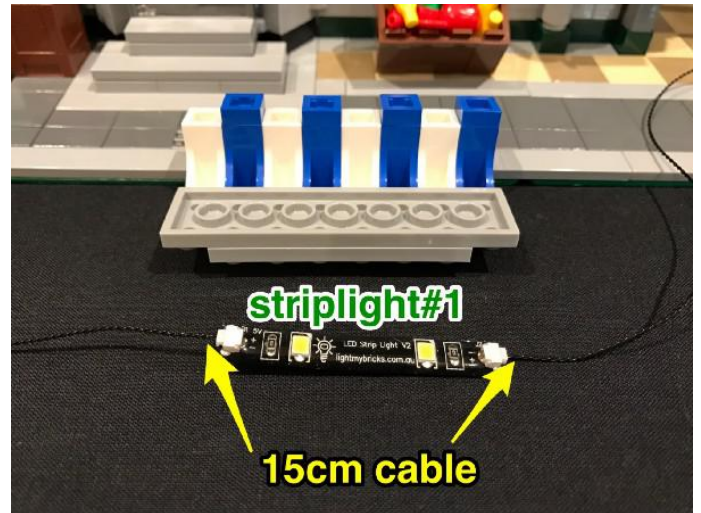




7.) We will now install lighting above the grocer window. Start by removing the following sections to allow us to remove the grey 2x8 plate with the blue and white pieces on top.



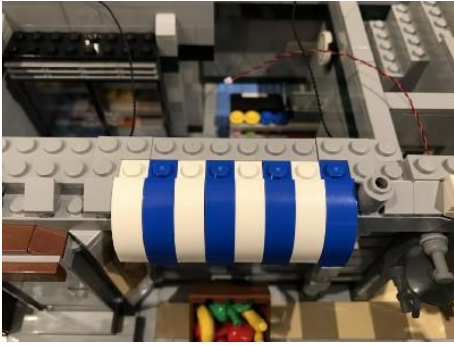
Flip this section over and then take an LED Strip Light and connect a 15 cm connecting cable to each port. Stick the Strip Light underneath in the following position. We will be using several strip lights in this kit so we will identify this one as striplight#1.



8.) Turn this section over and then reconnect it to the building ensuring the cables are placed behind and laid in between studs.



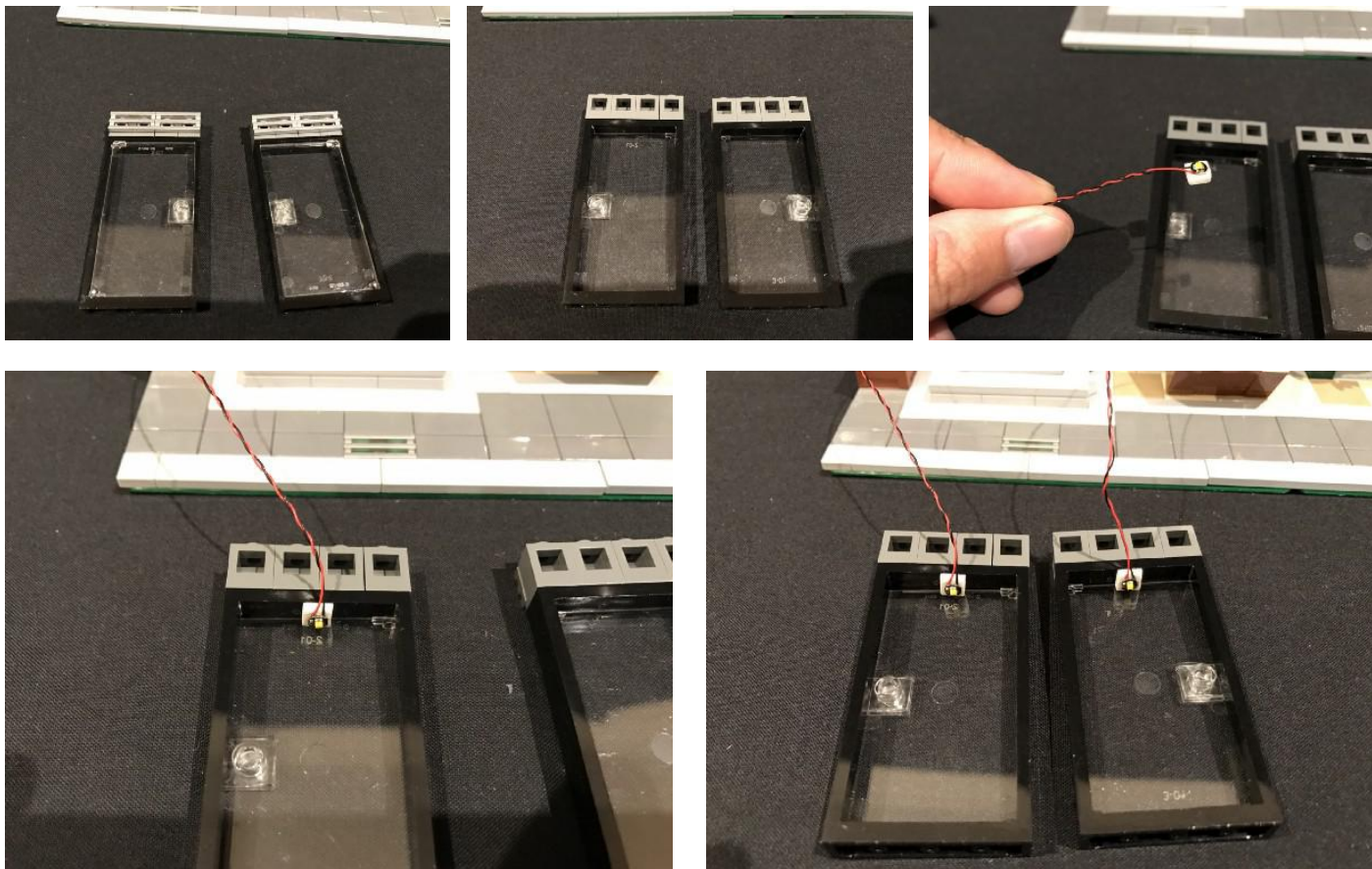
Reconnect the sections we removed earlier.



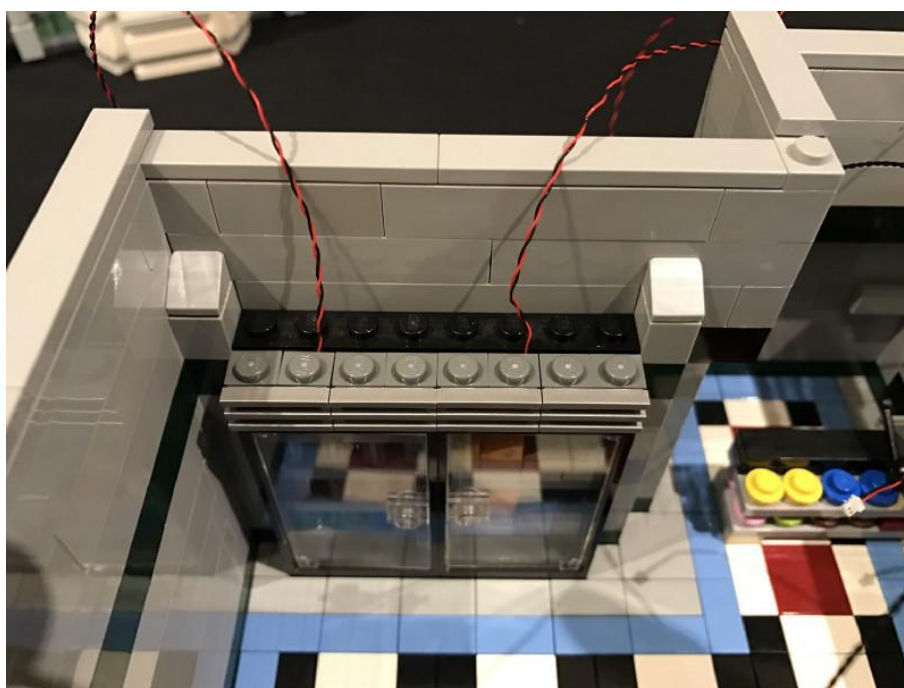
9.) We will now install the fridge lights. Remove the black 2x8 plate from the top of the fridge and then remove the two fridge door sections as per below.



10.) Turn these pieces over and then take 2x White 30cm Dot Lights and use adhesive squares to mount them underneath the frames in the following positions.



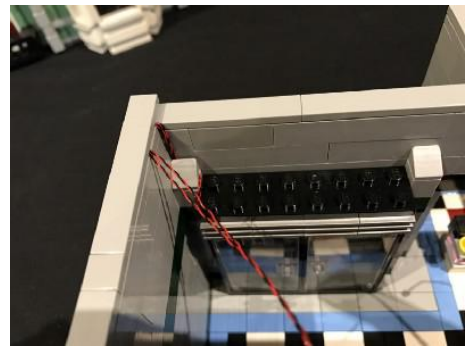
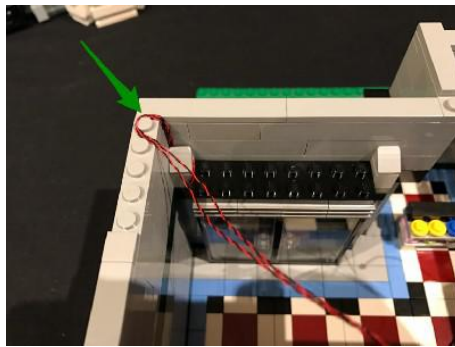
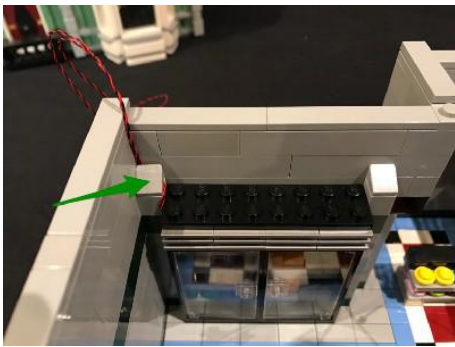
Reconnect these two sections back to the fridge ensuring the cables are pulled up.



