

lightmybricks

User Guides for Light My Bricks LED Lighting Kits for LEGO®

Nov 29, 2016 · 13 min read

## Light My Bricks : Santa's Workshop LED Lighting Kit



Here is the instructions document for the Lego Santa's Workshop LED lighting kit. Please read and follow the steps carefully to ensure this lighting kit is installed properly. The different LEGO sections need to be arranged exactly as shown in example images.

...

### Package contents:

- 6x White 30cm Bit Lights
- 5x Flashing White 30cm Bit Lights
- 1x Multi Colour Changing Light String
- 1x White Strip Light
- 2x 8-port Expansion Boards
- 2x 15cm Connecting Cables
- 1x Battery Pack (3x AA Batteries Required)
- 4x Adhesive squares for mounting the expansion boards

Extra LEGO Pieces:

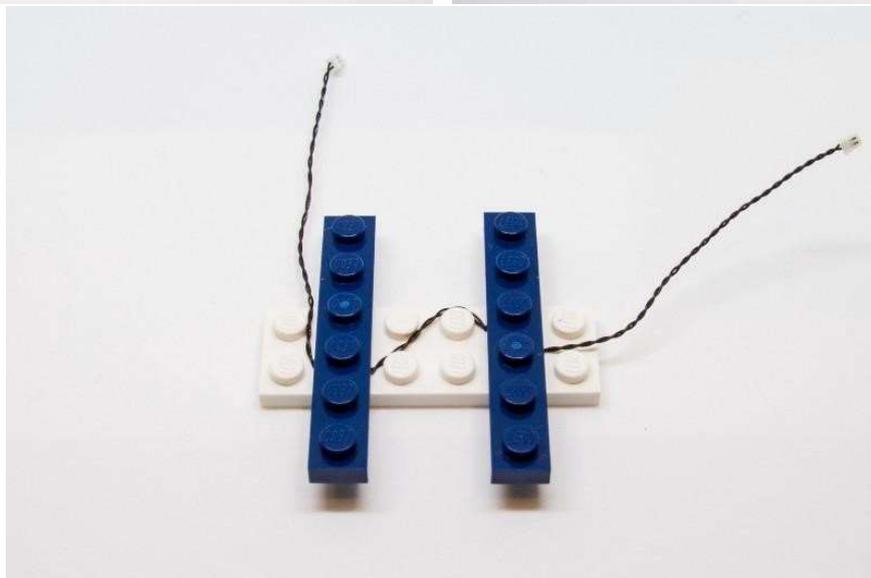
- 4x white plates 1x6
- 1x trans green 1x1 round plate
- 1x trans red 1x1 round plate

...

## Important things to note:

### Laying cables in between and underneath bricks

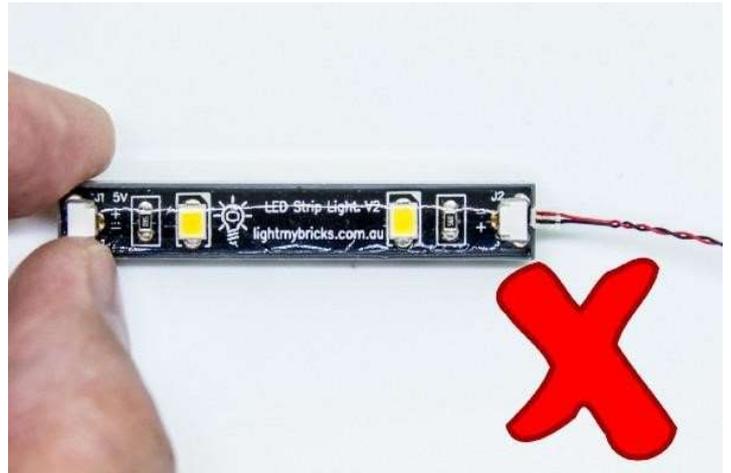
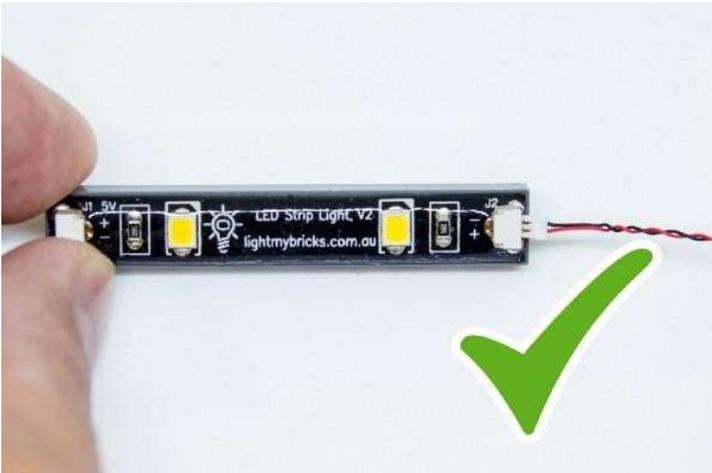
Cables can fit in between and underneath LEGO® bricks, plates, and tiles providing they are laid correctly between the LEGO® studs. Do NOT forcefully join LEGO® together around cables; instead ensure they are laying comfortably in between each stud.



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

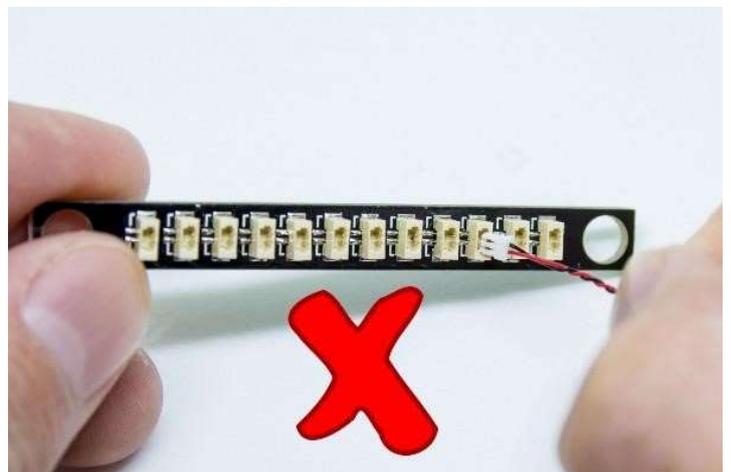
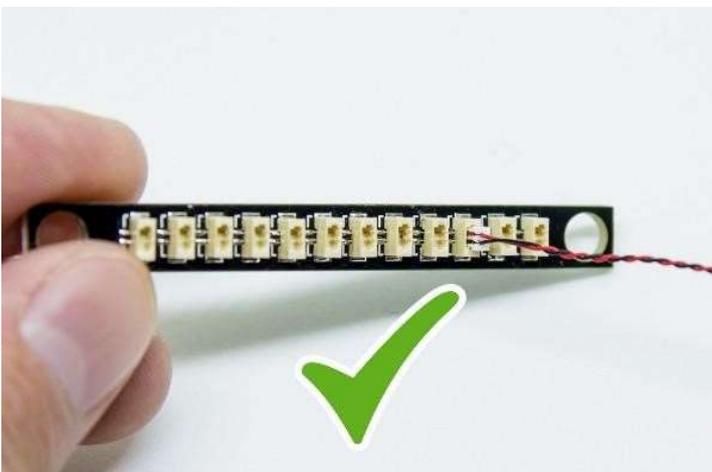
### Connecting cable connectors to Strip Lights

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 t easily into a port connector, don't force it. Doing so will damage the plug and the connector.



