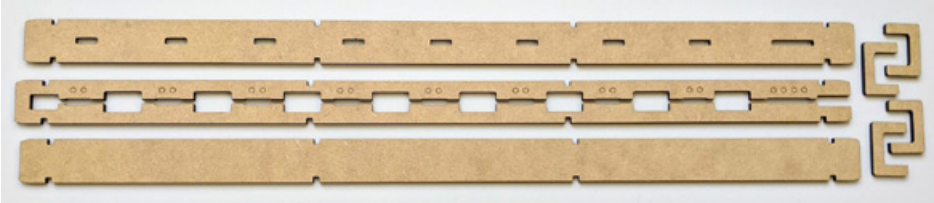
Illuminated Solar System Assembly Instructions

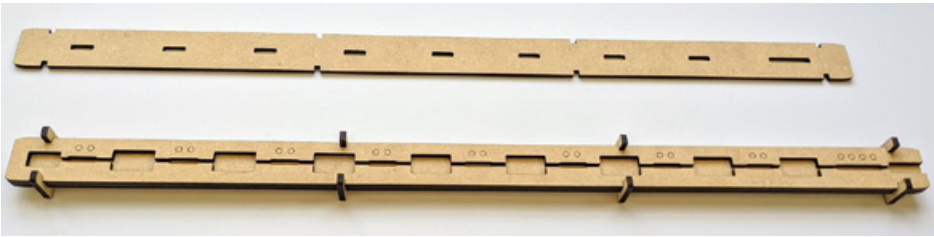
Assemble the Wooden Base

1. Remove printed pieces from the print bed and peel off any masking. The wooden base assembly has three layers, as shown, which are held together by the four wooden U-shaped clips.



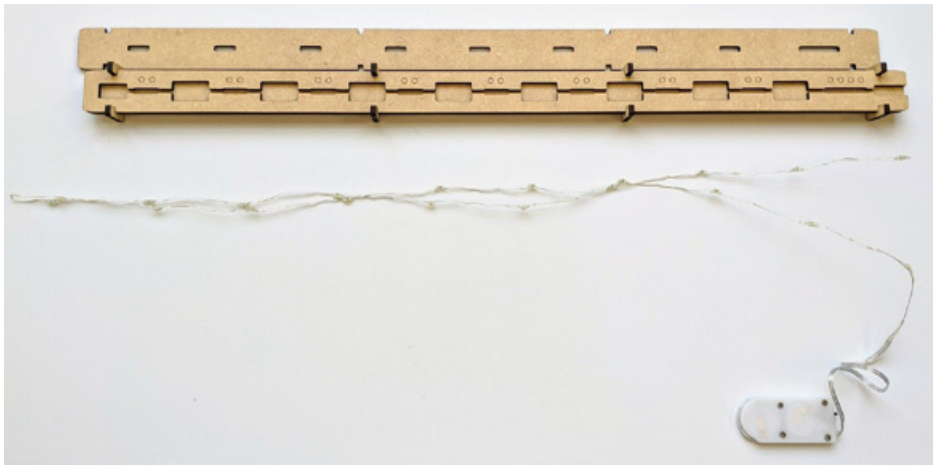
2. The bottom base layer has no holes in it. Pick up the bottom layer and slot one of the U-shaped clips into each of the four parallel sets of notches. It will be a snug fit, but you should be able to gently wiggle the base layer down into each clip until it settles into the very bottom of the “U.”

3. The middle layer contains the printed circles. Slide the middle layer, with the circles facing upwards, between the clips until it sits directly on top of the bottom layer. Since there is a channel running along the length of the middle layer, its outer edges may end up sliding towards the center. If this happens, put your fingertips inside the channel and push the sides of the middle layer gently outwards until its outer edges align perfectly with the bottom layer beneath it.