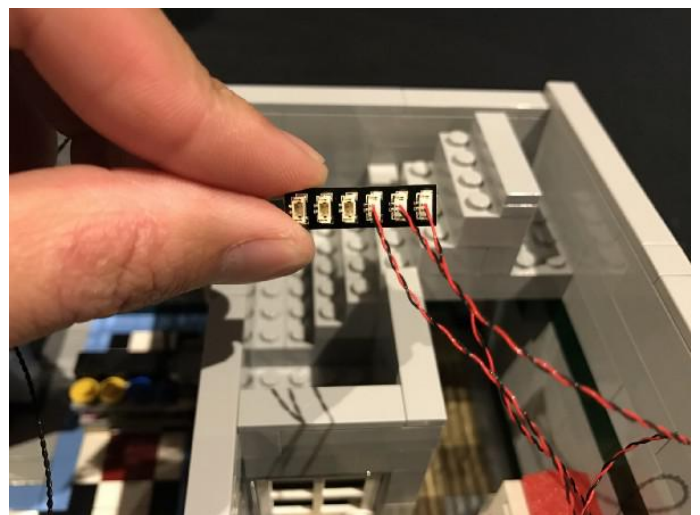
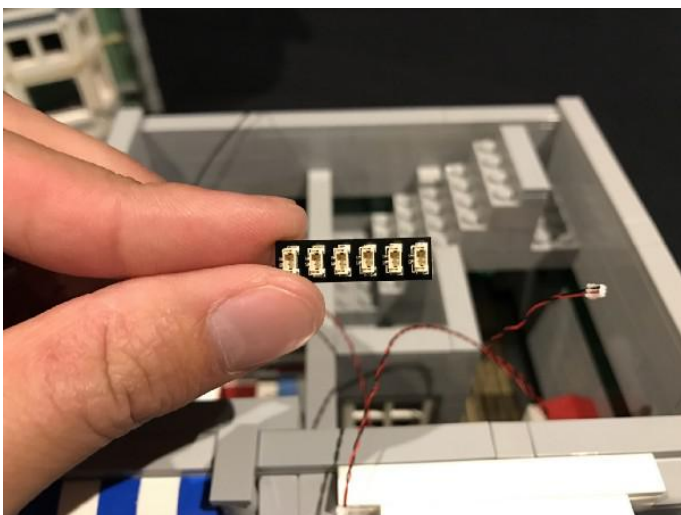
11.) Pull the two cables toward the left and lay them down in between studs before reconnecting the black 2x8 plate over the top.

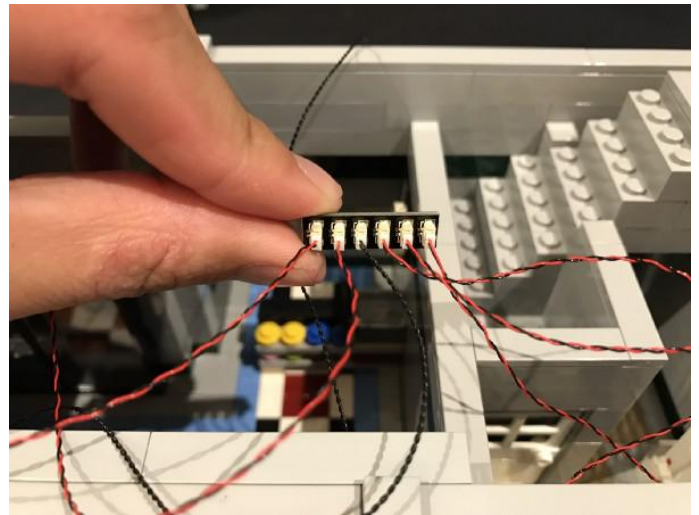
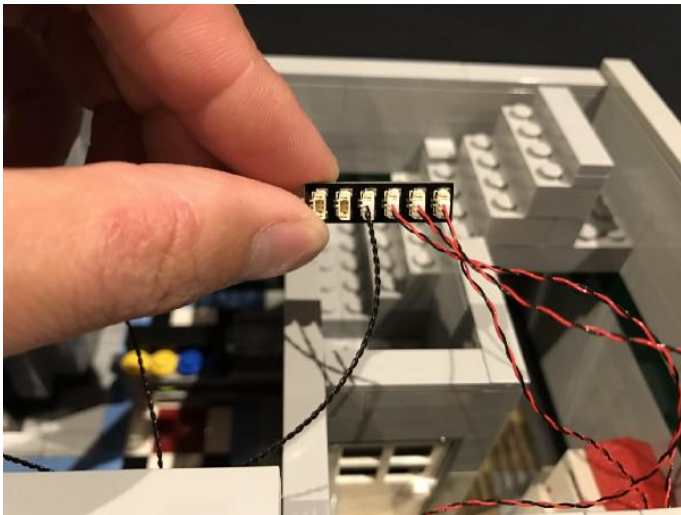


Lay the cables behind and underneath the grey triangular plate then disconnect the grey plate above to allow us to loop the cables around the first stud underneath. Reconnect the plate over the top of the cables.

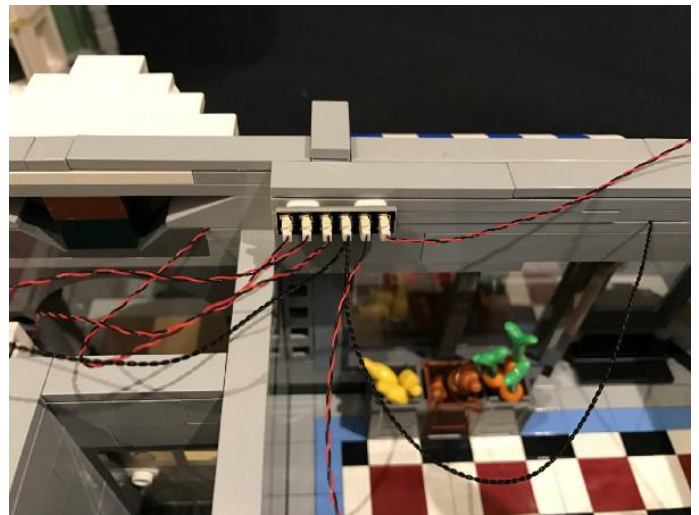
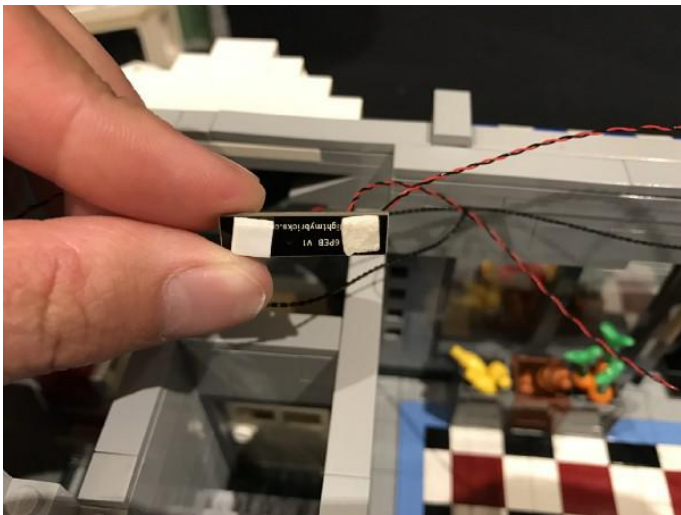


12.) Take a 6-Port Expansion Board and then connect the lamp post cable and 2 front lamps to first available ports. Next, connect one of the connecting cables from striplight#1 as well as the two Dot Lights from the fridges to the remaining ports.

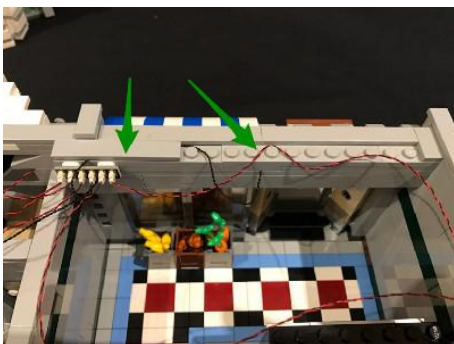




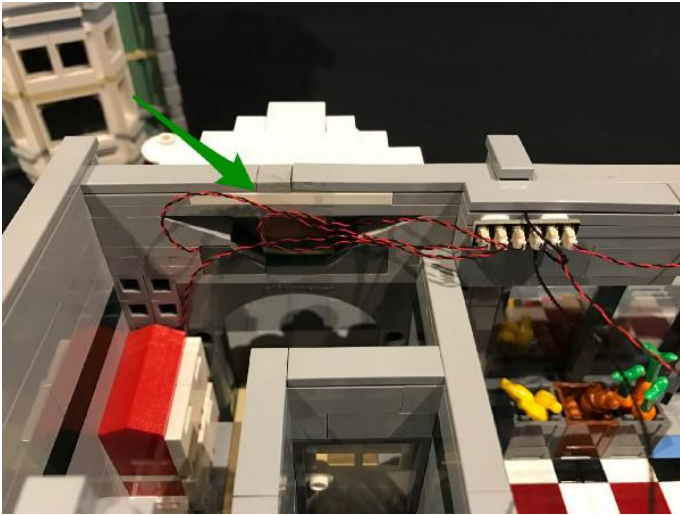
Use 2x adhesive squares to mount the expansion board to the top of the wall inside the building as per below.



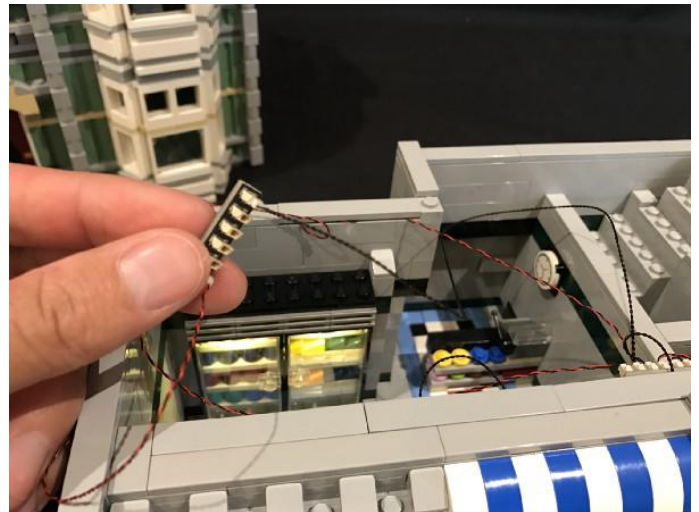
13.) It's time to neaten up the cables. Follow the below images to lay excess cabling underneath the LEGO plates. The key here is to hide as much cabling and to prevent them from being seen from the outside looking in through the windows.