### Connecting cable connectors to Expansion Boards

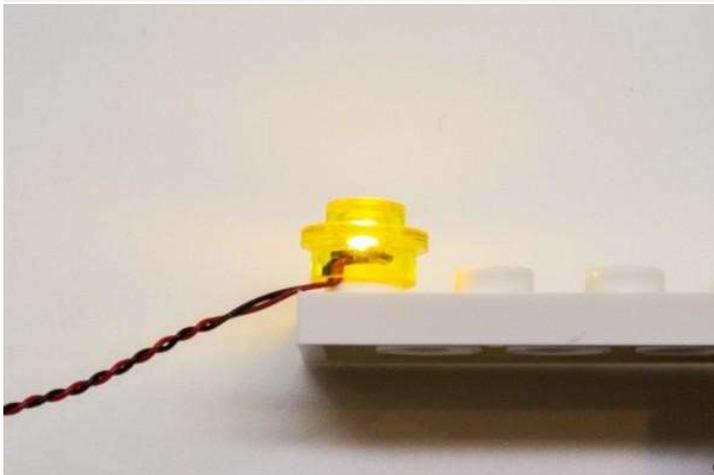
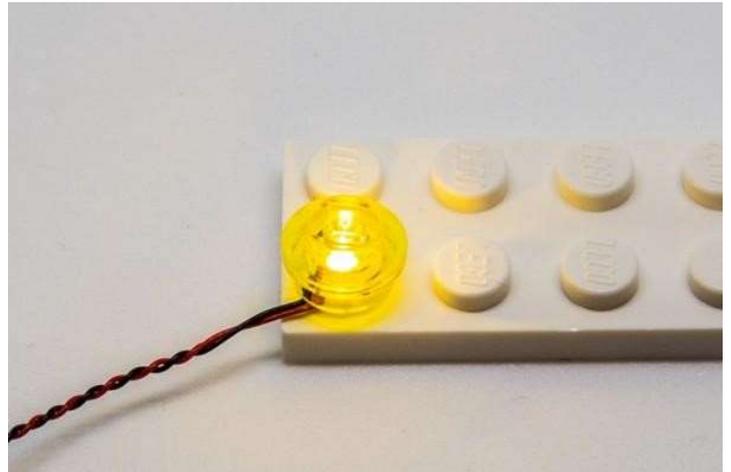
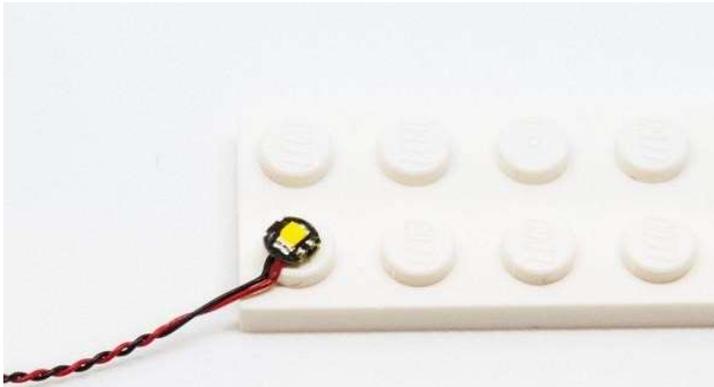
Take extra care when inserting connectors to ports of Expansion Boards. Connectors can be inserted only one way. With the expansion board facing up, look for the soldered “=” symbol on the left side of the port. The connector side with the wires exposed should be facing toward the soldered “=” symbol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

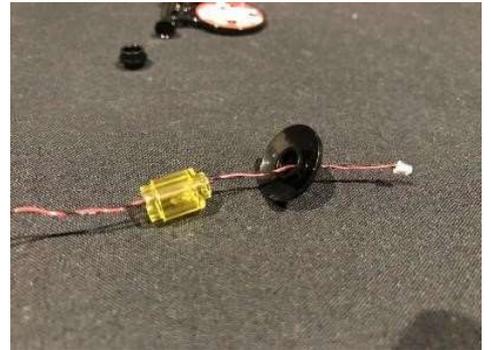
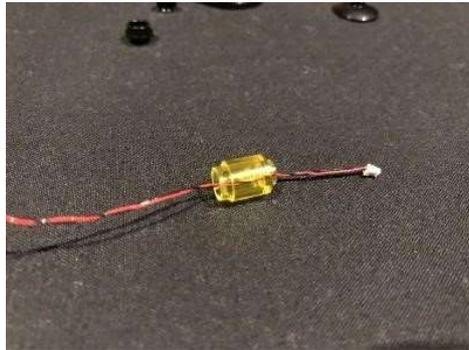
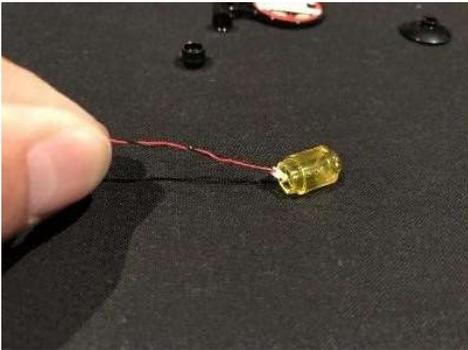
...

# Instructions for installing this kit

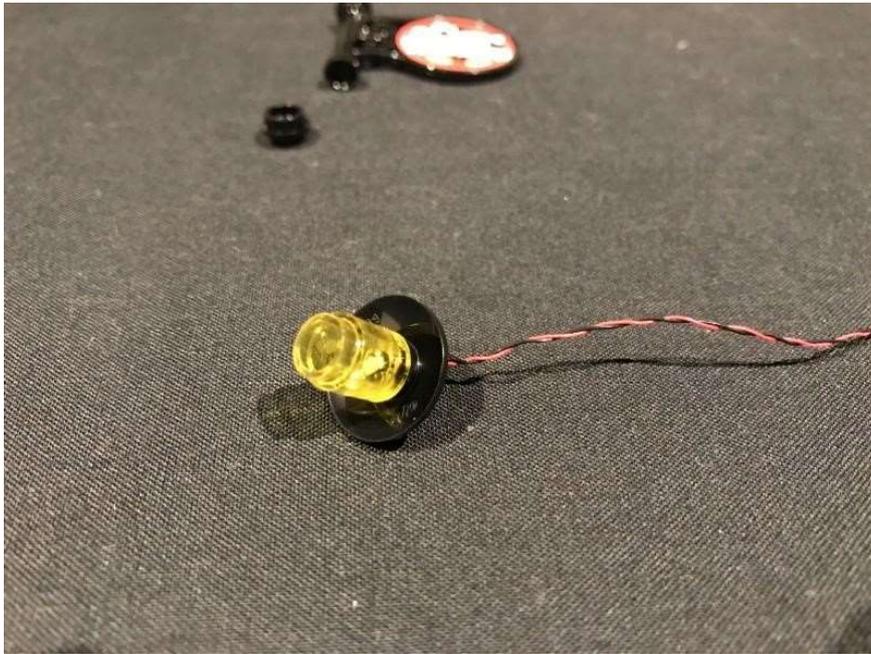
- 1.) We will start with installation of a bit light to the lamp on the rightside of the building. First remove the lamp and pole with the "Santa's Workshop" sign and then disassemble pieces as per below:



- 2.) Take one standard bit light and thread the connector side through the large hole of the trans yellow round brick. Once it has been threaded through, thread it through the bottom of the black LEGO dish.



