

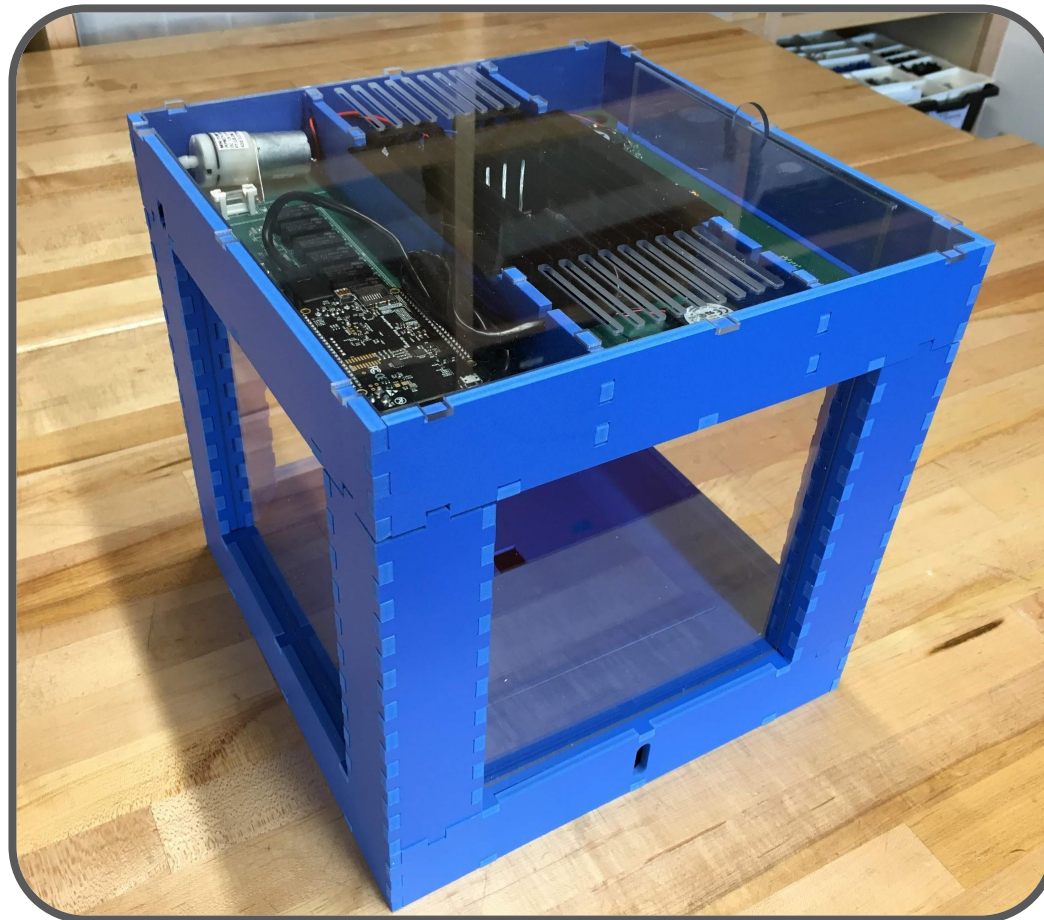
# Personal Food Computer 3.0: PFC\_EDU

## Pilot Test Assembly Instructions

## Get excited #nerdfarmers!!

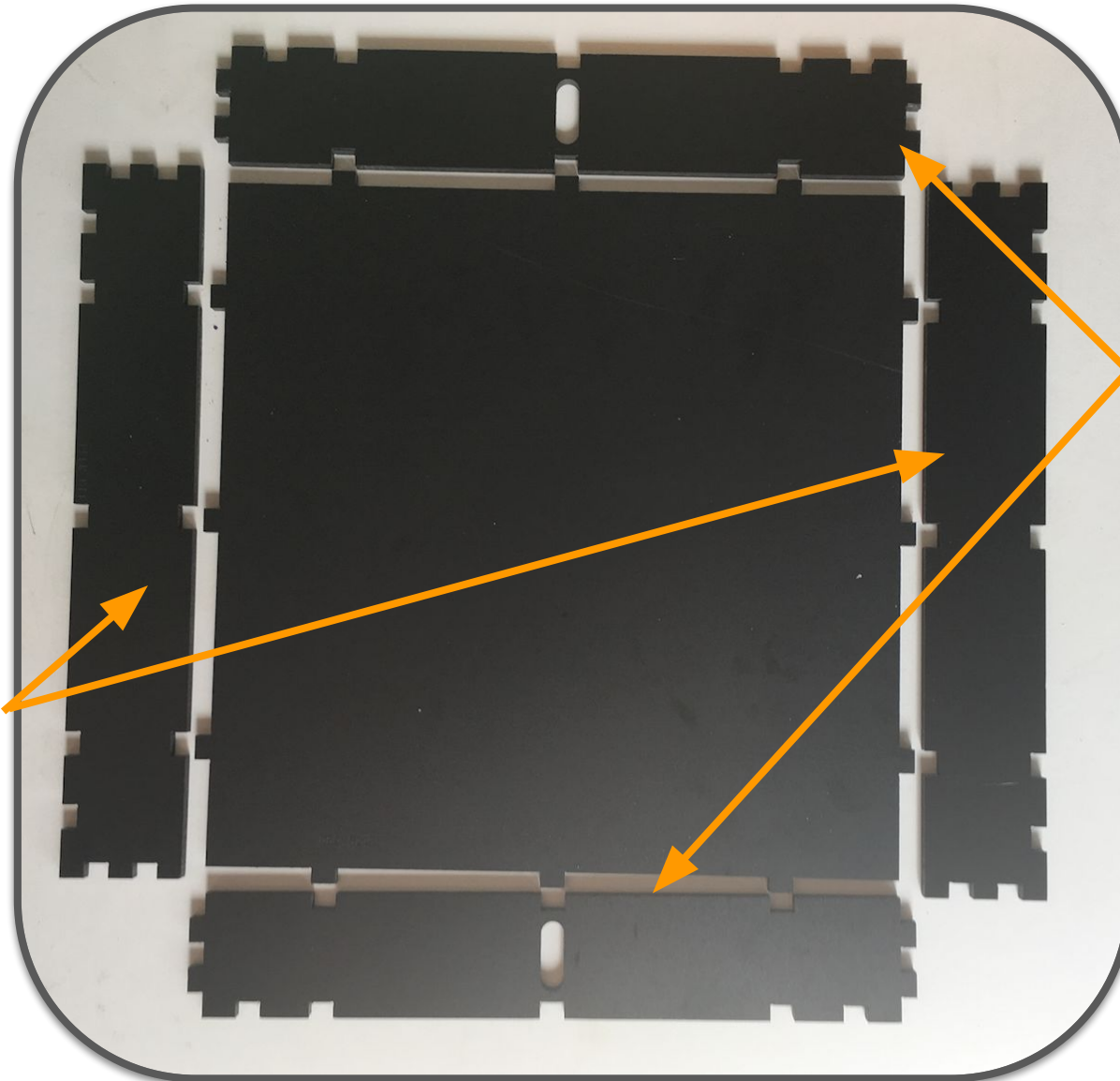
By the end of these instructions, you'll be ready to add water, nutrients, plants, and get growing! Be sure to follow the instructions carefully - many pieces are similar but not exactly the same.

This is a fully assembled Personal Food Computer, "EDU" edition. Yours may be a different color, but If all goes well, it will look like this soon!



# Base Assembly: Step 1

1. We'll start with the base.



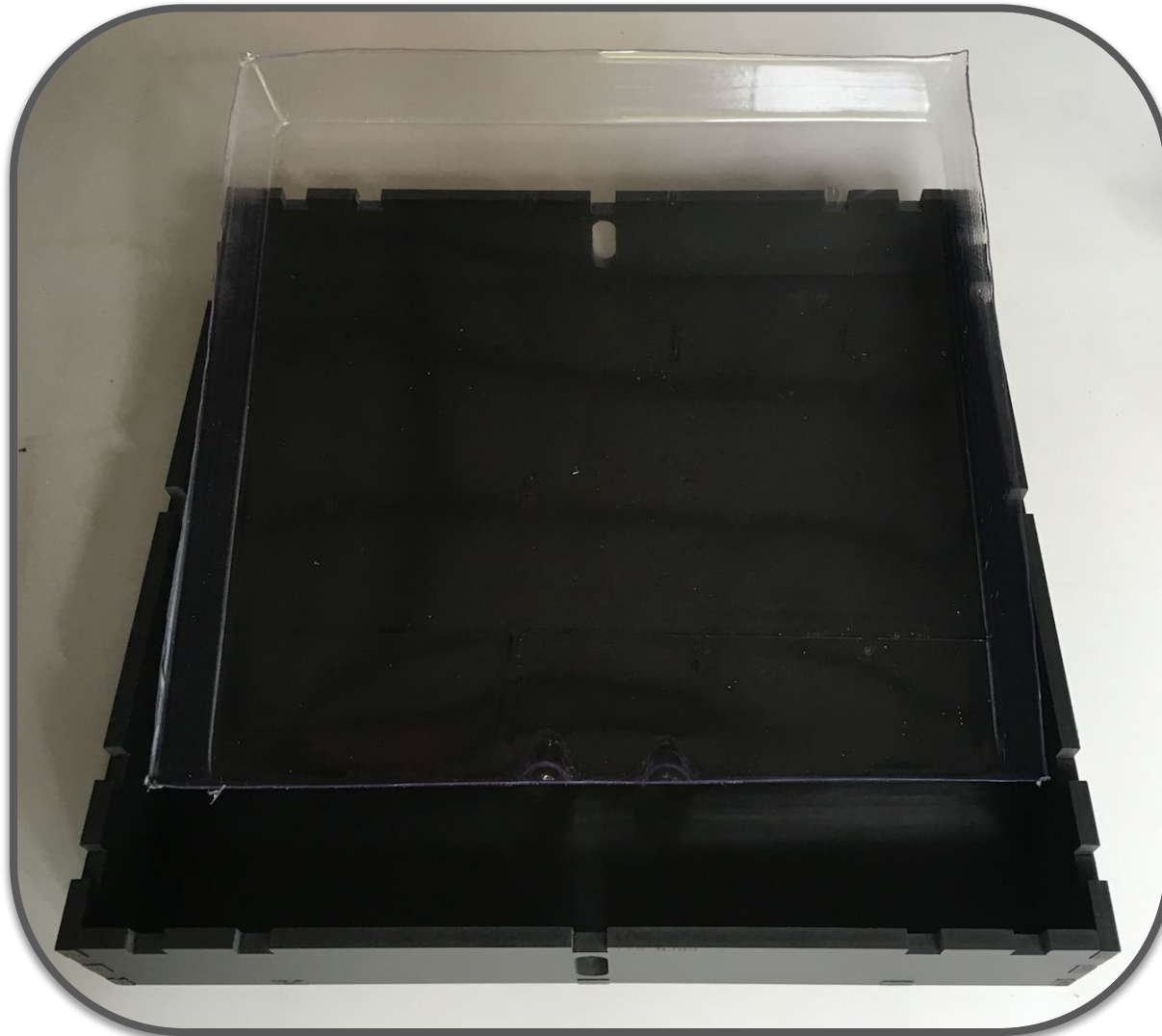
2. Arrange the top and bottom sides, matching the three slots on the sides with the three tabs on the base.