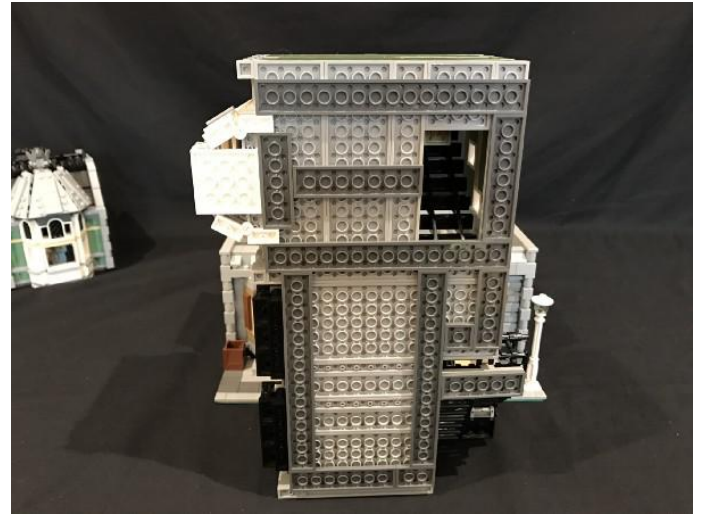
You can also use a bit of tape to secure down the lamp post cable and lamp cables, similar to what I have done below:



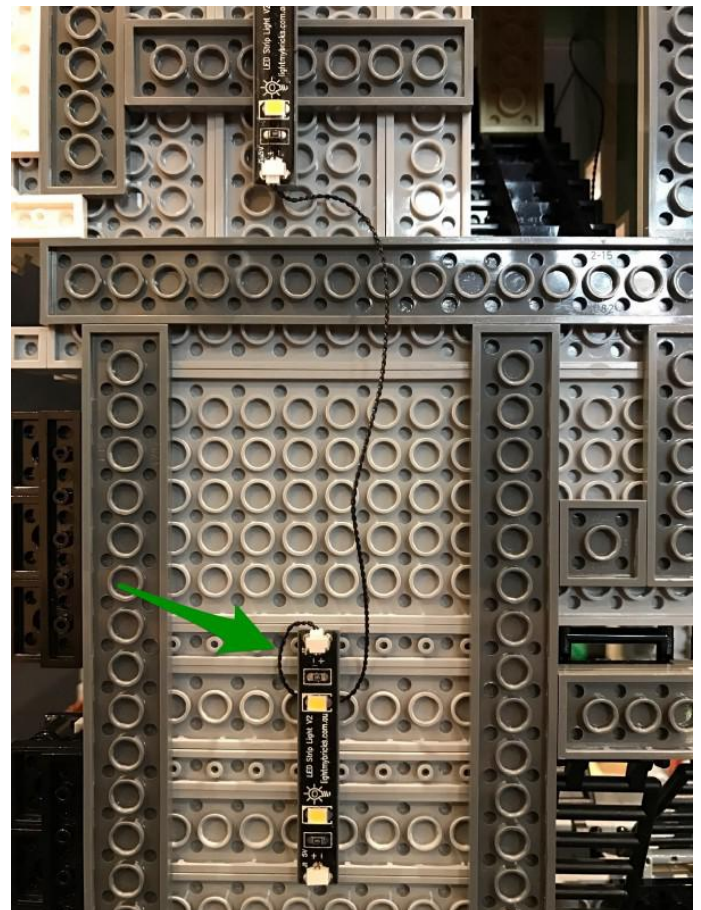
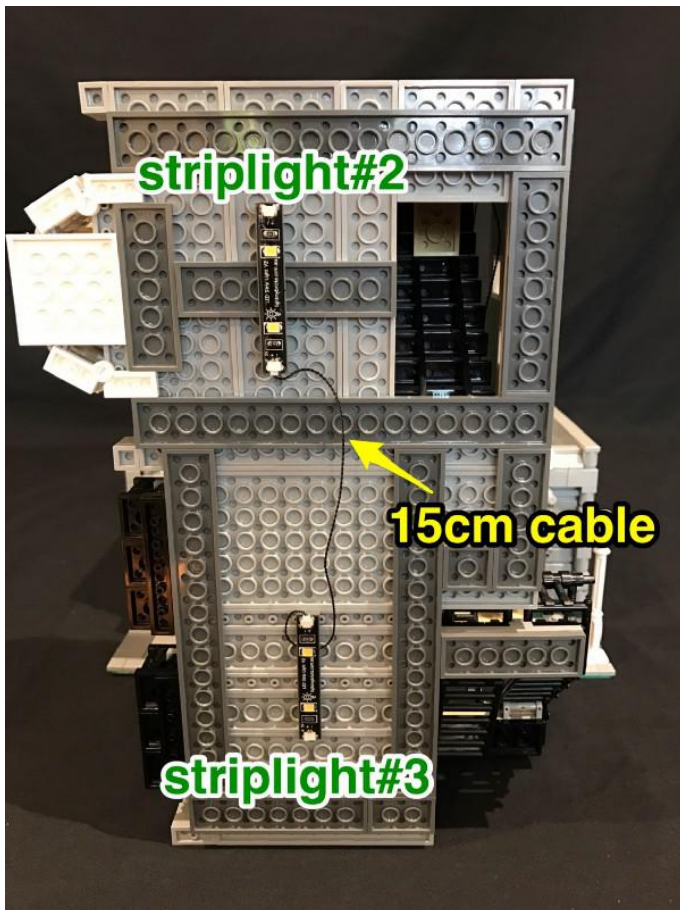
14.) Now is a good time to test the current lighting we have installed. To do so, take the Battery Pack and insert 3x AA batteries into it. Connect the battery pack cable into one of the ports of the spare 6-Port Expansion Board. Take other end of the other connecting cable from striplight#1 and connect it to another port on the expansion board. Turn on the battery pack and confirm all is working OK



15.) Remove the battery pack and expansion board and continue onto lighting the second floor. Take the second floor and turn it onto it's left side with the bottom facing you.

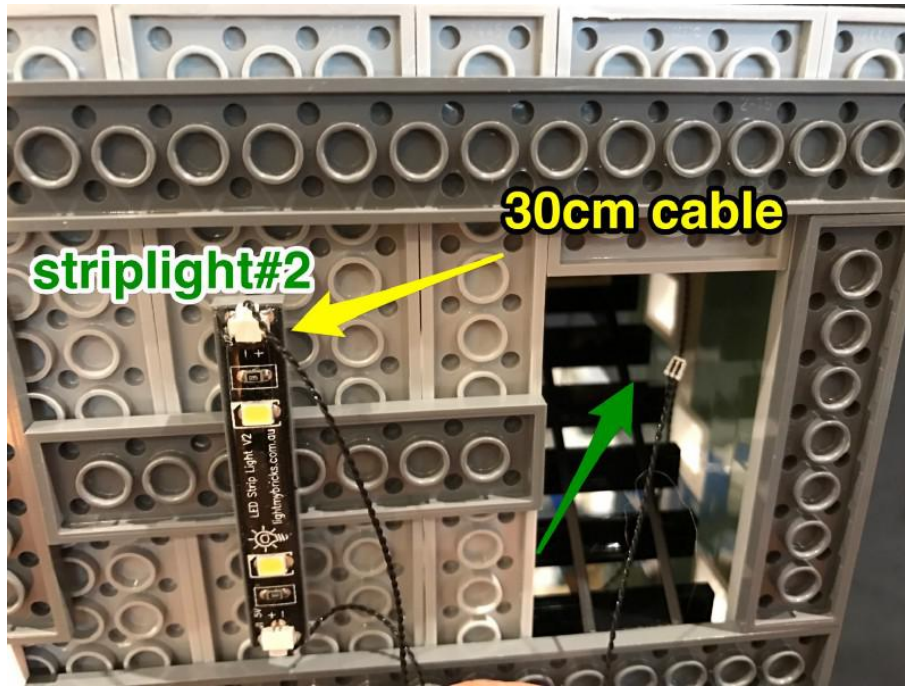


Take two LED Strip Lights and connect/stick them (depending on whether or not you choose to mount using lego 1x6 plates) to the following positions underneath the second floor (striplight#2 and striplight#3). Join the two strip lights together with a 15 cm connecting cable.

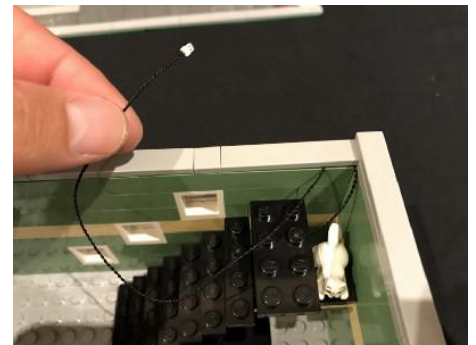
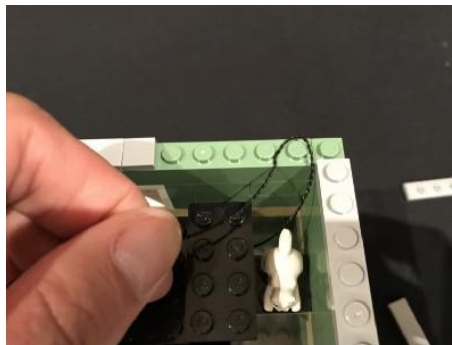
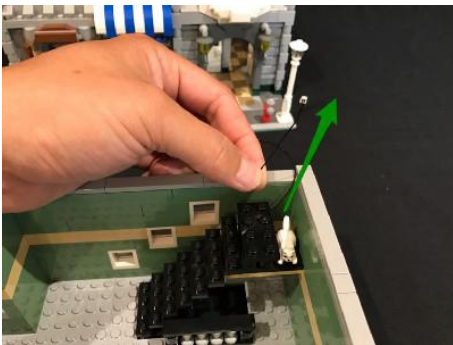


If you are using LEGO plates to mount strip lights, you can prevent the cable from hanging down by looping them behind the strip light like what I have done here

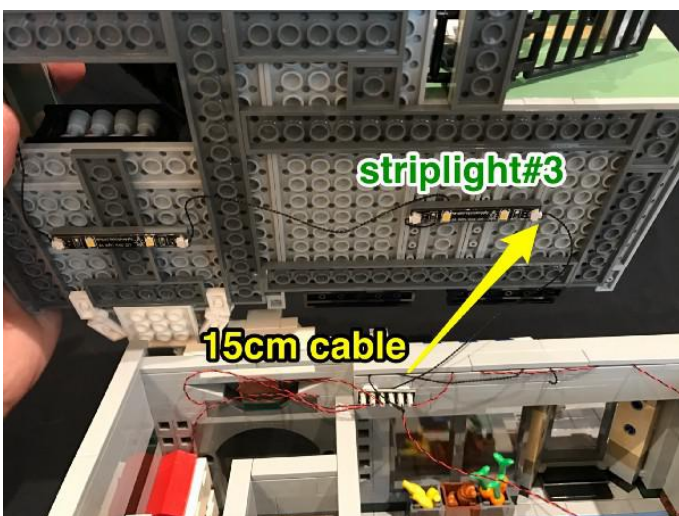
16.) Take a 30 cm connecting cable and connect it to the other port on striplight#2 and then thread the other end of it up the space that leads above.



Turn the second floor over and then pull the cable up from underneath and behind the staircase. Secure the cable in place by laying it underneath the grey tile in between studs.



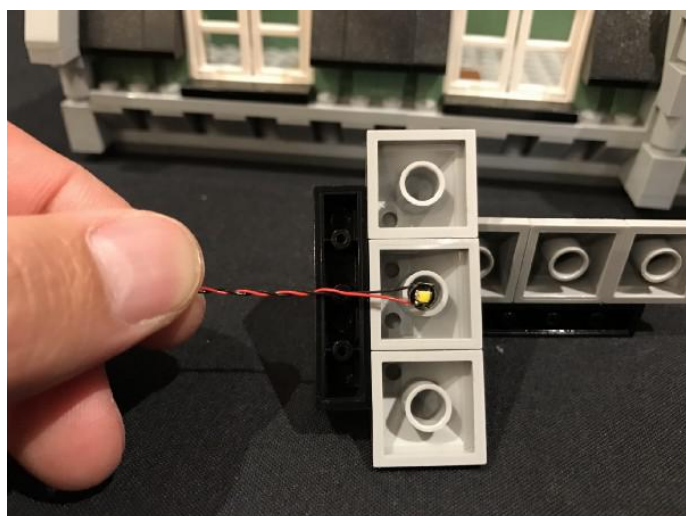
17.) Turn the building around and then take the second floor above the ground floor. Connect the spare 15 cm connecting cable from striplight#1 below into the spare port on striplight#3. Reconnect the second floor in place.