Pull the cable all the way through from the top until the LED component is right up against the inside of the trans yellow brick, then reconnect the 2 pieces (black dish and trans yellow brick) together.



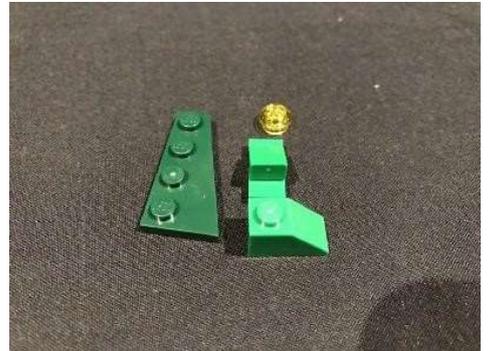
Reconnect the lamp back to the Santa's Workshop lamp post and then reconnect everything back to the building.



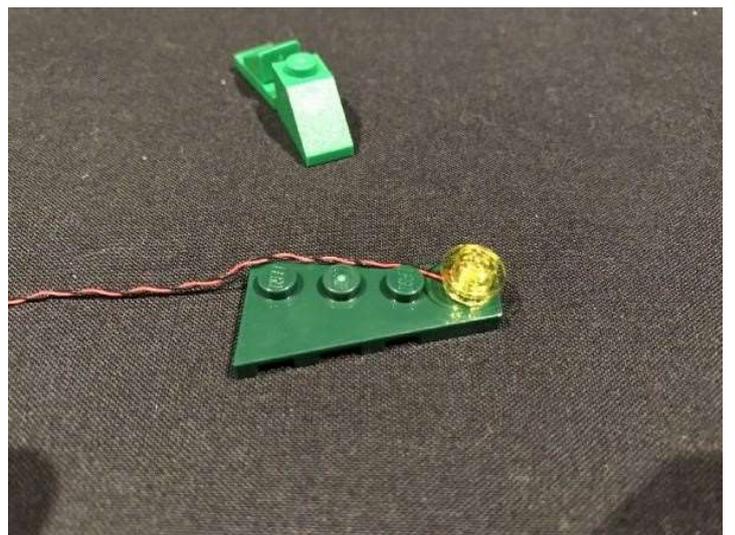
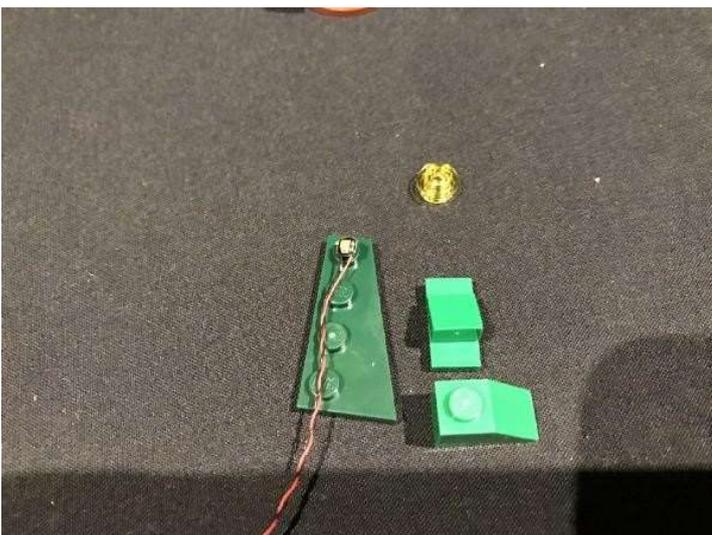
- 3.) Hide the cable behind the chimney by first lifting up the surrounding pieces and then reconnecting them over the top of the cable. Ensure the cable is neatly laid between LEGO studs.



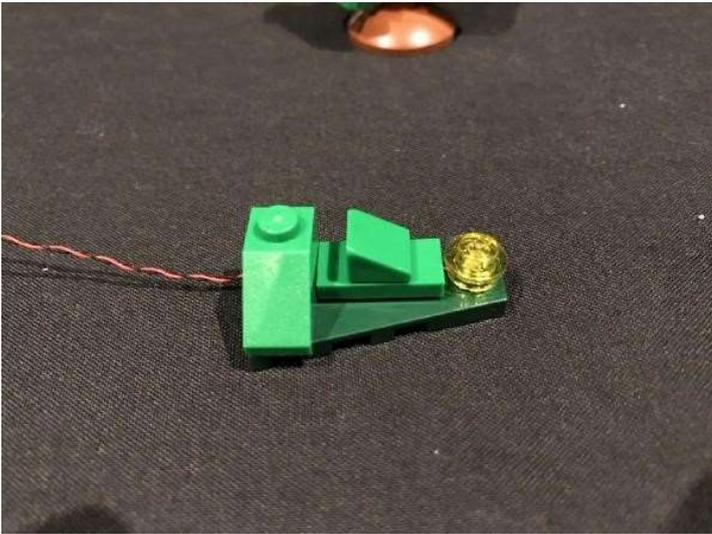
4.) We will now install ashing bit lights to the christmas tree which will be positioned to the right of the building. First disconnect one side of the tree with the yellow light and then disassemble pieces as per below:



Take one ashing bit light and place the LED component directly over the dark green stud at the top and ensure the cable is facing the bottom of the tree. Secure it in place by reconnecting the trans yellow round plate directly over the top.



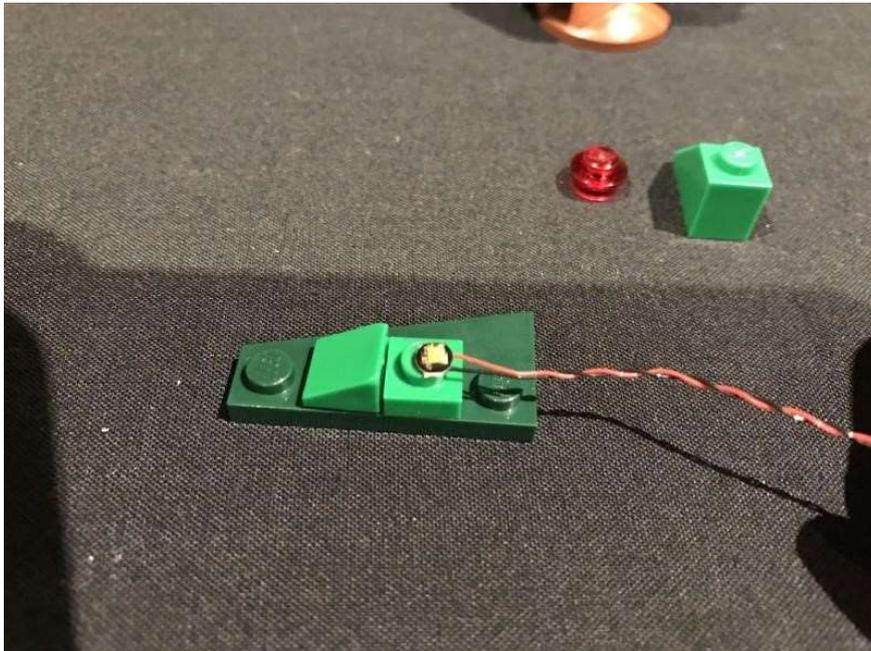
Reconnect the surrounding pieces ensuring the cable is laid in between studs then reconnect this side section back to the christmas tree.