\*Make sure the keyholes are across from each other.

3. Arrange the left and right sides, matching the three slots on the sides with the three tabs on the base.

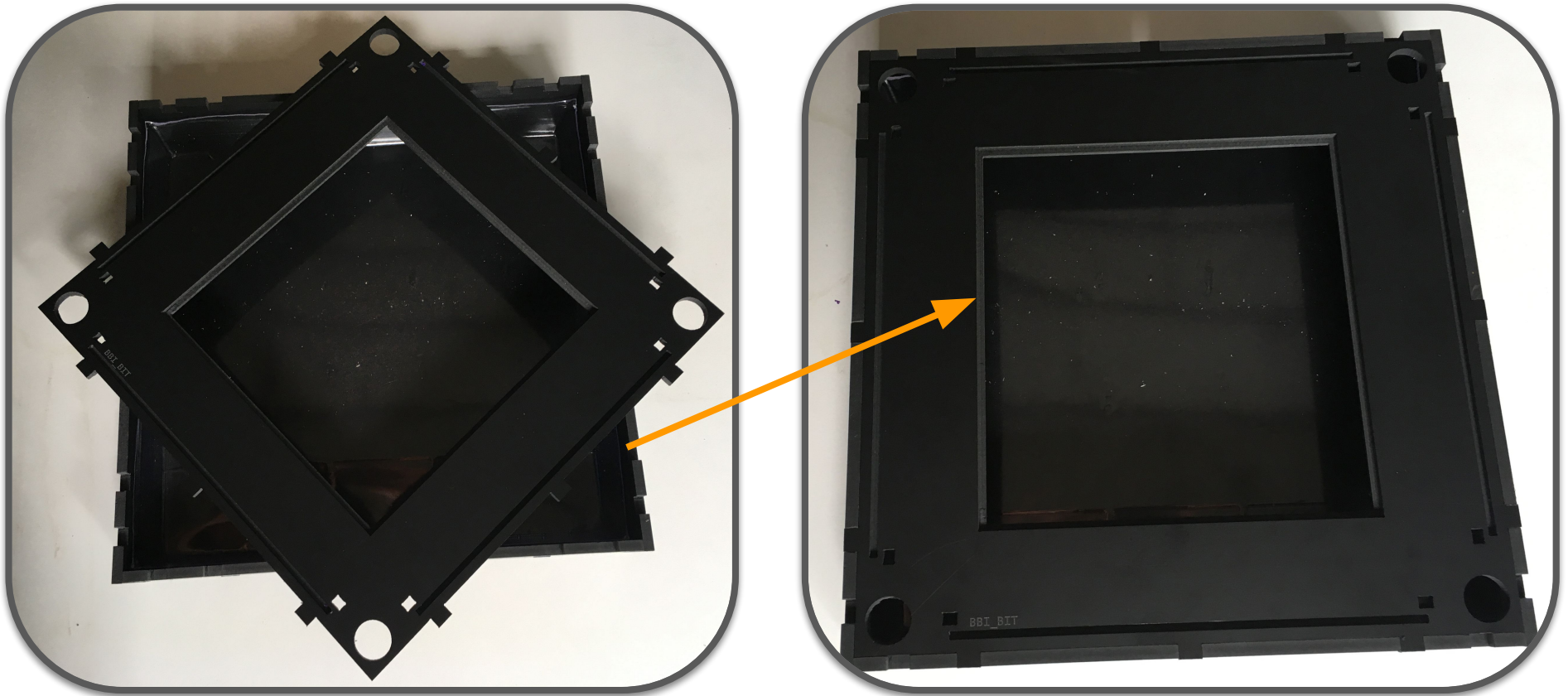
## Base Assembly: Step 2

1. Attach the sides to the base, and then fold them upward, connecting them at the corners.
2. Place the water tray inside the base.



## Base Assembly: Step 3

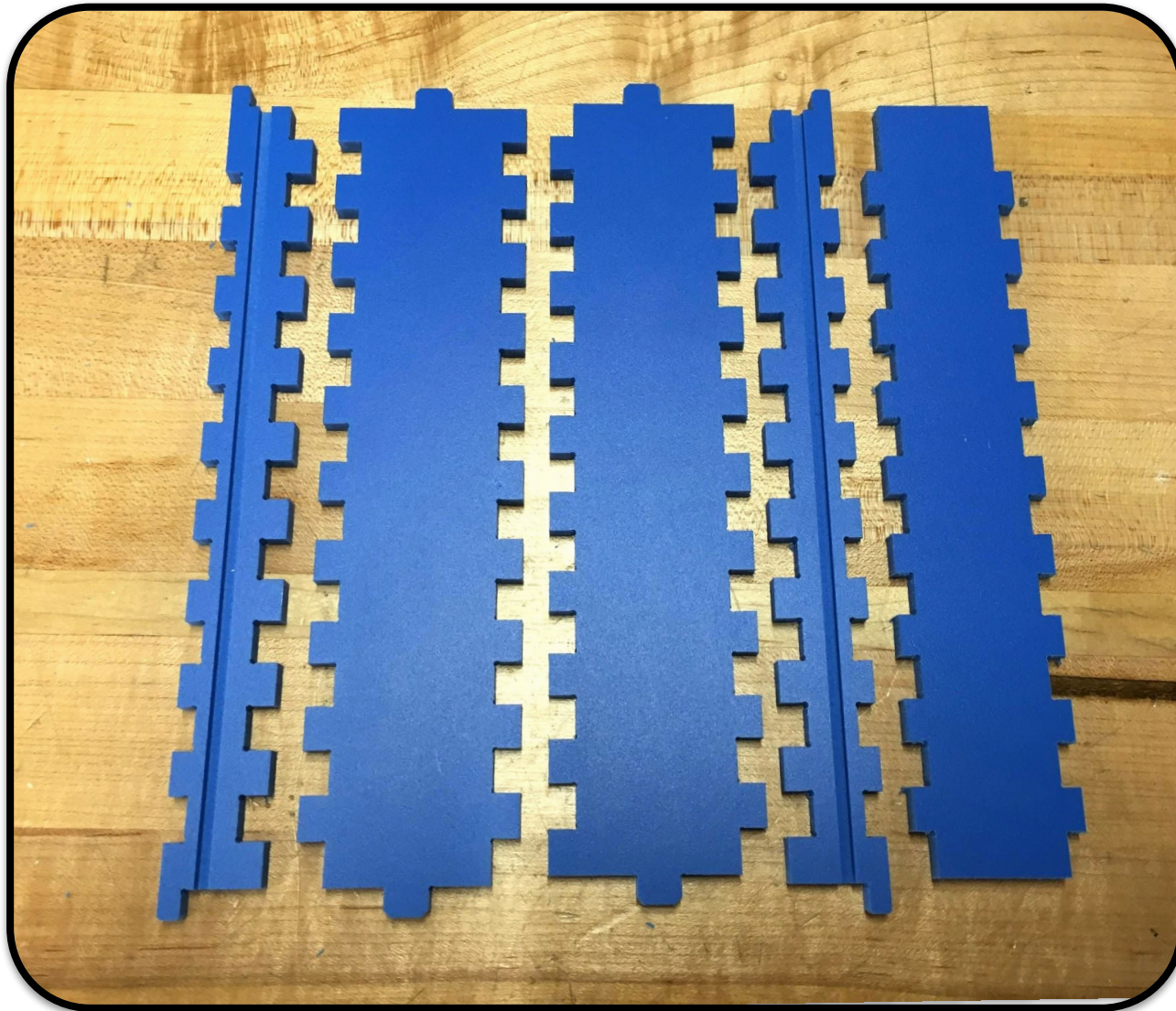
1. Line up the tabs in the top of the base with the assembled sides of the base, and push down to complete the base. Set it aside for now.