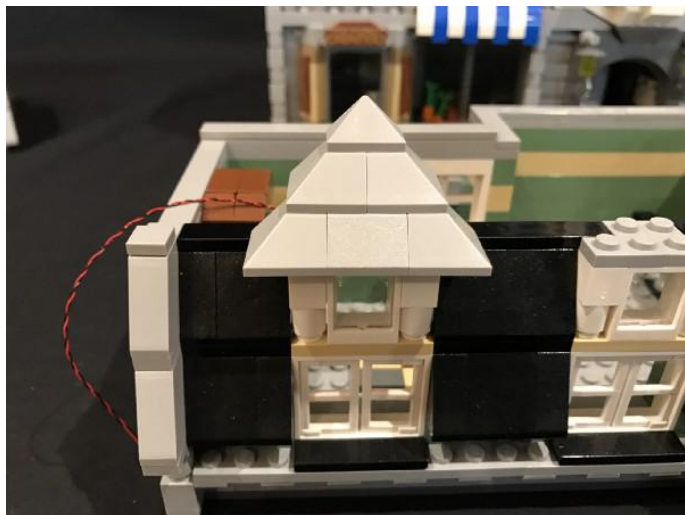
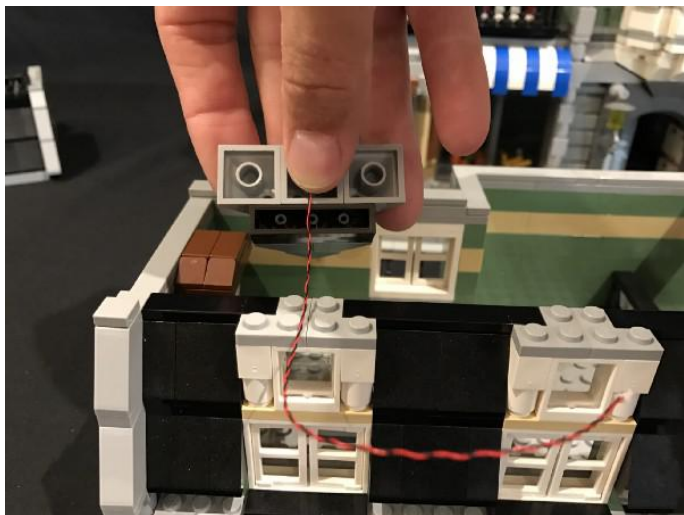


18.) Take the top floor and remove the roof. We will install lights on top of each window. Start by removing the sections above each window as per below.

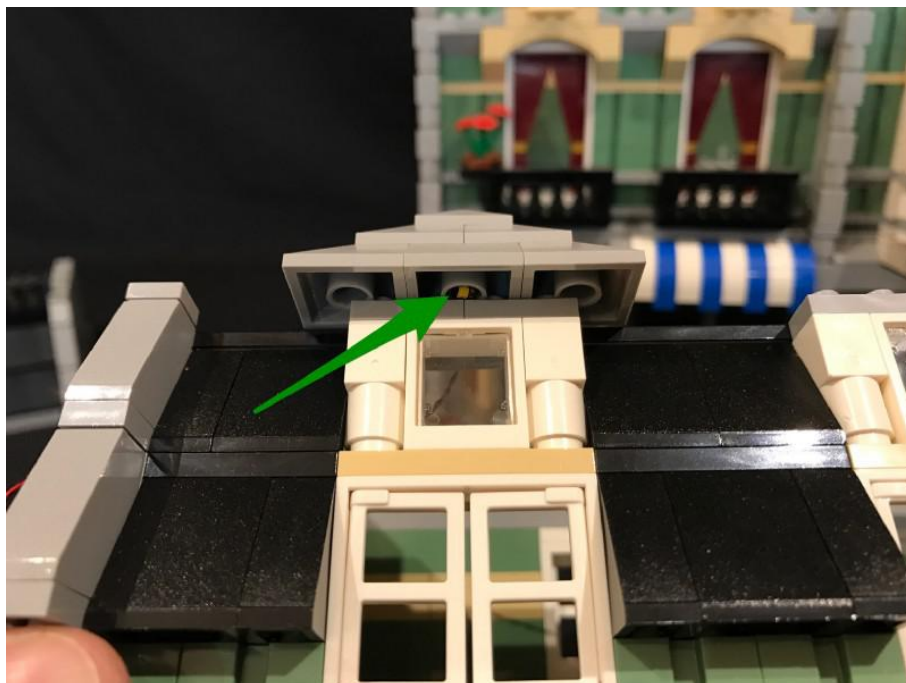


19.) Take a White 15cm Dot Light and place the LED Component at the middle hole underneath one of the sections. With the cable is facing toward the back of this section, place a finger/thumb over the top of the LED to hold it in place and then turn this section over and reconnect it to the building. Ensure the cable is laid in between studs.

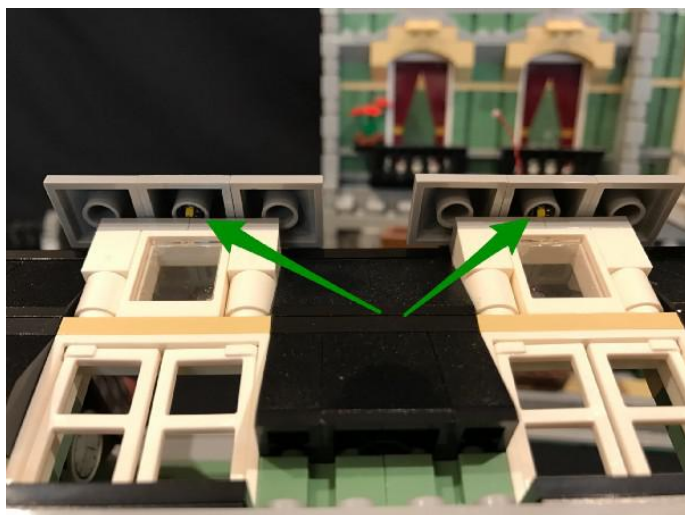




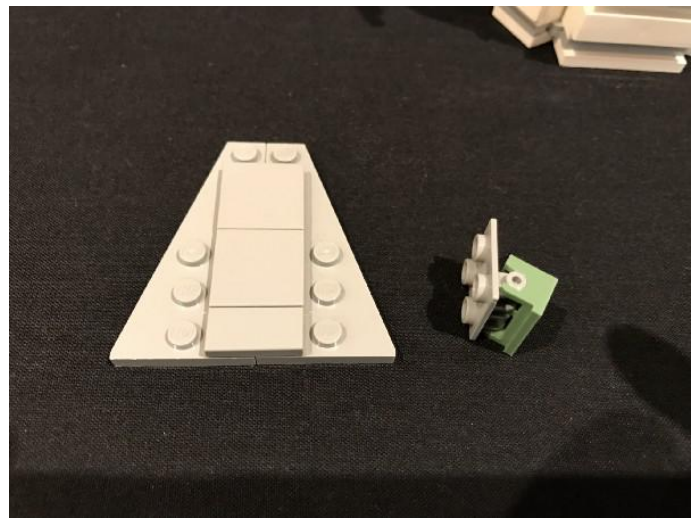
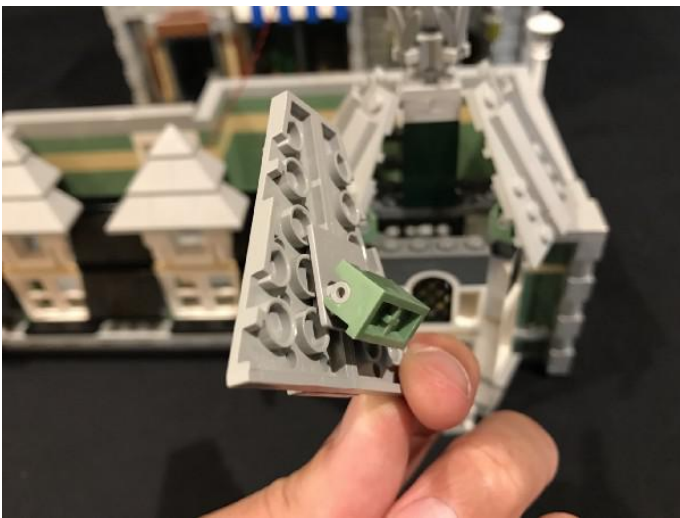
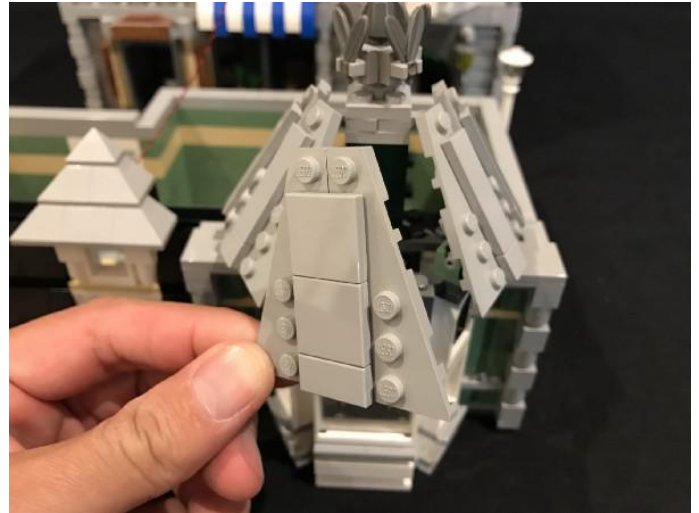
If you look from below up, you should be able to see the LED component peaking out. If you don't, this means the Dot Light has not been installed properly.