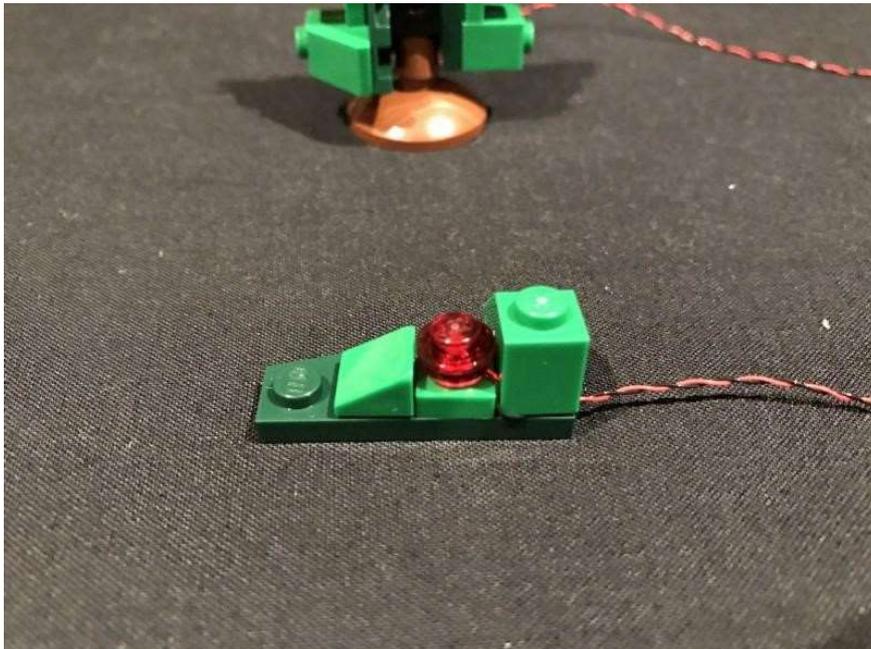
5.) Turn the tree over to the next side with the red light and then disconnect and disassemble pieces as per below:



Take another ashing bit light and place the LED component directly over the light green stud in the middle ensuring the cable is facing the bottom of the tree.



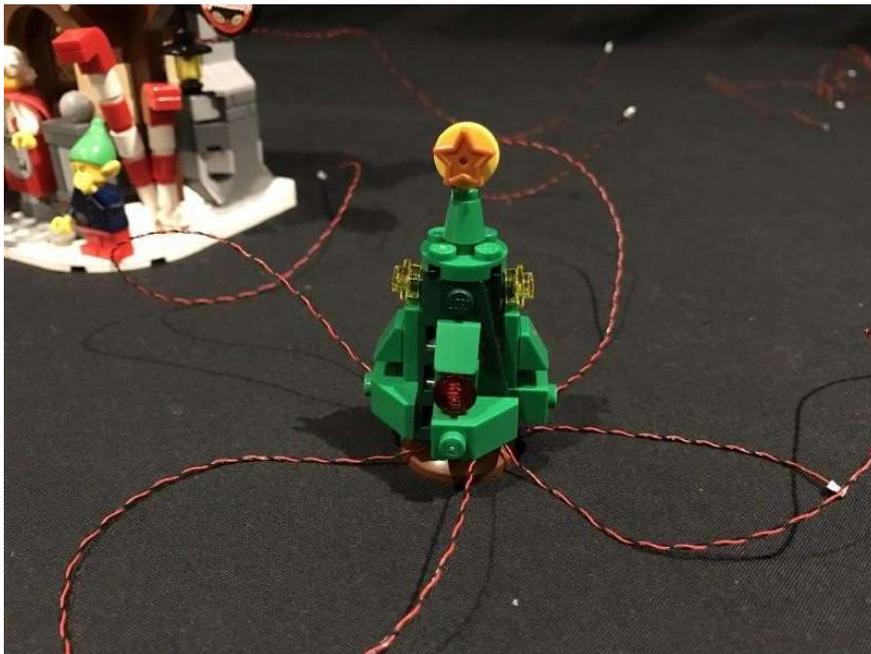
Secure the bit light in place by reconnecting the trans red round plate directly over the top, then reconnect the light green brick next to it ensuring the cable underneath is laid in between studs.



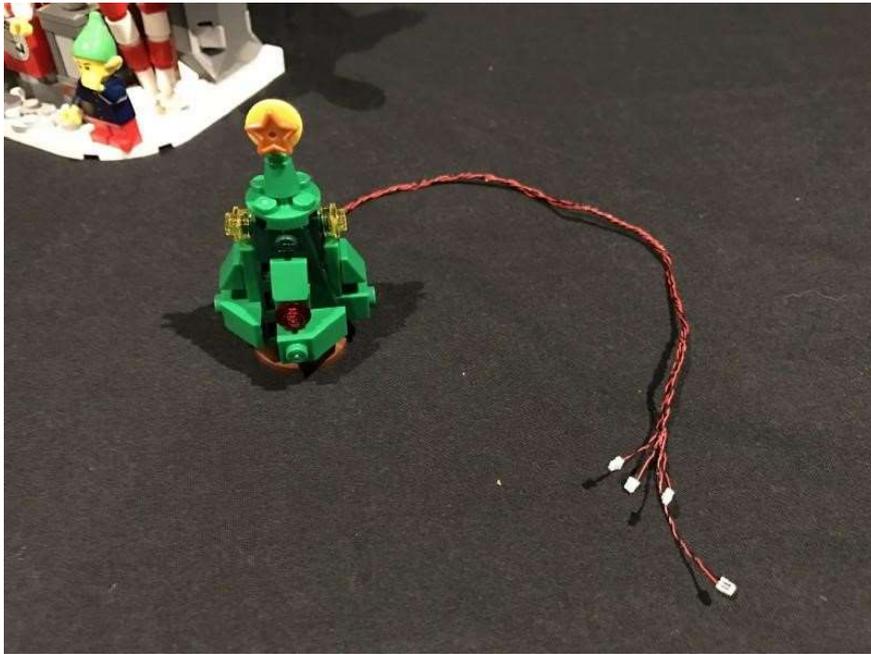
Reconnect this side section with light installed back to the christmas tree



Repeat this step to install another two ashing bit lights to the next two sides of the christmas tree.



6.) You should now have 4 ashing lights installed to the christmas tree and the cables from these lights should be coming out from the base of the tree. Take these cables and twist them around each other, bringing them together to form one large cable. Set the christmas tree aside.



