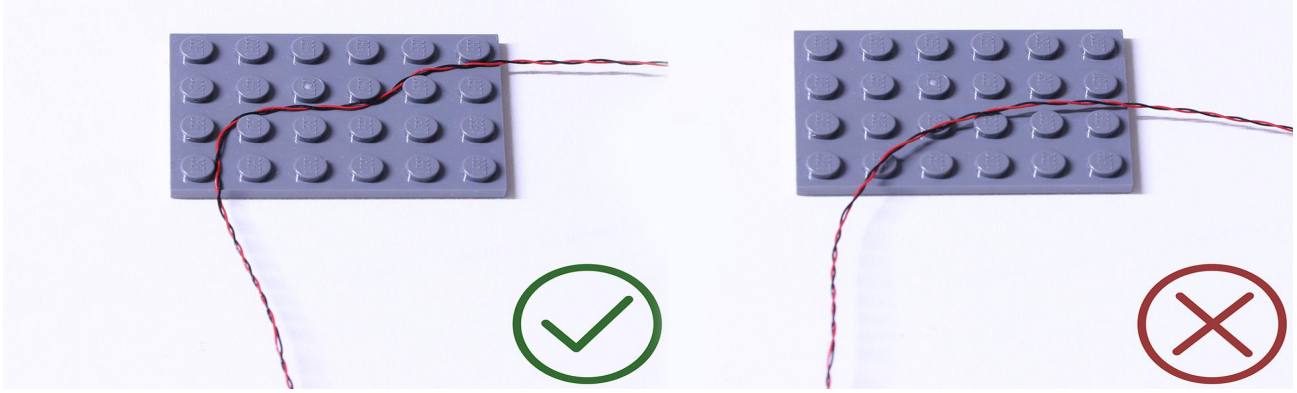
Haunted_House_10228 LED Lighting Kit

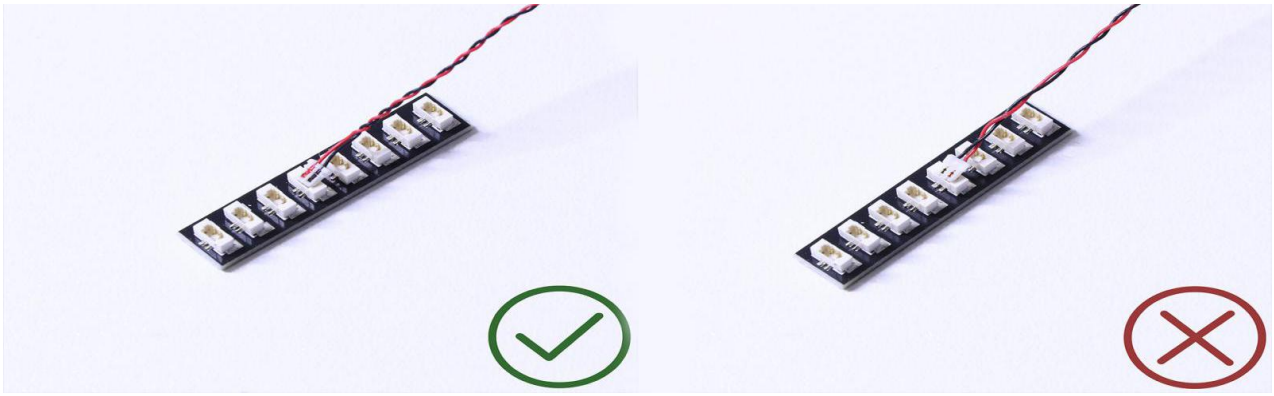
Package contents:

- 14x Green 30cm Dot Lights
- 8x White 15cm Dot Lights
- 3x 15cm Connecting Cables
- 1x 5cm Connecting Cable
- 20x Adhesive Squares
- 1x 6-port Expansion Boards
- 2x 8-port Expansion Board
- 1x 12-port Expansion Board
- 1x Multi-Effects Board (3-effects)
- 1x AA Battery Pack (Requires 3x AA Batteries)
- **Extra LEGO pieces**
- 2x LEGO Bricks 1x8
- 7x LEGO Plates 1x2

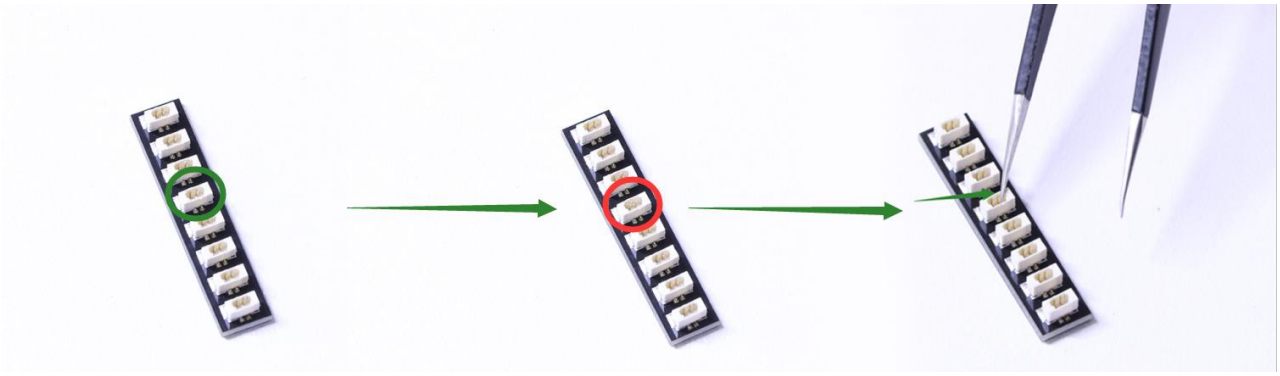
Note:
Place wires on the surface or under the LEGO building blocks.
The wire can be place between the building blocks or under the block, but they should be placed between the studs correctly.



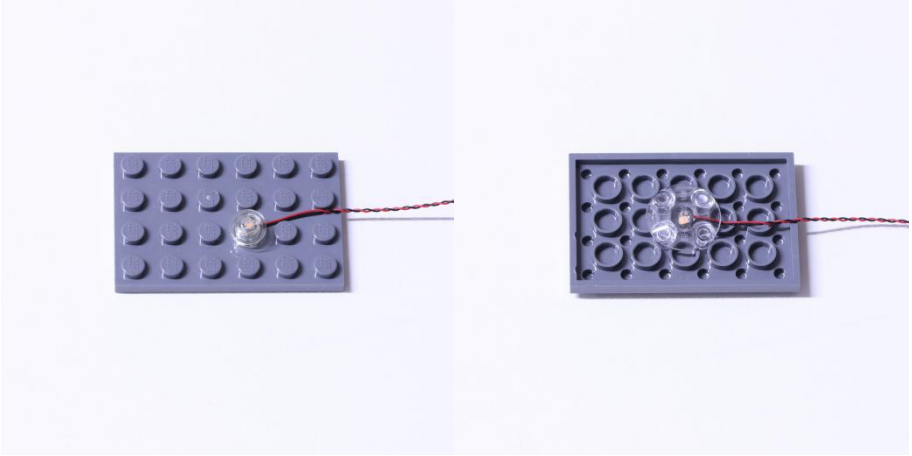
Insert the connectors to the ports.
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and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

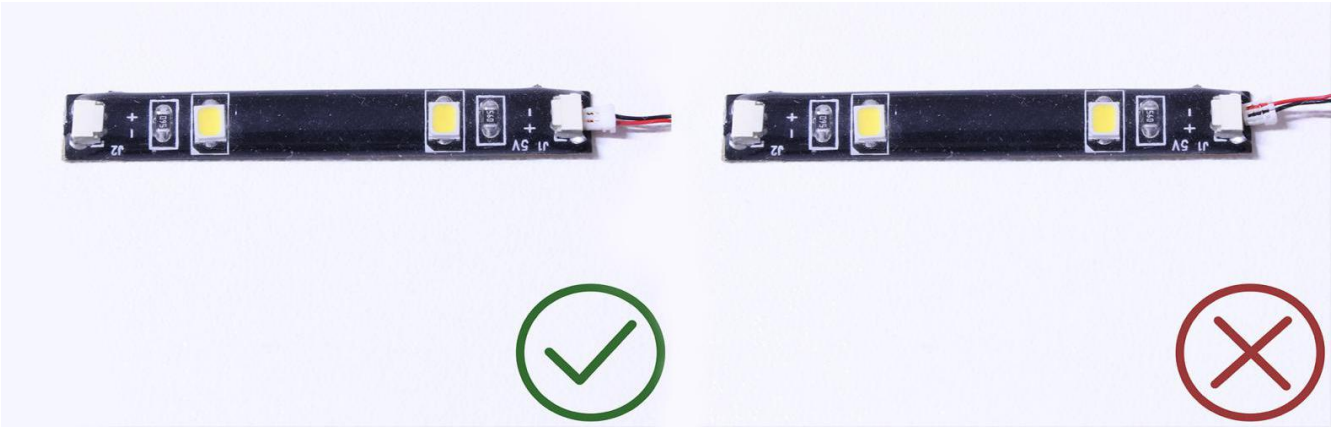


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put they either on the top of the studs or between studs.

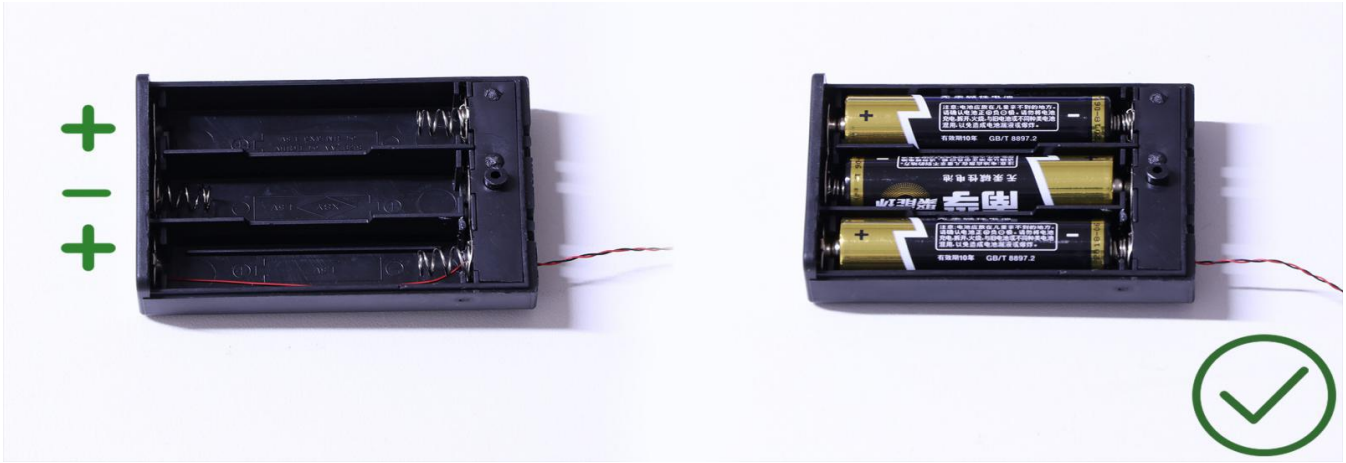


Connecting cable connectors to Strip Lights

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!

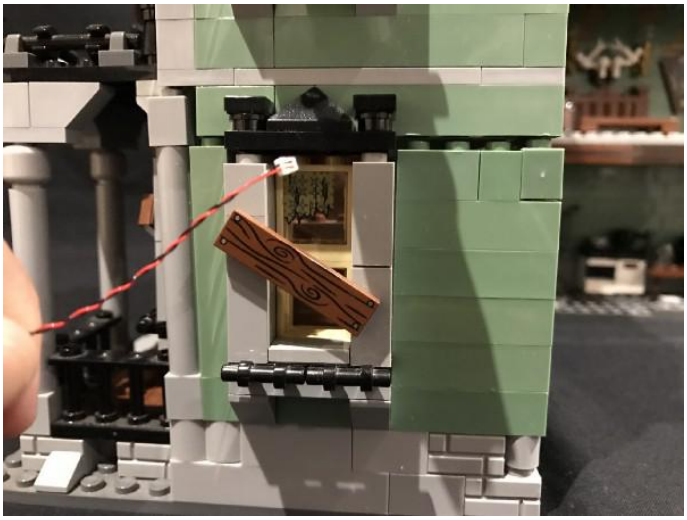
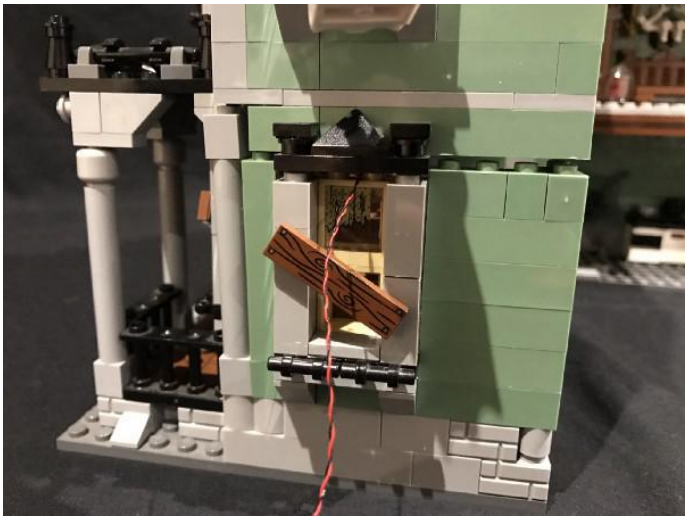
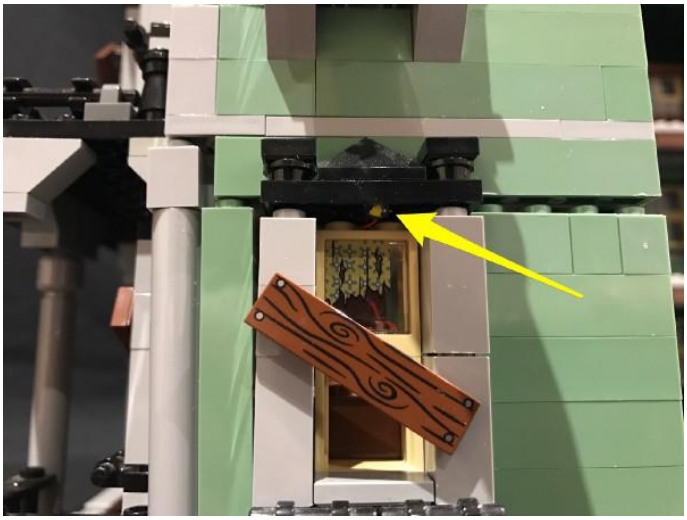
Instructions for installing this kit

1.) This lighting kit is installed from ground up. We will first install lights above each of the windows starting with the windows on the right side of the building on the lower level.

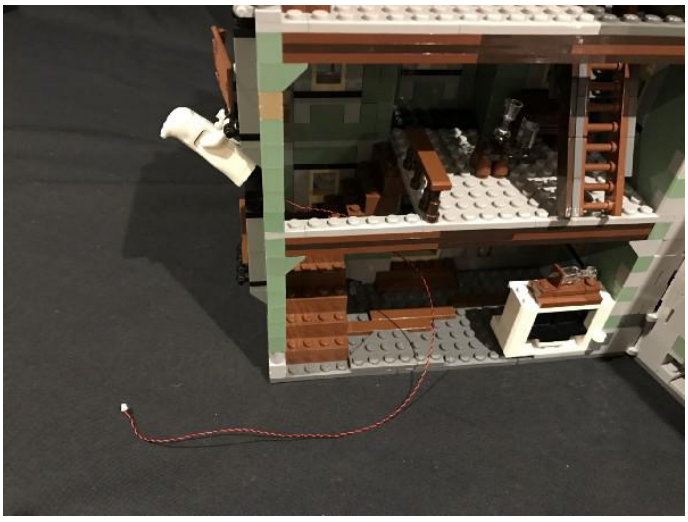



Using the LEGO removal tool, create a gap between the top of the window and bricks above.