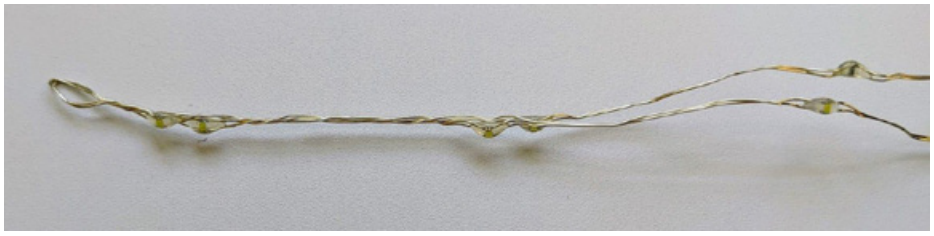


Add Fairy Lights to the Base

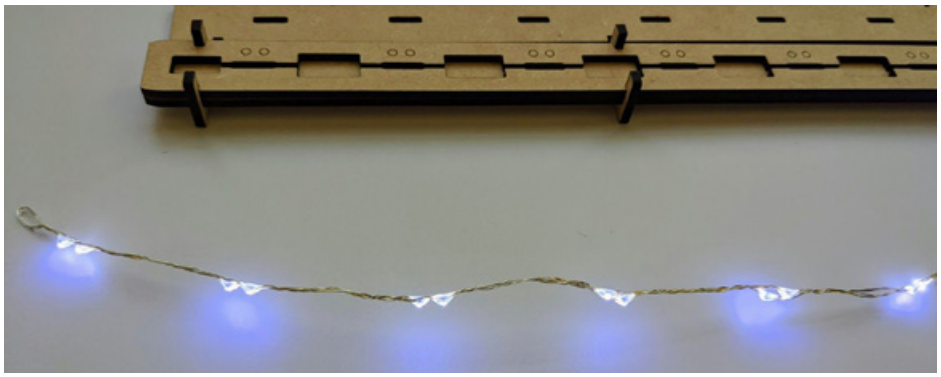
4. Put the pieces of the base down and pick up the fairy light strand. If it is coiled into a circle, gently unwind and straighten the wire, and lay it out in a straight line.



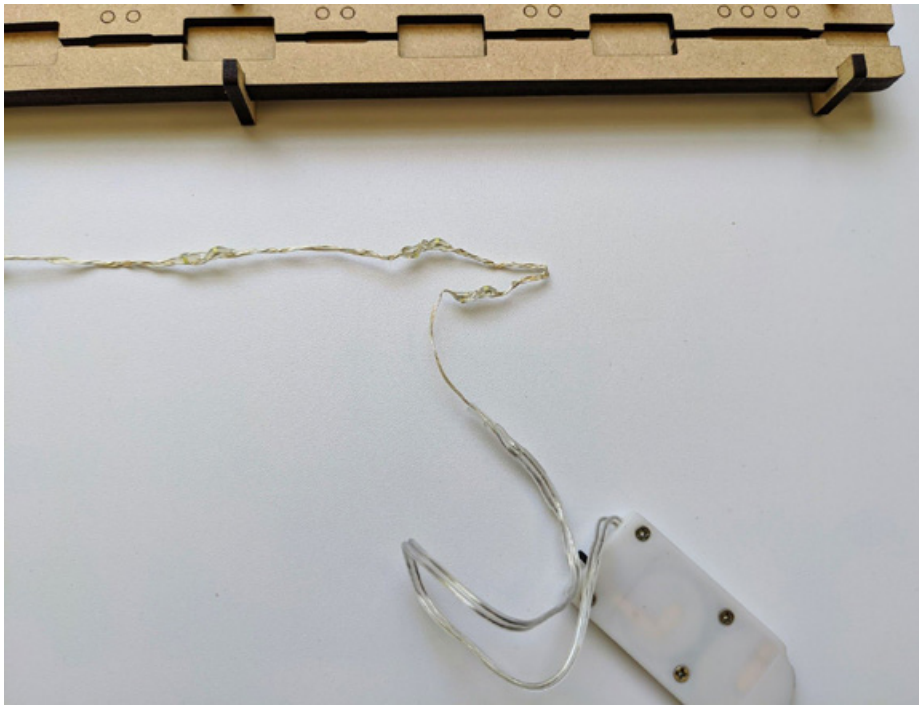
5. Next, bend the fairy light strand to group the LEDs into pairs. Each LED pair will illuminate a planet. Divide the LED strand into two sections of ten LEDs, and fold it over at the middle so that the LEDs in the two sections lie one after the other along the length of the strand, as shown. It's important that the LEDs do not sit at the exact same position on the strand or they won't fit into the base. They should sit just next to each other along the strand. If possible, try to orient the LEDs so that they are pointing in the same direction.