- 7.) Position Santa's sleigh and reindeers in front of the workshop, facing toward the right. We will now install a light to Rudolph's nose.



Remove Rudolph's nose (brown LEGO stud) and then take one standard bit light and place it directly over the stud. Secure the bit light in place by connecting a trans red round plate (provided in this kit) directly over it, ensuring the cable is facing down.

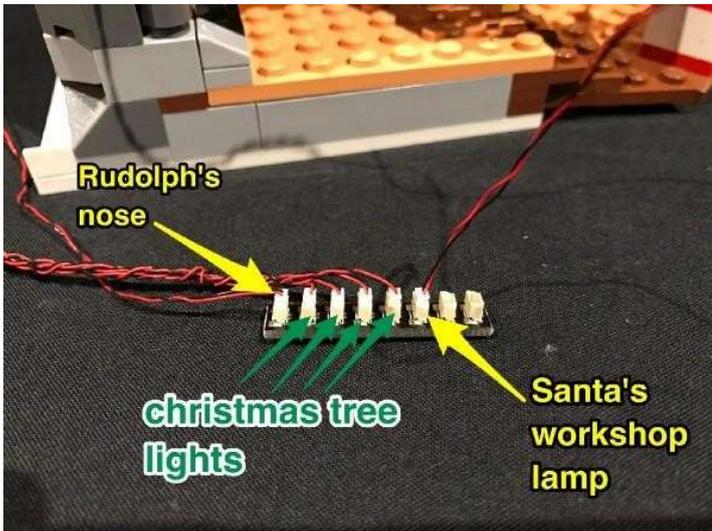


Remove Rudolph from the leash and lay the bit light cable underneath his head and out his back by removing and reconnecting the following pieces ensuring the cable is neatly laid in between studs. Reconnect Rudolph back to his leash

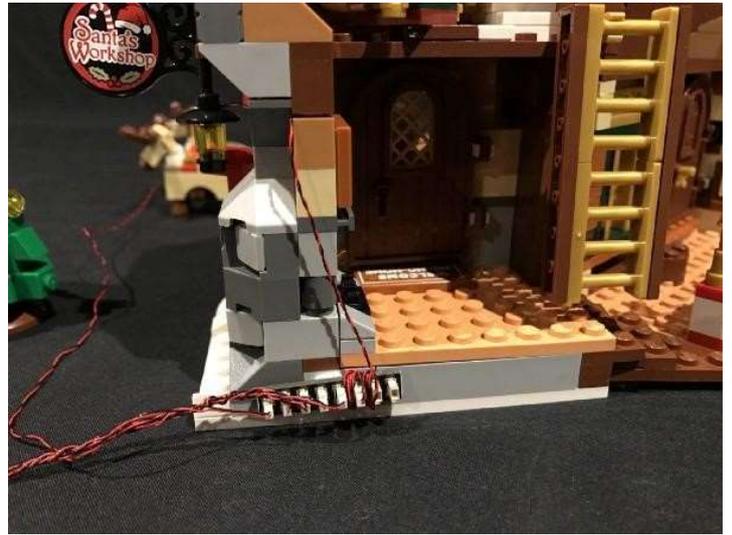
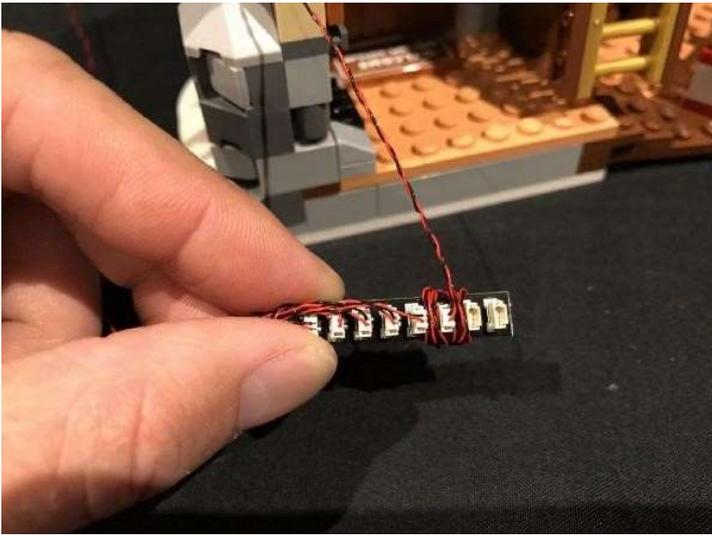




- 8.) Turn everything around to the back and then take cables from the Santa's Workshop lamp, Christmas tree, and Rudolph's nose and connect them to an 8-port expansion port. There are 2 expansion boards in this light kit so we will refer to this one as "expansion board A". Follow the order to connect the lights as per below:



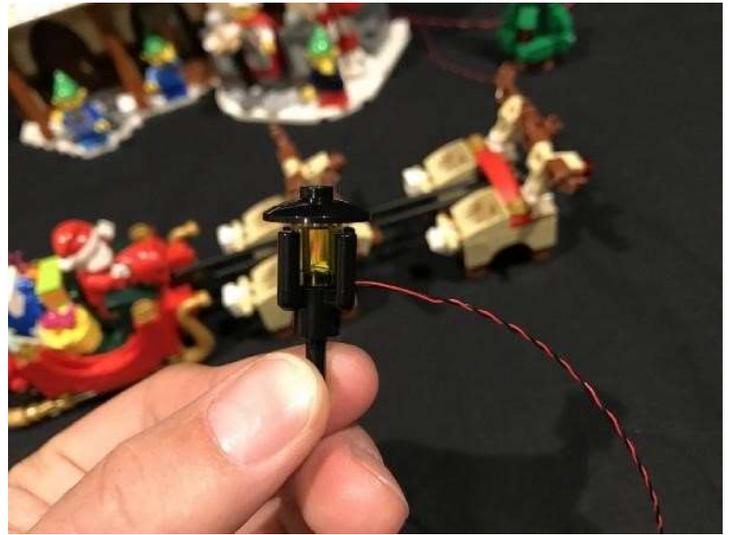
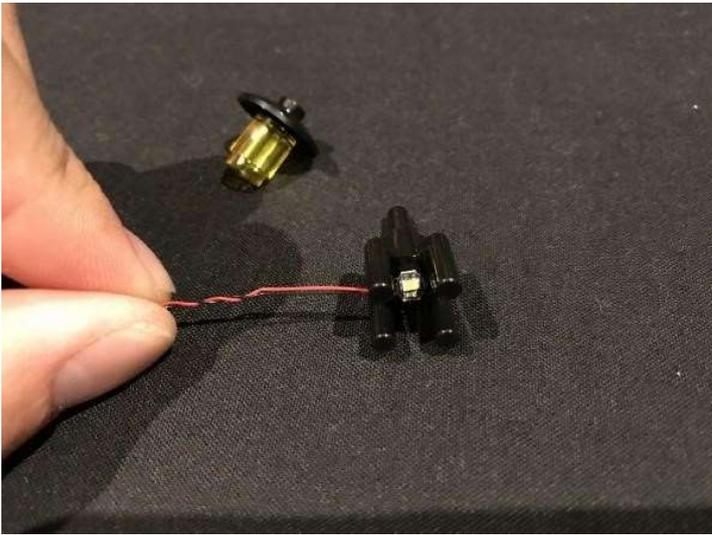
- 9.) To eliminate excess cable from Santa's Workshop lamp, wind it around the expansion board a few times and then secure the expansion board to the base of the building using a self adhesive square as per below:



10.) We will now install lights to the back of Santa's sleigh. Remove the 2 lamp sections and disassemble pieces as per below:



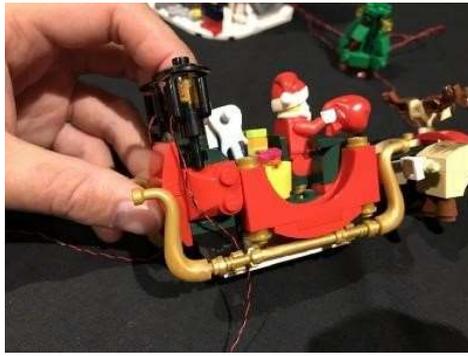
Take a standard bit light and place it directly over the black stud in the centre of the black lamp base. Secure the light in place by reconnecting the trans yellow brick directly over the top.



Repeat this step to install a second standard bit light to the lamp on the other side, then reconnect both lamps back to the sleigh.



11.) Hide the cables from the bit lights underneath the gold frames byrst disconnecting and reconnecting them over the cables as shown below.



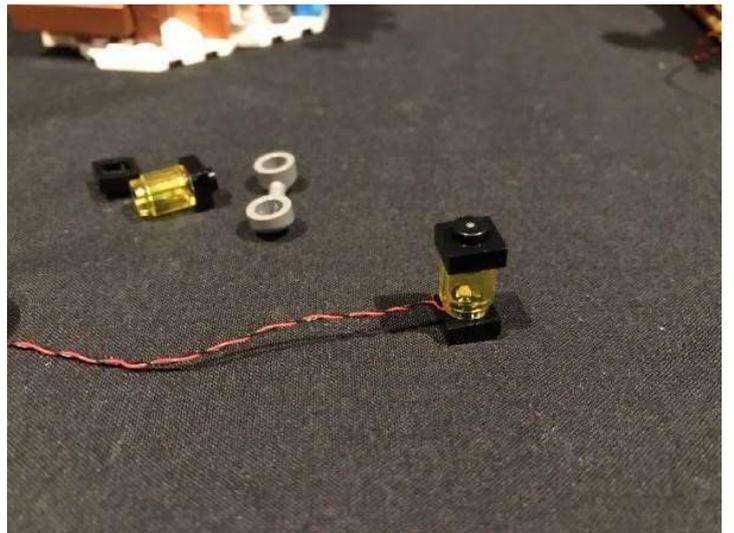
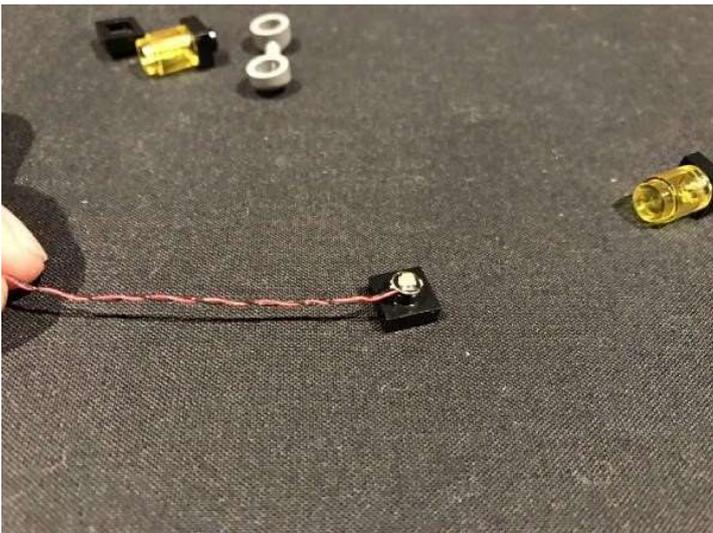
Twist the 2 cables around each other bringing them together to form one large cable.



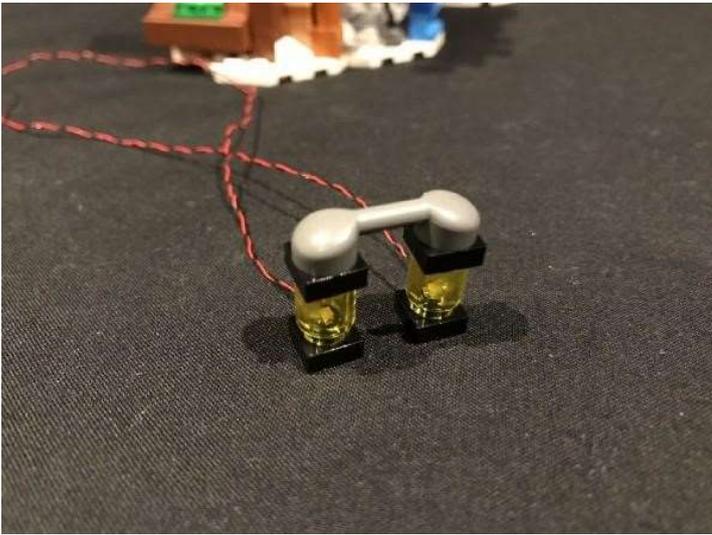
12.) We will now move onto installing lights to the 2 lamps on the left side of the building. First remove these sections and disassemble pieces.



Take another standard bit light and place it directly over the stud of the black plate. Reconnect the trans yellow brick directly over the top and repeat this step to install another bit light to the other lamp.



Reconnect these 2 lamps to the grey telephone piece and then reconnect this back to the side of the building.



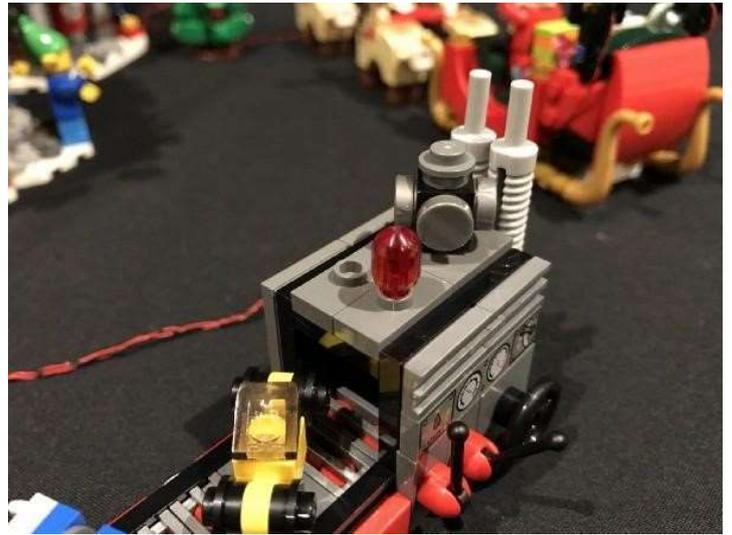
13.) We need to hide these 2 cables behind, through the building wall. First lift up surrounding pieces then thread the 2 cables behind. Pull the cables all the way through from the inside of the building and then reconnect the surrounding pieces over the top ensuring the cables are in laid in between studs.