2.) Take one Green 30cm Dot Light and then thread the connector side through to the inside in between bricks. Thread all the way through until the LED component is sticking just out above the top of the window. Ensure the LED component is facing downward, then reconnect the bricks back on top securely, closing the gap.

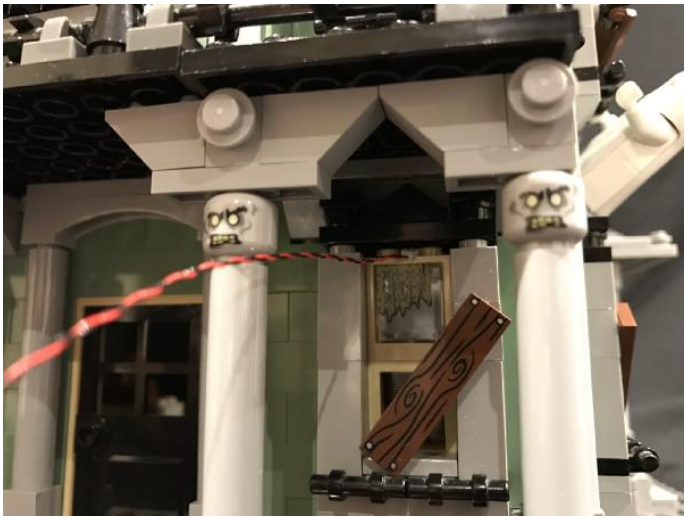

If you look from underneath, you should be able to just see the LED component part of the Dot Light sticking out

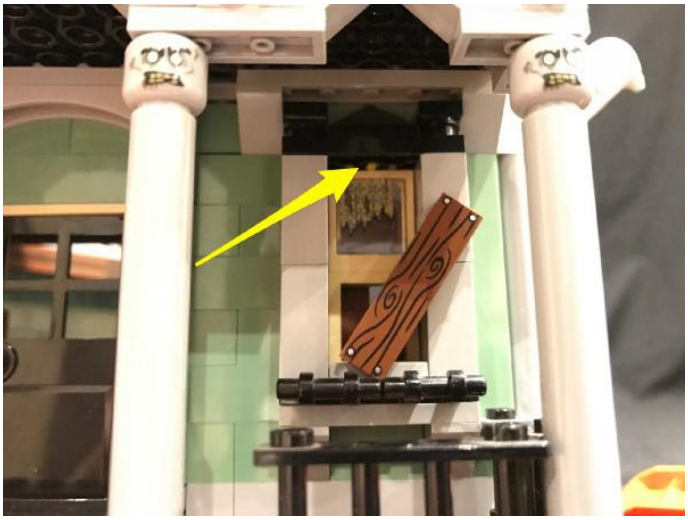



3.) We will now move onto installing lights to the front windows. Use the LEGO Removal tool to create a gap above the window on the right side.

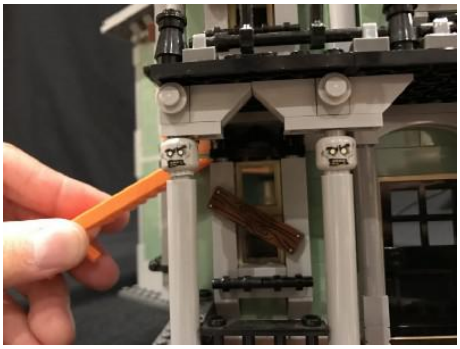


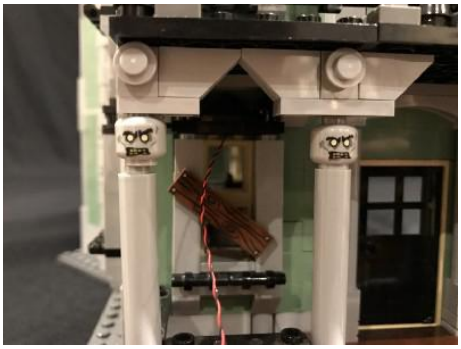
Take a White 15cm Dot Light and thread the connector side through to the inside of the building. Thread all the way through until the LED component is sticking just out above the top of the window. With the Dot Light facing downward, reconnect the bricks to close the gap and secure down Dot Light.



4.) Create another gap above the left window and using the same method we did for the previous windows, install another White 15cm Dot Light.

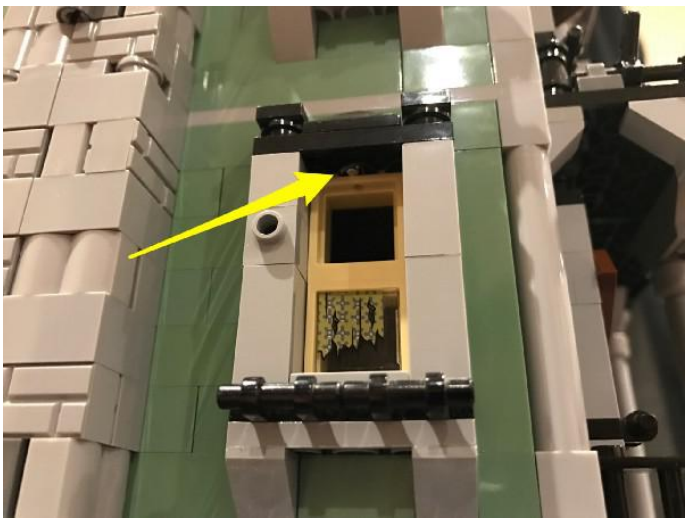




5.) Move onto the left side of the building and use the LEGO removal tool to create a gap between the top of the window and the bricks above to allow you to install another Green 30cm Dot Light.







6.) We will now install a light above the front door underneath the roof.

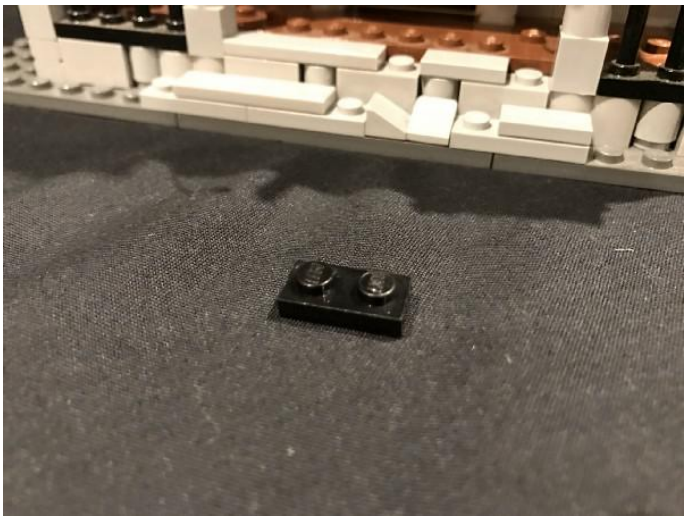
In order to do this, open up the building and from the inside, push up from underneath and remove the 6x10 plate.

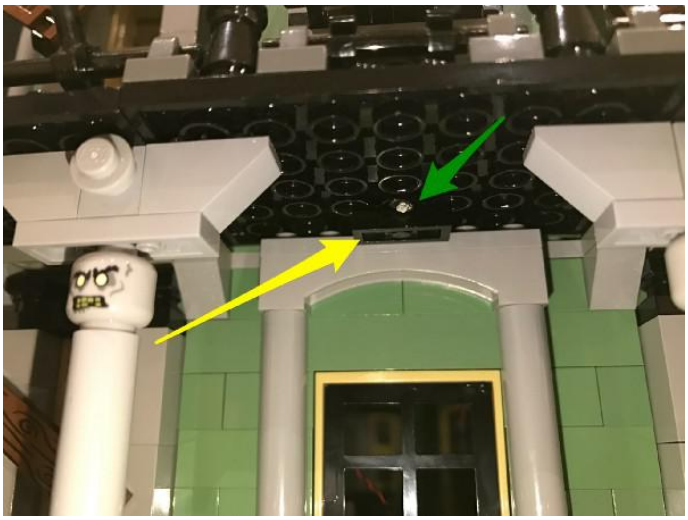


Use the LEGO Removal tool to create a gap between the top of the door and bricks above. You will need to do this from both inside of the building and outside of the building as per below.


Take a Green 30cm Dot Light and thread the connector side through from the outside to inside the building.

Take one of the provided 1x2 LEGO plates and use this to mount the Dot Light underneath the roof above the front door.

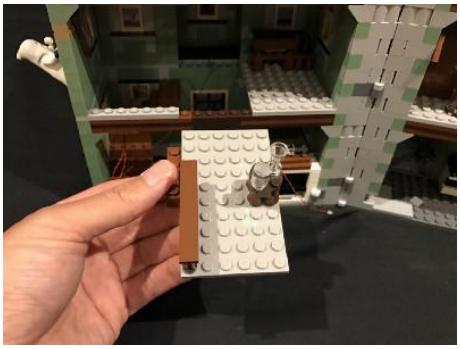
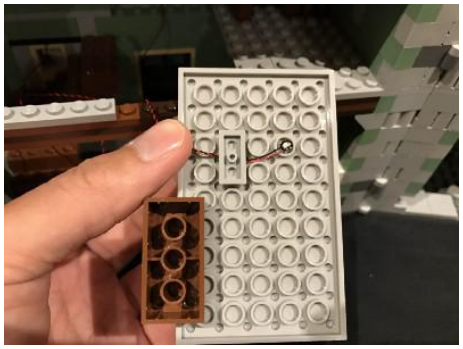
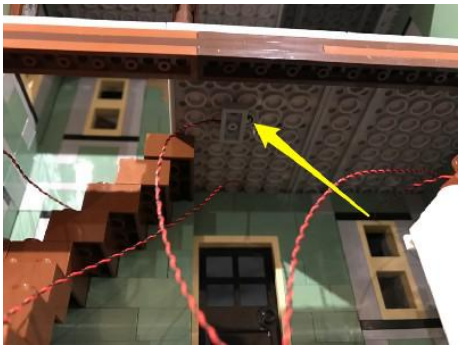




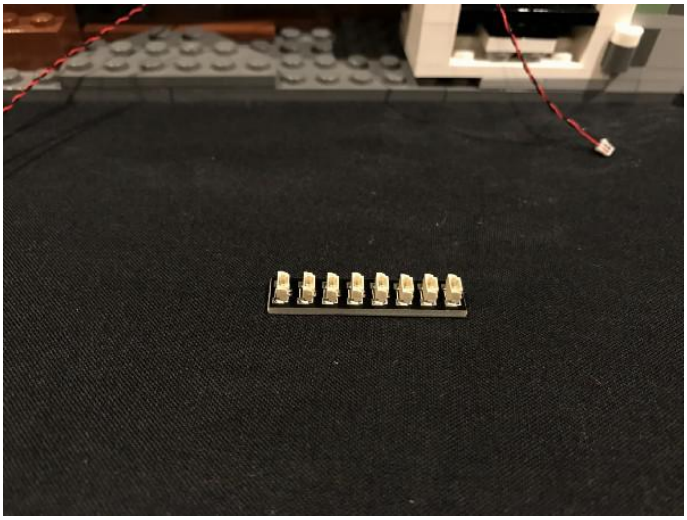
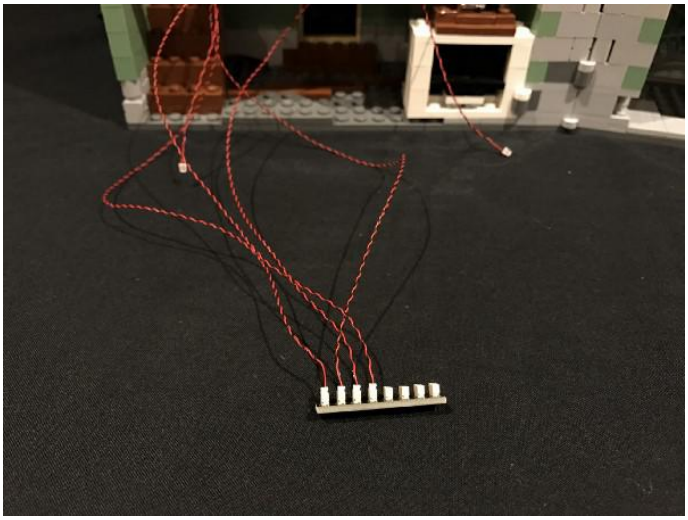
Reconnect bricks to close up the gap securing the Dot Light in place.

7.) We will now move onto installing a light to the ground floor inside the building. Take the 6x10 LEGO plate which we removed earlier and install a Green 30cm Dot Light underneath this plate using one of the provided Adhesive squares to stick the LED component down, and a provided LEGO 1x2 plate to secure the cable. Copy the example below ensuring the cable is facing the back before then

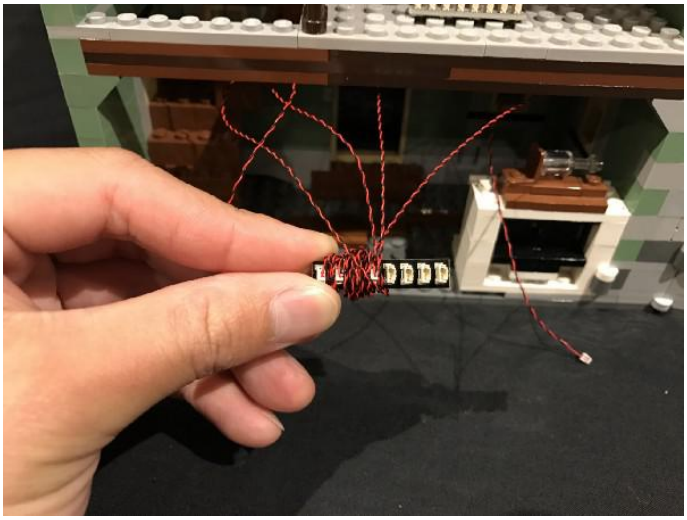
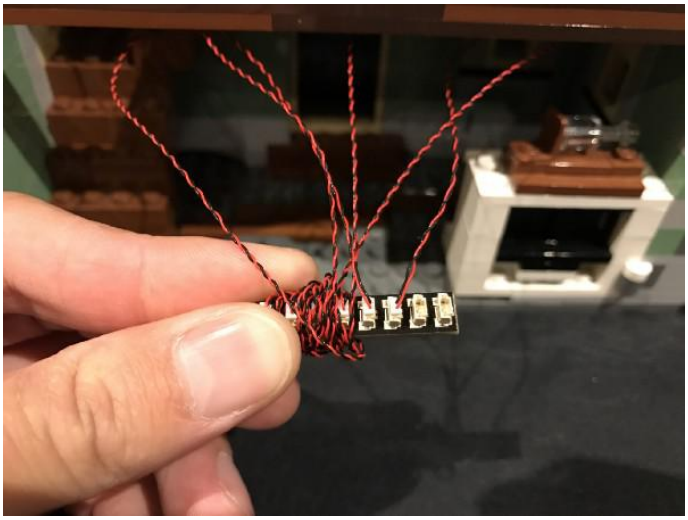
reconnecting this section back to the inside of the building.

8.) Take the 8-Port Expansion Board and connect the 4x Green Dot Lights we installed to the spare ports.

