

Santa_s_Workshop_10245 LED Lighting Kit

Package contents:

- 6x White 30cm Dot Lights
- 5x Flashing White 30cm Dot 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

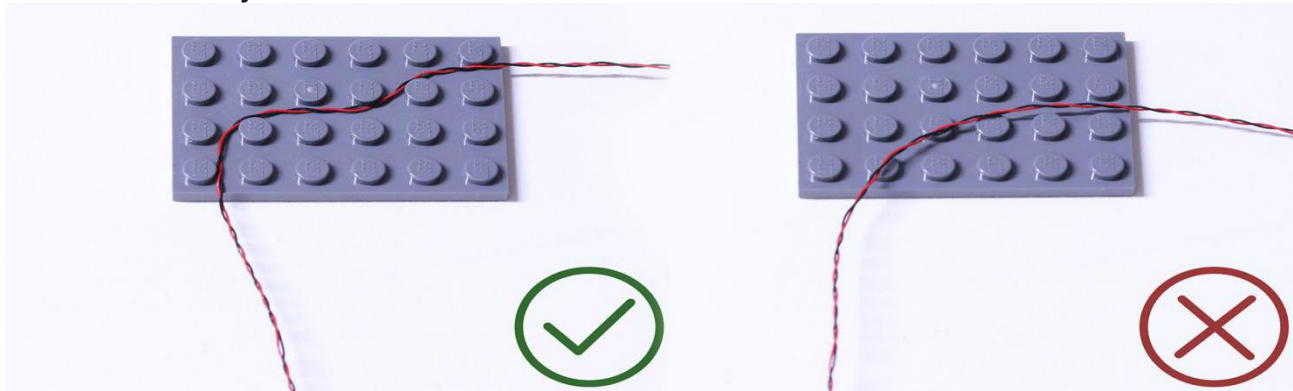
Extra LEGO Pieces:

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

Note:

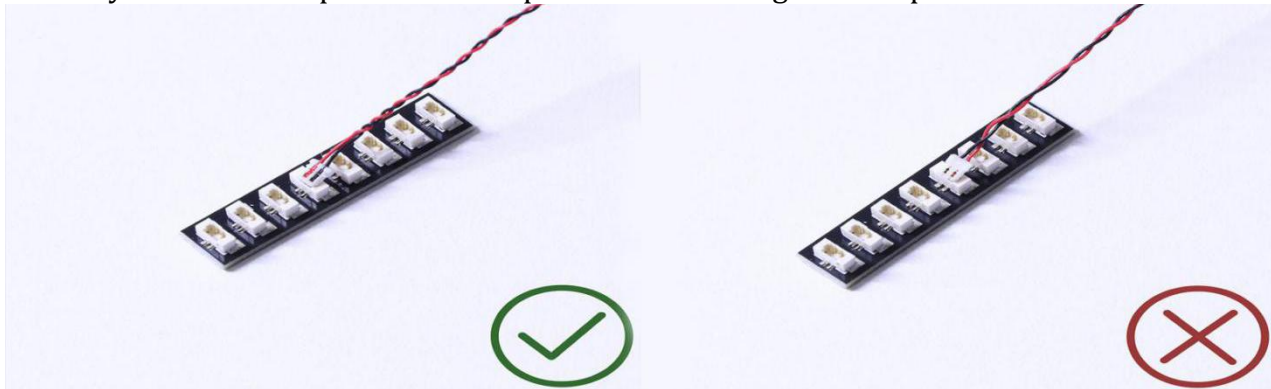
Place wires on the surface or under the LEGO building blocks.

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

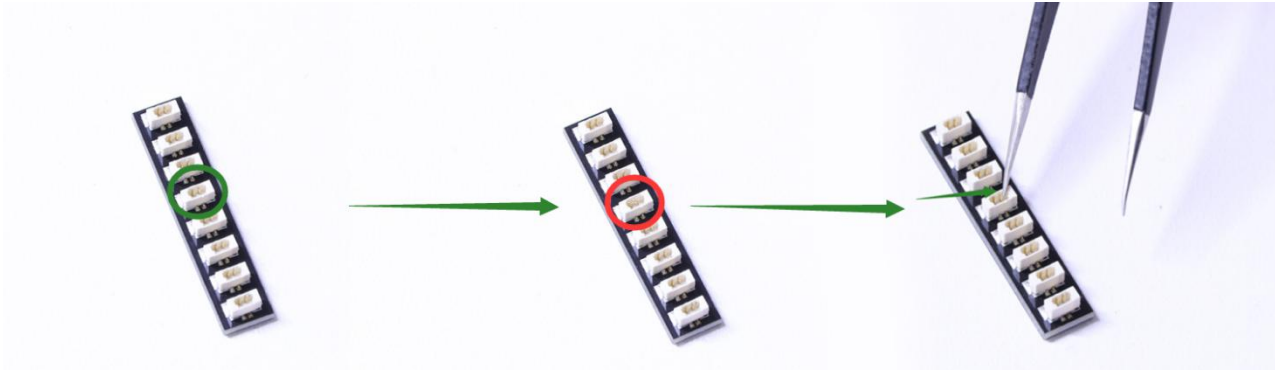


Insert the connectors to the ports.

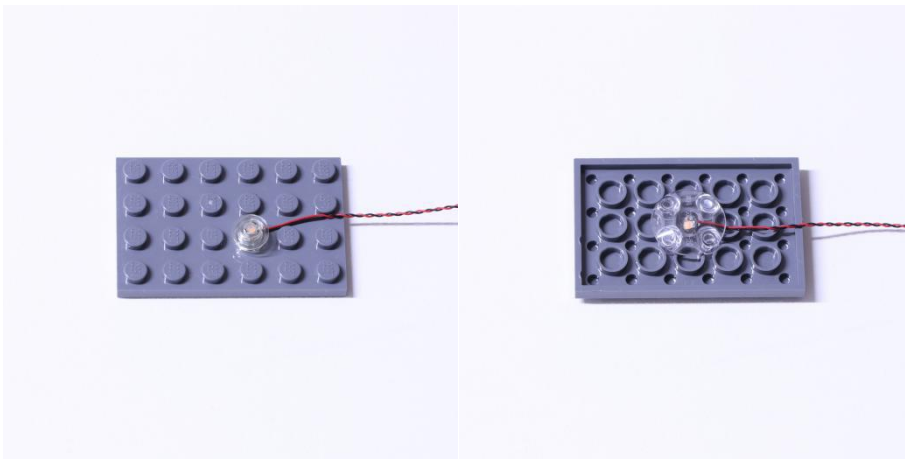
Be careful when you are operating, there's only one correct way to insert, make sure the expansion board is upward, find the soldered "=" sign on the left of the port. When you are inserting, the side which the wires can be seen should be faced to the "=" sign and if you feel hard to insert, please stop,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