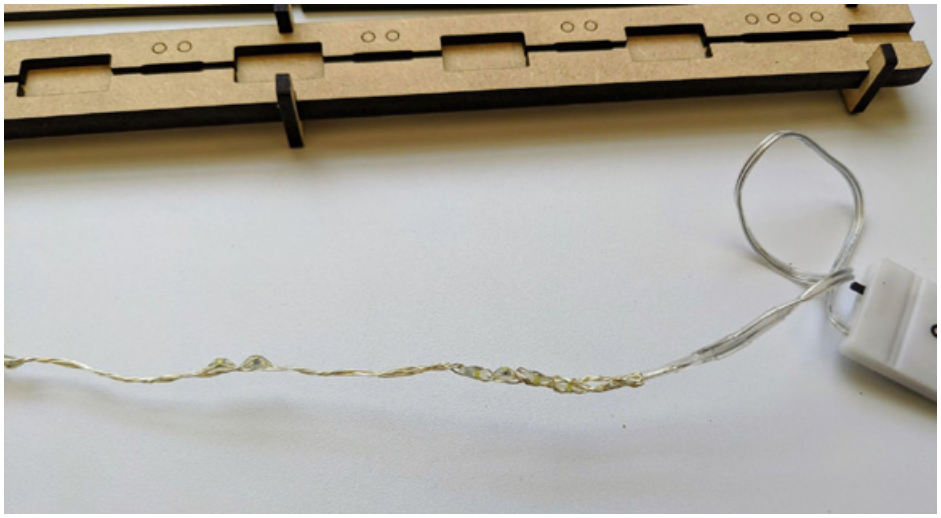
6. To keep the LEDs in place next to each other, gently start to twist the two parts of the strand together, starting with the end furthest from the battery pack. It doesn't need to be twisted tightly, just firmly enough to hold the LEDs in place next to each other.

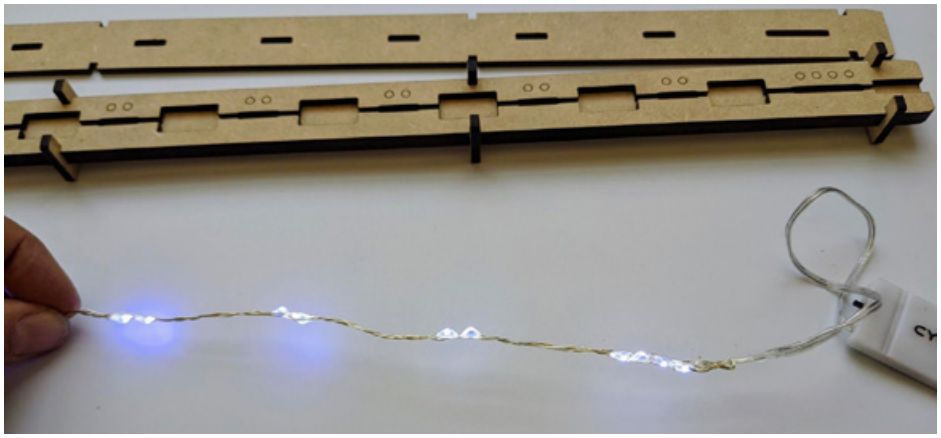


7. Once the fairy light strand is twisted with the LEDs held together in pairs, group the two LED pairs closest to the battery into a single group of four LEDs, which will illuminate the sun. Place the fairy lights down, as shown, and bend the twisted wire back on itself, so that the last four LEDs closest to the battery are positioned next to each other. The pair of LEDs closest to the battery pack should still remain closest to the battery pack once positioned next to the neighboring pair.