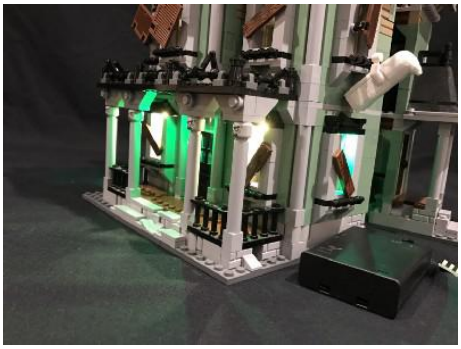



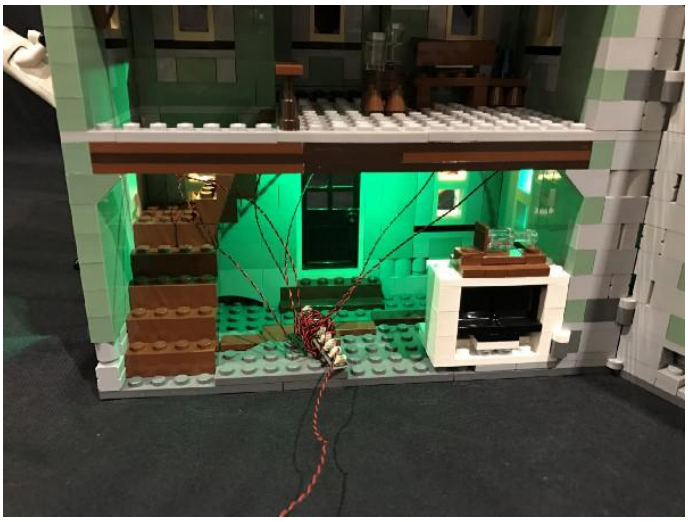
To eliminate excess cable, wind the cables around the expansion board until there is about 4–5cm between the expansion board and top of the ground floor. Take the 2x White 15cm Dot Lights we installed and connect these to the next available ports.

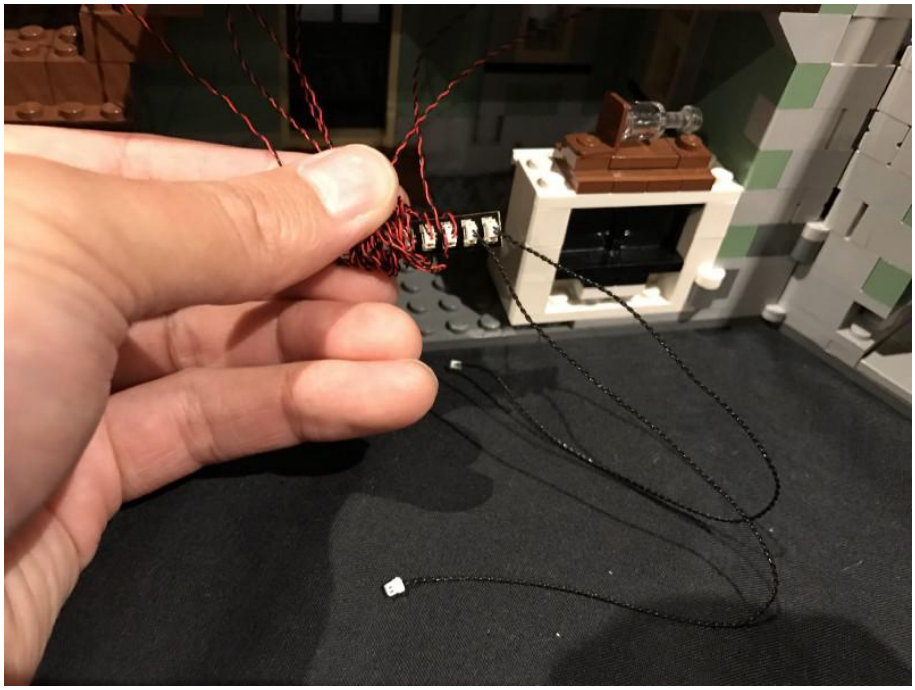
9.) We can now test the lights we have installed so far. To do this, take the Battery Pack and insert 3x AA Batteries into it. Connect the battery pack cable into a spare port on the expansion board. Turn on to verify all the lights are working OK.



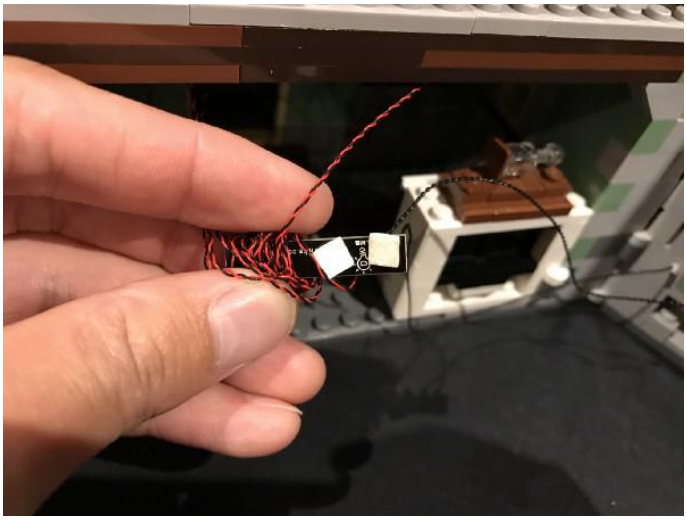




10.) Disconnect the battery pack and then take 2x 15cm Connecting Cablesand connect them to the last two ports on the expansion board.

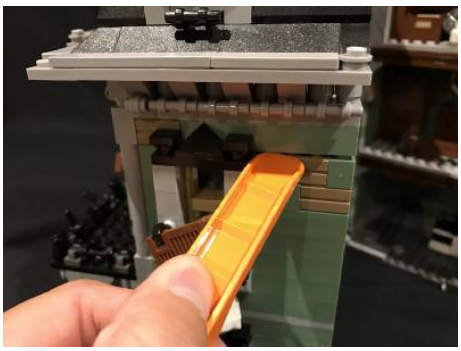


Using 2x Adhesive Squares, mount the expansion board to the inside of the brown bricks on the top of the ground floor as per below.

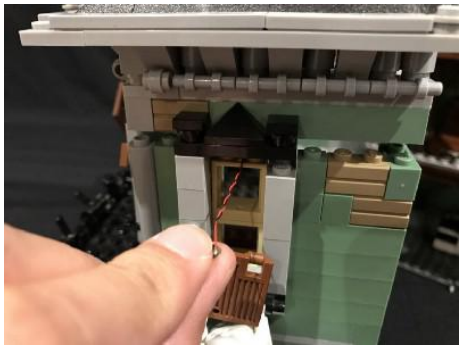


Do your best to tuck in and hide the excess cables as we do not want them to be too visible. You can also use tape to secure the cables to the top.

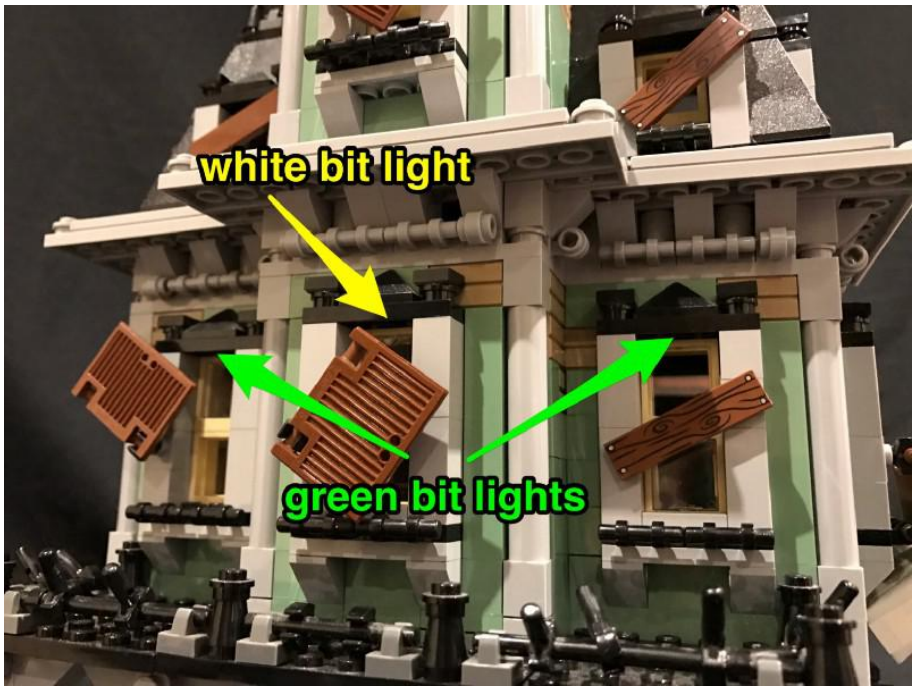
11.) We will now move onto installing lights to the windows on the second floor. Start on the right side of the building and use the LEGO Removal tool to create a gap above the window.0



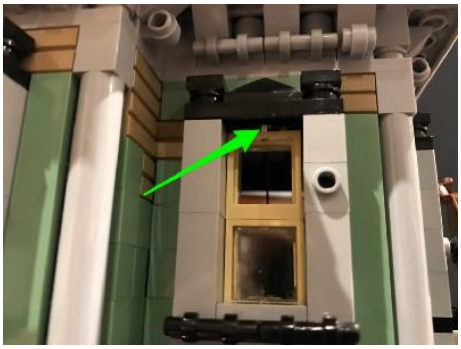
Take a White 15cm Dot Light and thread through until the LED Component is peaking out before reconnecting bricks to close up the gap. Remember to ensure the Dot Light is facing downward.

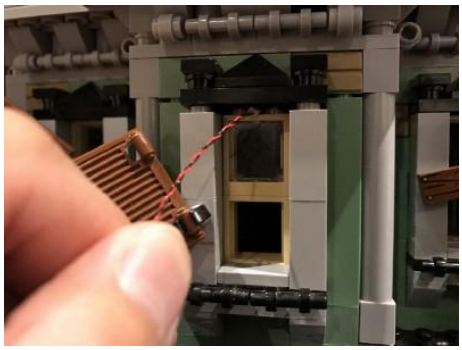
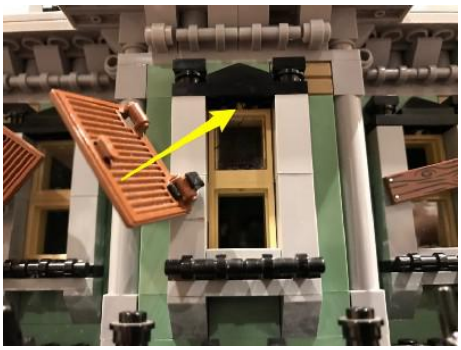




12.) Using the same method as we did for all other window lights, use the LEGO Removal tool to create gaps to allow us to install more Dot Lights to the 3 windows on the front, as well as the window on the left side of the building. Start with a Green 30cm Dot Light to the front right window, White 15cm Dot Light to the middle window, and another Green 30cm Dot Light to the left front window.

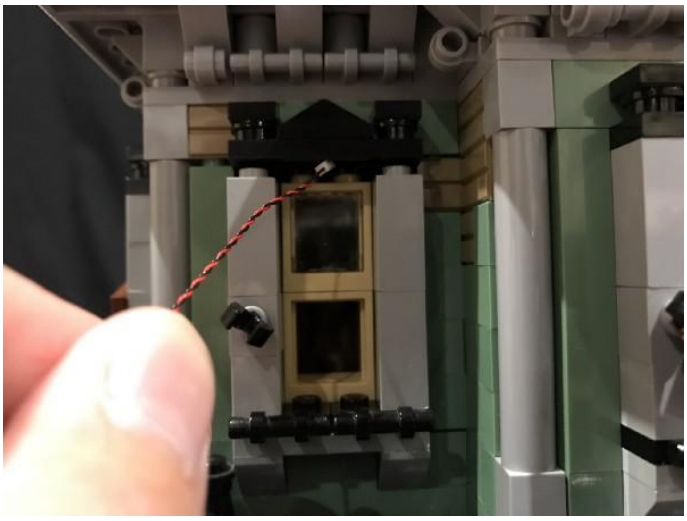


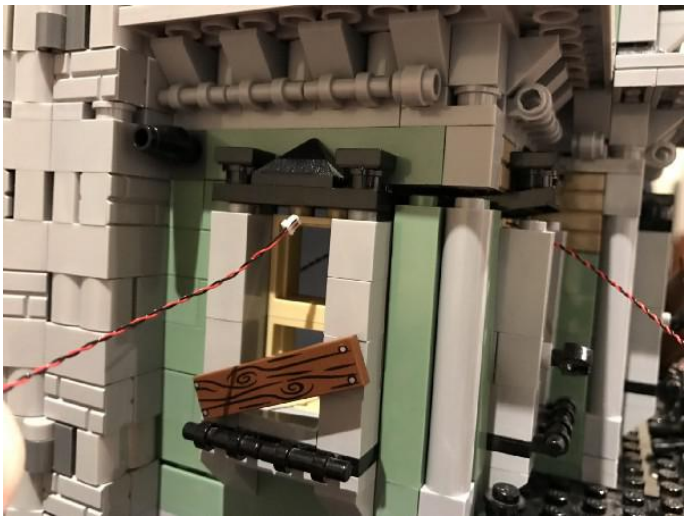
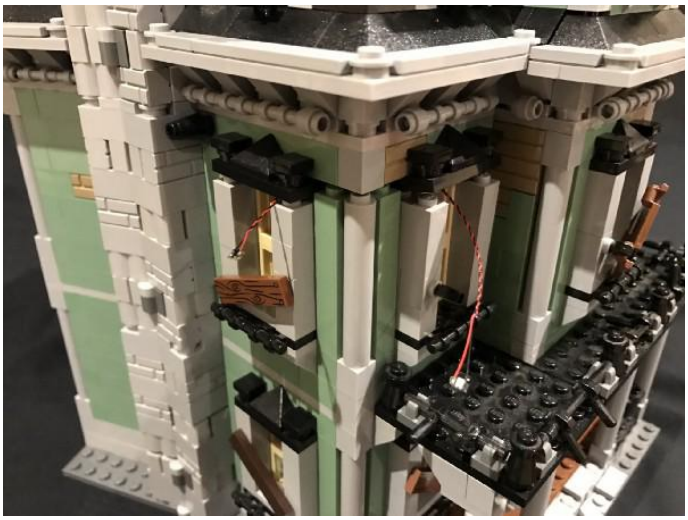




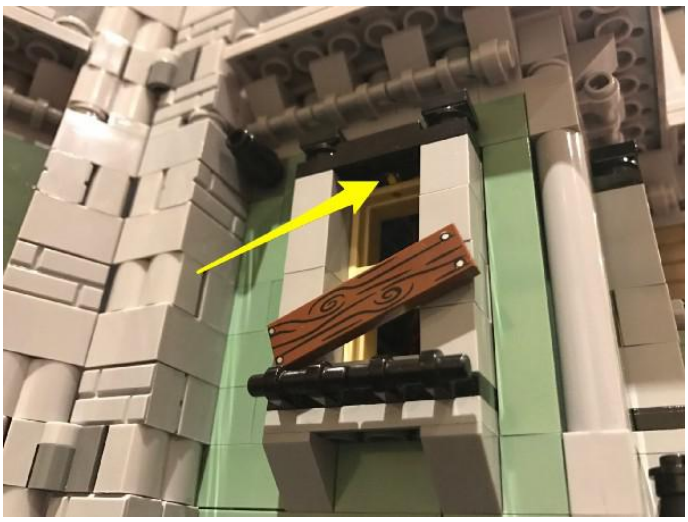




Before closing the gap to secure the Green Dot Light on the front left window, create another gap above the window around the left side of the building and thread a White 15cm Dot Light through.