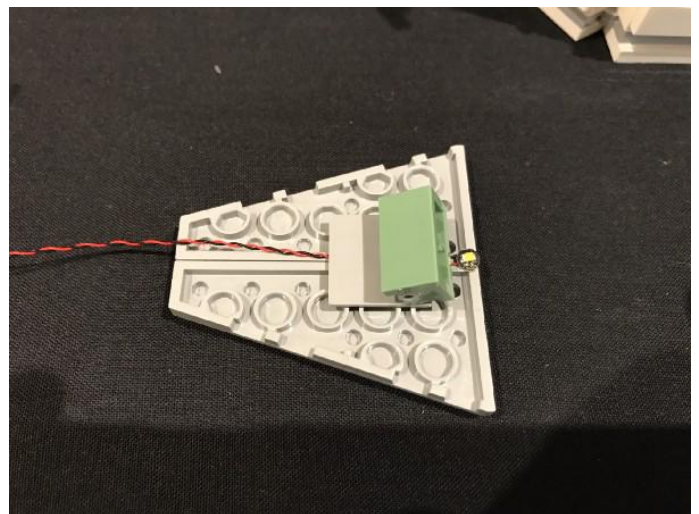
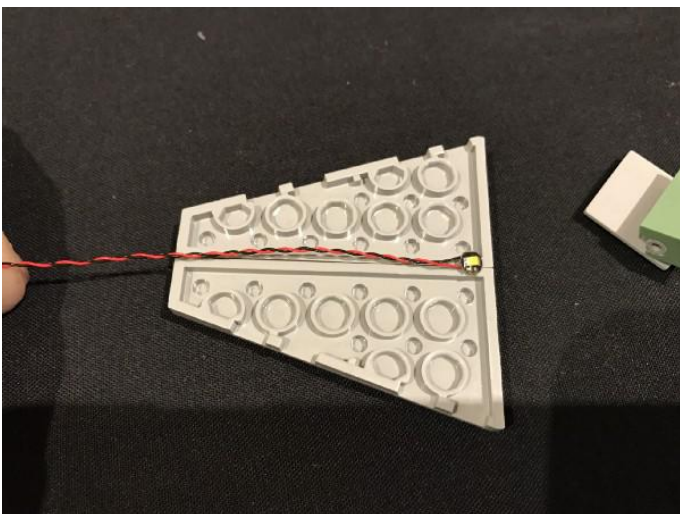
Repeat this process to install another White 15 cm Dot Light above the next window.



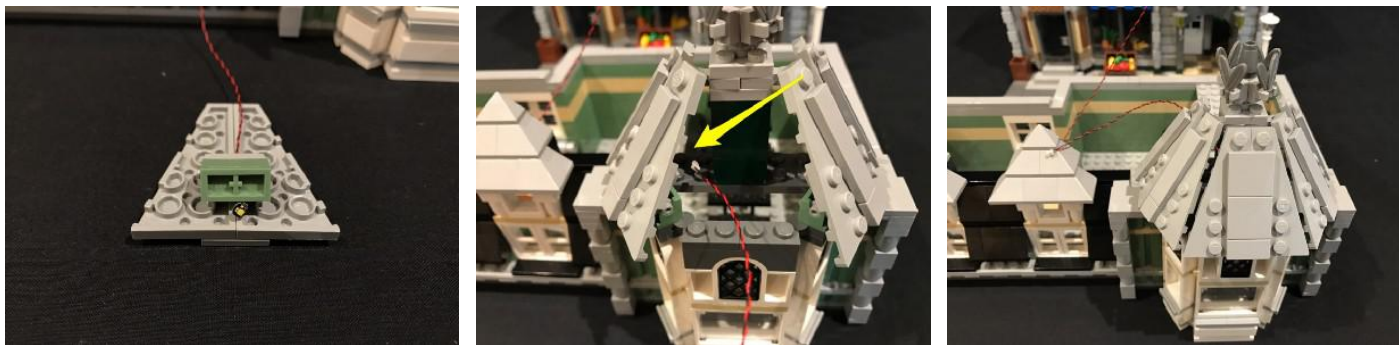
20.) We will now install a light above the right window. First remove the roof piece in the middle and disassemble as per below



21.) Take another White 15 cm Dot Light and place the LED component underneath the plate towards the bottom. Secure it in place by reconnecting the LEGO piece we removed earlier ensuring the cable is in between studs.



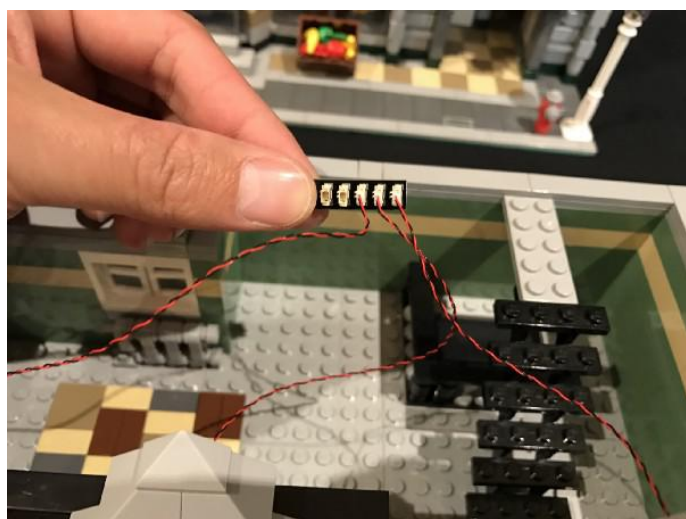
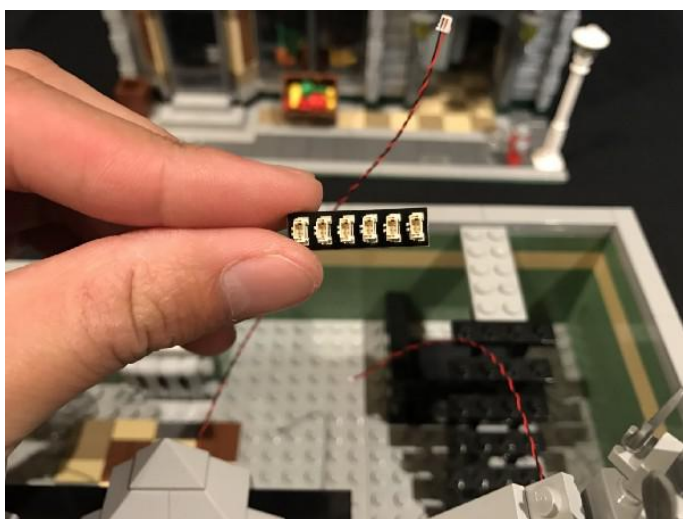
Twist/bend the LED component so that it is facing down and then reconnect this section back to the building ensuring the cable is first threaded below into the space which leads inside.



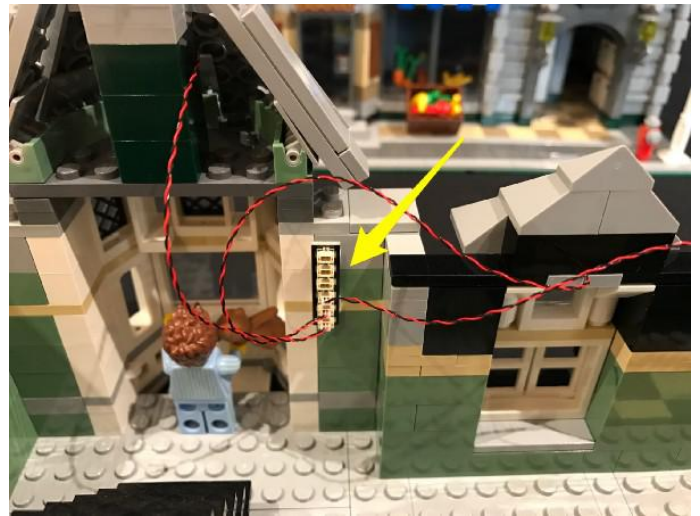
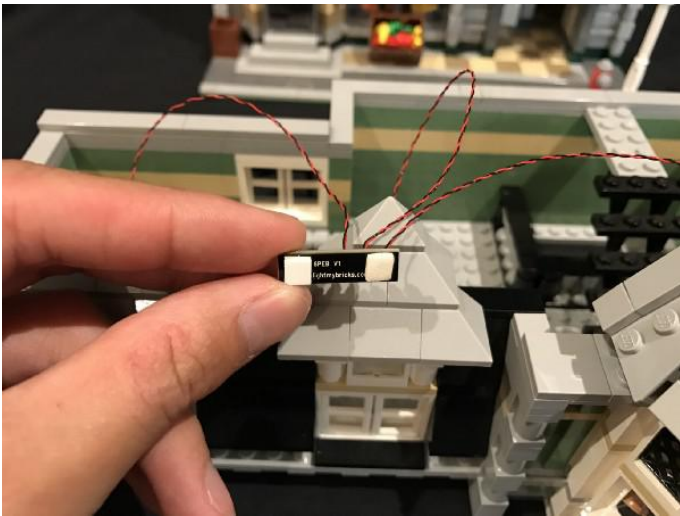
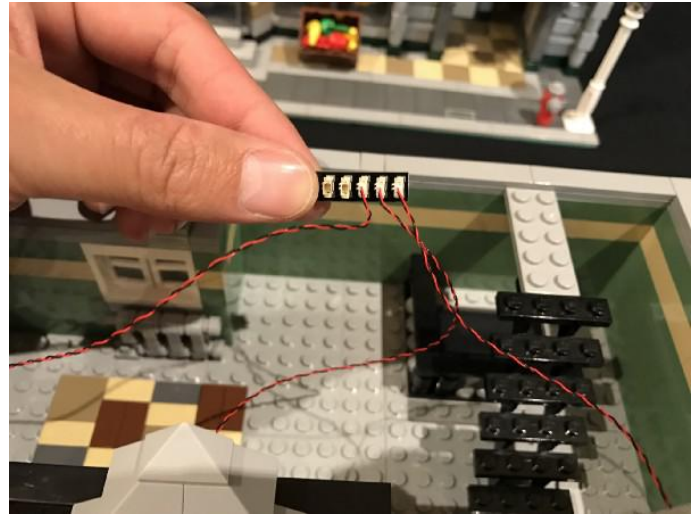
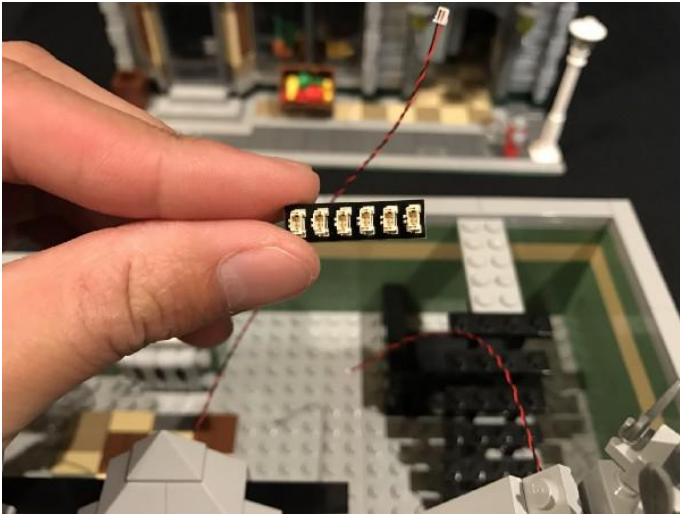
The Dot Light should be visible if you look from below up.