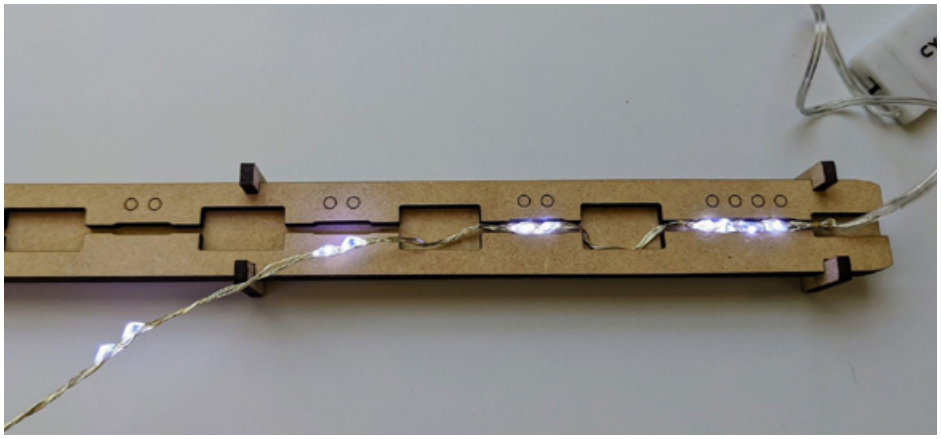


8. Now, very gently, take just the section of lights that has been doubled over again, and twist it until the four lights closest to the battery pack are twisted together as shown.

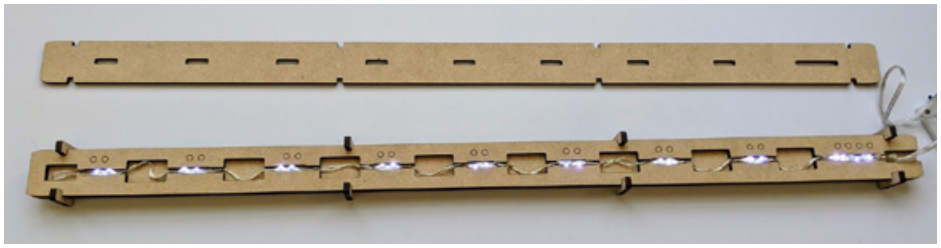




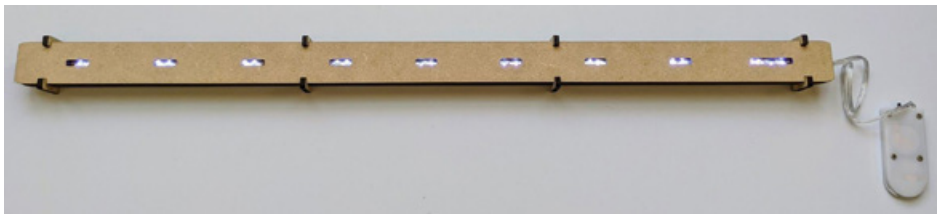
9. Once the wire is twisted so that the LEDs are grouped into eight pairs and one set of four LEDs, place the string in the channel in the middle base layer. Starting from the end closest to the battery pack, gently push the twisted strand down into the channel so that each LED lines up near a circle as shown. The fit will be snug, but press down with your fingers until the LEDs sit firmly within the channel. There will be a little bit of slack in the fairy light wire between the LEDs. This extra wire can be bent and pushed into the square boxes between the LEDs so that it fits completely within the middle base layer. It is important that the fairy light strand not extend upward above the middle base layer. Try to orient the fairy lights so that the brightest side of the LEDs is pointing upwards when they are seated inside their channels.



10. Repeat this process along the length of the wire, pushing each pair of lights into the channel near the etched circles. Continue arranging any slack wire between the LEDs so that it fits within one of the rectangular gaps.



11. Place the top layer over the rest of the base so that its longest slot sits over the group containing four LEDs. If the fairy light strand has been securely pushed into the channel, the top layer will fit directly against the layer beneath it. Once the base is assembled, all LEDs will be visible through the slots in the top layer.



Assemble the Solar System Model

12. The acrylic planets have stubs that fit snugly into the slots in the base. The larger model of the sun slides into the longest slot. Place the planets in order and align them with etched sides all facing the same direction.

13. Once inserted into the slots, the planets glow where their drawings were traced onto the acrylic. The edge lighting will show the best effect when the etched side faces away from the viewer.