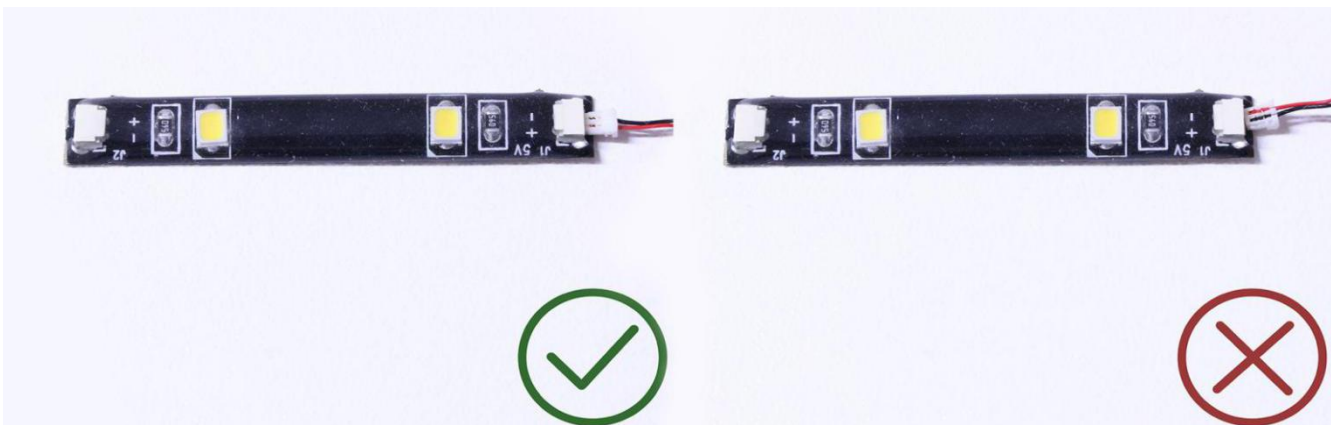


When installing dot lights, make sure they are correctly placed (Yellow LED package is exposed). You can put them either on the top of the studs or between studs.

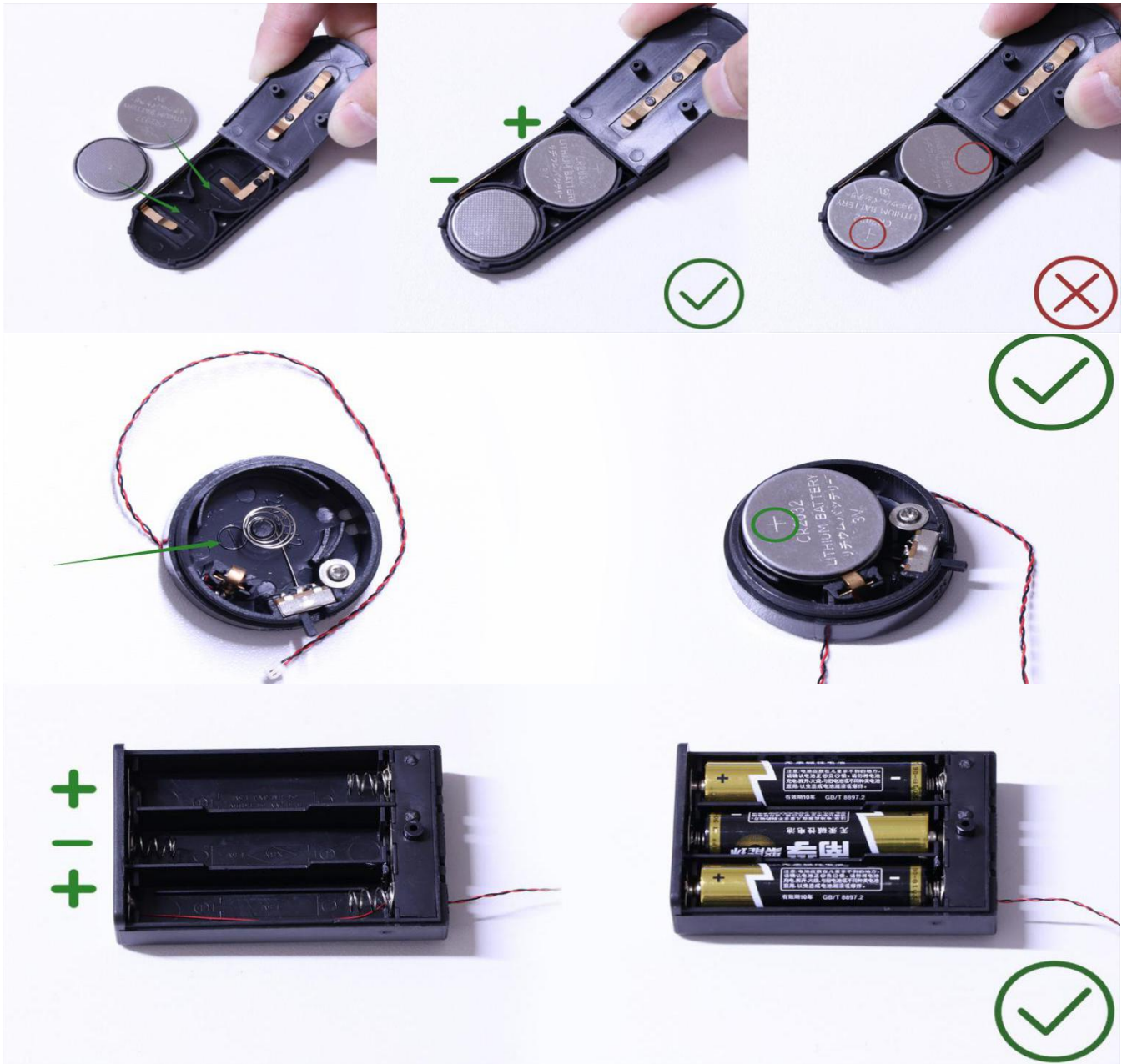


Connecting cable connectors to Strip Lights

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.



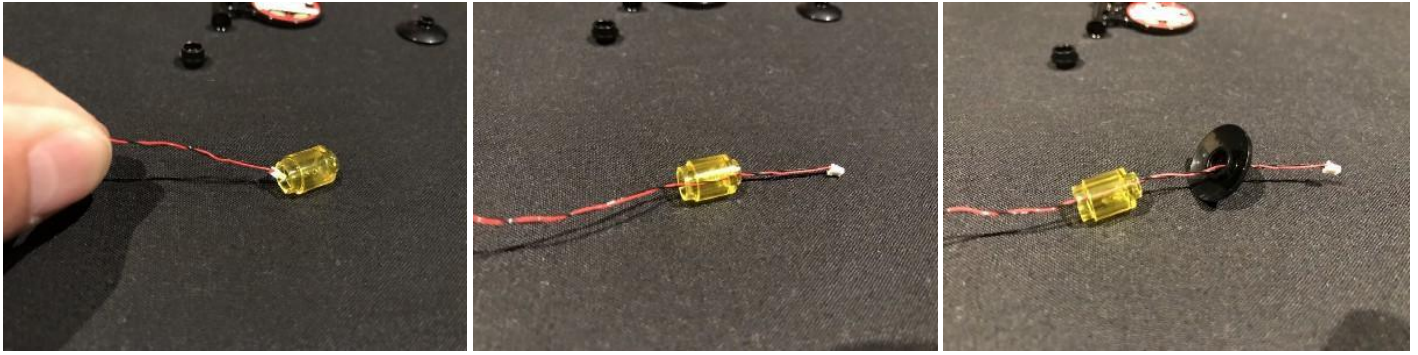
OK, Let's Begin!