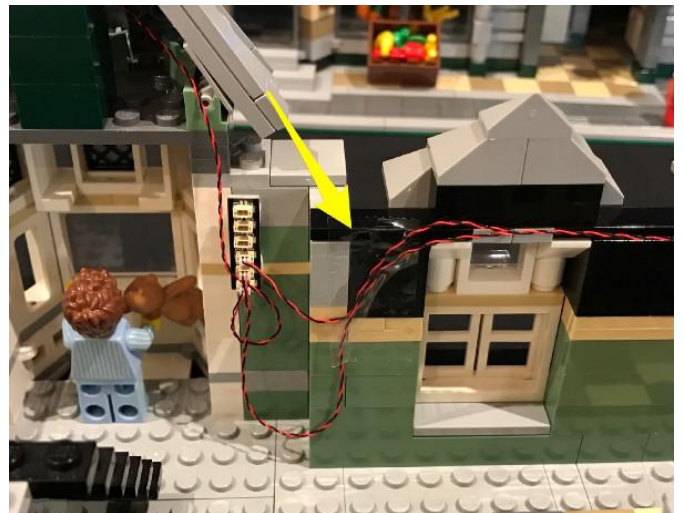
22.) Take the spare 6-Port Expansion Board and connect all 3 cables from the lights we just installed into the available ports.



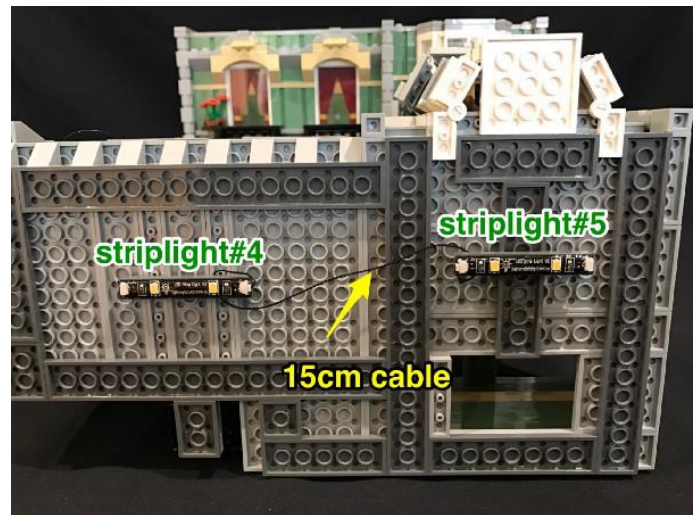
Use another 2x adhesive squares to mount the expansion board vertically to the top of the wall inside the building.



Neaten the cables and do your best to hide them from being seen from the outside looking in. You can also use tape to secure the cables to the wall similar to what I have done below.

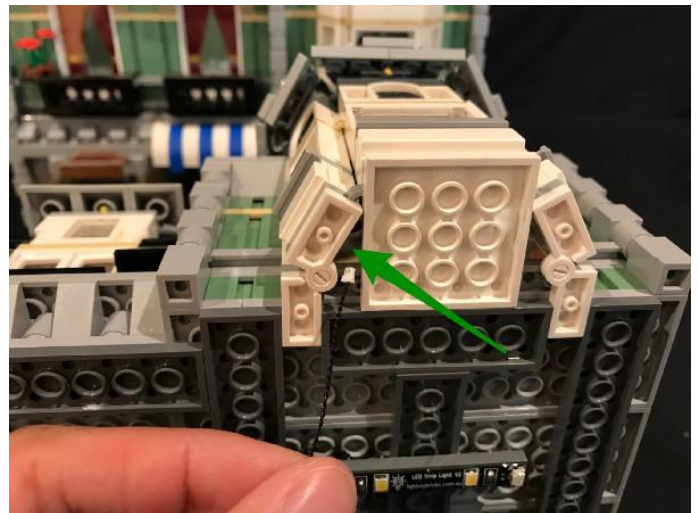
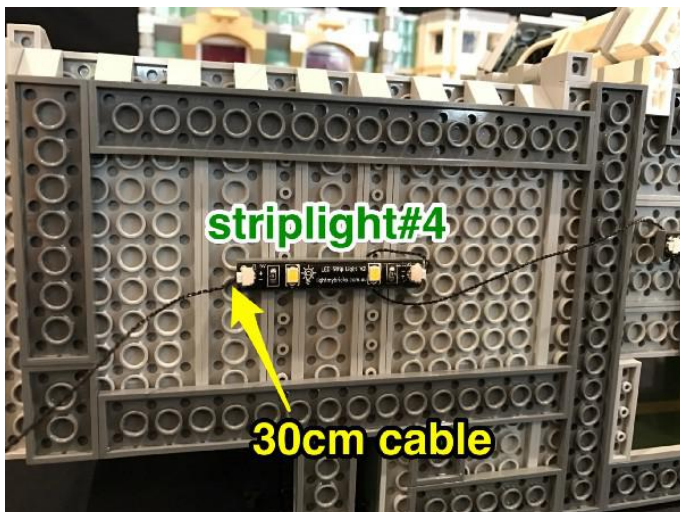


23.) Turn the 3rd floor on to its back with the bottom facing toward you. Take another two LED Strip Lights and connect/stick them to the following positions (striplight#4 and striplight#5). Join them together using another 15 cm connecting cable.

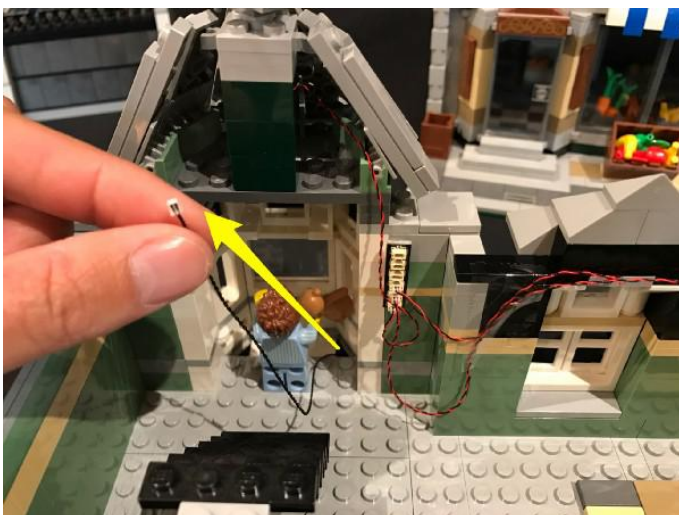


If you are using LEGO plates to mount strip lights, you can prevent the cable from hanging down by looping them behind the strip light like what I have done here

24.) Connect a 30 cm connecting cable to the right port on striplight#4 and then thread the other end of the cable up through the following gap which leads above.

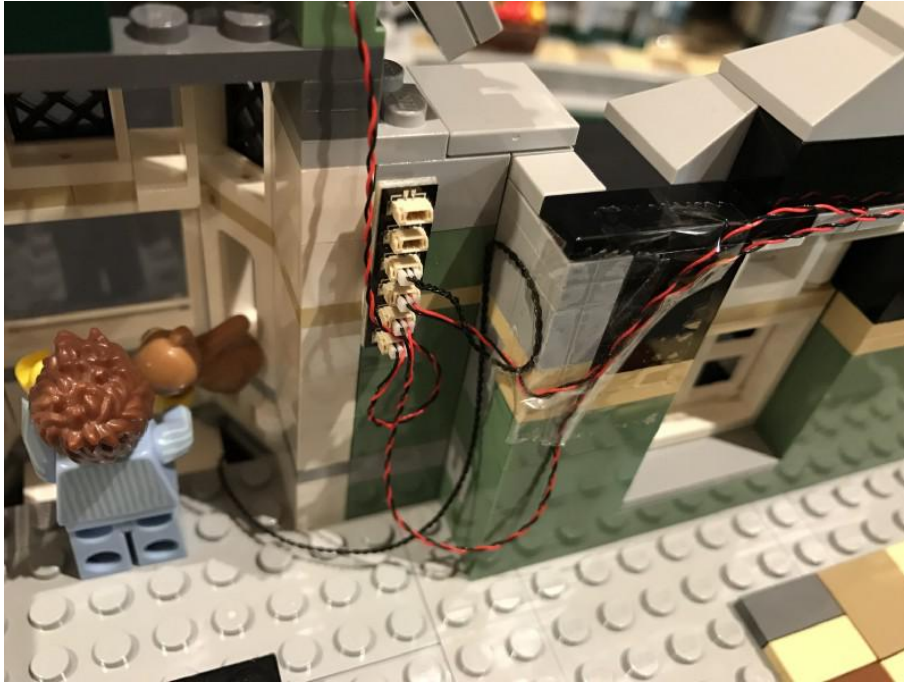


Turn the third level over and pull the cable up from the inside of the floor. Connect the cable into a spare port on the expansion board.

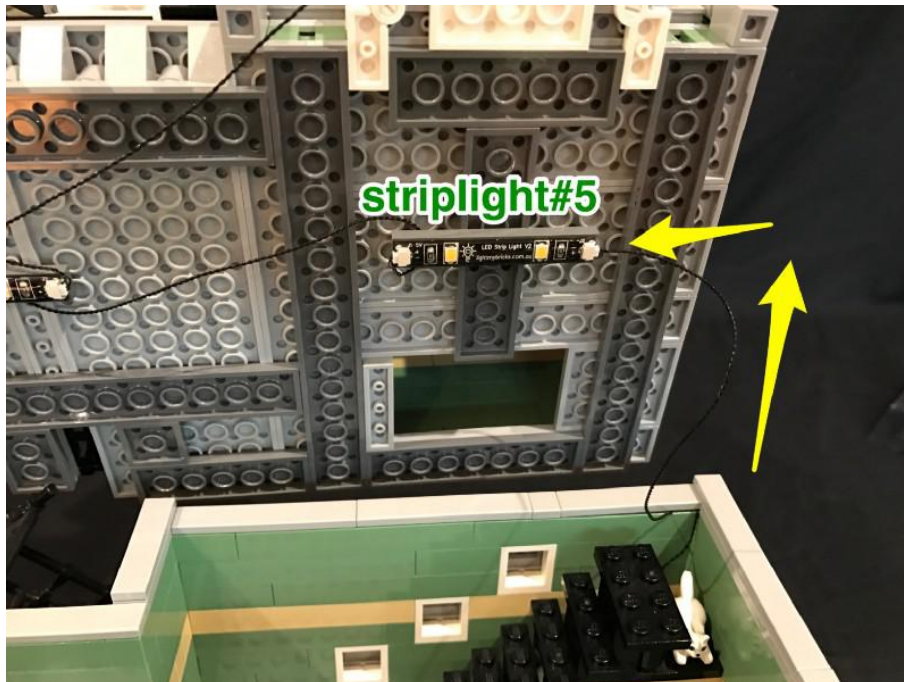


Use some more tape to secure this connecting cable down to the wall and to prevent it from being

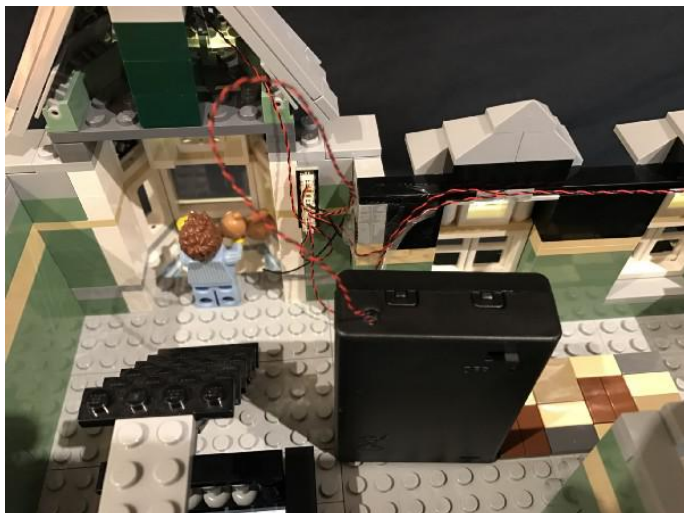
visible from the outside looking in.