2. Set the base aside.

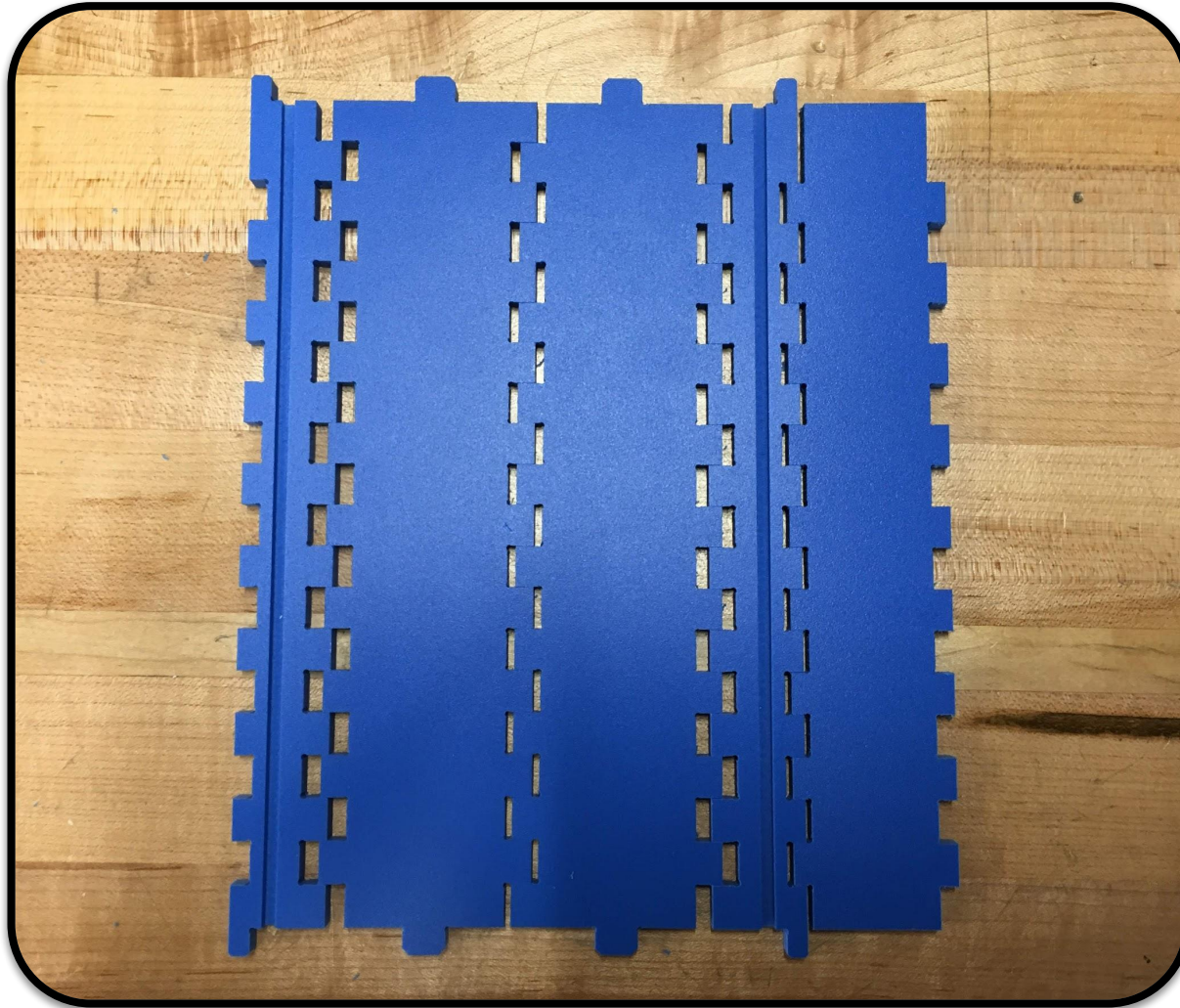
# Column Assembly: Step 1

1. There are four columns, each of which will be assembled similarly.
2. Arrange the five sides of the first column exactly as shown below.