Instructions for installing this kit

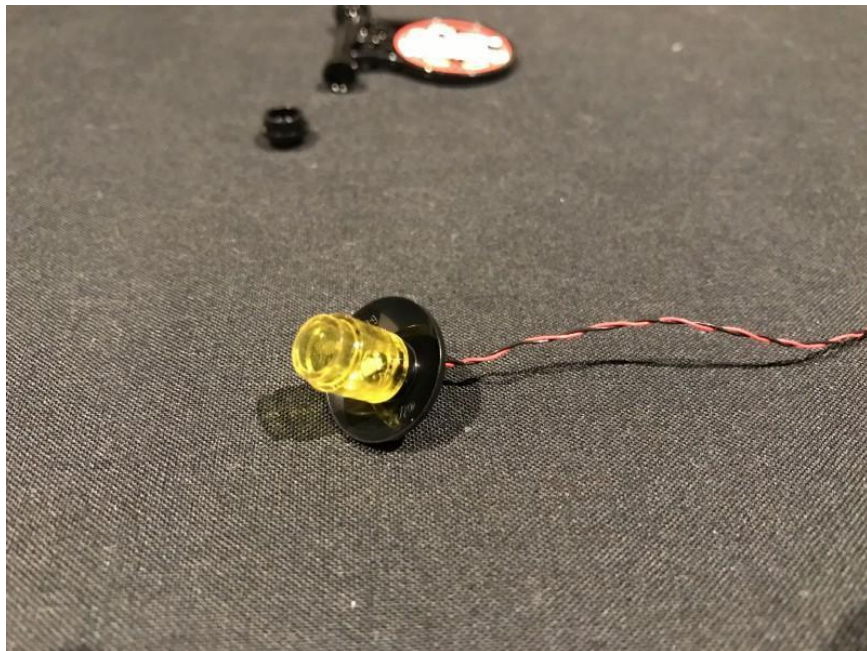
1.) We will start with installation of a Dot Light to the lamp on the right side of the building. First remove the lamp and pole with the "Santa's Workshop" sign and then disassemble pieces as per below:



2.) Take one standard Dot 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.



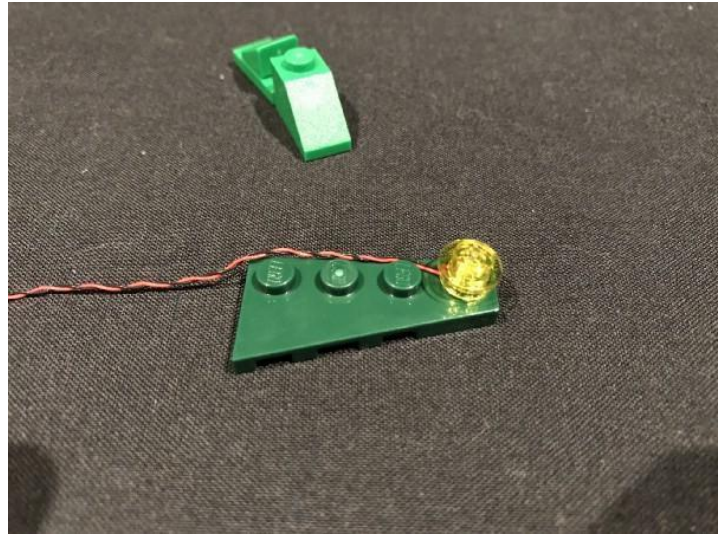
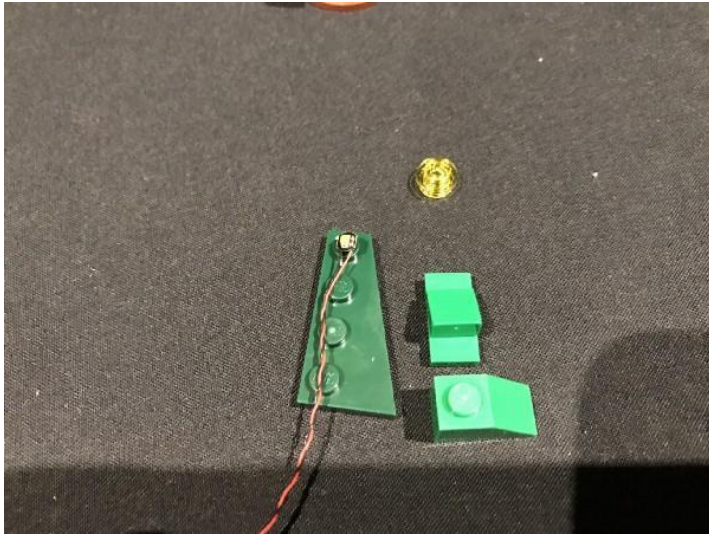
3.) Hide the cable behind the chimney by first lifting up the surrounding pieces and then reconnecting them over the top of the cable. Ensure the cable is neatly laid between LEGO studs.



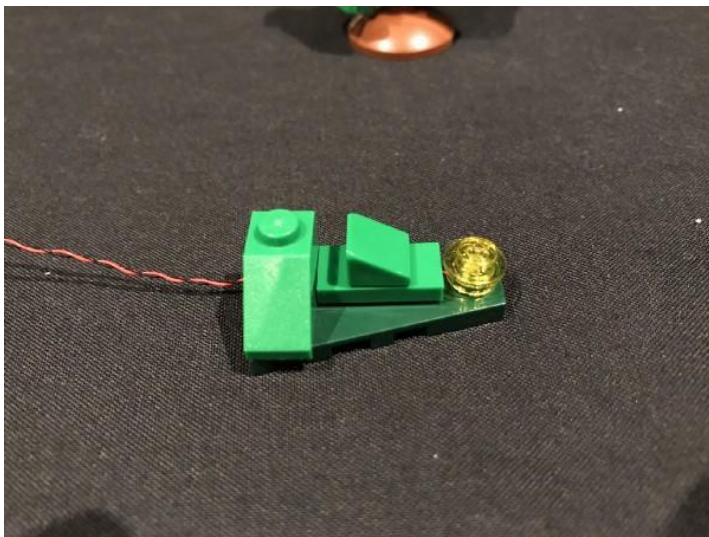
4.) We will now install kashing Dot Lights to the christmas tree which will be positioned to the right of the building. First disconnect one side of the tree with the yellow light and then disassemble pieces as per below:



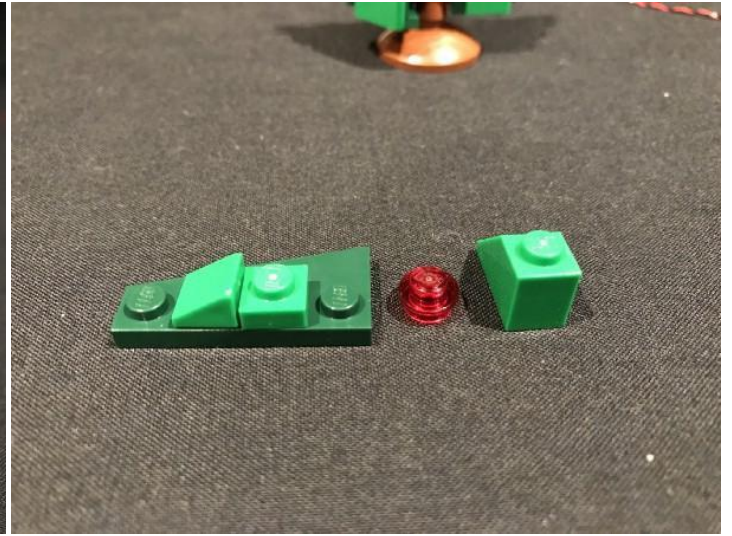
Take one Pashing Dot Light and place the LED component directly over the dark green stud at the top and ensure the cable is facing the bottom of the tree. Secure it in place by reconnecting the trans yellow round plate directly over the top.