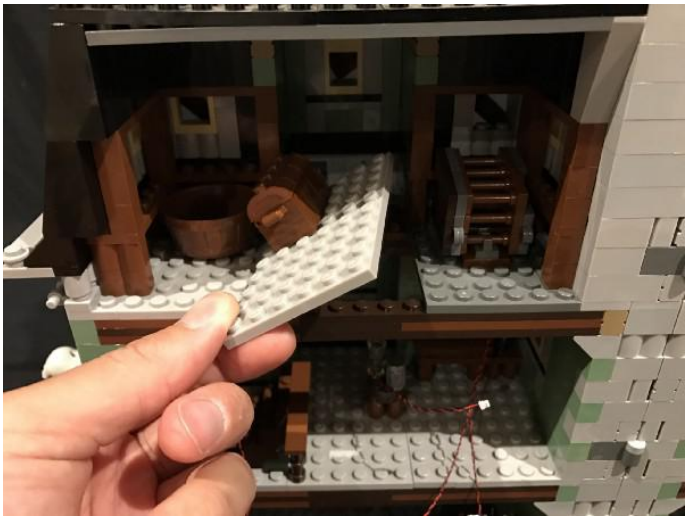


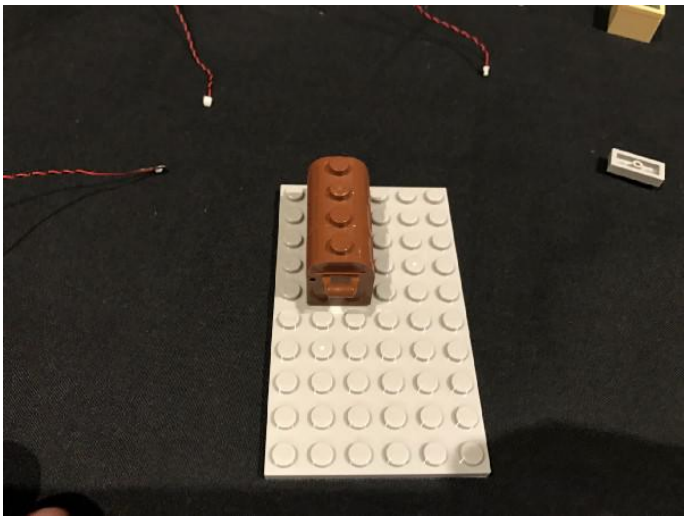
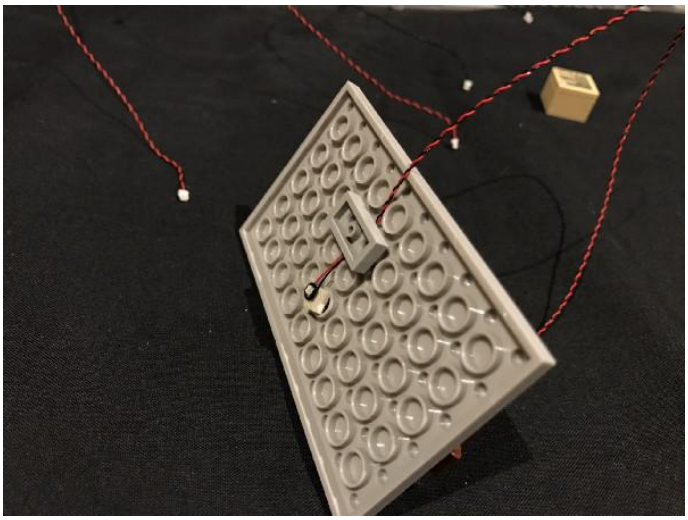
We can now close the gap above the front left window and window on the left side of the building securing them both in place.

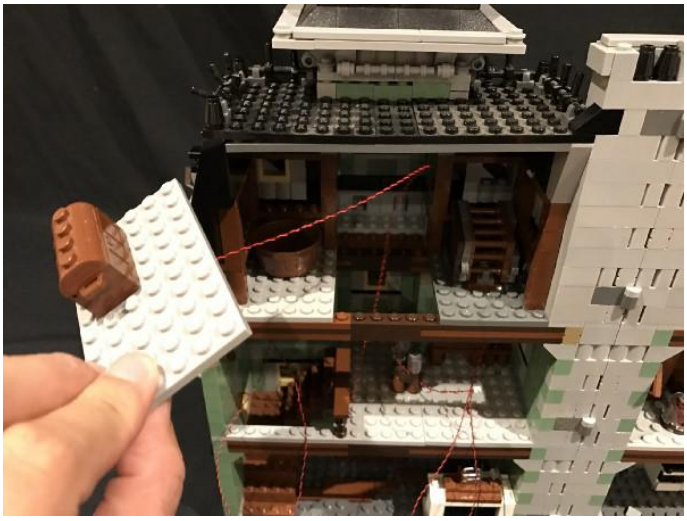
13.) We will now install a light to the inside of the building for the second floor. Remove the 6x10 plate in the middle of the floor.

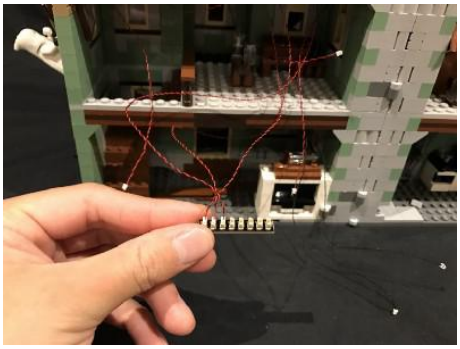
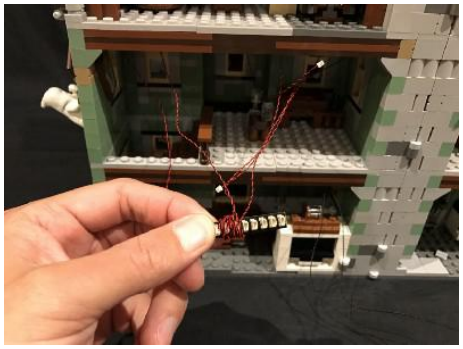
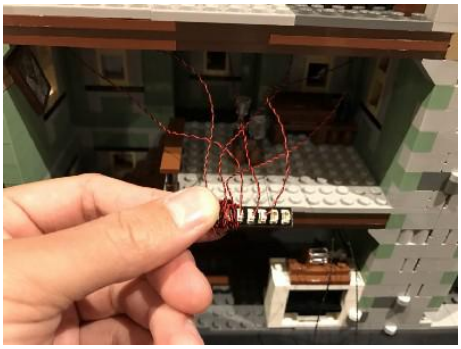
Take another Green 30cm Dot Light and stick it underneath the 6x10 plate using an adhesive square as well as a provided 1x2 plate to secure the cable. Install to the following position as per below.

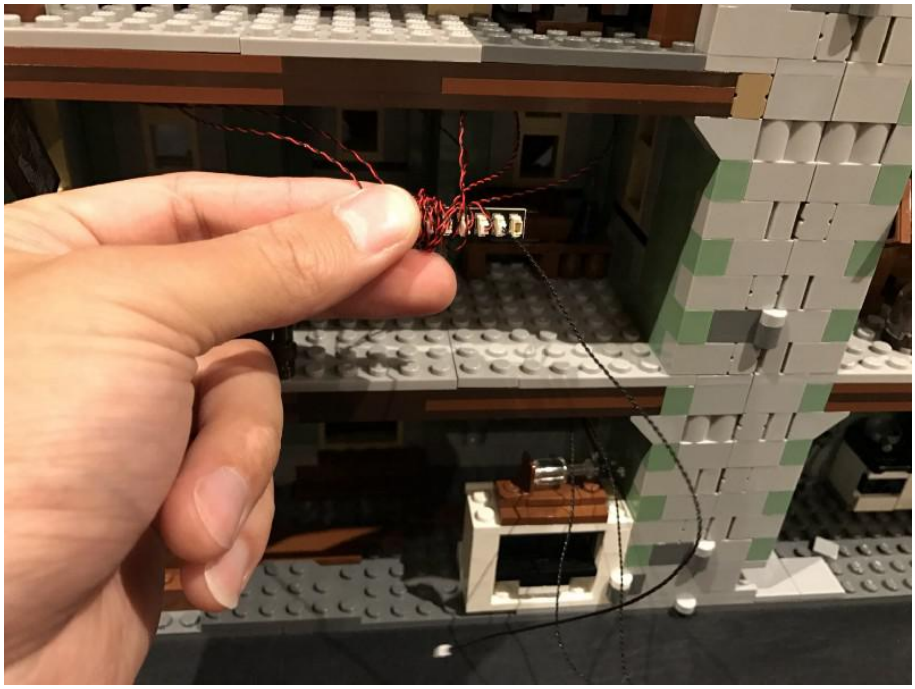
Thread the Dot Light cable through underneath before reconnecting the 6x10 plate.



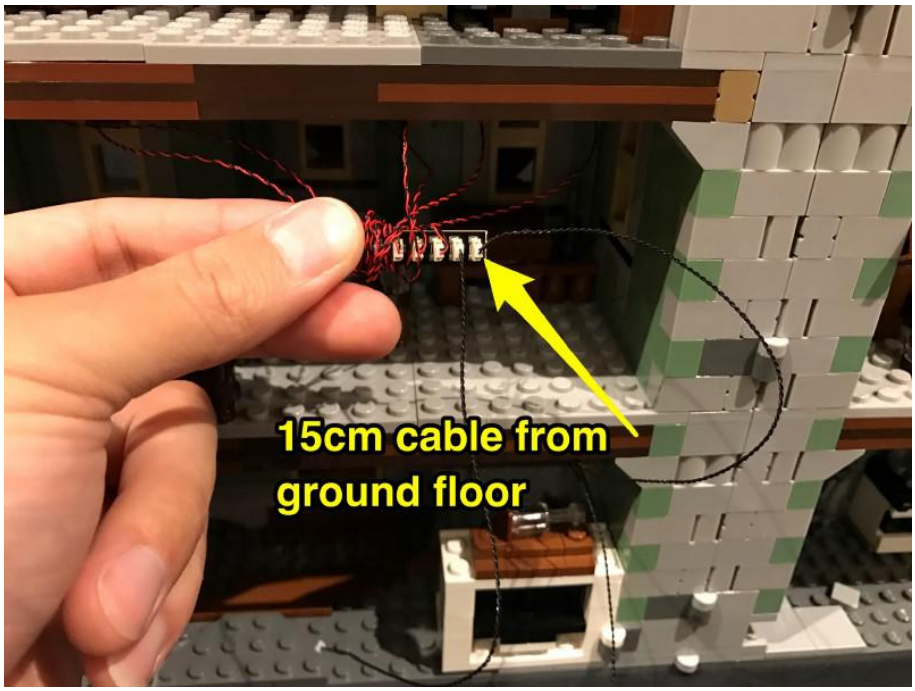

14.) Take another 8-Port Expansion Board and connect the 3x Green Dot Light cables to the first available ports. Wind the cables around the board until you have about 4–5 cm between the board and the top of the second floor, then connect the 3x White Dot Light cables into the next available ports.

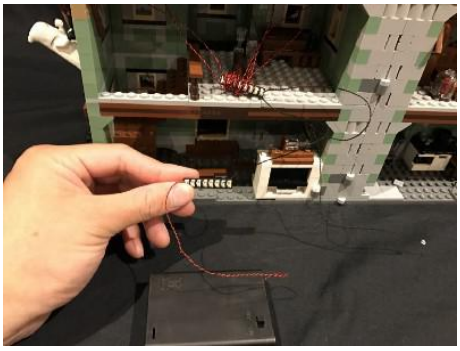
15.) Take a 15cm Connecting Cable and connect it to the next available port.



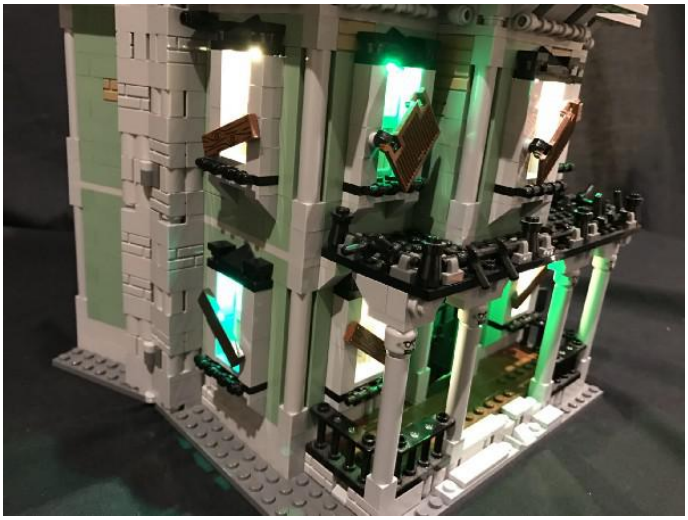
Locate the other end one of the 15cm connecting cables from the expansion board below and connect this to the last available port of the 8-port expansion board on the second level.



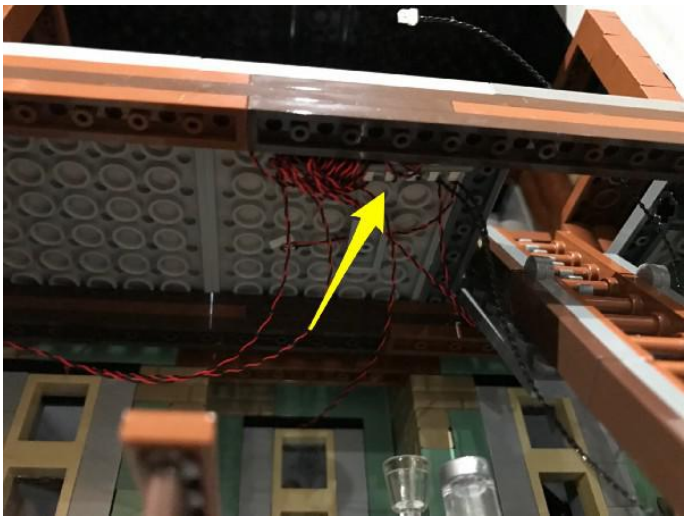
16.) We can now test all the lights we have installed so far. Simply connect the battery pack cable into a spare expansion board, and then connect one of the loose 15cm cables into the spare expansion board. Turn on and verify all lights are working ok.



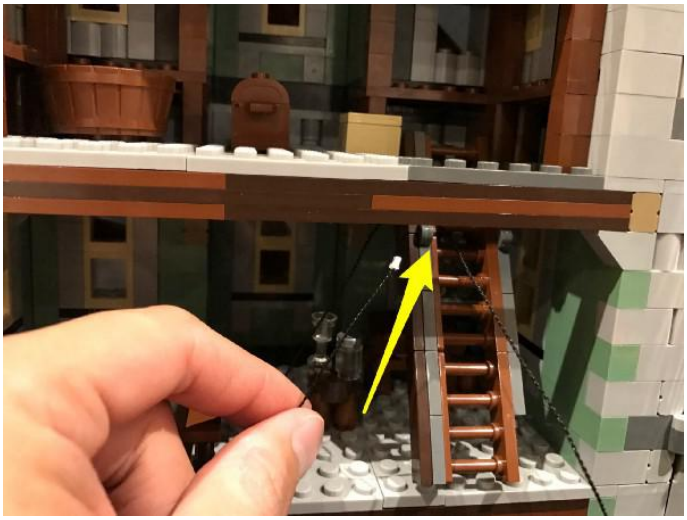


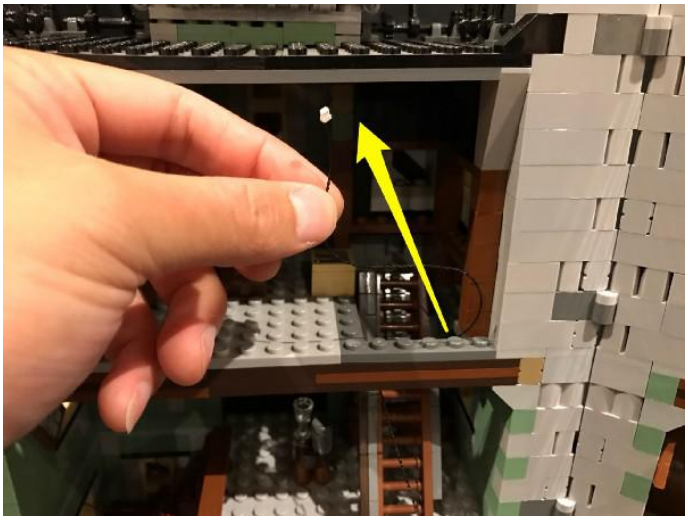


17.) Using another 2x adhesive squares, mount the 8-port expansion board on the second floor to the inside of the brown bricks on the top. Ensure the expansion board is mounted as close to the stairs as possible and do your best to tuck in excess cables from the Dot Lights. Again, use tape if necessary.