14.) From the inside of the building, lay the two cables underneath the "Santa Needs You" sign, then twist the two cables around each other, bringing them together to form 1 cable.



15.) Let's move onto installing a flashing light to the Toy MakingMachine, which we will position to the left of the building. First remove the trans green piece and discard it as we will be replacing it with a different trans green piece.



Take a ashing bit light and place it directly over the grey stud as per below then secure it in place by connecting the trans green piece (provided in this kit) directly over it.

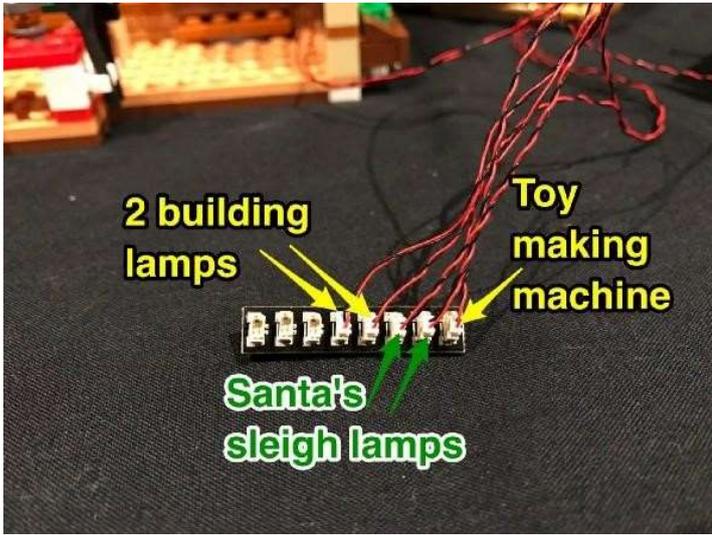


Lay the cable underneath the 2x4 Lego tile as per below:

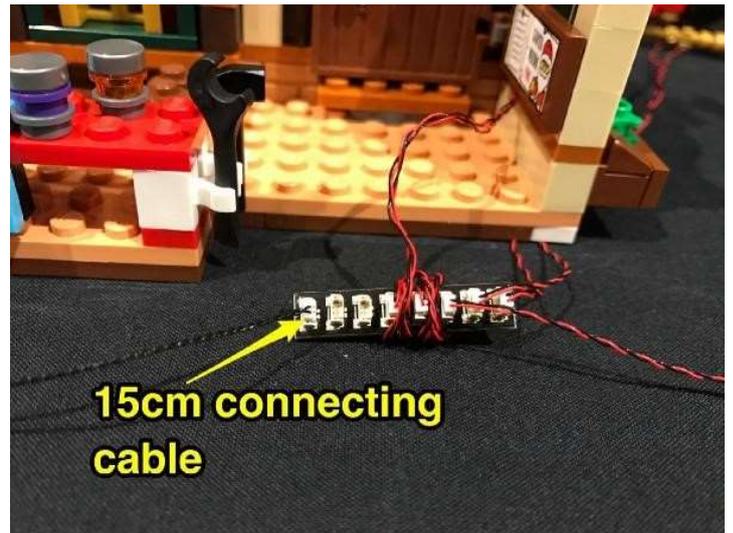
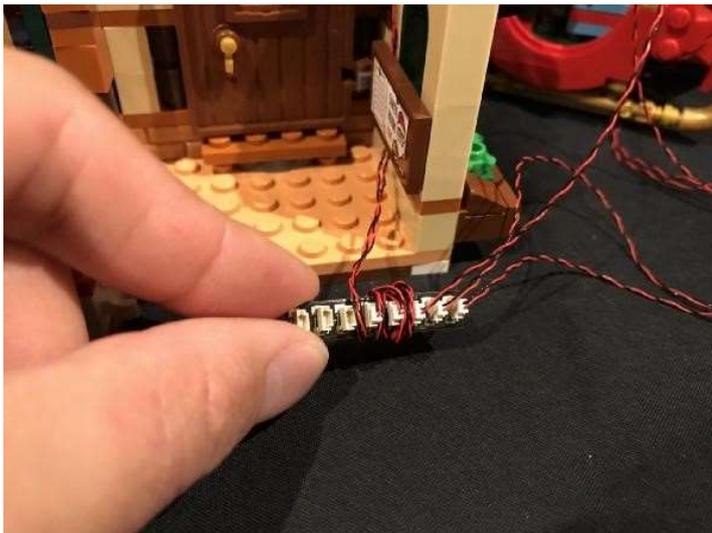


16.) Position the Toy Machine to the left of the building with bit lightcable facing toward the back, then take this cable along with the cables from the building lamps and sleigh lamps and connect them into another 8-port expansion board (Expansion board B) in the order below.

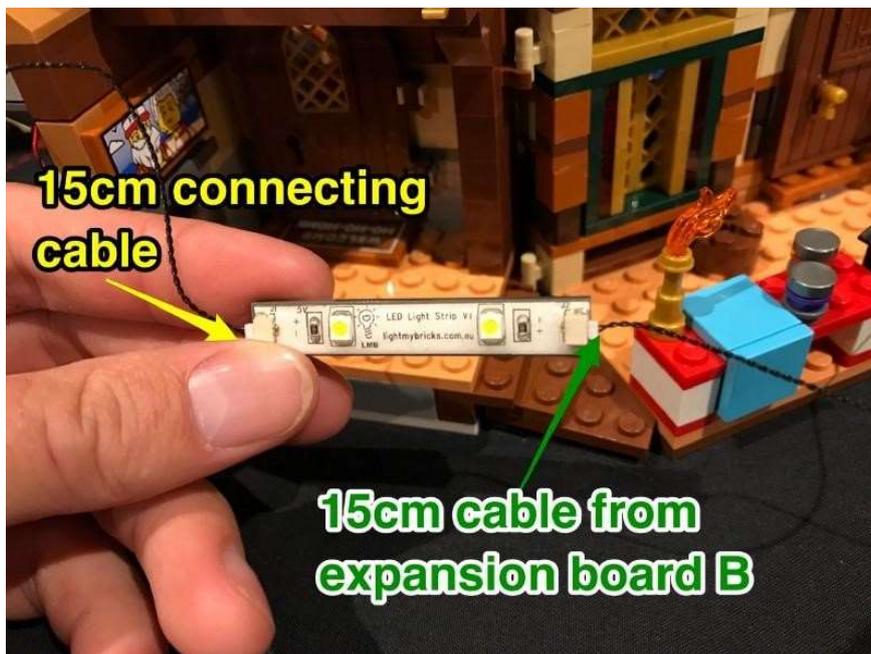




17.) Wind the cables from the building lamps around the expansionboard a few times, then connect a 15cm connecting cable to the port furthest to the left.



18.) Take the LED Strip Light and connect the 15cm cable from expansion board B to the port on the right of the strip light. Take another 15cm connecting cable and connect it to the port on the left.