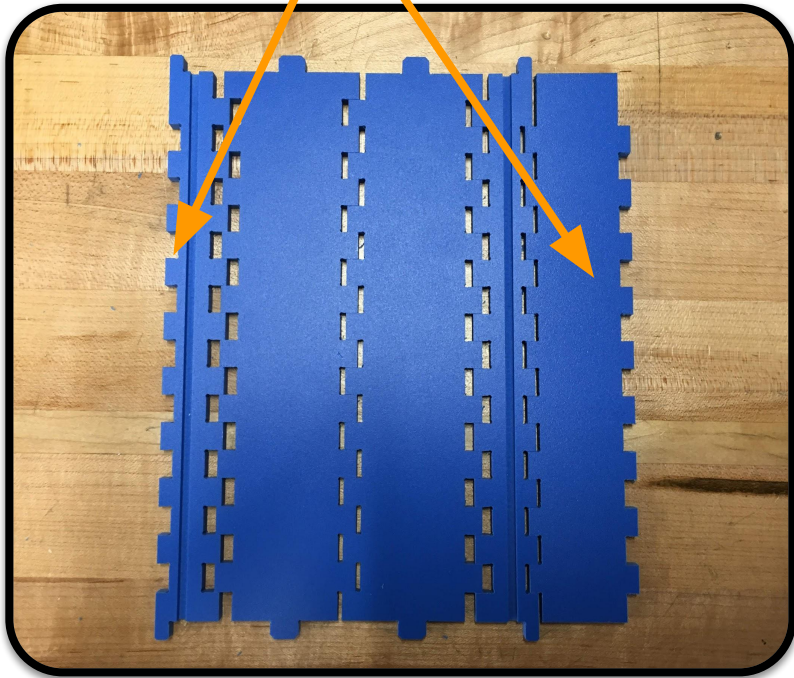
## Column Assembly: Step 2

1. Loosely push together each of the pieces, making sure that everything lines up correctly.

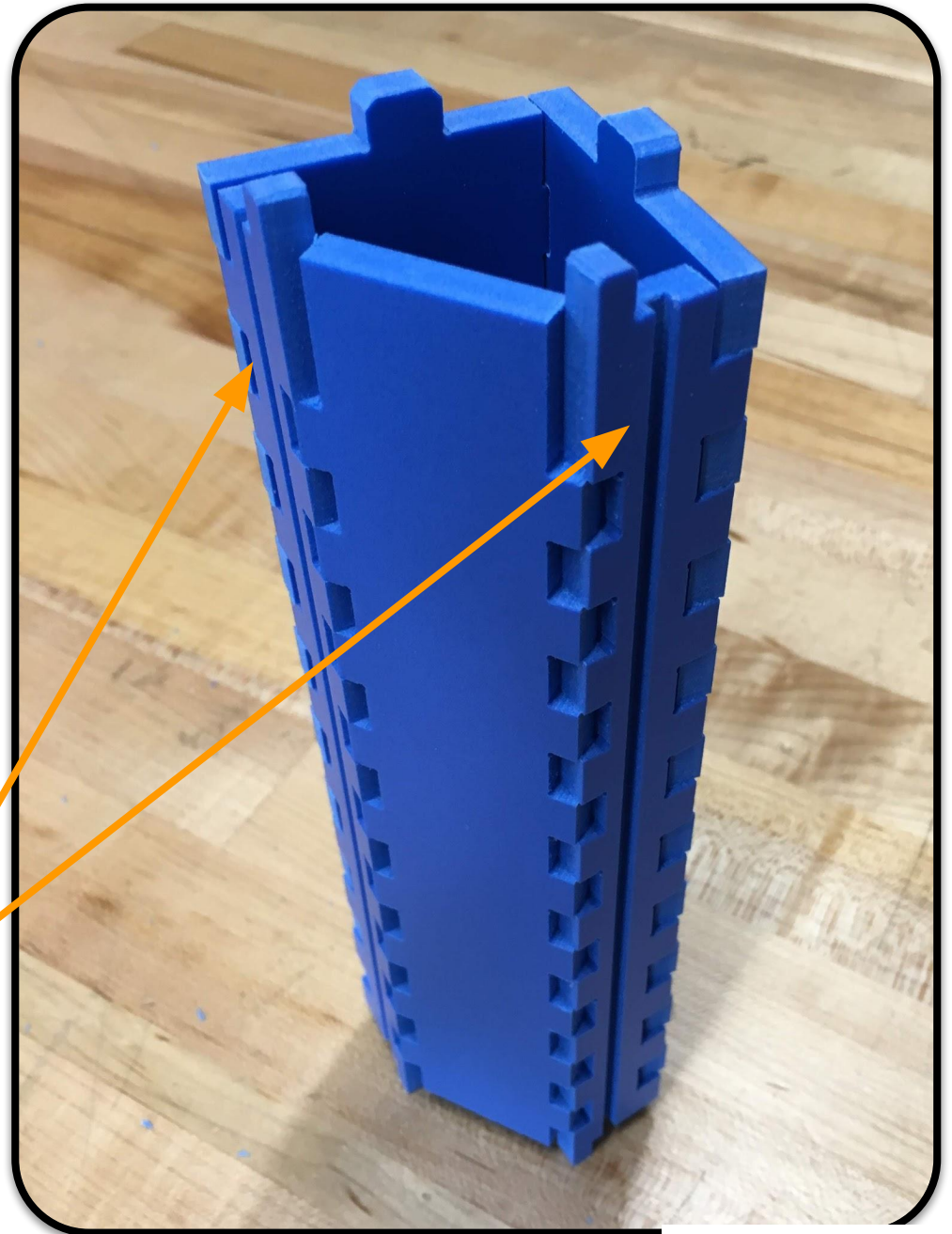


## Column Assembly: Step 3

1. Stand up the assembly, and fold it around, connecting the left and right sides.



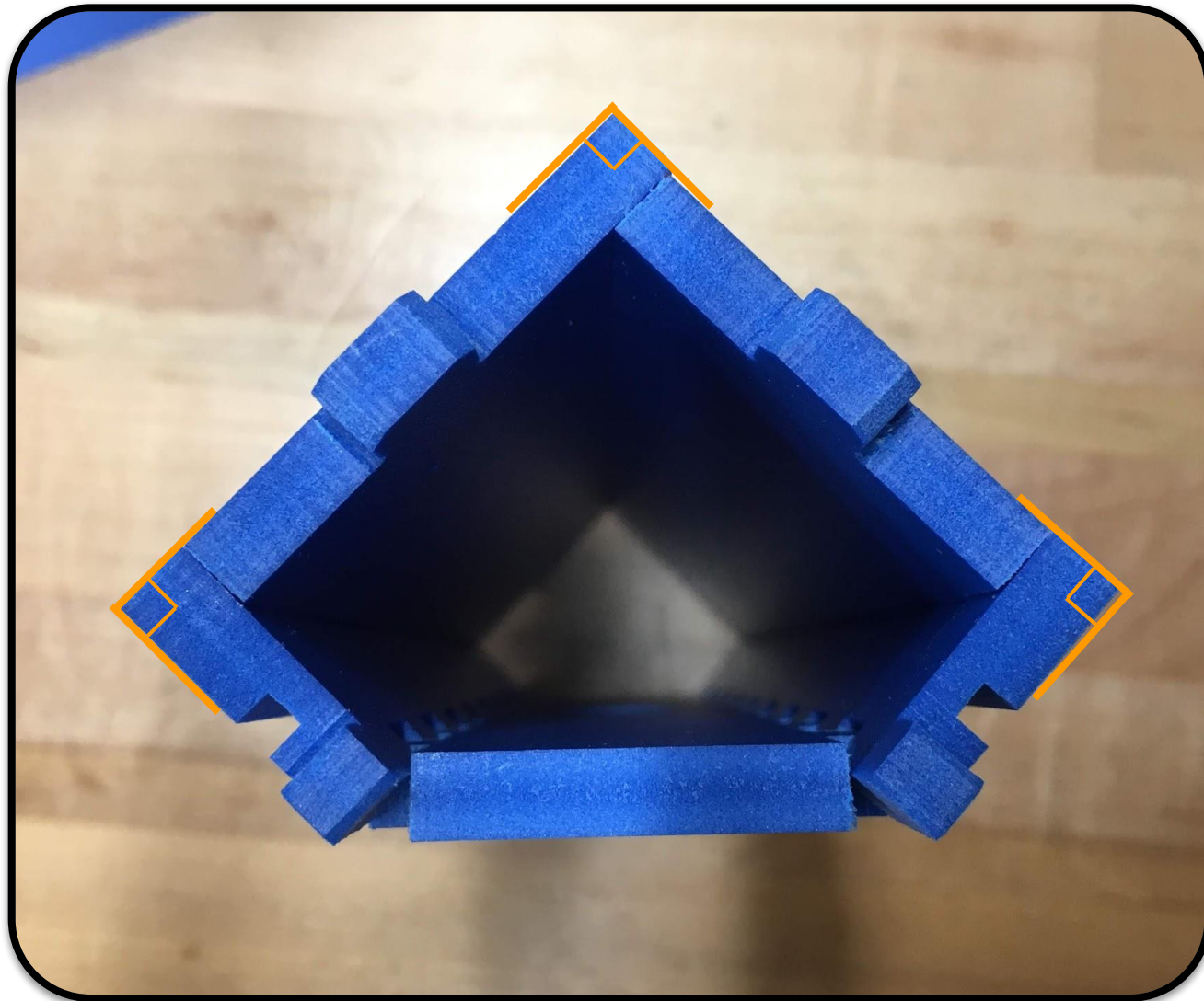
2. Make sure that the grooves are on the *outside*.





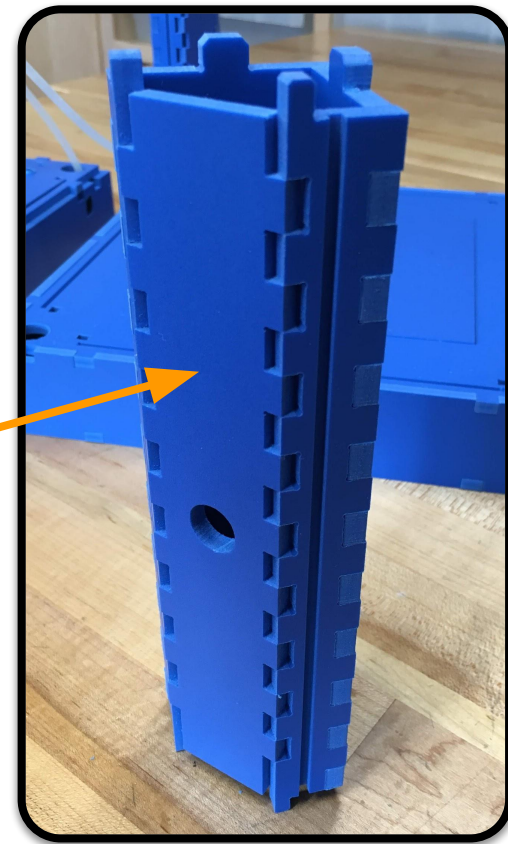
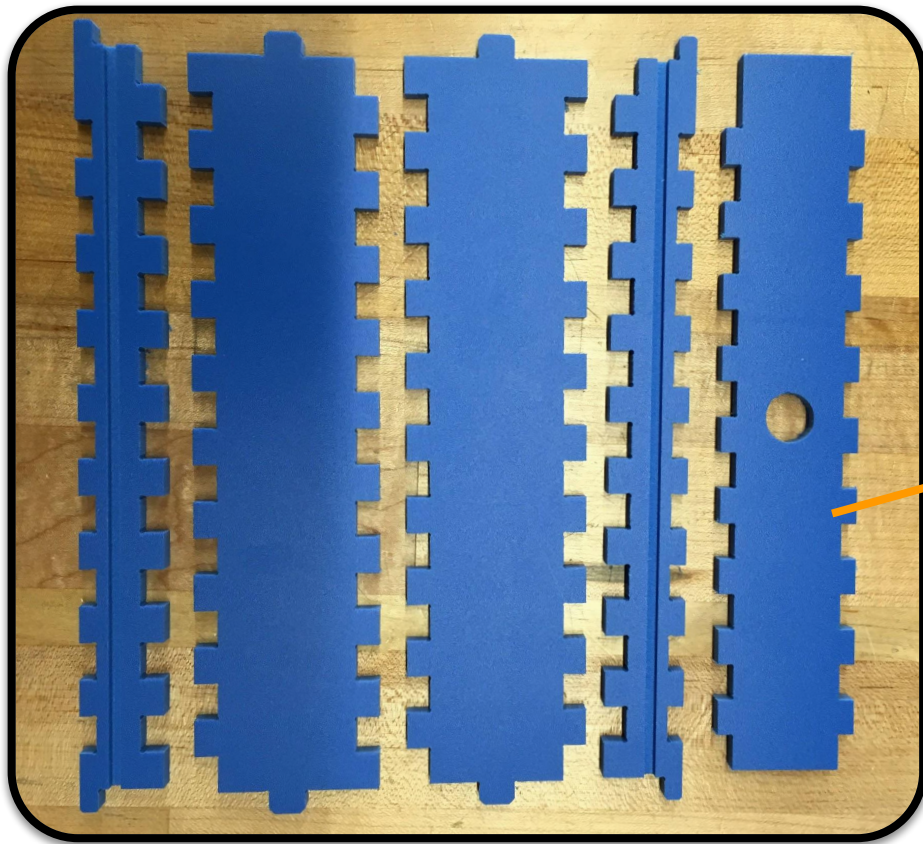
## Column Assembly: Step 4

1. Make sure that the three “outside” corners all meet at 90 degrees.



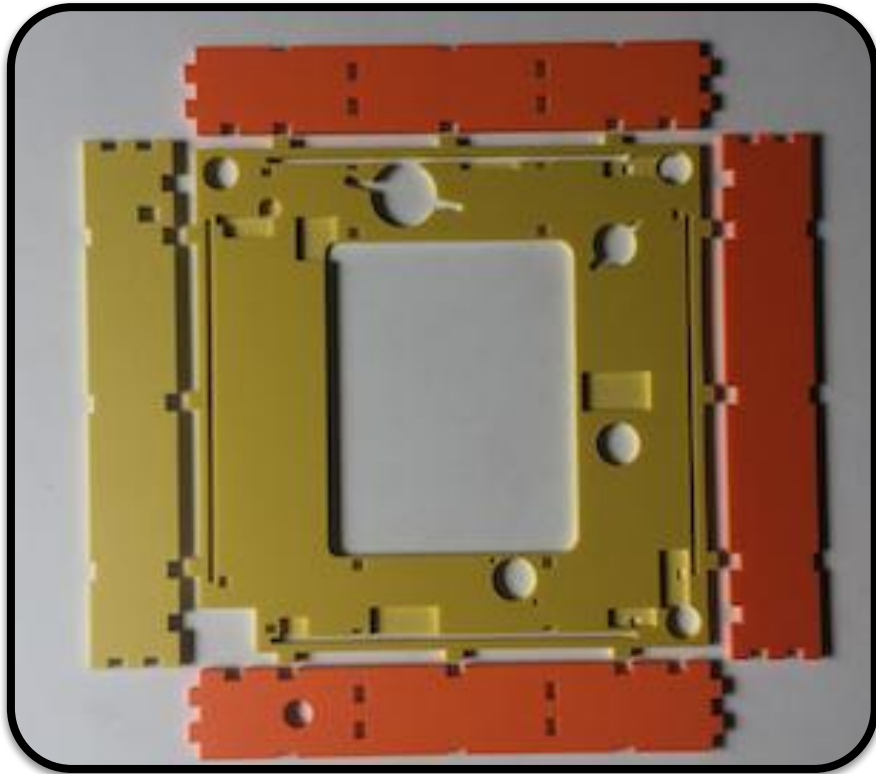
## Column Assembly: Step 5

1. Repeat the column assembly steps (1-3) for each of the remaining 3 columns, and set them aside.
2. Some columns will have a hole in them for an extra camera.
3. Those columns can be assembled similarly - as shown here.