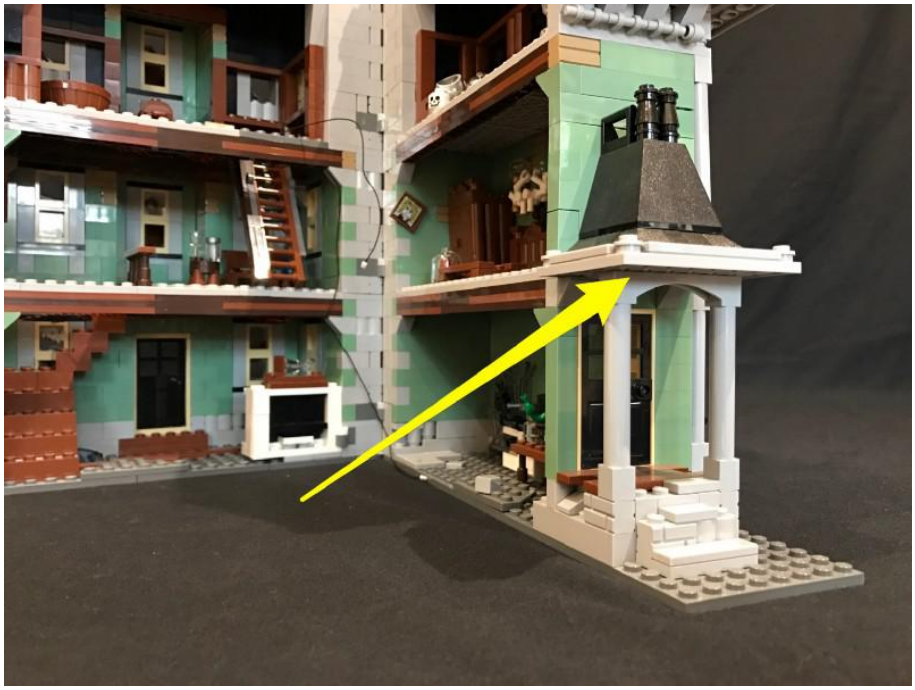

18.) Take the loose 15cm cable from the expansion board on the second floor and thread the cable up to the third floor (up the stairs). Pull up from underneath.

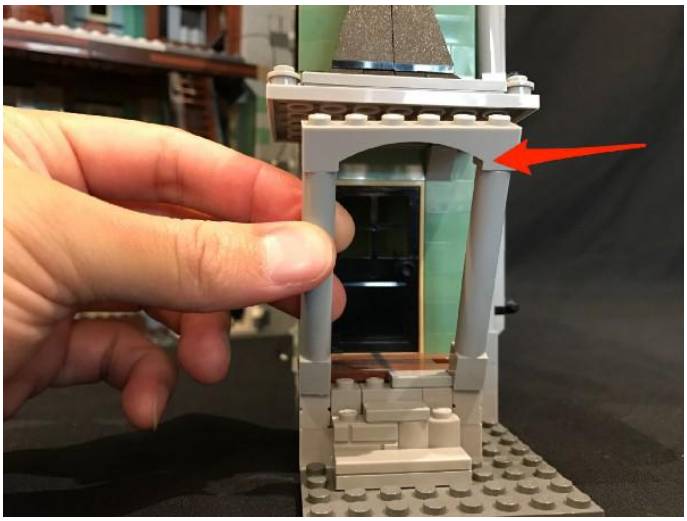




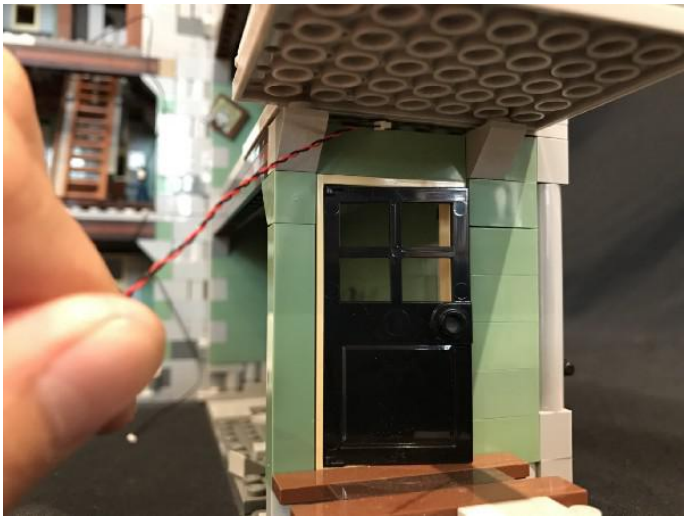
Use tape to secure the cable which is running up from the ground floor to second floor to the side of the building.

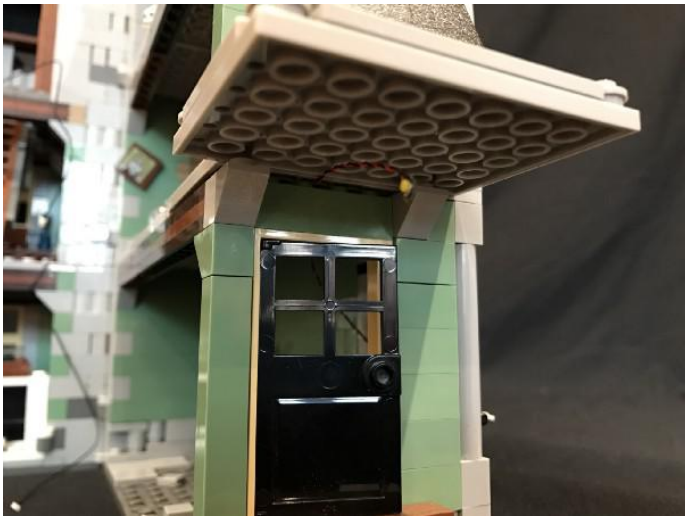
19.) We will now install lights to the back door on the right side of the building. First remove the front pillar section and then use the LEGO Removal tool to create a gap above the front door.

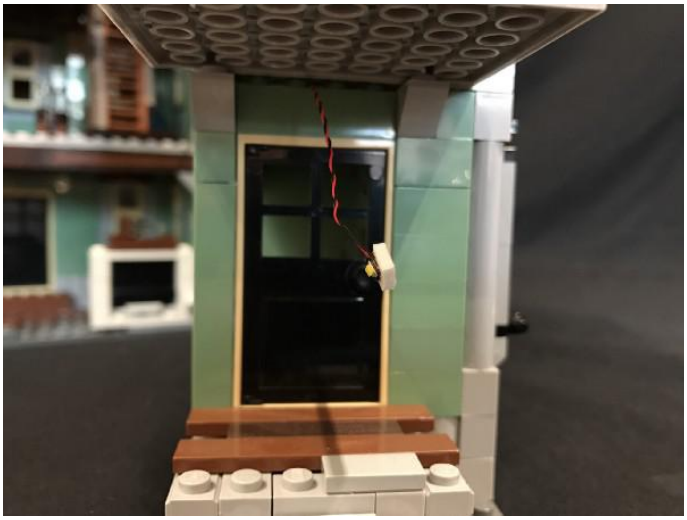


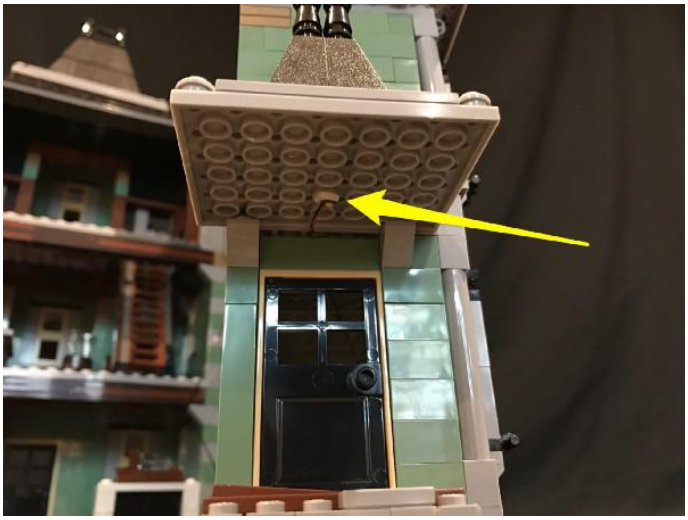


Take a White 15cm Dot Light and thread through the gap. Use an adhesive square to stick the Dot Light to the following position underneath the roof.



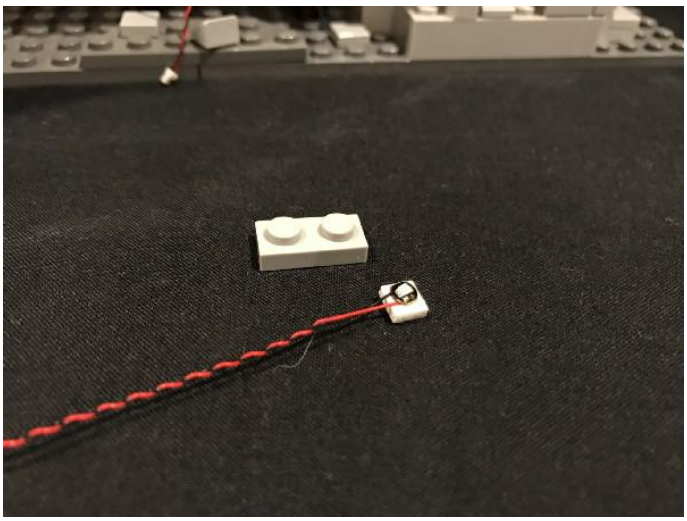


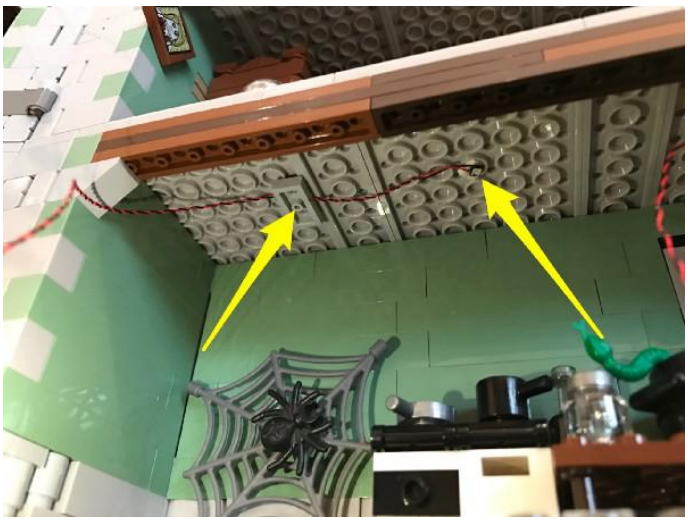




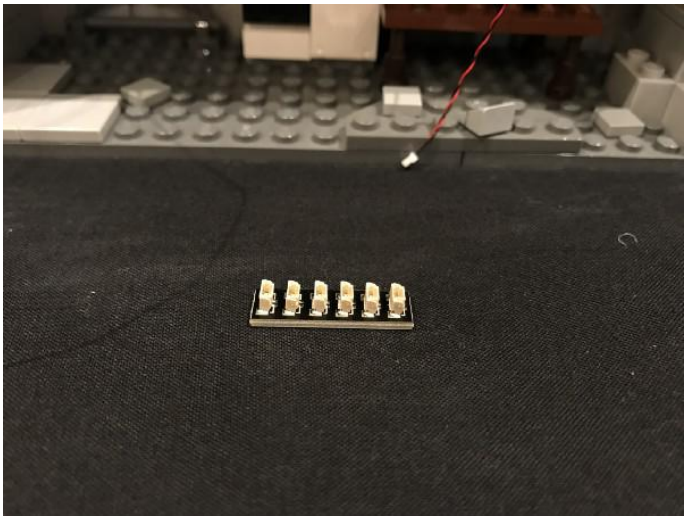
Reconnect the pillar section before closing the gap we created earlier.

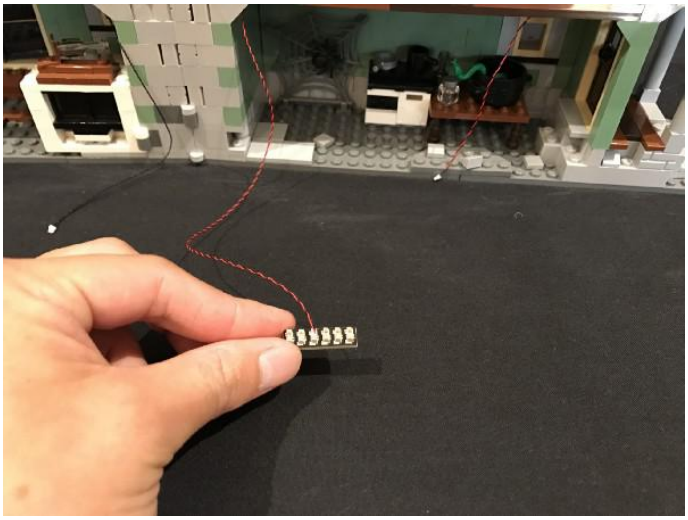
20.) We now need to install a Green Dot Light for the ground floor of this section. Take another Green 30cm Dot Light and using an adhesive square and provided 1x2 plate, mount to the following position underneath the second floor.

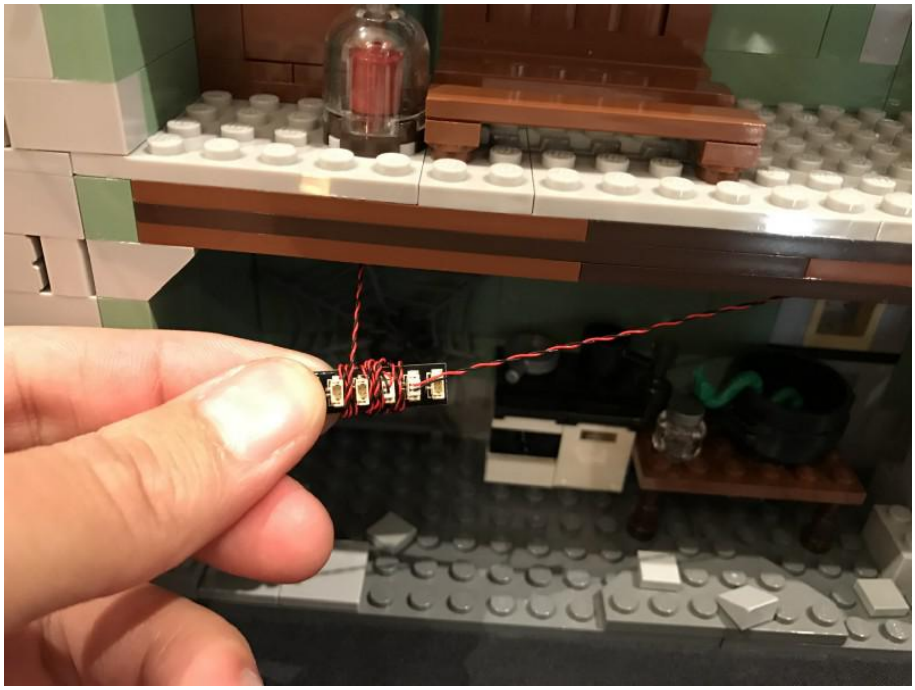




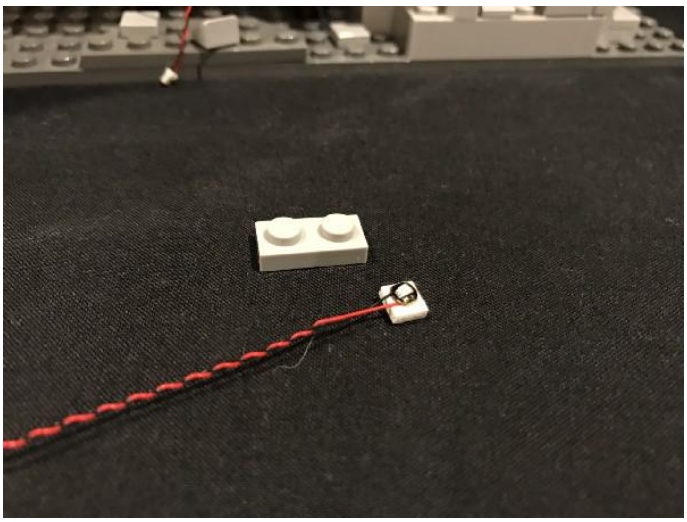
21.) Take the 6-Port Expansion Board and connect the green Dot Light cable into the first available port. Wind the cable around the board several times until you have about 4–5 cm between the board and the top of the ground floor. Connect the White Dot Light from the back door to the next port.