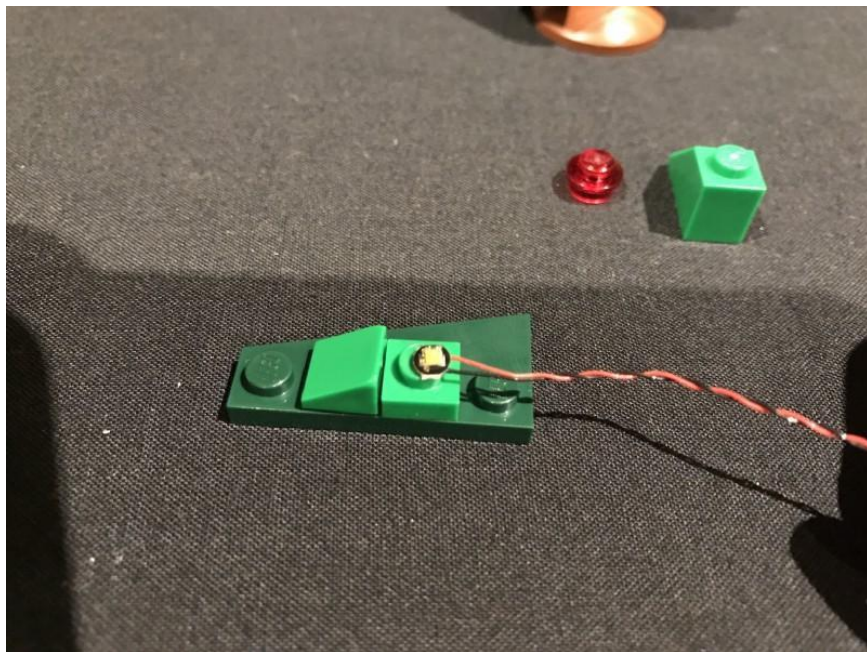
Reconnect the surrounding pieces ensuring the cable is laid in between studs then reconnect this side section back to the christmas tree.



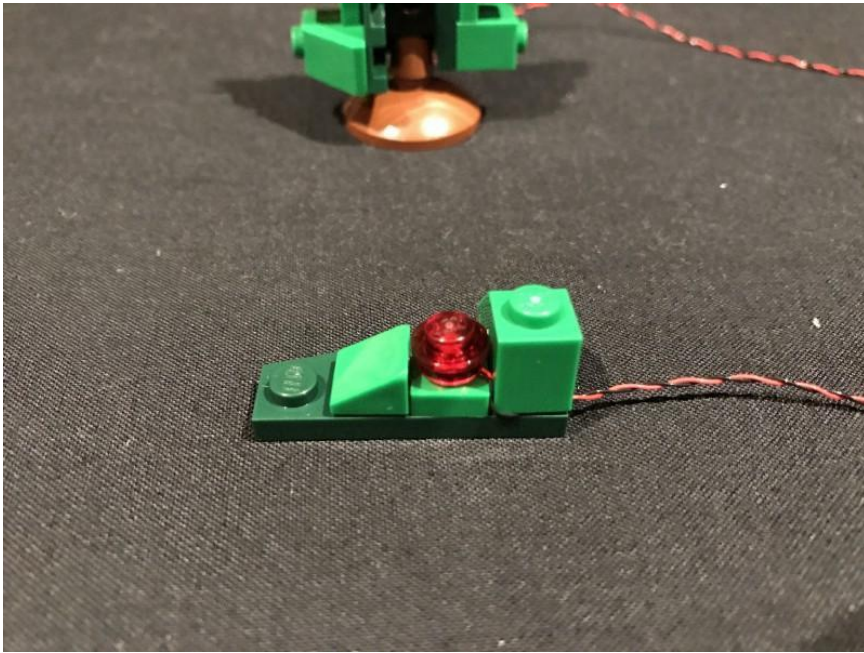
5.) Turn the tree over to the next side with the red light and then disconnect and disassemble pieces as per below:



Take another Pashing Dot 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.



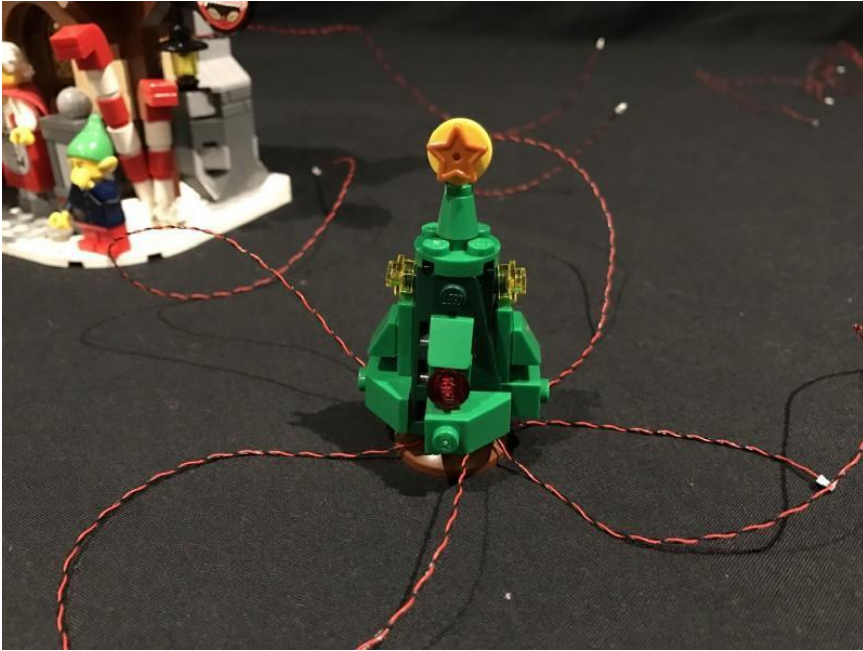
Secure the Dot Light in place by reconnecting the trans red round plate directly over the top, then reconnect the light green brick next to it ensuring the cable underneath is laid in between studs.



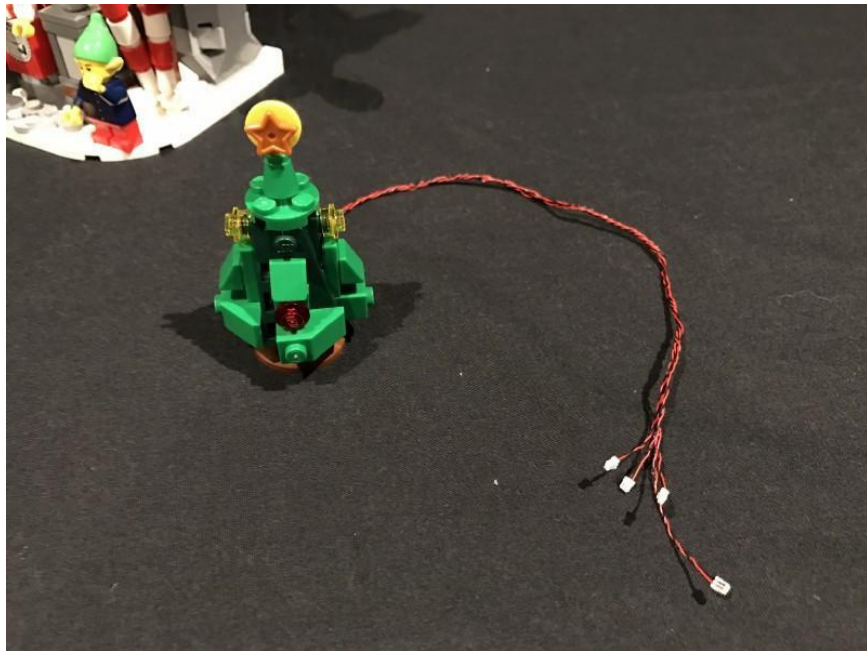
Reconnect this side section with light installed back to the christmas tree



Repeat this step to install another two Pashing Dot Lights to the next two sides of the christmas tree.