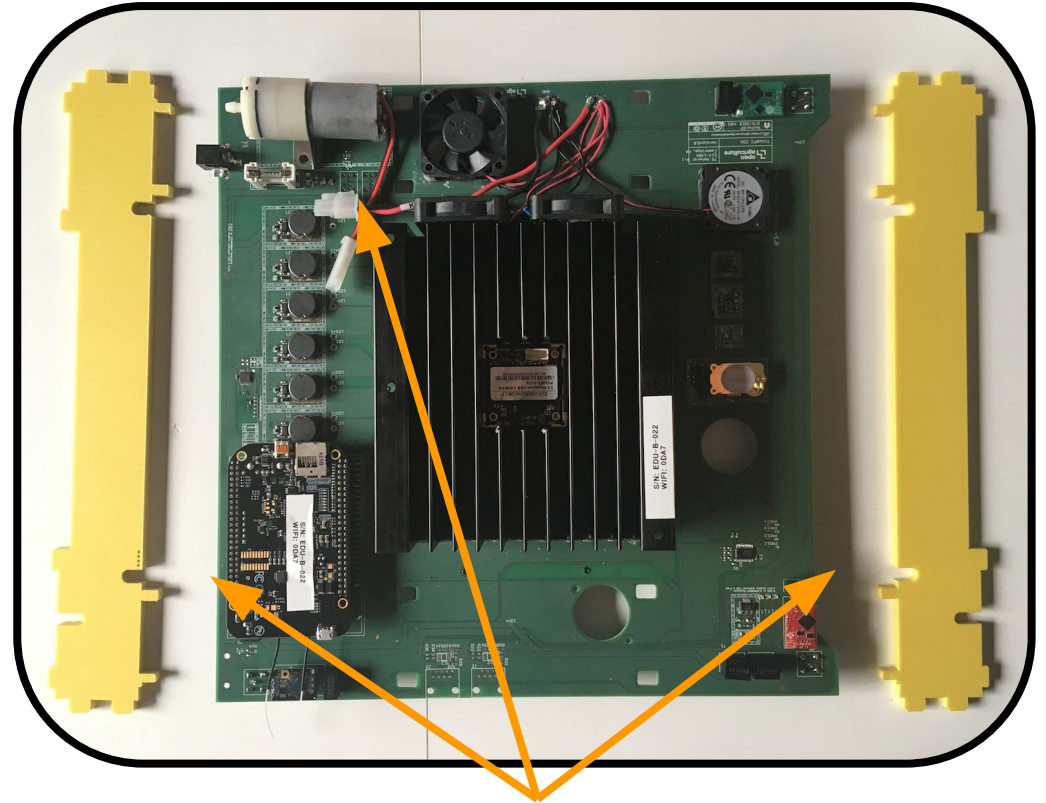


# Top Assembly: Step 1

1. Set out the underside of the top assembly and its side pieces as shown. Each of the cutouts is designed to fit certain components from the circuit board (the Central Nervous System, or CNS).



2. Set the CNS board on top, carefully aligning the circuit board components with their cutouts and grooves.

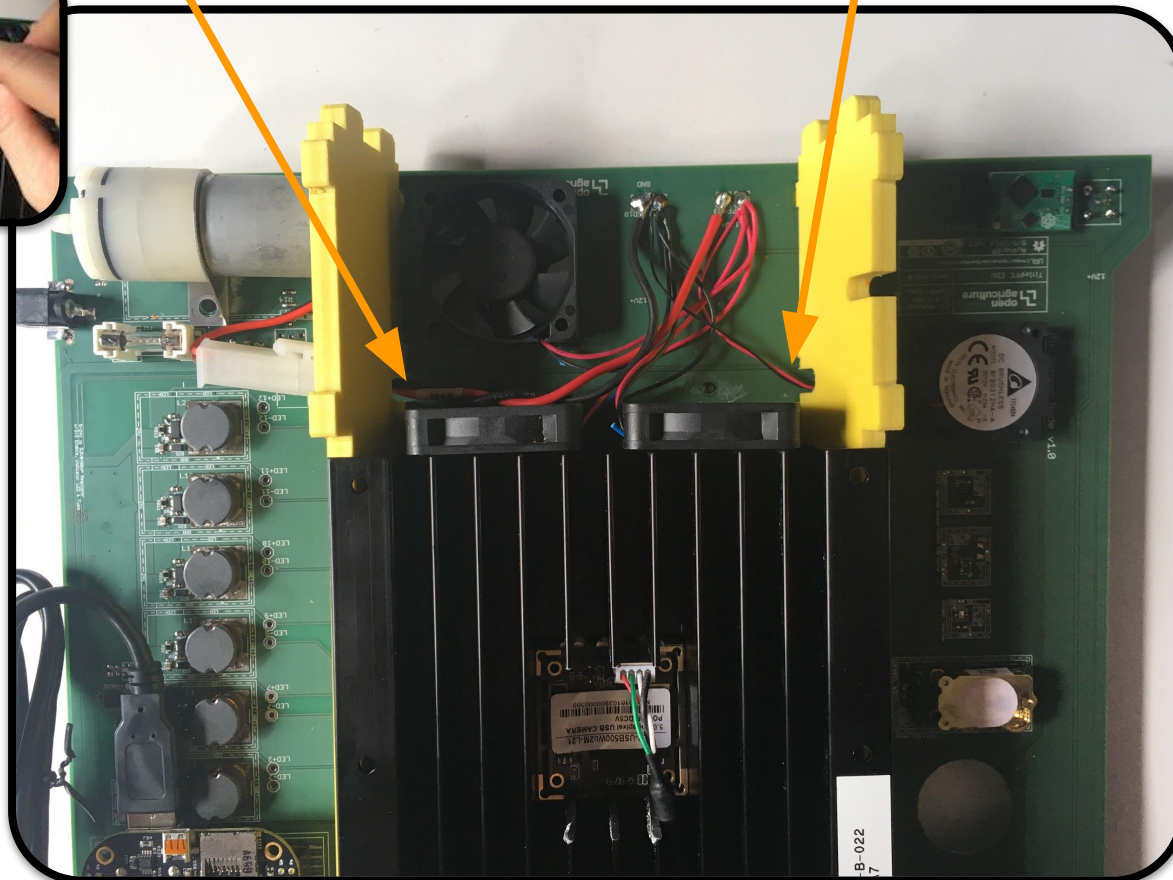
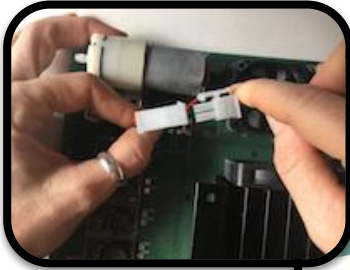


3. Set out the two inner supports, as shown.
4. For this build guide, we'll continue to keep the air pump and power adapter at the top left, for reference