25.) Take the third floor above the second floor and connect the 30 cm cable from underneath into the spare port on striplight#5. Reconnect the third floor in place.



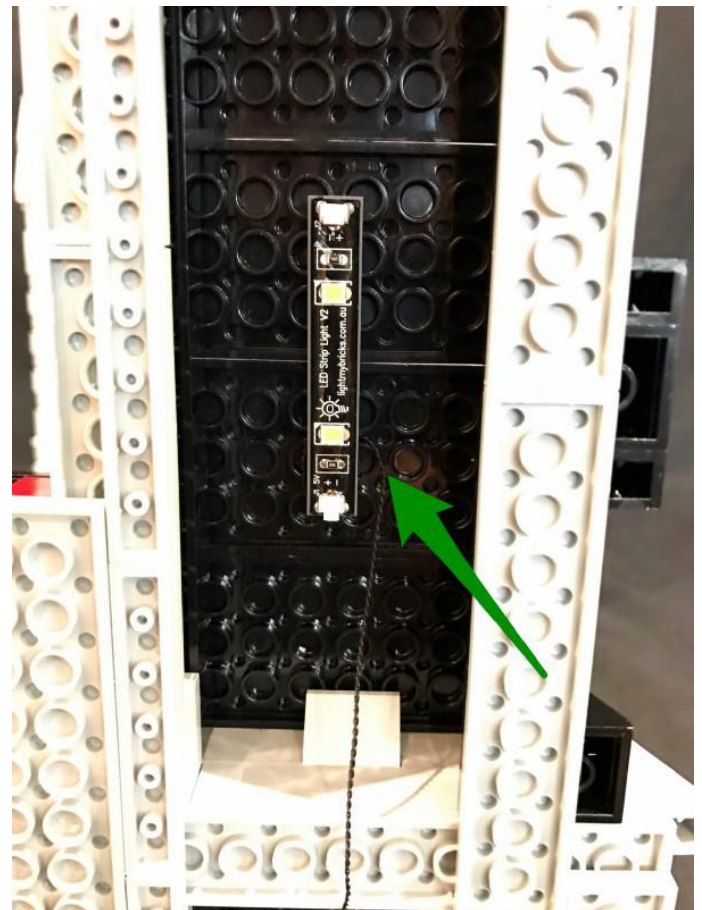
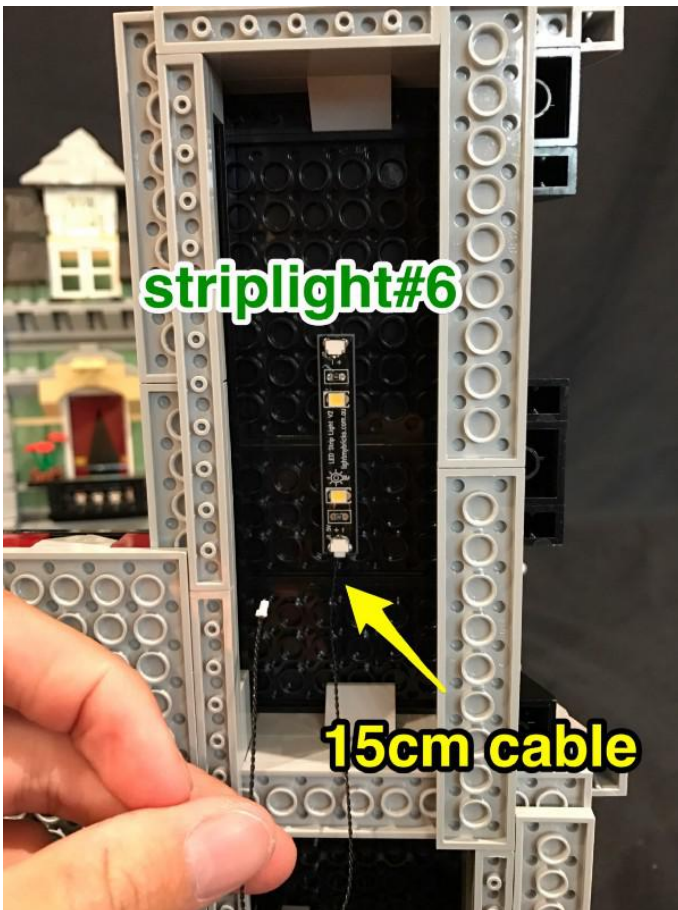
Test the lights we have installed so far by connecting the battery pack cable into a spare port on the expansion board on the third floor. Ensure all lights are lit and are working OK.



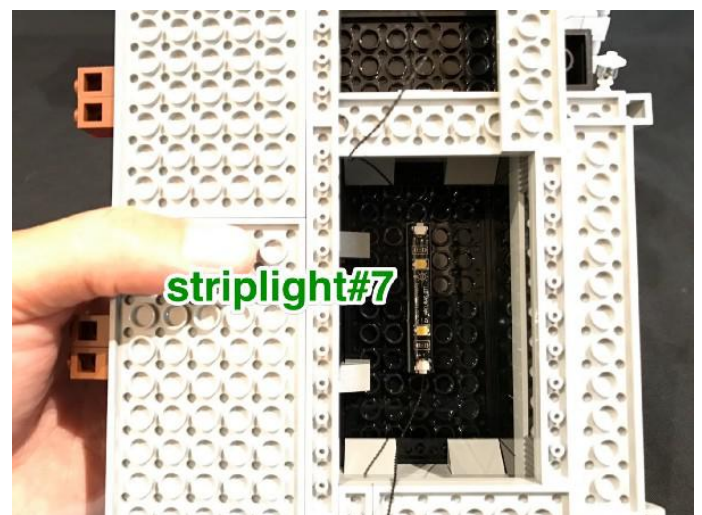
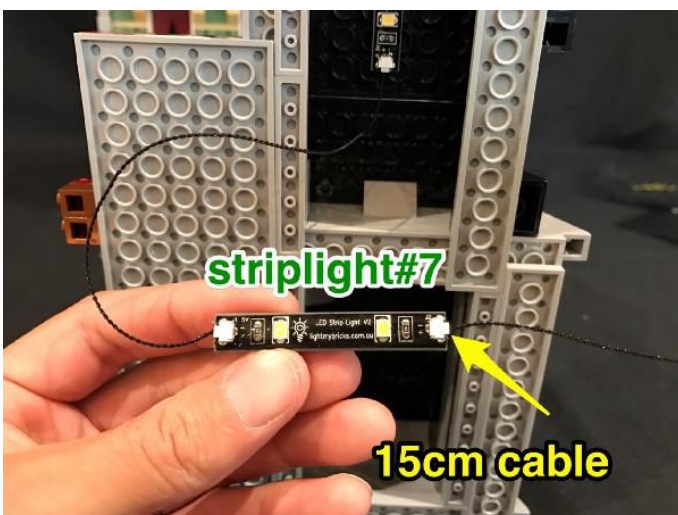
26.) Take the roof of the building and turn it onto its right side with the bottom facing toward you.



Take an LED Strip Light (striplight#6) and connect a 15 cm connecting cable to the bottom port. Connect/stick this strip light to the following position.

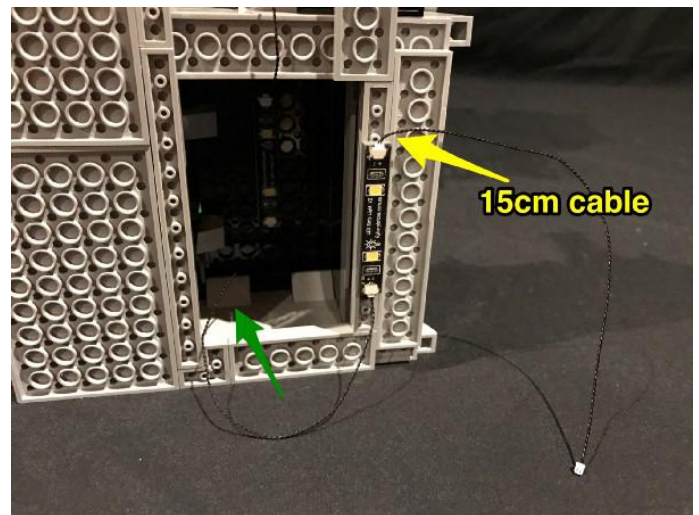
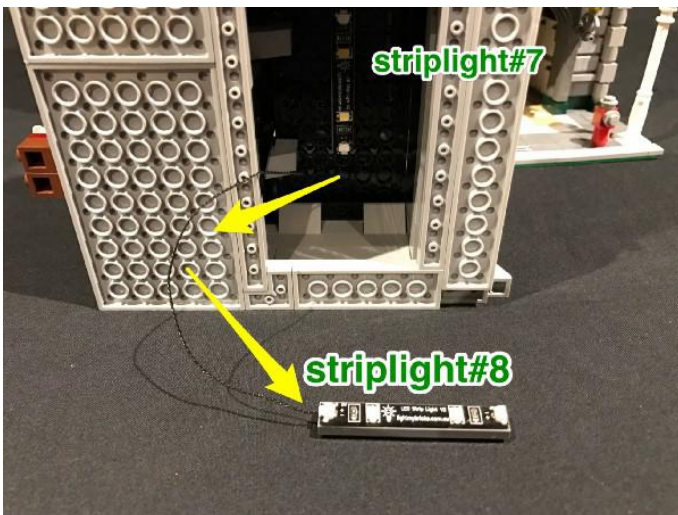


27.) Take another LED Strip Light (striplight#7) and connect the 15 cm connecting cable from striplight#6 to the left port. Connect another 15cm connecting cable to the right port and then connect/stick it to the following position.