22.) We will now install another green light above the second floor. Take another Green 30cm Dot Light and using an adhesive square and provided 1x2 plate, mount to the following position underneath the third floor.

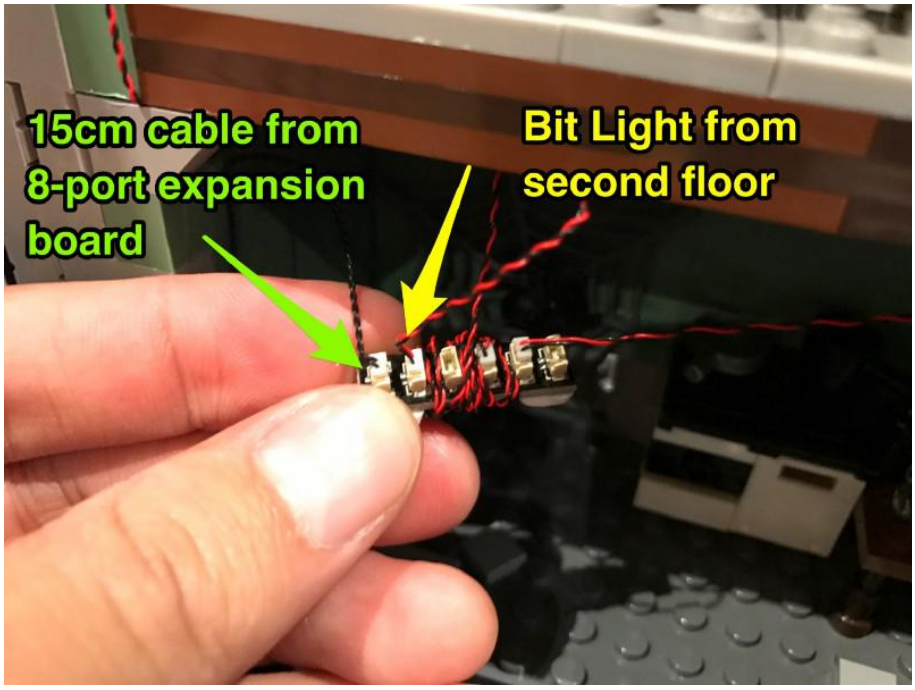


Bring the Dot Light cable across and then lay it behind and underneath the brown cupboard by first

removing, laying the cable and then reconnecting over it.

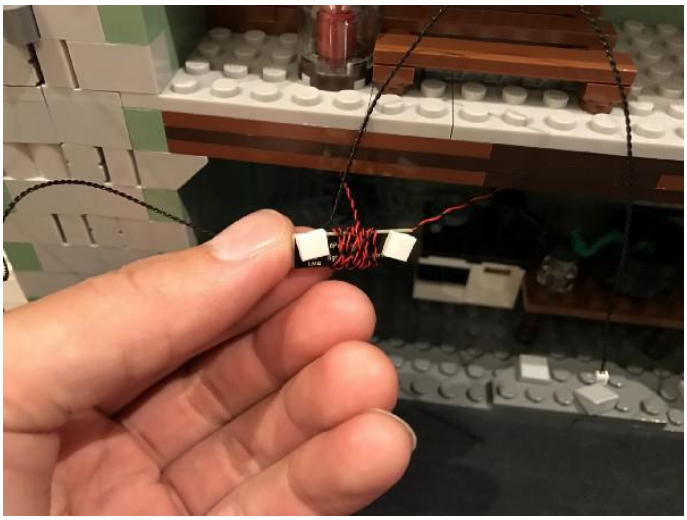
In order to properly secure and hide the Dot Light cable, create a gap between the two floors, thread the cable in between bricks and then secure back the sections.

23.) Take the loose 15cm cable from the 8-port expansion board from the other ground floor and then connect this into one of the spare ports on the 6-port expansion board. Connect the Dot Light cable from the second floor into the next available port.



Using another 2x adhesive squares, mount the expansion board to the inside of the brown bricks on

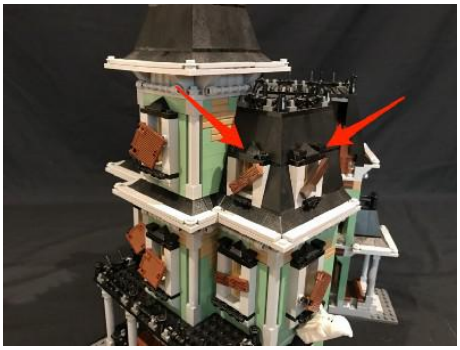
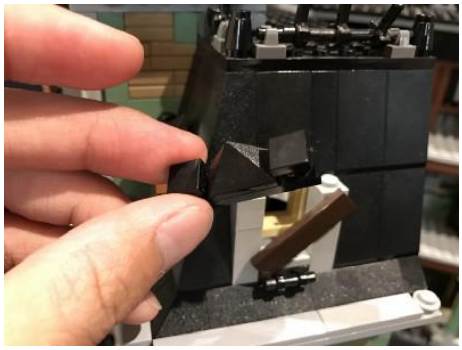
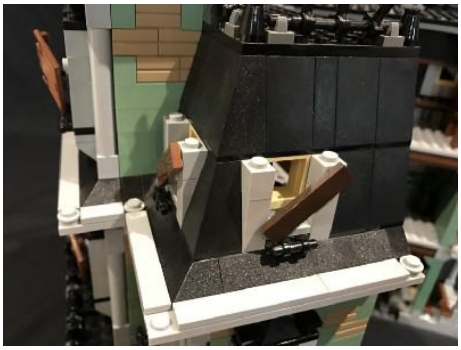
the top of the ground floor.



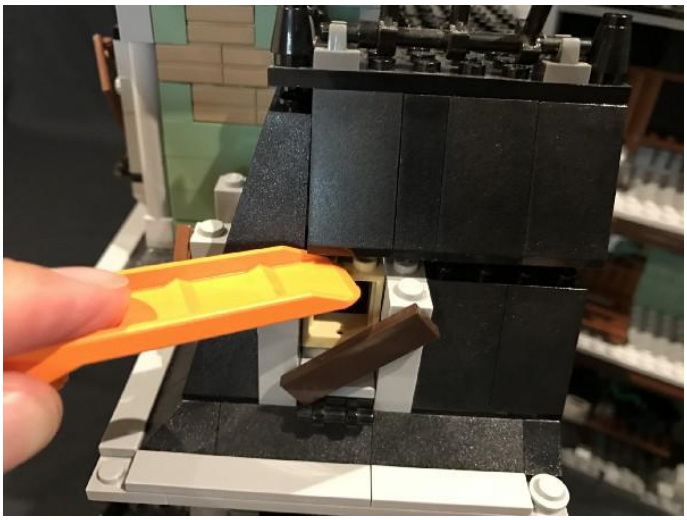
Use tape to secure the 15cm cable to the side of the wall.

24.) Take this time to test all the lights we have installed so far. Connect the battery pack cable into the 12-port expansion board and then connect the loose 15cm cable from the top floor to the expansion board. Turn on to verify all is working OK.

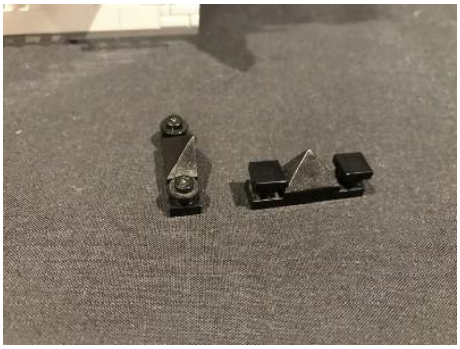
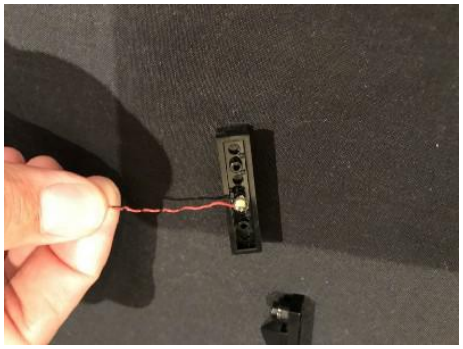
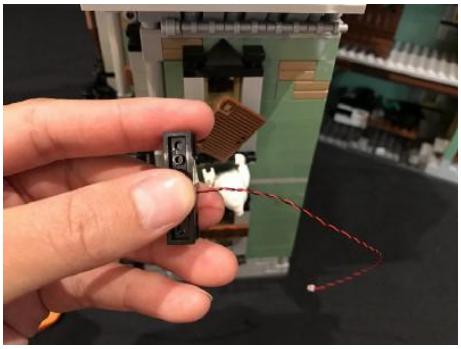
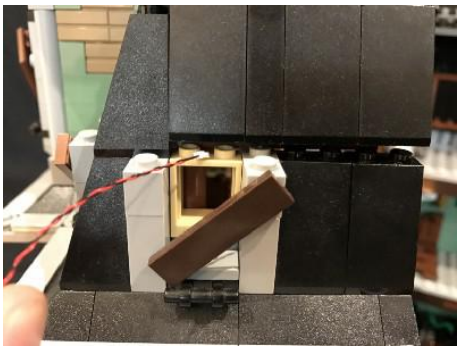
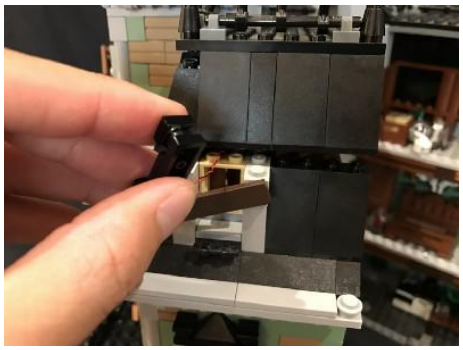
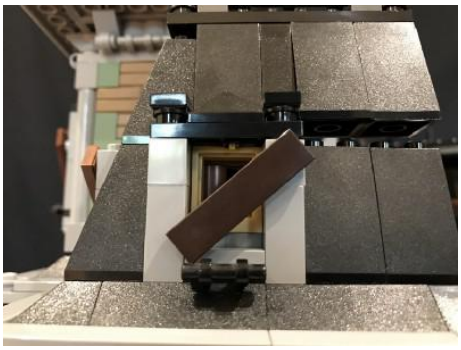

25.) We will now move onto installing lights to the windows on the top floor. Start by removing the sections above the window on the right side of the building as well as the front right window.

Use the LEGO removal tool to create a gap above both windows.

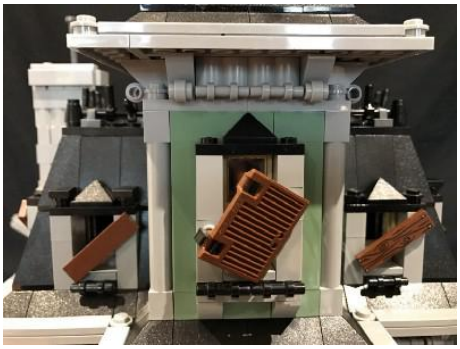
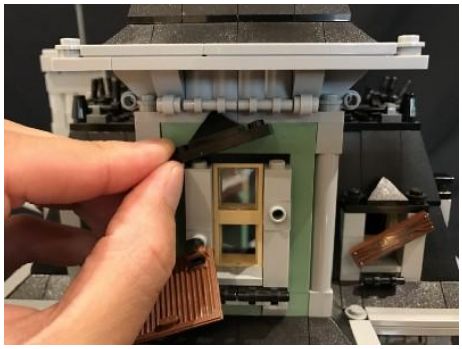
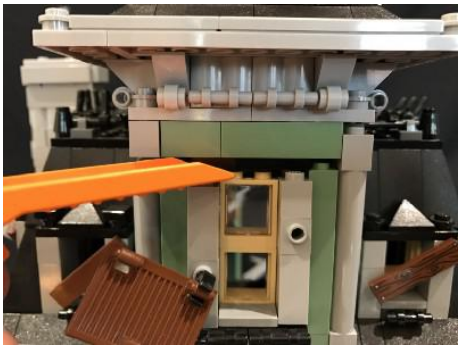
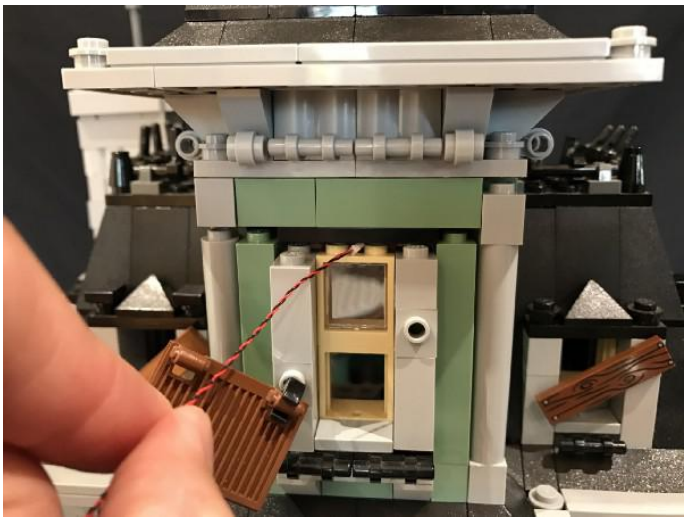
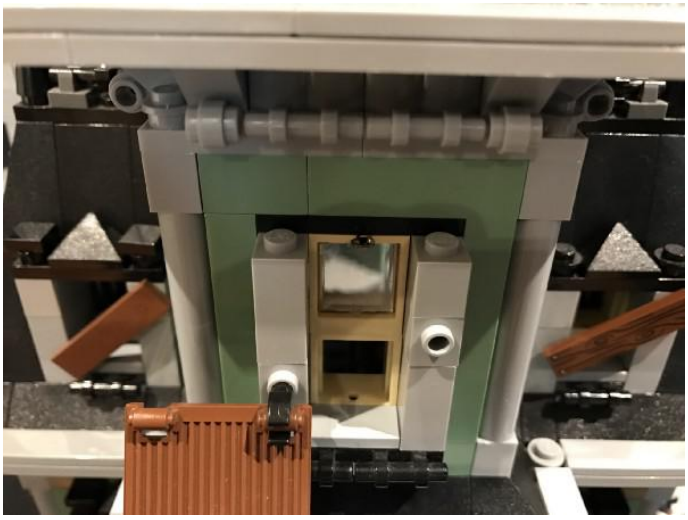


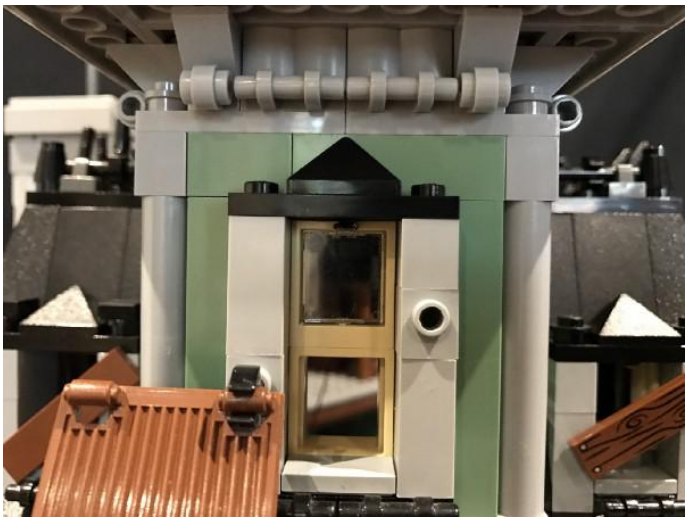

Take a Green 30cm Dot Light and place it underneath the section we removed earlier. Place your finger over the Dot Light to hold it in place before then threading the cable through to the inside of the building. Reconnect this section with Dot Light installed underneath.