## Top Assembly: Step 2

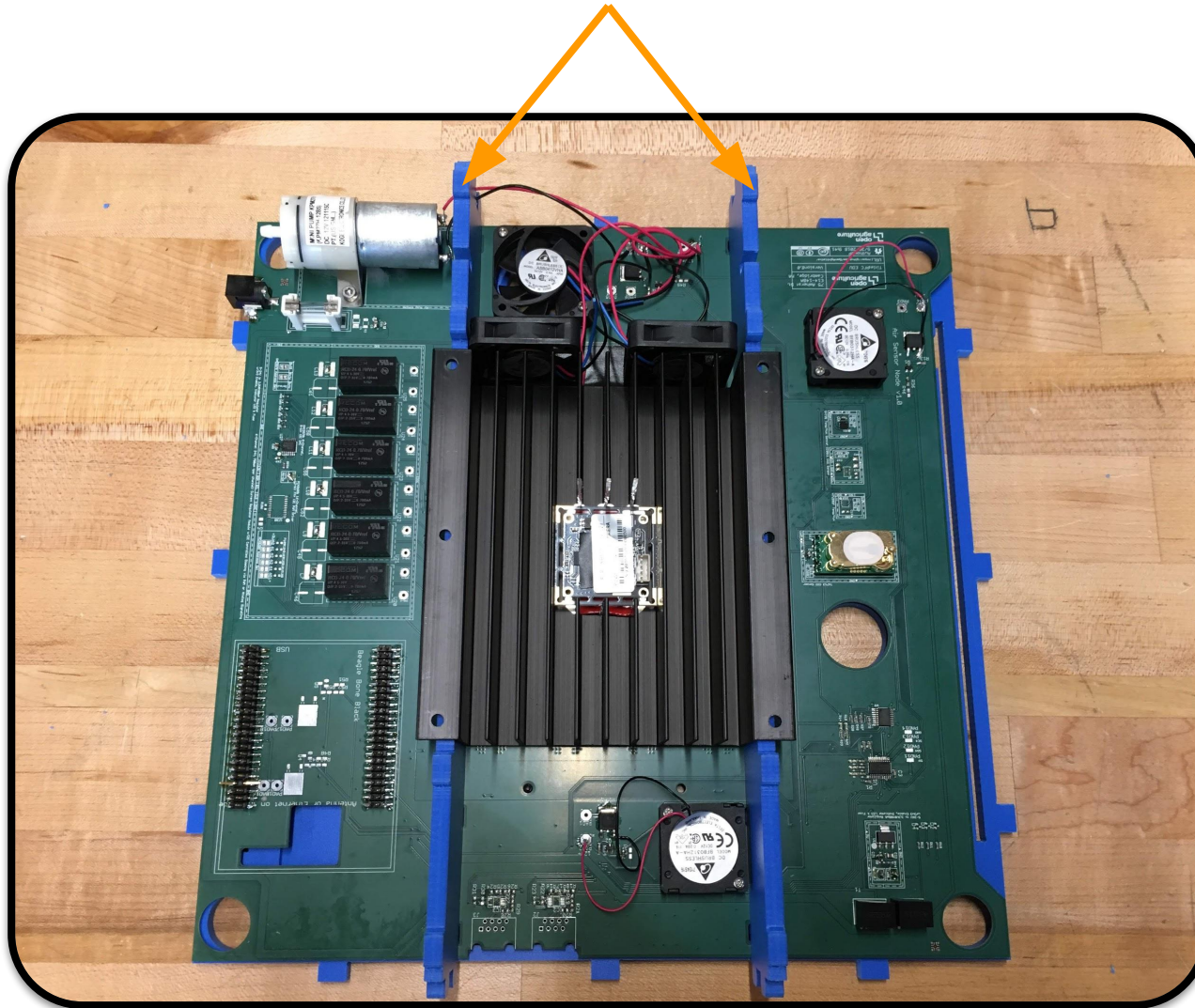
1. Connect/plug in the air pump wires\* before setting the 4 skinny tabs on the bottom of the inner supports into their corresponding slots on the circuit board. You will need to angle them in. *Note: Some PFCs may have support pieces already in place. Lucky ducks!*
2. Thread the red and black air sensor wires (top right) and air pump wires (top left\*) through the small, tunnel-shaped cut-outs - or the “dog house” - on the bottom of each of the supports.

\*



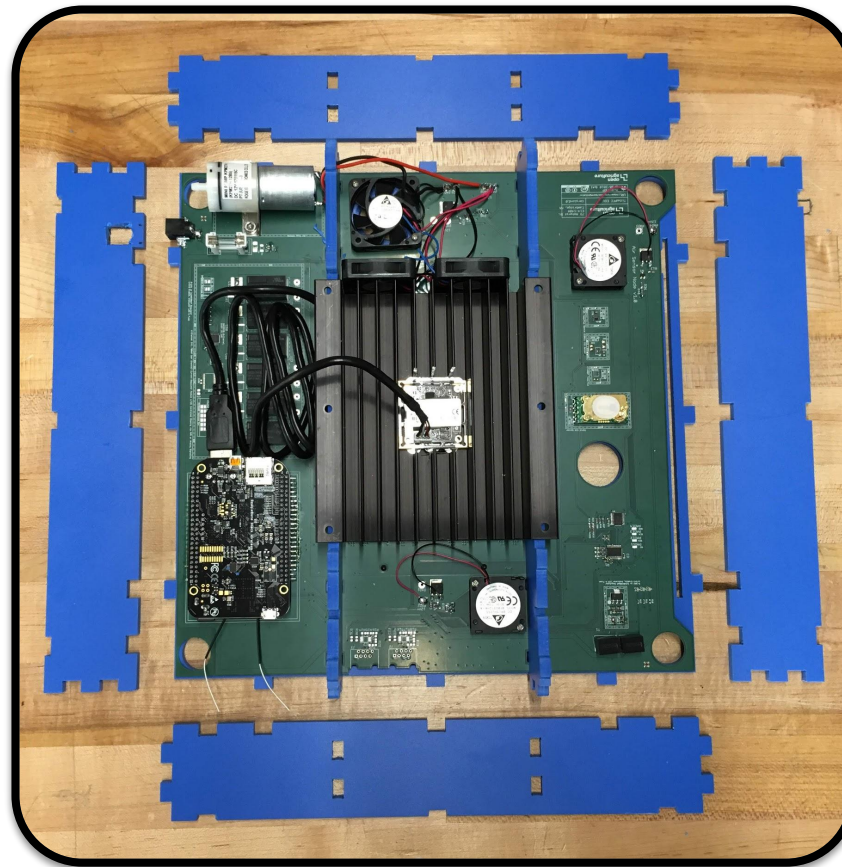
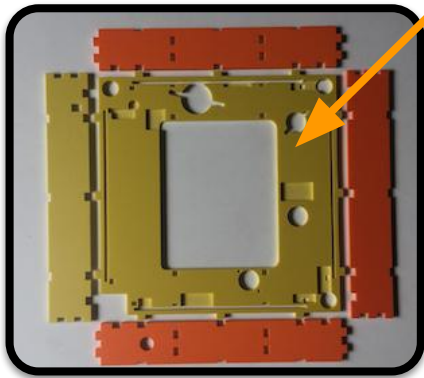
## Top Assembly: Step 3

1. Gently stand up the inner supports. They will fit tightly underneath the black heatsink.



## Top Assembly: Step 4

1. Place the CNS onto the top board.
2. Arrange the four sides of the top assembly as shown. There are more slots on the sides than there are tabs on the circuit board base. This is by design - they'll be used later.