- 19.) Connect/Stick this strip light underneath the second door of Santa's Workshop in the below position and then connect the other end of the 15cm cable on the left to the next available port on Expansion Board A.



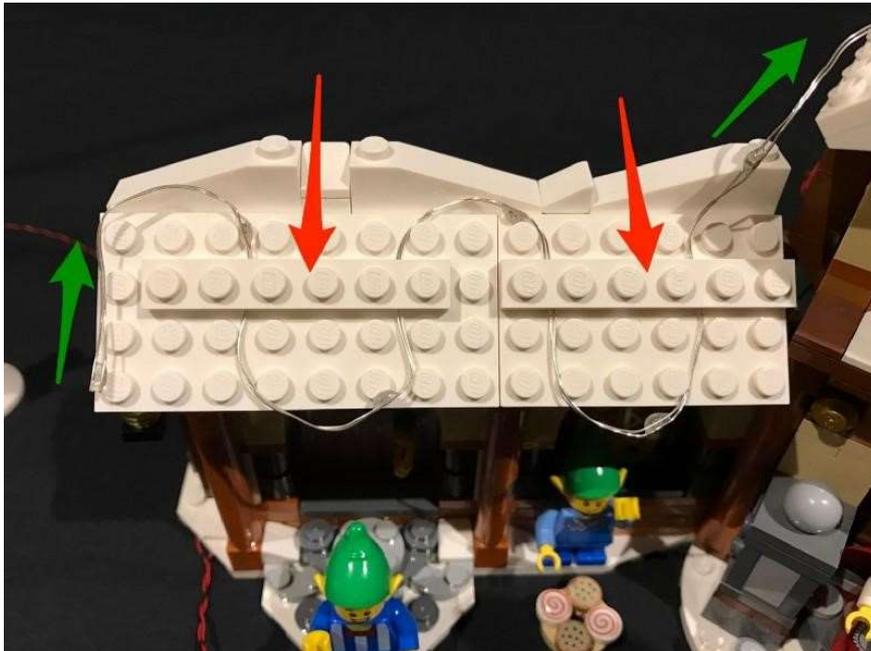
- 20.) Lay the 15cm cable between expansion boards A and B underneath the desk ensuring the cable is laid neatly in between studs. Stick Expansion board B to the side of the orange base using provided adhesive squares.



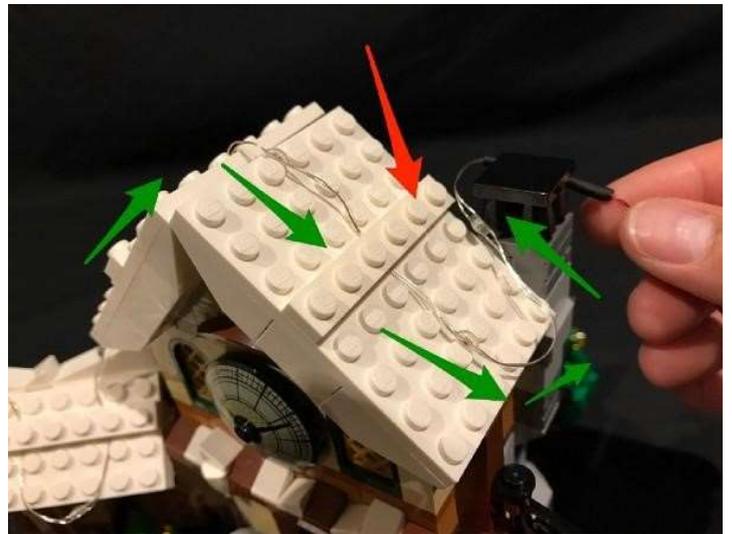
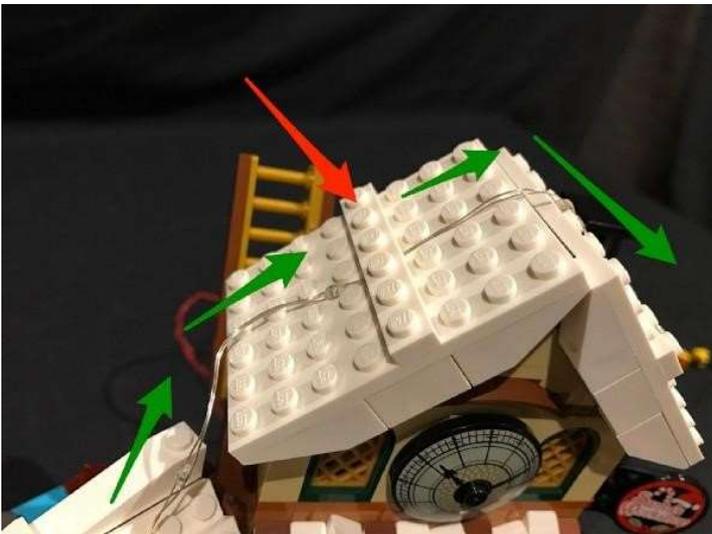
21.) Turn the building around back to the front and remove the string of coloured lights that are connecting to the left building's roof.



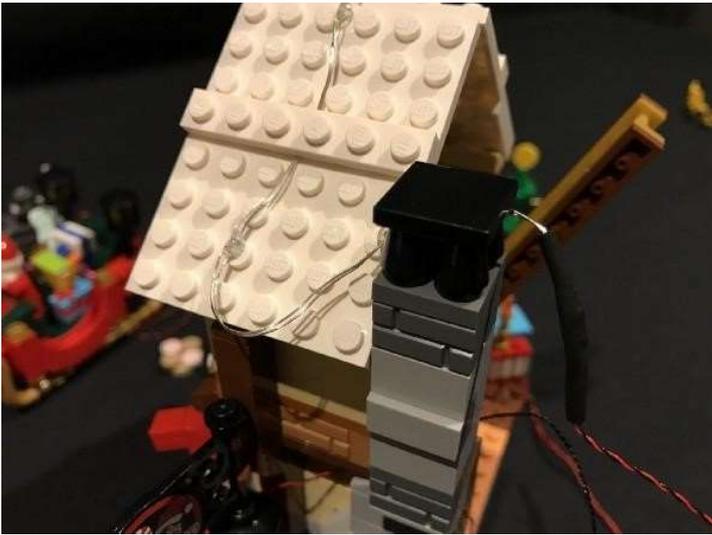
22.) Take the multi colour changing light string and place the top of the string on this roof and lay it down in the below positions. Secure the light string in place by connecting white Lego pieces (which came in this kit) over it ensuring you do not connect the pieces directly over the LED components.



- 23.) Lay the remaining light string over the roof of the next building, securing it in place using more Lego pieces (which came in this kit). Ensure the individual LEDs from the light string are evenly spread out and that the last LED is closest to the chimney.



- 24.) Lay the end of the light string behind the chimney and connect this into the last available port on Expansion Board A.



Use some tape to tape down the light string cable and 15cm cable to the side of the wall.



25.) Take the battery pack and connect 3x AA batteries into it. Connect the battery cable into a spare port on Expansion Board B and then place the battery pack behind the building.



26.) Re position all the Lego sections as per below:



Installation of your LED light kit is now complete. Turn on via the battery pack and ENJOY!