6.) You should now have 4 kashing 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 Dot Light and place it directly over the stud. Secure the Dot Light in place by connecting a trans red round plate (provided in this kit) directly over it, ensuring the cable is facing down.

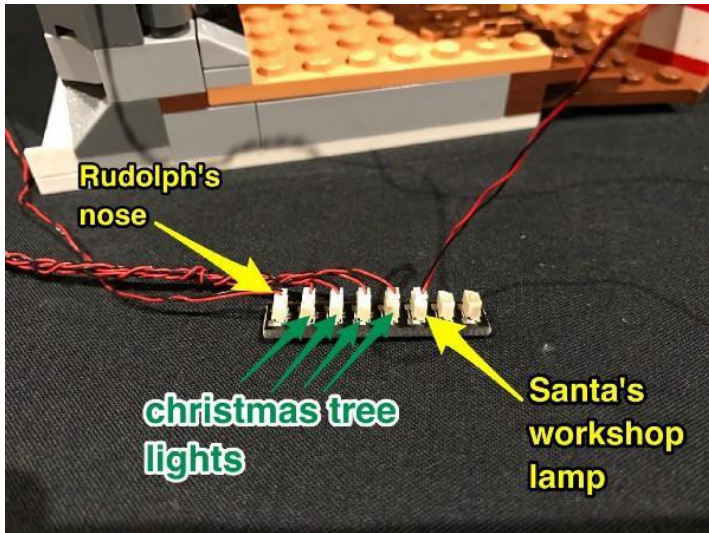




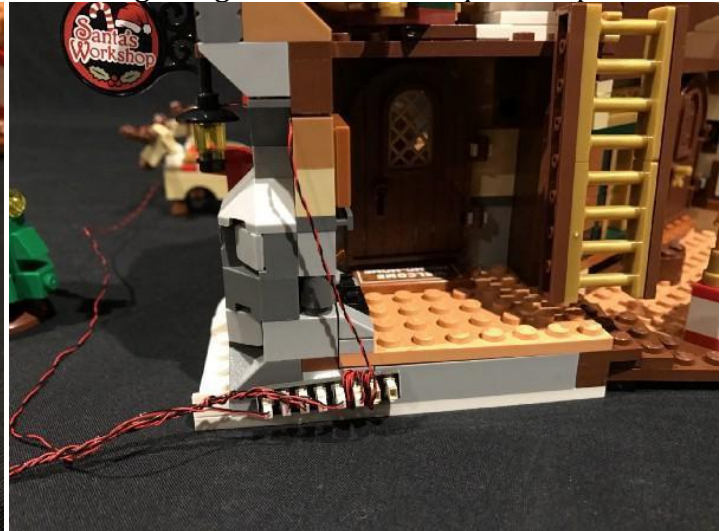
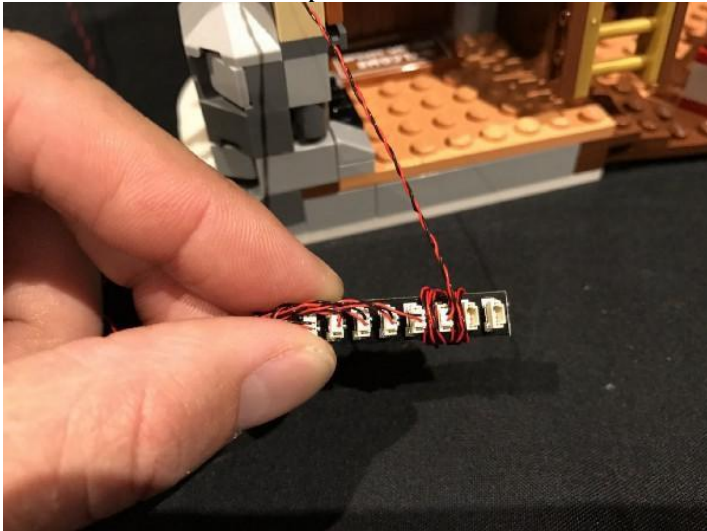
Remove Rudolph from the leash and lay the Dot Light cable underneath his head and out his back by removing and reconnecting the following pieces ensuring the cable is neatly laid in between studs. Reconnect Rudolph back to his leash



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:



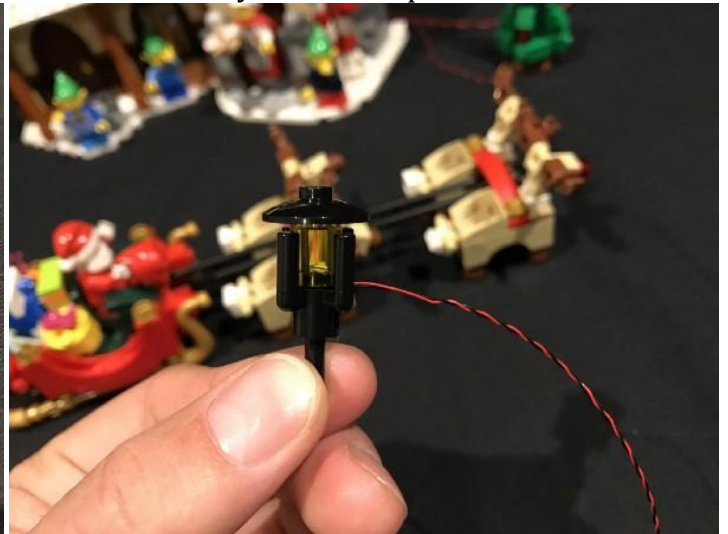
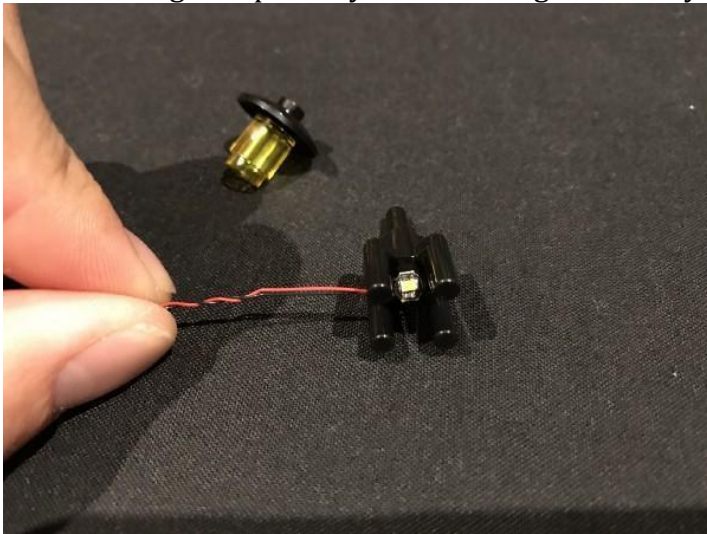
9.) To eliminate excess cable from Santa's Workshop lamp, wind it around the expansion board a few times and then secure the expansion board to the base of the building using a self adhesive square as per below:



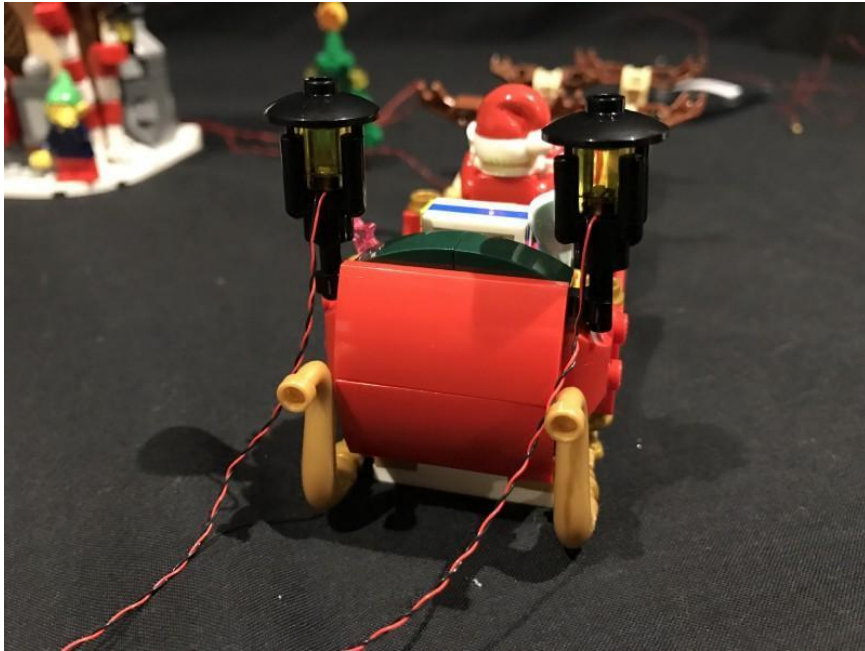
10.) We will now install lights to the back of Santa's sleigh. Remove the 2 lamp sections and disassemble pieces as per below:



Take a standard Dot 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 Dot Light to the lamp on the other side, then reconnect both lamps back to the sleigh.



11.) Hide the cables from the Dot Lights underneath the gold frames by first disconnecting and reconnecting them over the cables as shown below.



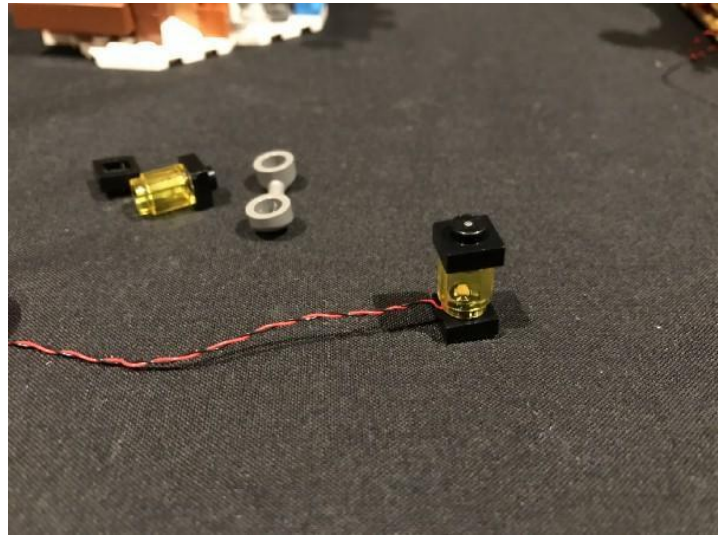
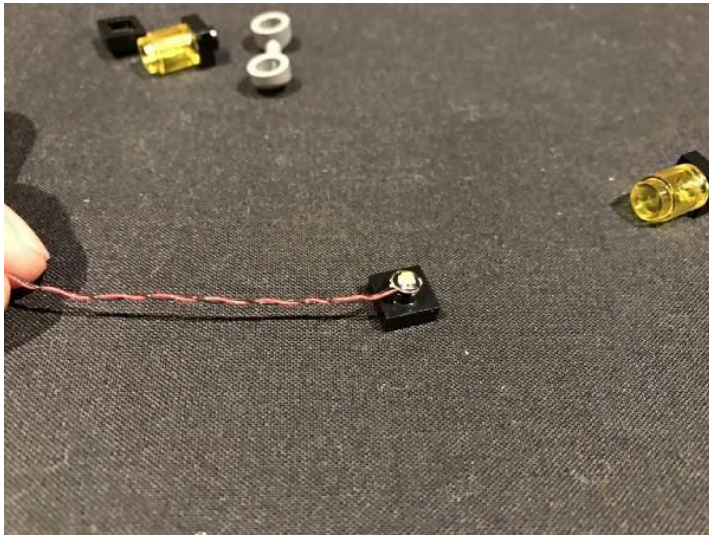
Twist the 2 cables around each other bringing them together to form one large cable.



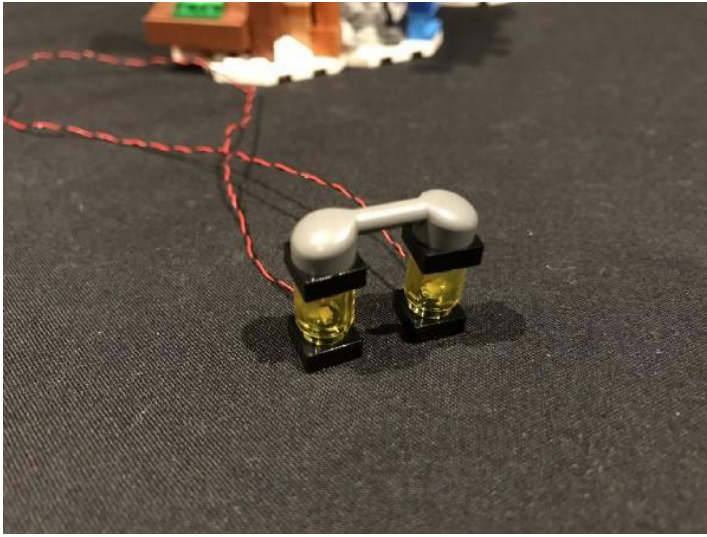
12.) We will now move onto installing lights to the 2 lamps on the left side of the building. First remove these sections and disassemble pieces.



Take another standard Dot Light and place it directly over the stud of the black plate. Reconnect the translucent yellow brick directly over the top and repeat this step to install another Dot 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.