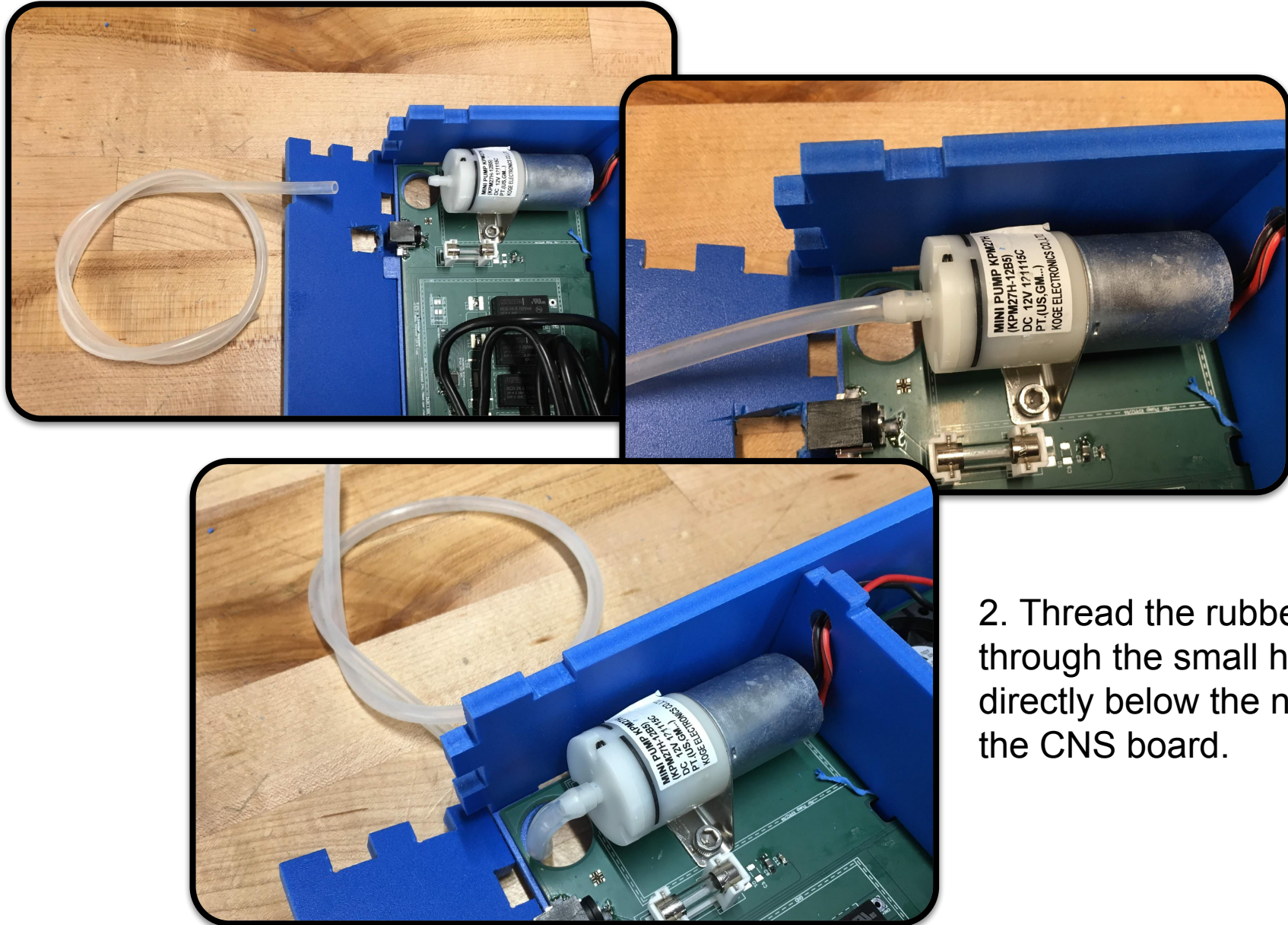
# Top Assembly: Step 5

1. Connect the top, bottom, and right sides. Do not finish the left side yet.



## Top Assembly: Step 6

1. Find the rubber air hose with an air stone attached, and push it onto the nozzle on the air pump.

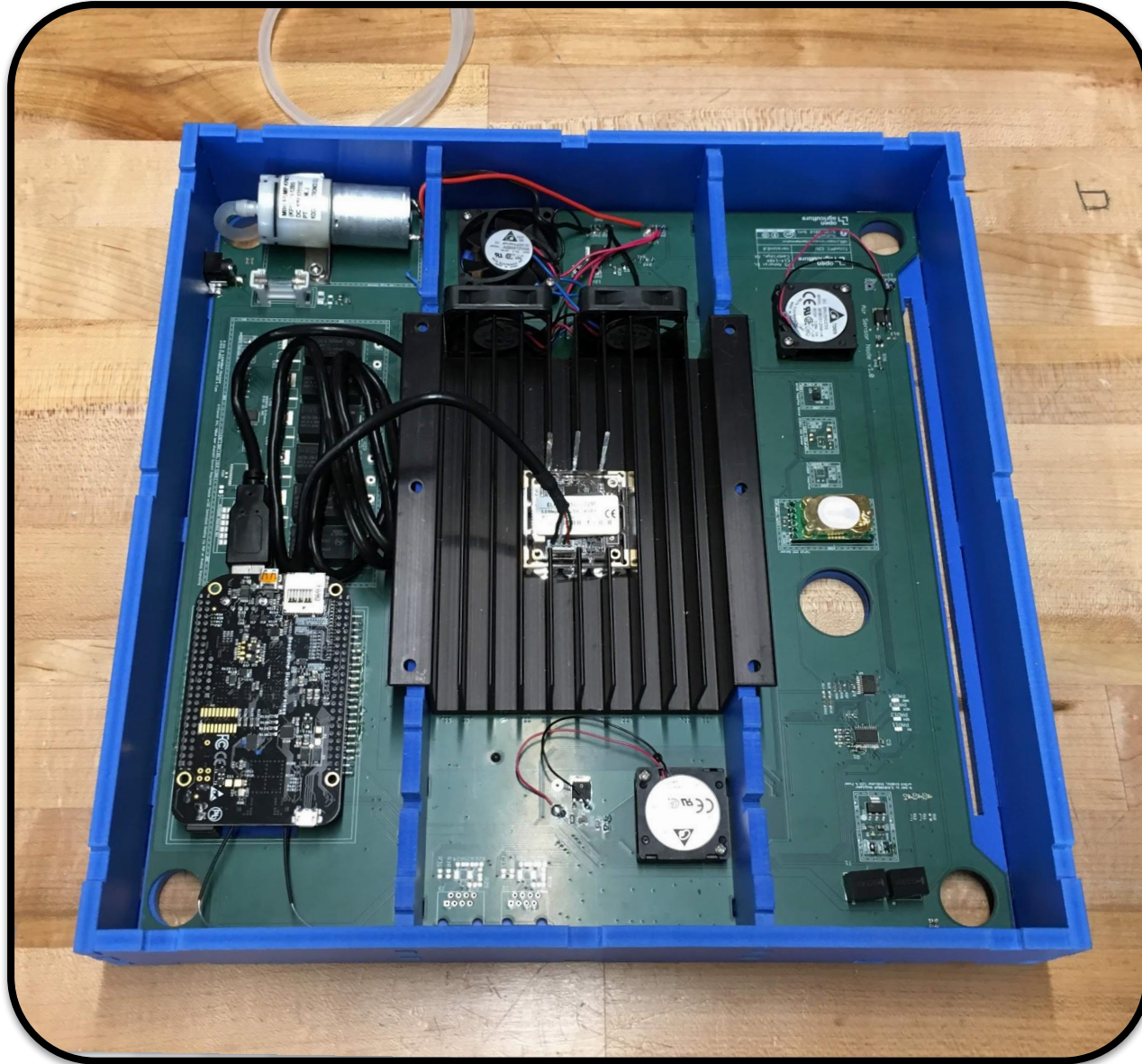


2. Thread the rubber hose through the small hole directly below the nozzle, in the CNS board.



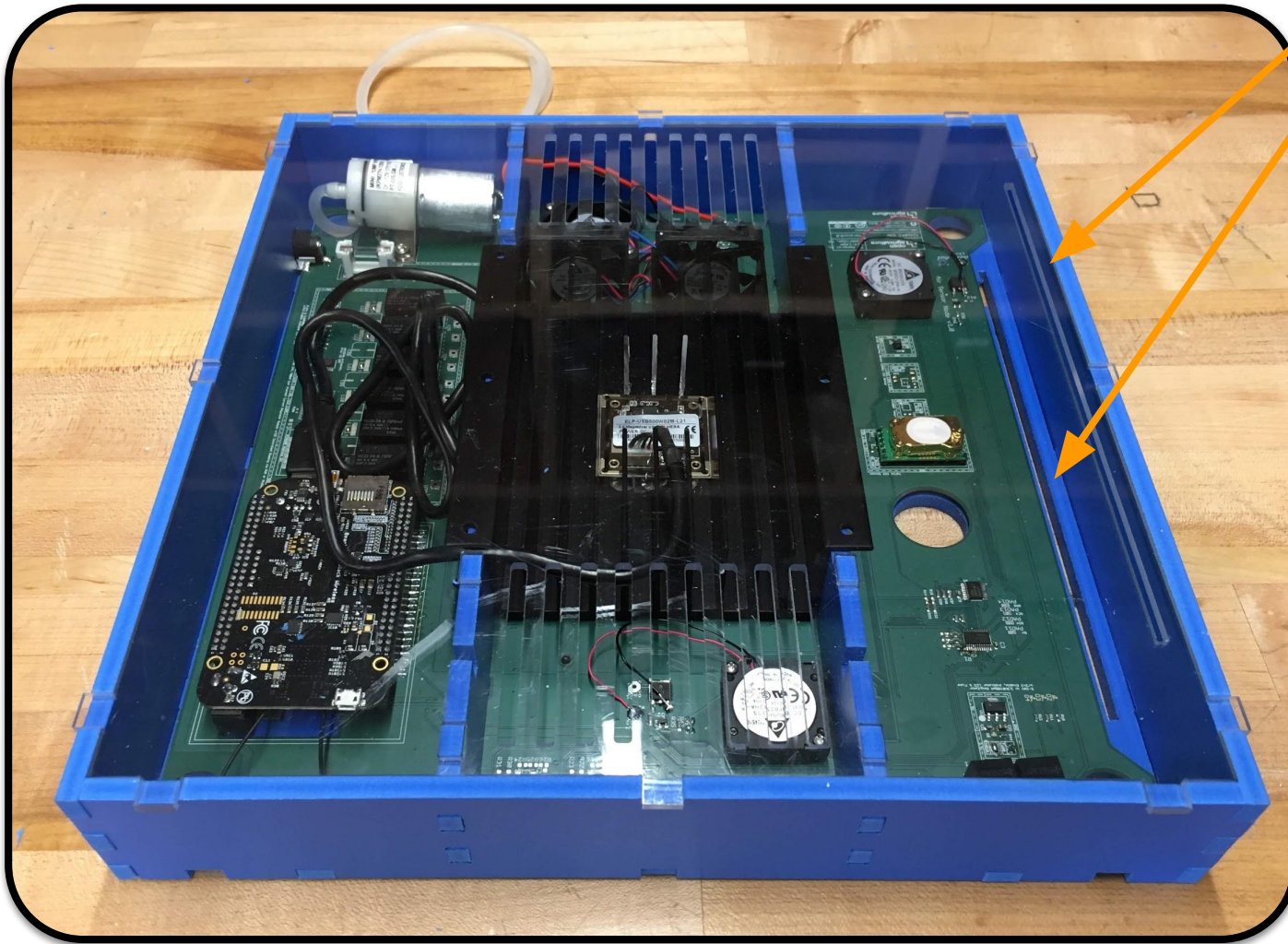
# Top Assembly: Step 7

1. Connect the left side.



## Top Assembly: Step 8

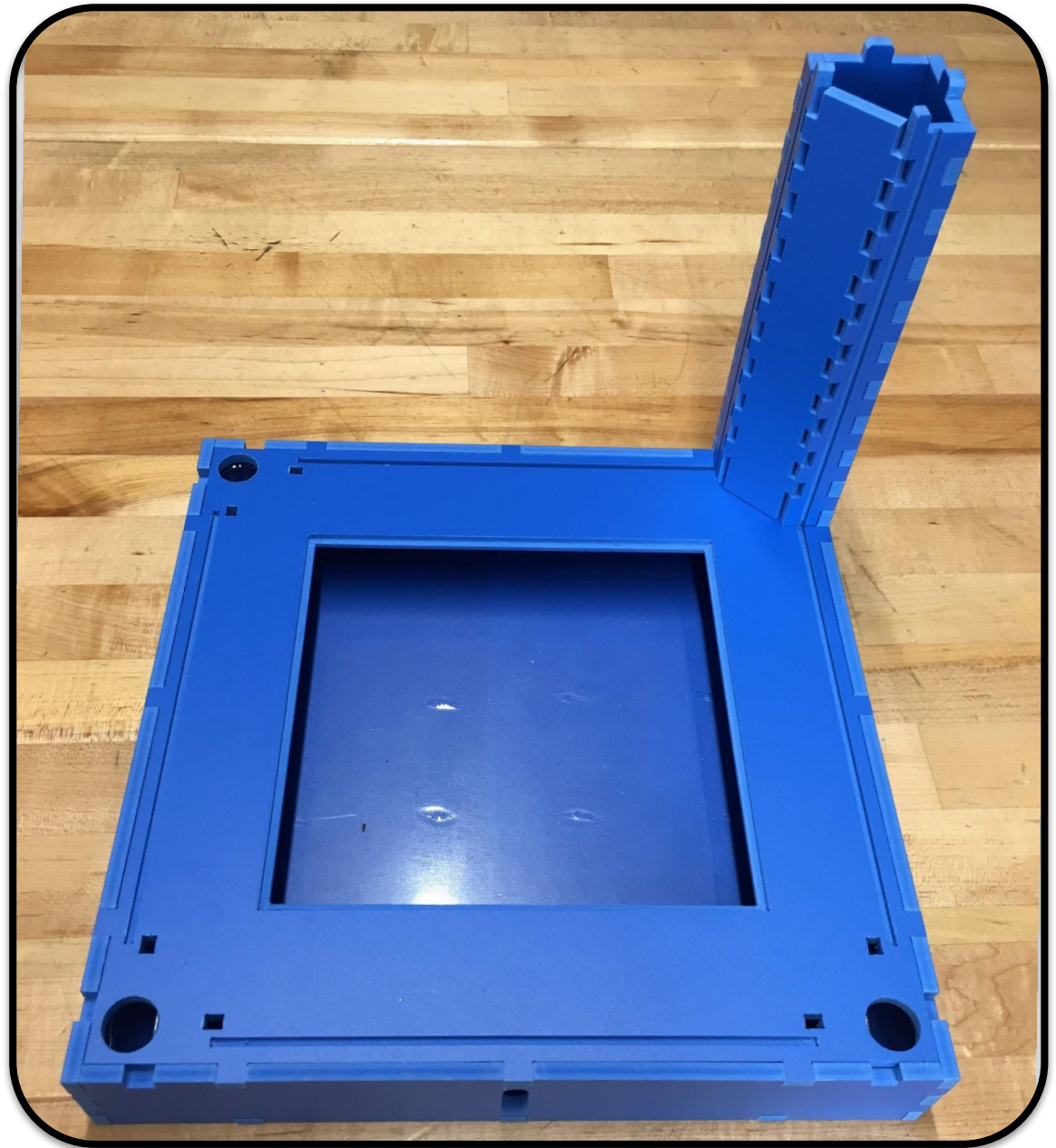
1. Align the tabs on the clear plastic cover with the slots on the sides, and press down to close up the top assembly. Make sure that the slot in the clear plastic cover aligns with the slot in the circuit board base.



2. Set the top assembly aside.