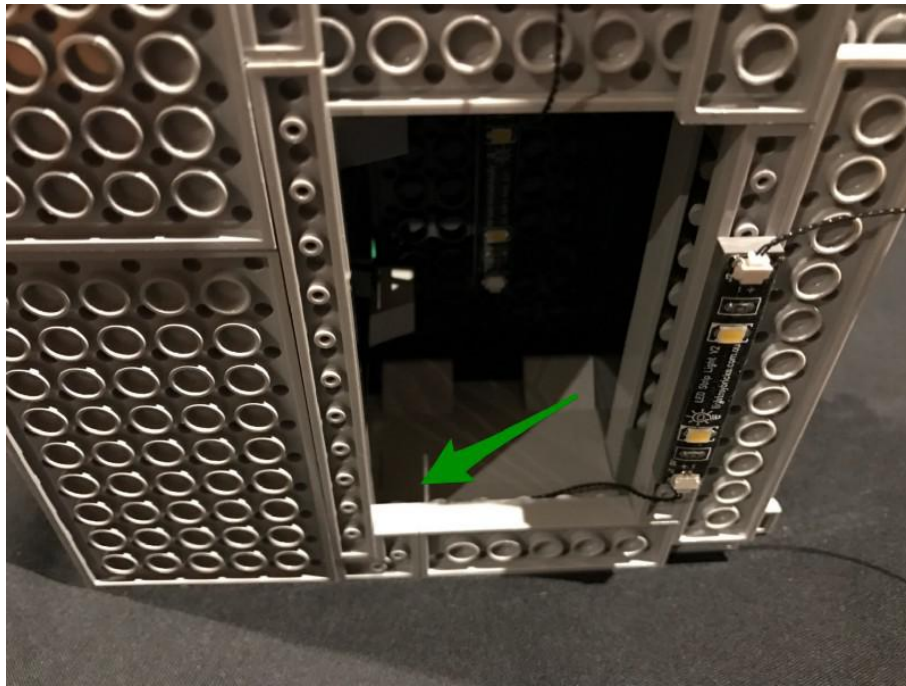




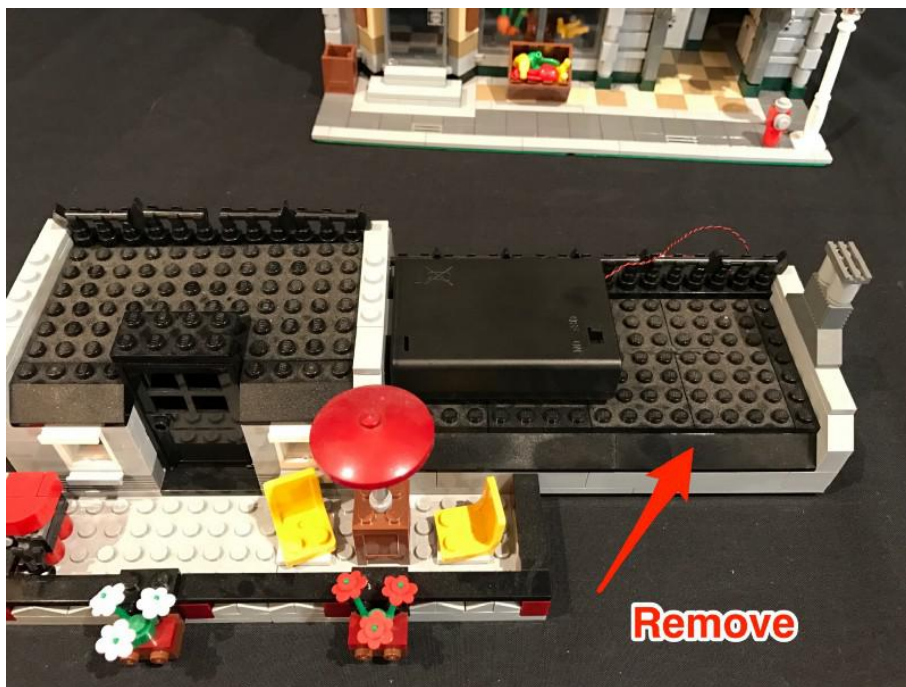
28.) Take another LED Strip Light (striplight#8) and connect the other end of the cable from striplight#7 to the left port. Connect another 15 cm connecting cable to the other port on striplight#8 and then connect/stick it to the following position below.



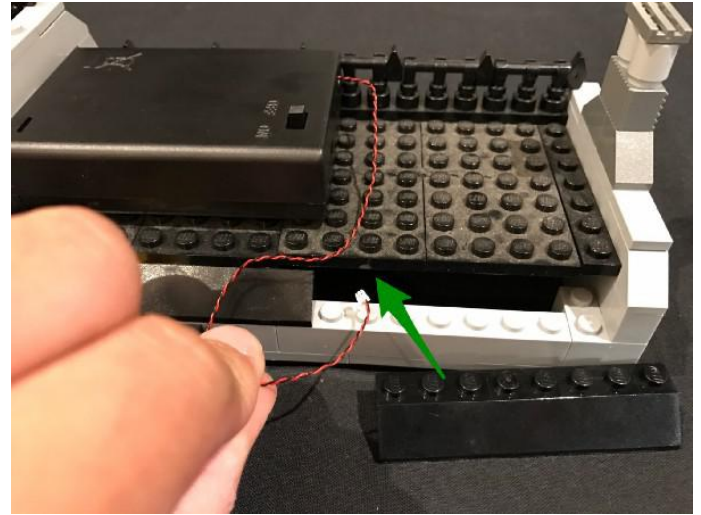
Hide the 15cm cable between striplight#7 and striplight#8 by tucking it in in the space above.



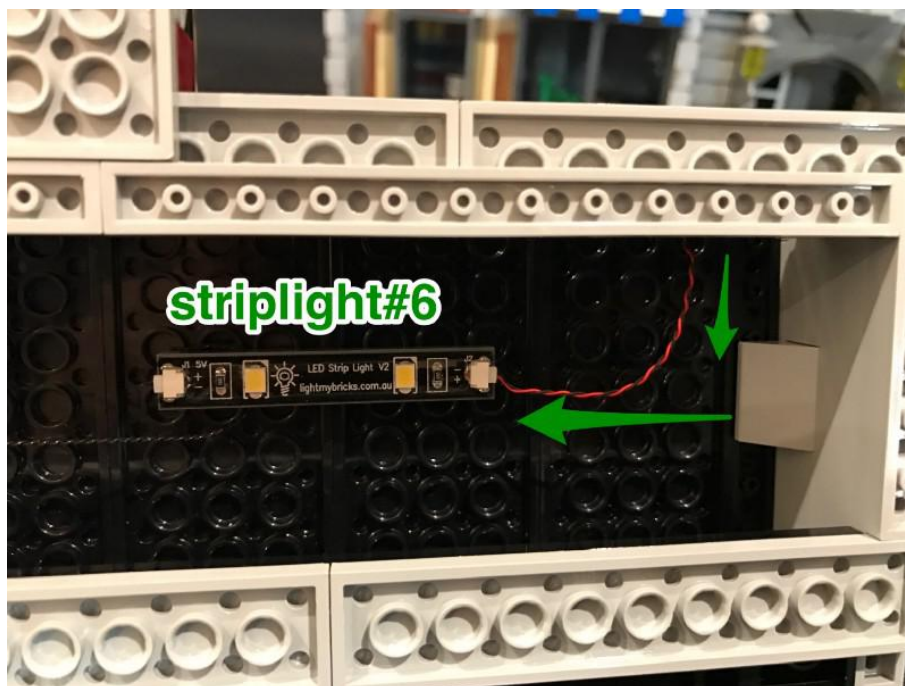
29.) Place the Battery Pack on top of the roof in the below position ensuring the ON/OFF switch is facing up.



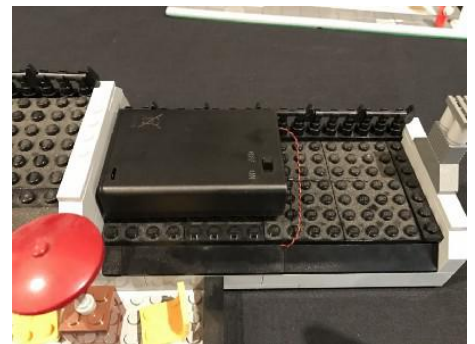
Remove the brick underneath to allow us to thread the battery pack cable through to the inside.



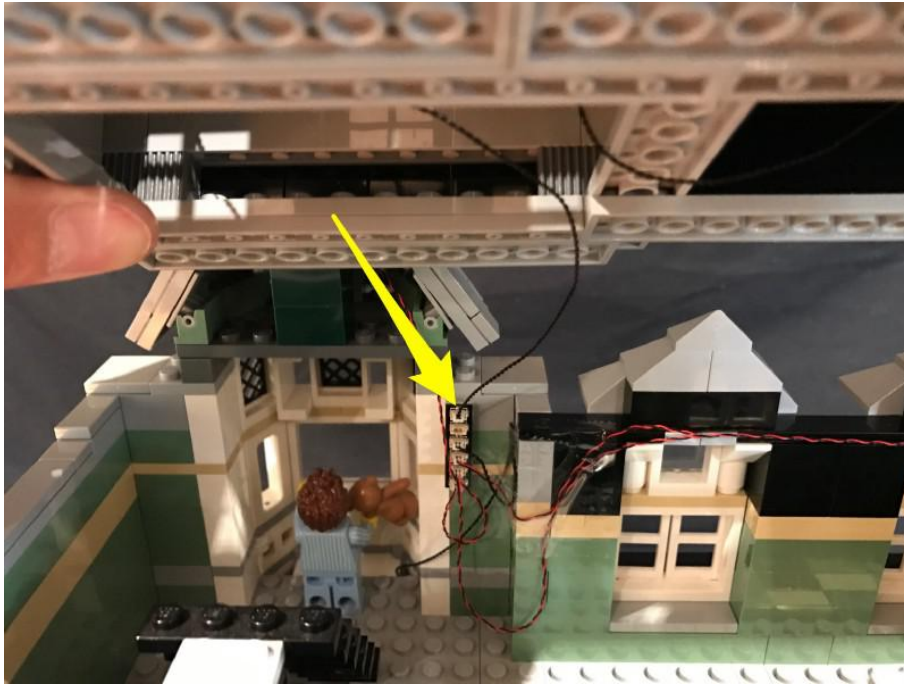
Pull the cable through from the inside of the roof and then connect it to the spare port on striplight#6



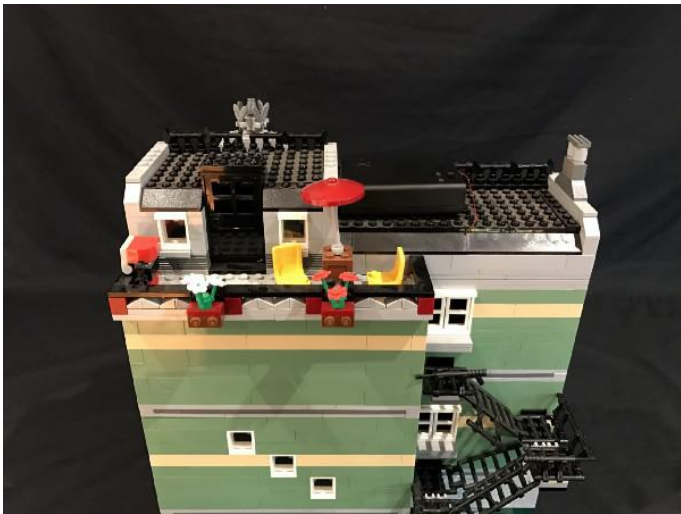
Reconnect the piece we removed earlier and then secure the battery pack to the roof using two adhesive squares.



30.) Take the roof above the third floor and then connect the other end of the 15 cm cable from striplight#8 into an available port on the expansion board below.



Reconnect the roof in place



This now completes installation of the Green Grocer LED Lighting Kit. Turn ON the battery pack and ENJOY!