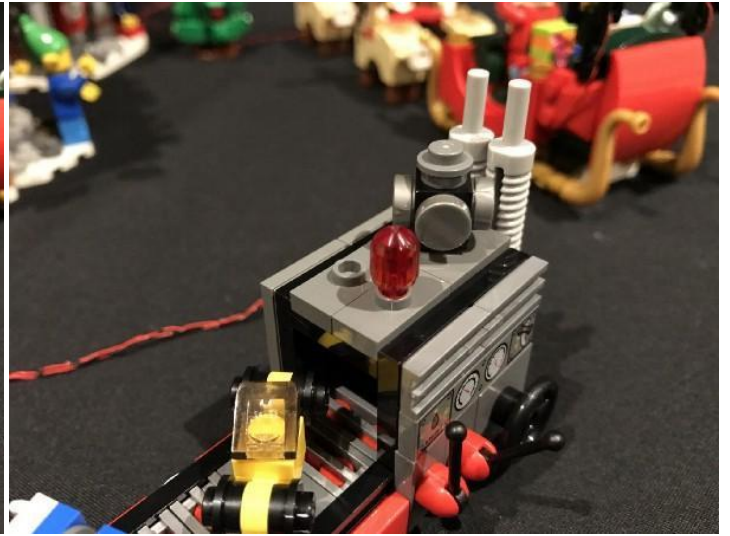
13.) We need to hide these 2 cables behind, through the building wall. First lift up surrounding pieces then thread the 2 cables behind. Pull the cables all the way through from the inside of the building and then reconnect the surrounding pieces over the top ensuring the cables are in laid in between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



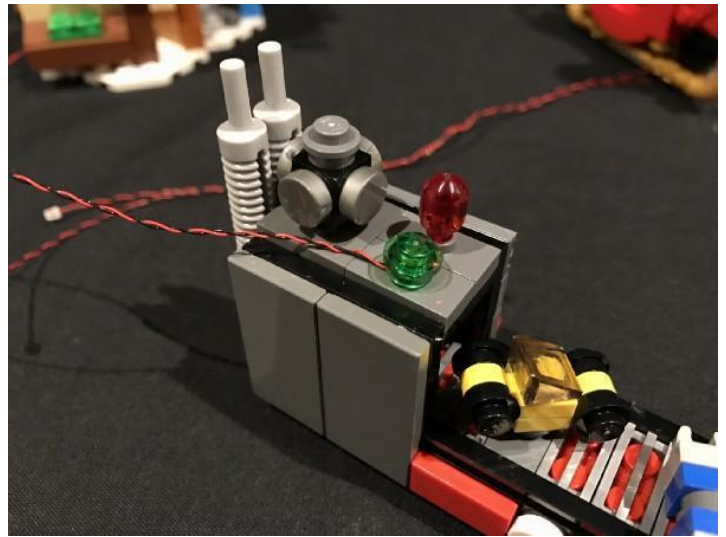
14.) From the inside of the building, lay the two cables underneath the “Santa Needs You” sign, then twist the two cables around each other, bringing them together to form 1 cable.



15.) Let's move onto installing a kashing light to the Toy Making Machine, 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 diflerent trans green piece.



Take a Pushing Dot 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.

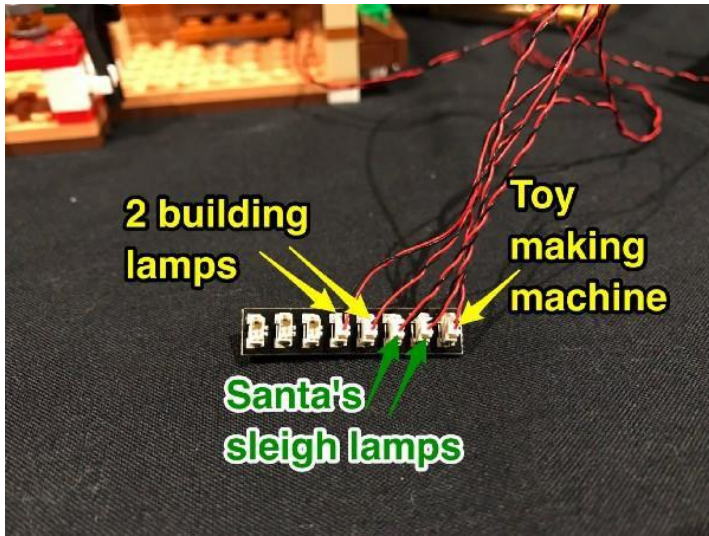


Lay the cable underneath the 2x4 Lego tile as per below:

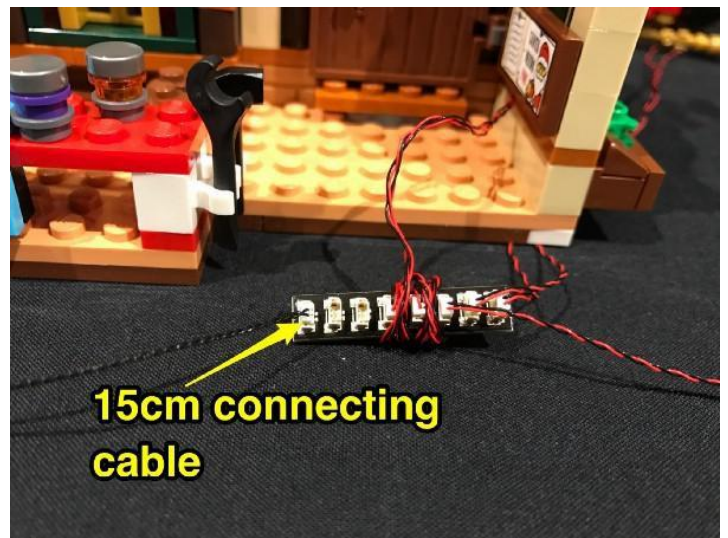
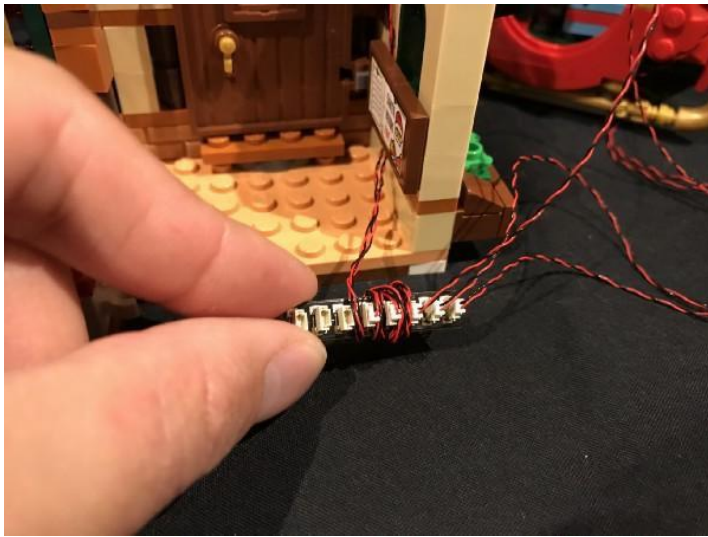


16.) Position the Toy Machine to the left of the building with Dot Light cable facing toward the back, then take this cable along with the cables from the building lamps and sleigh lamps and connect them into another 8-port expansion board (Expansion board B) in the order below.