Repeat this process to install a White 15cm Dot Light to the front right window then reconnect to roof to close up the gap and secure lights in place.

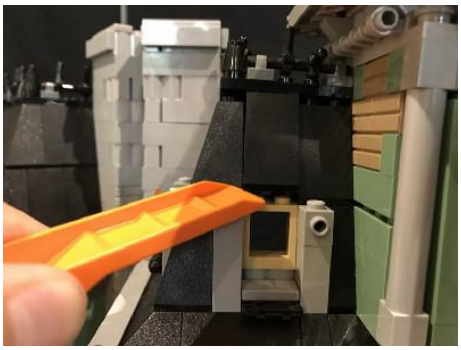
26.) Install another Green 30cm Dot Light to the middle window at the front using the same method we did previously (Creating a gap above window to thread the cable through).

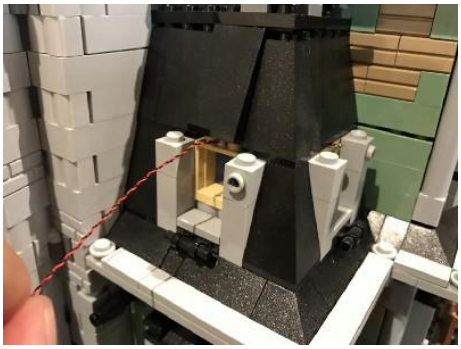
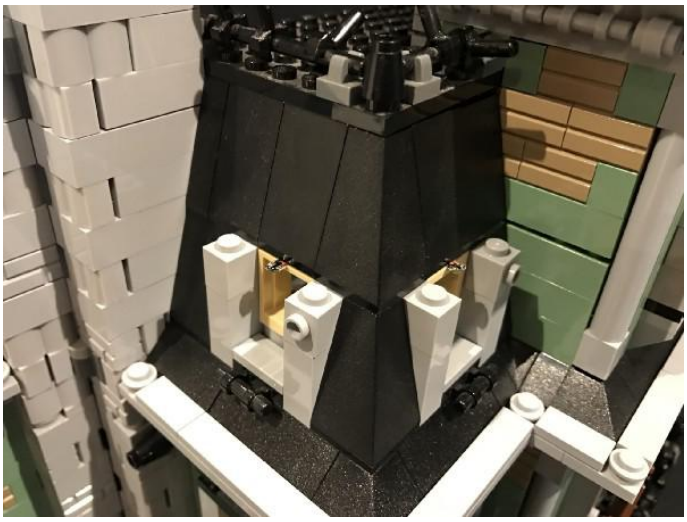


27.) Install the next windows on the front left and left side of the building together by creating a gap above both windows. Install a White 15cm Dot Light to the front left window, and a Green 30cm Dot Light to the window on the left side of the building.

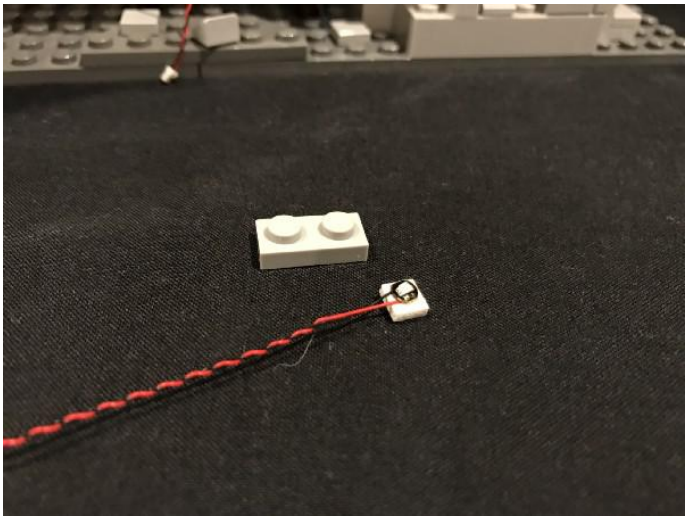


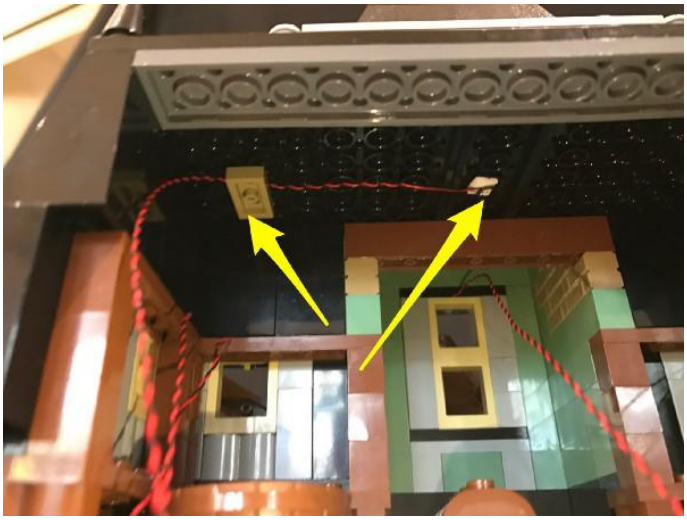




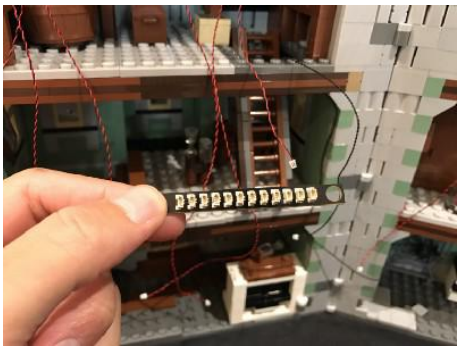



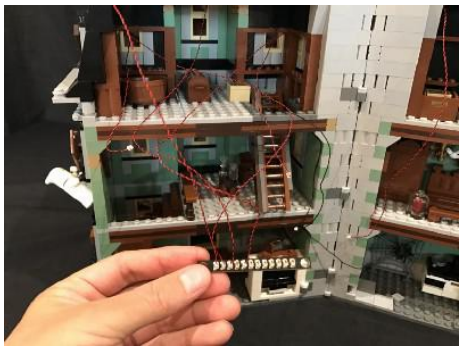

28.) Install another 2x Green 30cm Dot Lights to the inside of the top floors (one for each side) using adhesive squares and 1x2 plates using the same method we did for the lights on the lower levels.

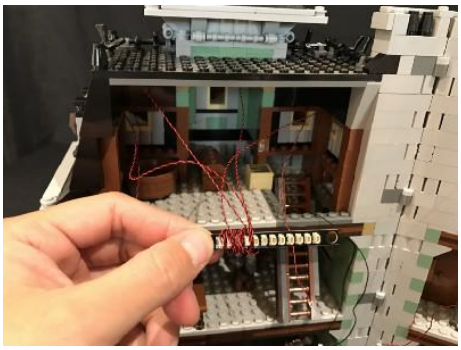





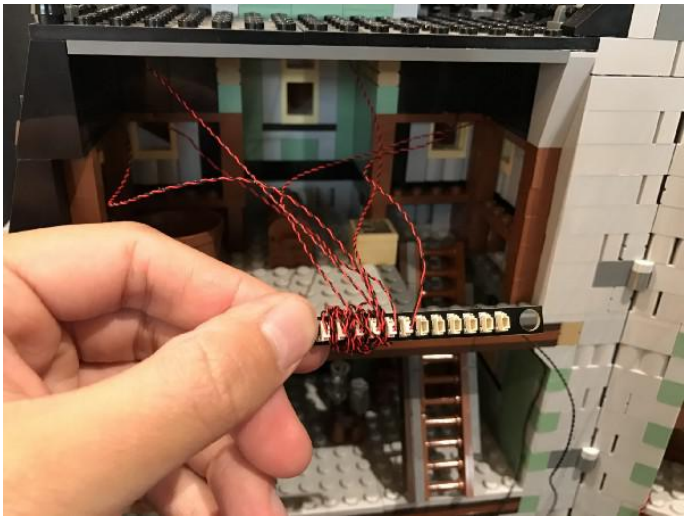
29.) Take the 12-Port Expansion Board and then connect the 4x Green Dot Light cables to the first available ports. Keep one of the ports on the left free for the 15cm Dot Light on the left window. Wind the cables around the expansion board until there is 4–5 cm between the board and the top of the floor.

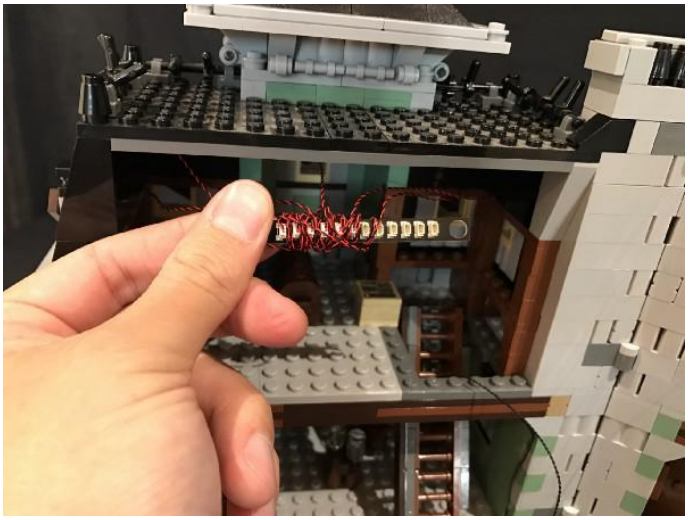




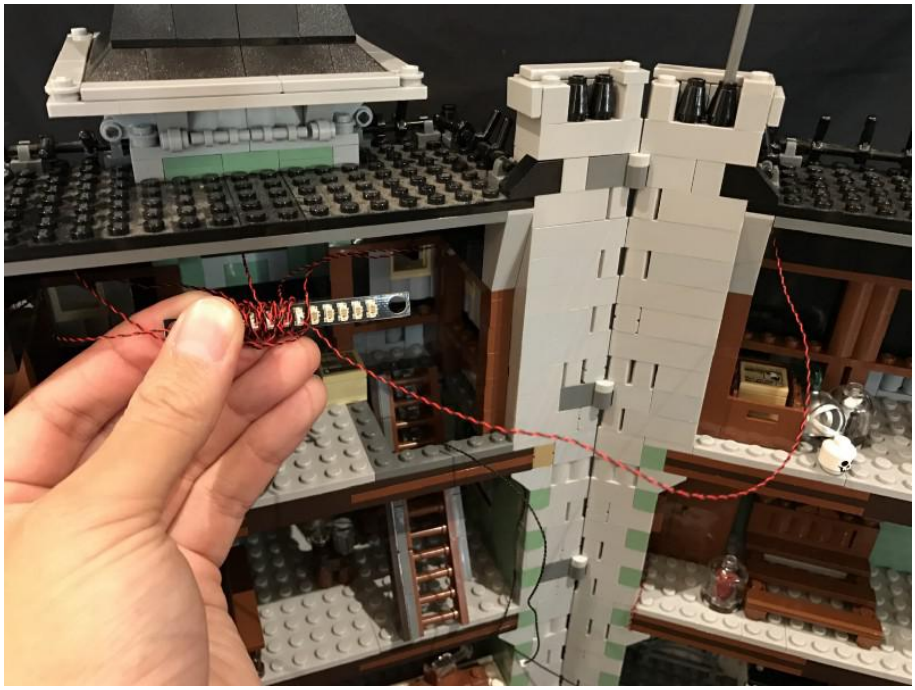


Connect the 2x White 15cm Dot Lights to the next available ports then wind all the cables together around the board to eliminate excess.

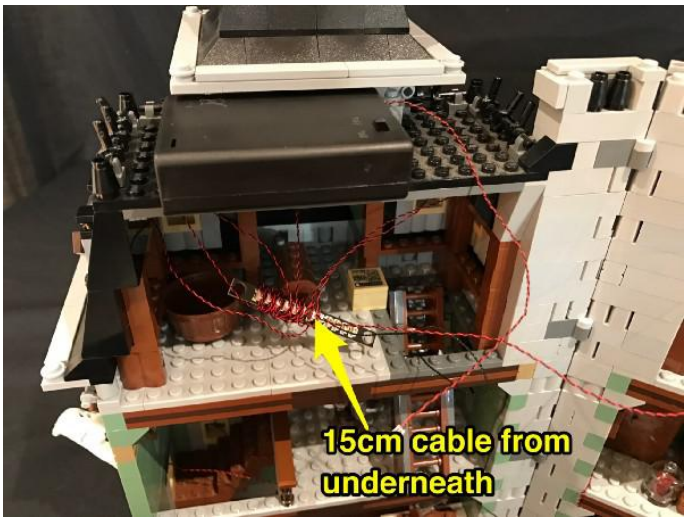


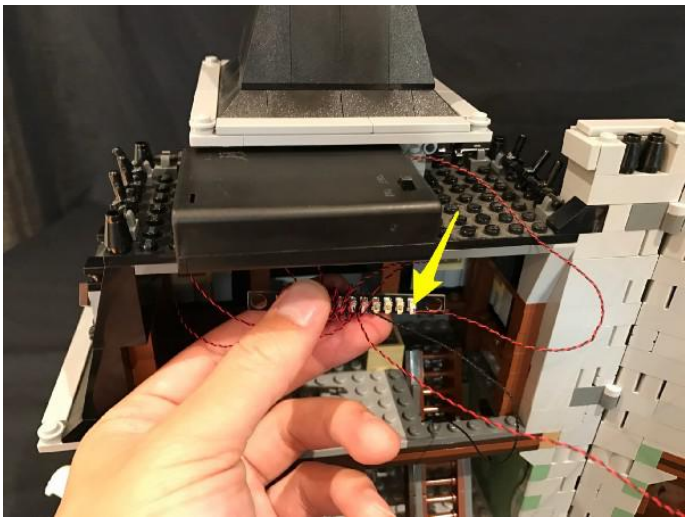


Connect the Green Dot Light from the inside of the top floor on the other side to the next available port.

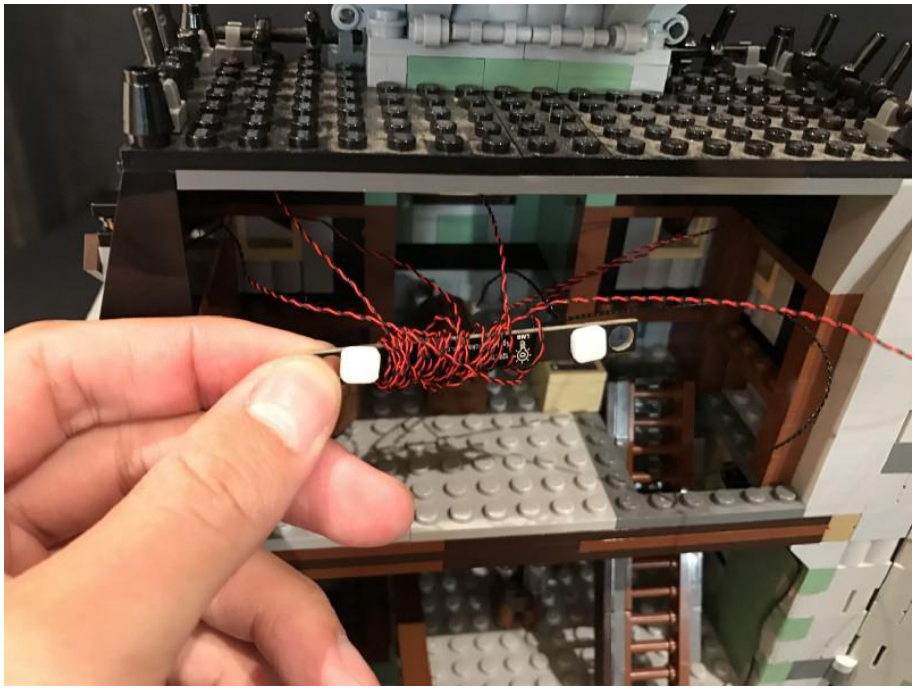


30.) If you wish for the lights to stay “always on” without any light effect, you can now connect the loose 15cm connecting cable from underneath into a spare port on the expansion board. Place the battery pack on the roof and connect the battery pack cable into another spare port on the expansion board.