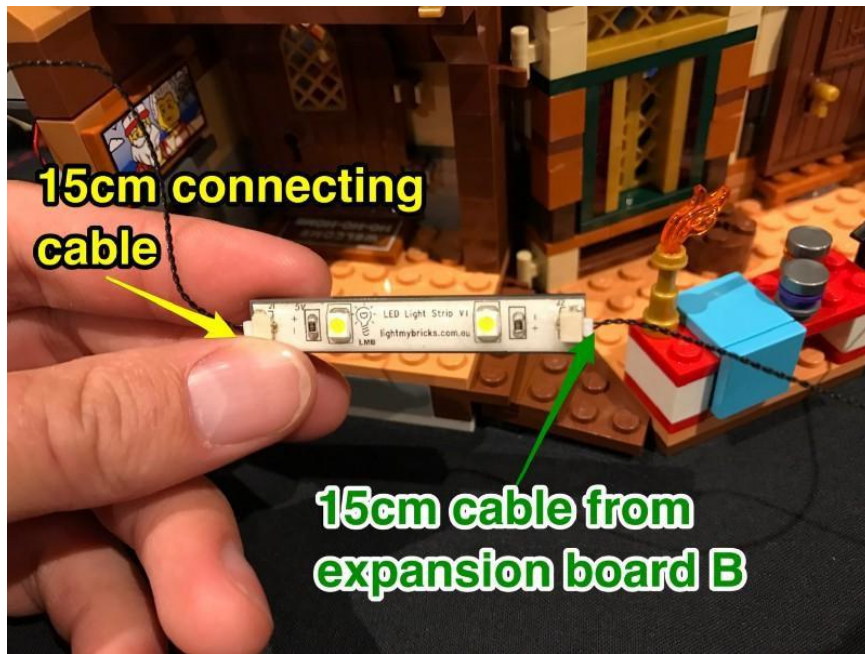




17.) Wind the cables from the building lamps around the expansion board a few times, then connect a 15cm connecting cable to the port furthest to the left.



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 koor 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.



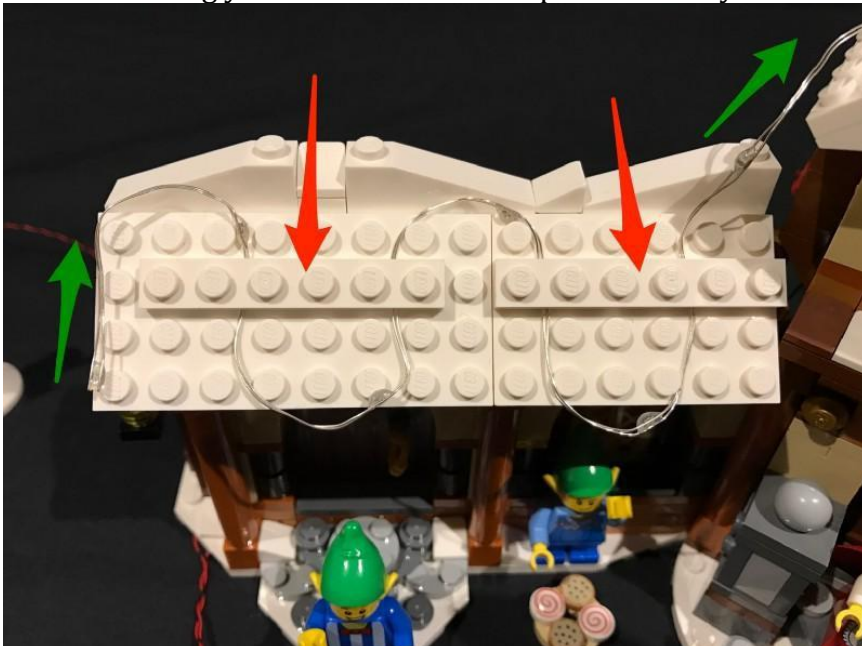
20.) Lay the 15cm cable between expansion boards A and B underneath the desk ensuring the cable is laid neatly in between studs. Stick Expansion board B to the side of the orange base using provided adhesive squares.



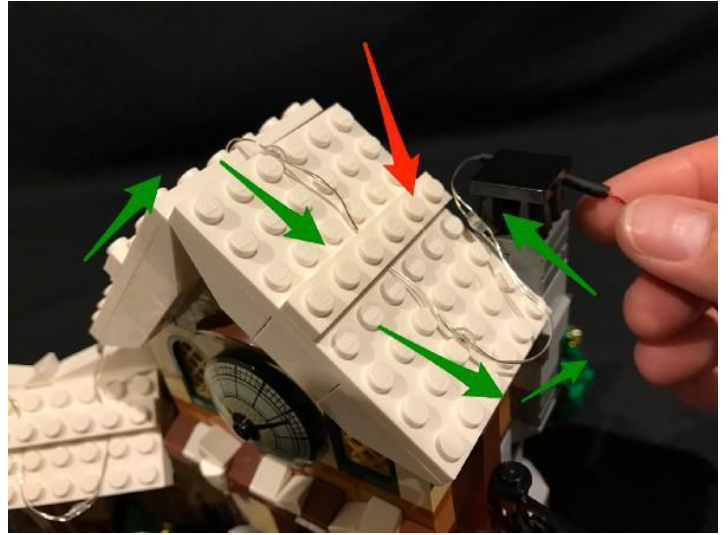
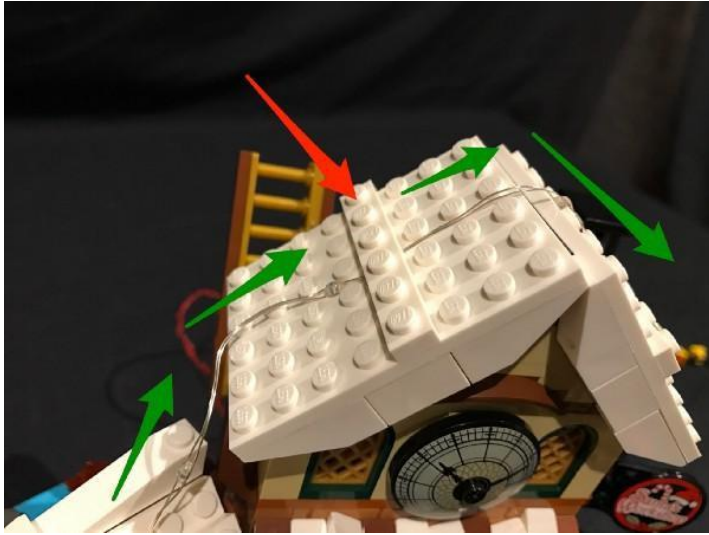
21.) Turn the building around back to the front and remove the string of coloured lights that are connecting to the left building's roof.



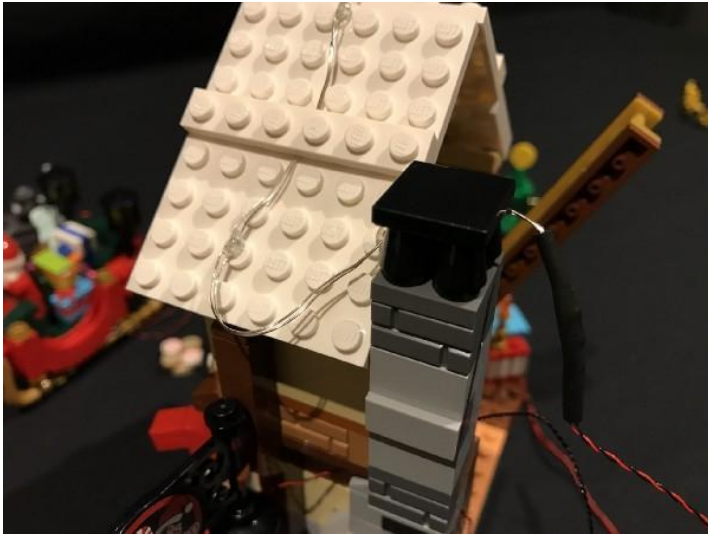
22.) Take the multi colour changing light string and place the top of the string on this roof and lay it down in the below positions. Secure the light string in place by connecting white Lego pieces (which came in this kit) over it ensuring you do not connect the pieces directly over the LED components.



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!