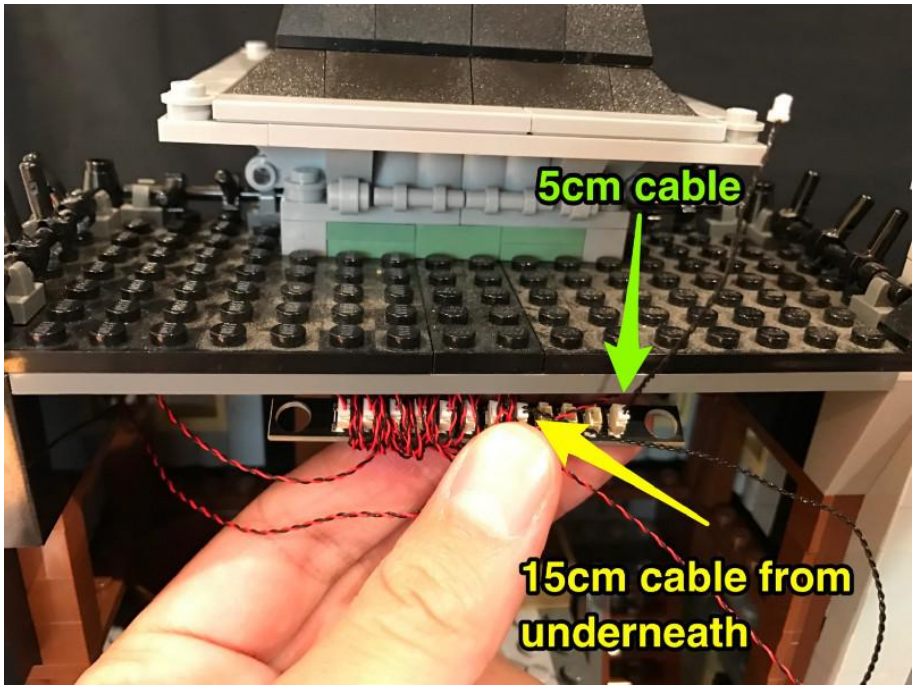


You can now mount the expansion board to the top and neaten up cables to complete installation of this light kit.

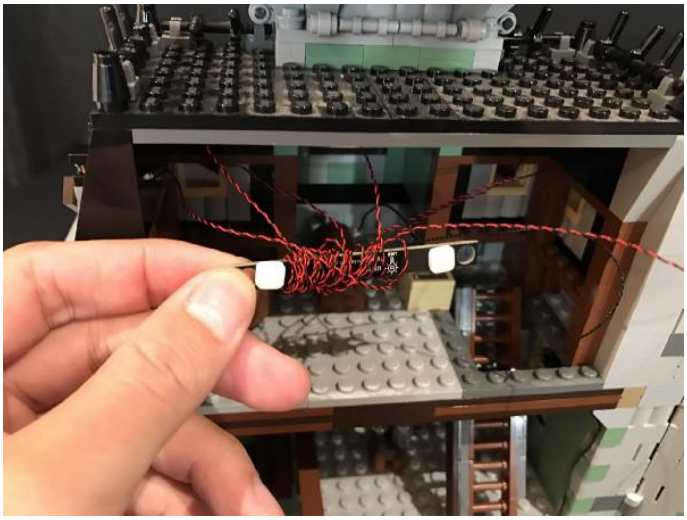


If you wish to continue to install the light effect controller then continue onto the next step.

31.) Take the loose 15cm connecting cable from underneath and connect it to a spare port on the 12-port expansion board. Take a 5cm connecting cableand connect it to another spare port.



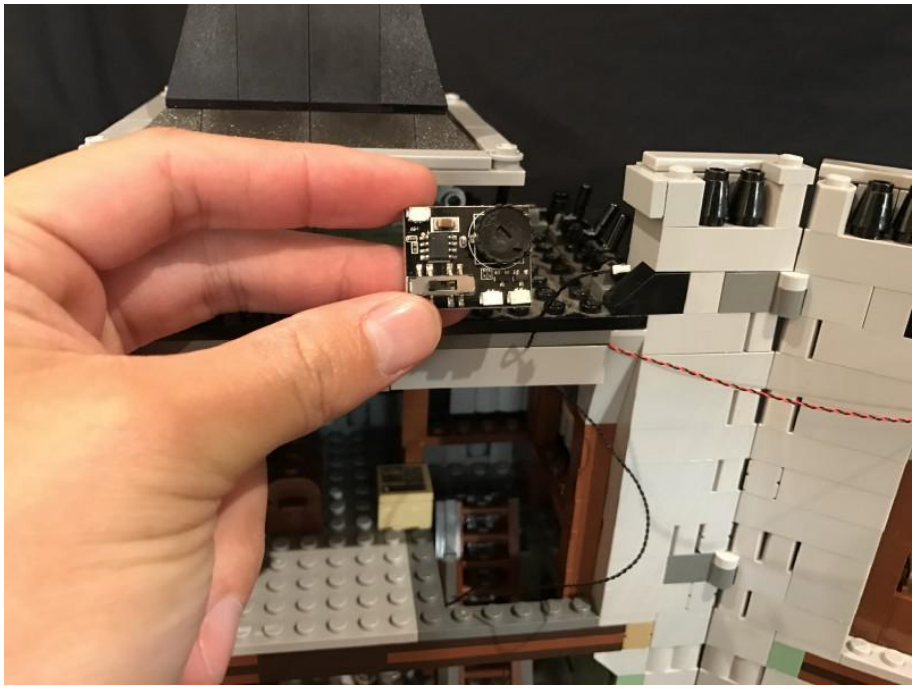
32.) Using another 2x adhesive squares, mount the expansion board underneath the roof but ensure you leave enough space to connect spare bricks to cover the board and cables.



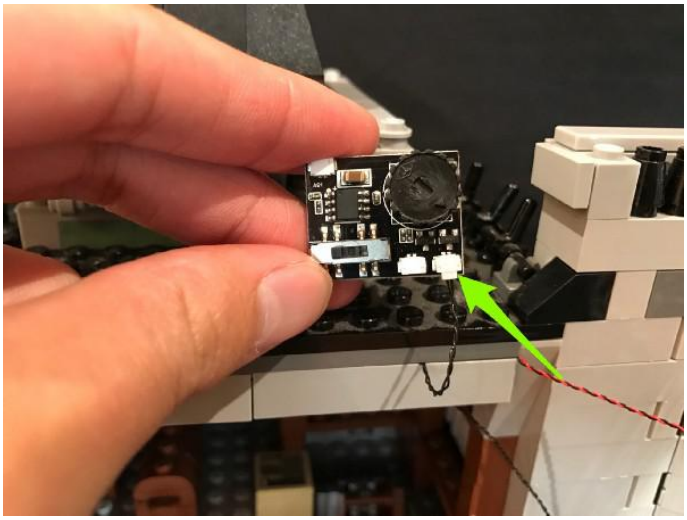

33.) Using the provided Lego bricks (two 1x8 bricks), connect them underneath the roof to cover the expansion board as per below. Ensure you thread the 5cm cable in between the bricks and studs so that we can connect it to the roof.

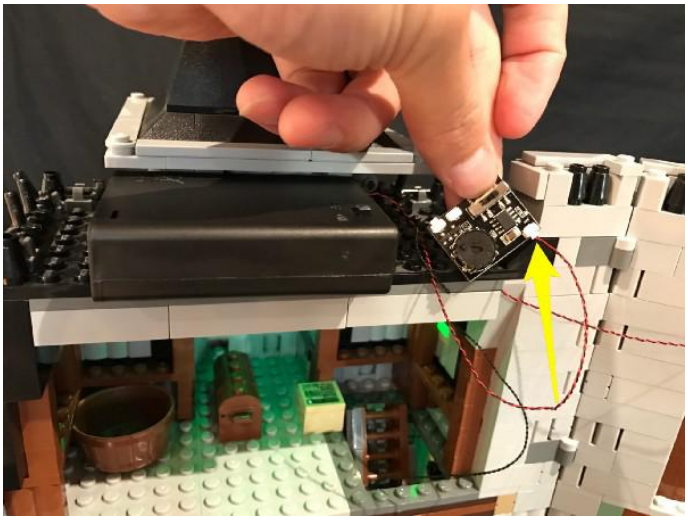


34.) Take the Multi-Effects Board and then connect the 5cm cable from underneath into one of the output ports (side with 2 ports). Place the Battery Pack on the roof and then connect the battery pack cable into the input port (side with 1 port).

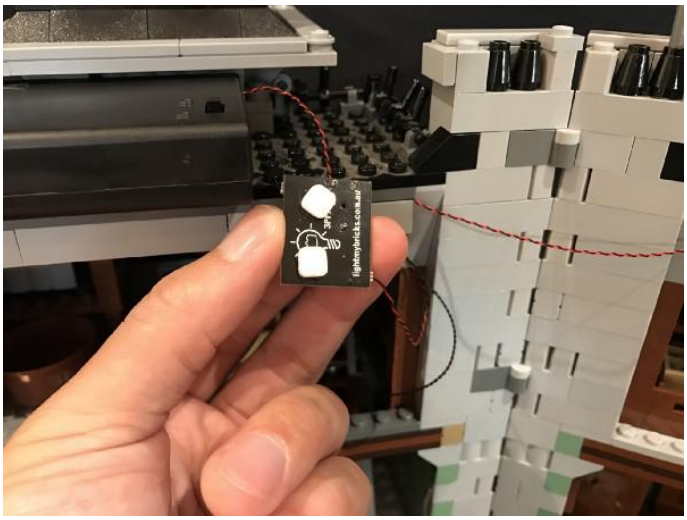


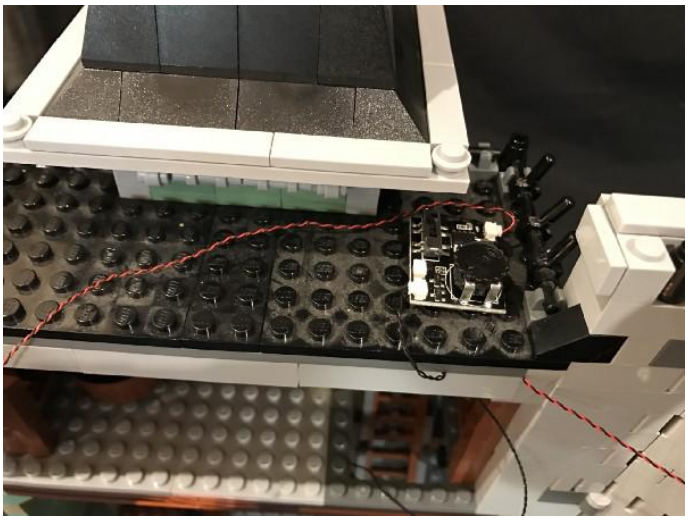
You can switch between 3 different effects (pulse, emergency, flicker) by flicking the switch across. You can also adjust the speed of the effect by turning the effect wheel clockwise or anti-clockwise

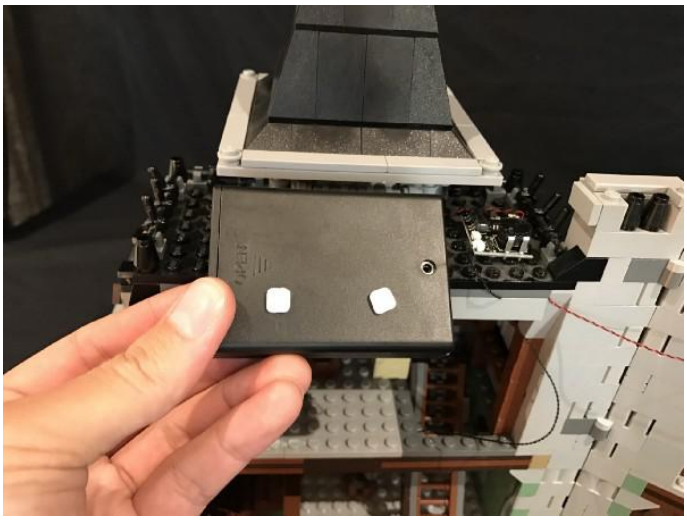


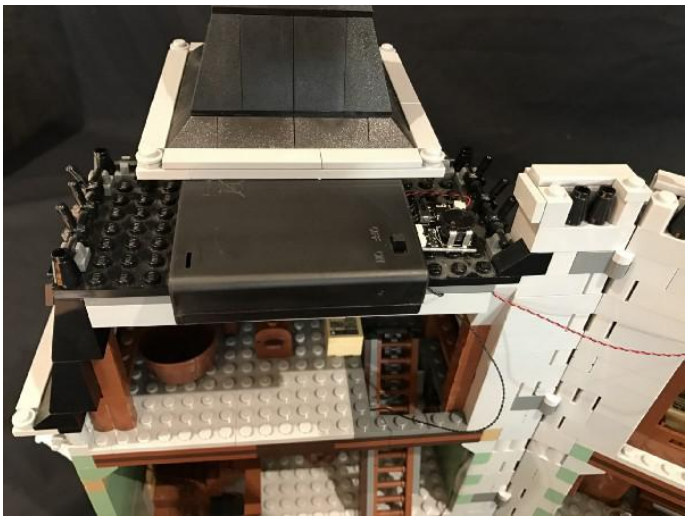


35.) Use adhesive squares to mount the effects board and battery pack to the roof top in the following positions.

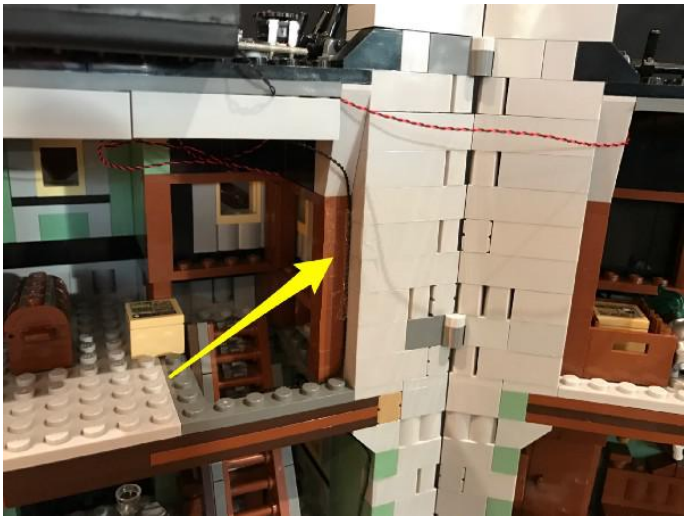


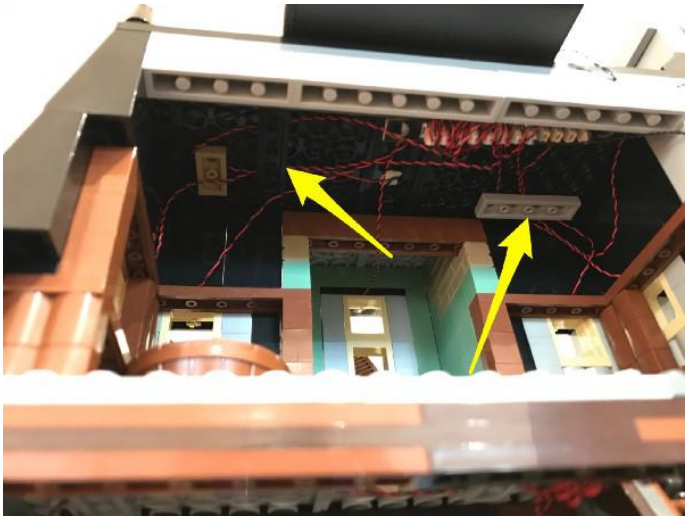






36.) Finally, neaten up all the cabling by hiding them behind bricks/plates and using tape to secure them to the building.





This completes installation of the LEGO Haunted House LED Lighting Kit. Turn on your light kit, choose your desired light effect and speed, sit back and enjoy!