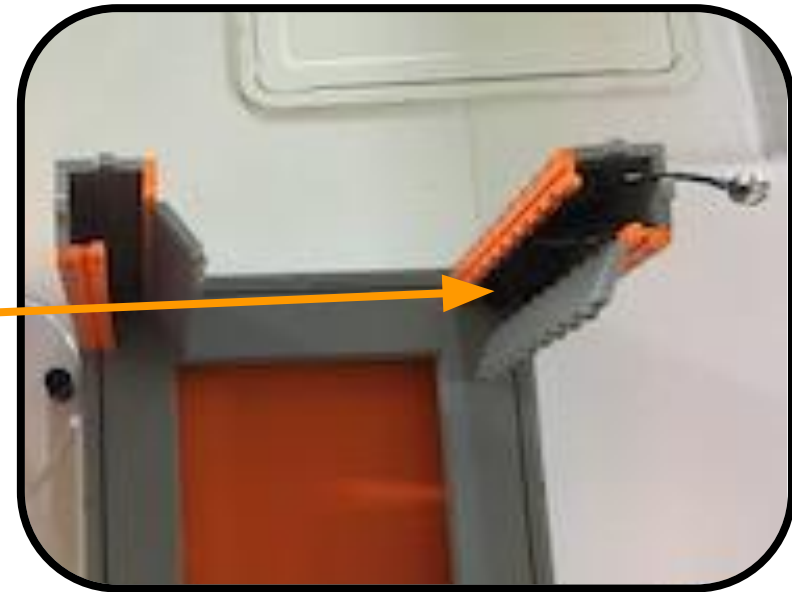
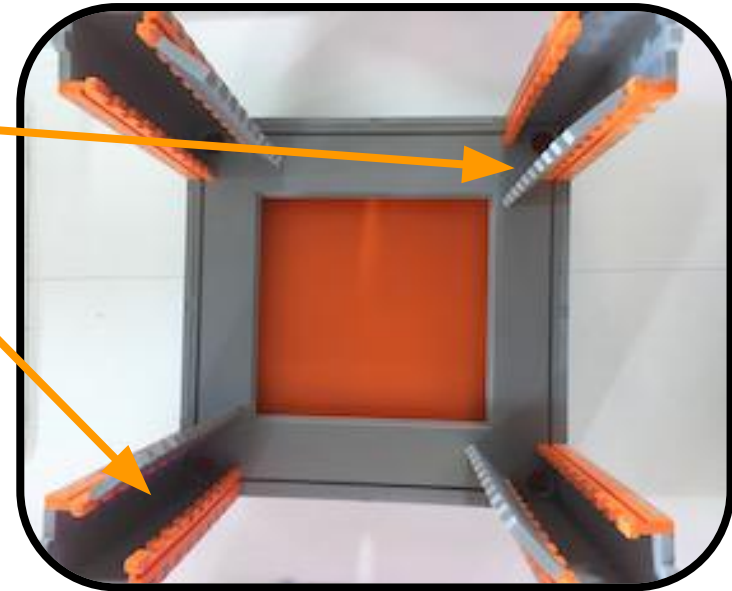
# Chassis Assembly: Step 1

1. Align the tabs on the bottom of the first column with the slots on the top right corner of the base.
2. Press down to connect the first column.
3. Repeat step 1 with the three remaining columns at each corner.



## Chassis Assembly: Step 2

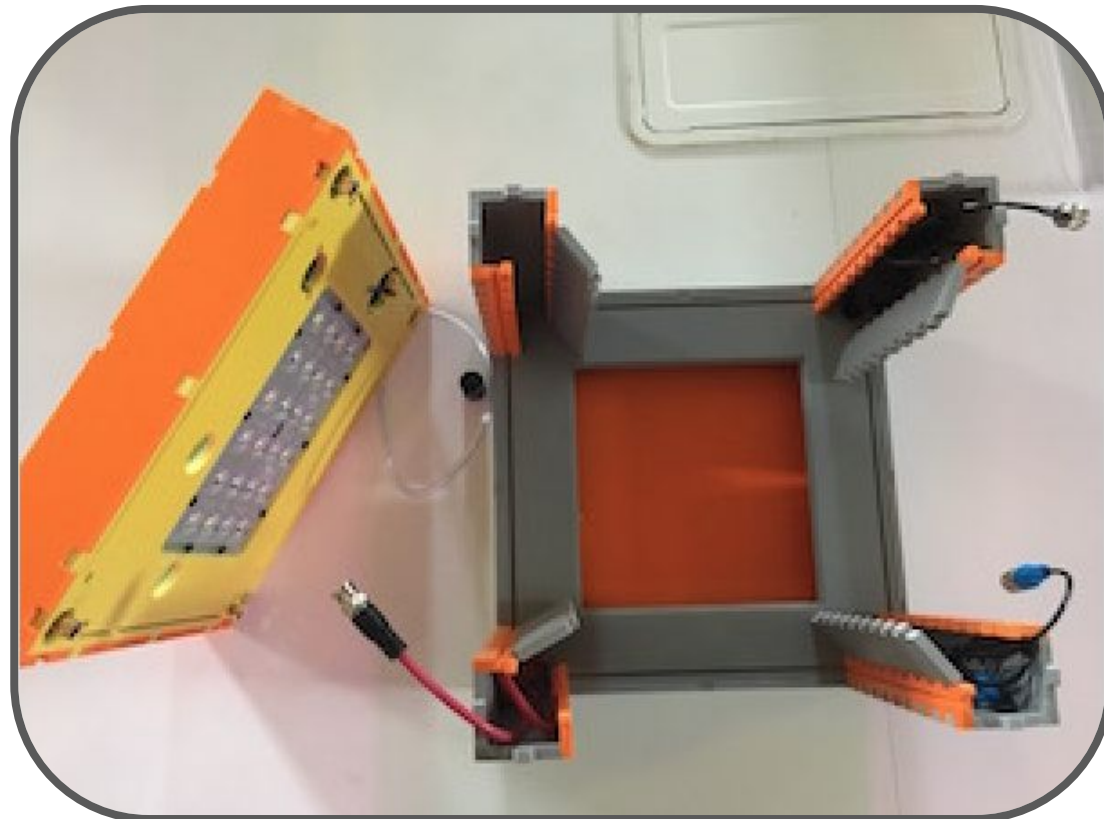
1. After connecting the final column to the base, gently “swing open” each column’s central piece, like shown.
2. Find your Atlas Sensors (EC probe/green box, pH probe/red box, and water temp/red cable in a baggie).
3. Carefully place the black EC probe in the top right column (to match the green chip at top right of CNS, near fan), coil up the excess cable inside the column, and leave about 3” coming out.



## Chassis Assembly: Step 3

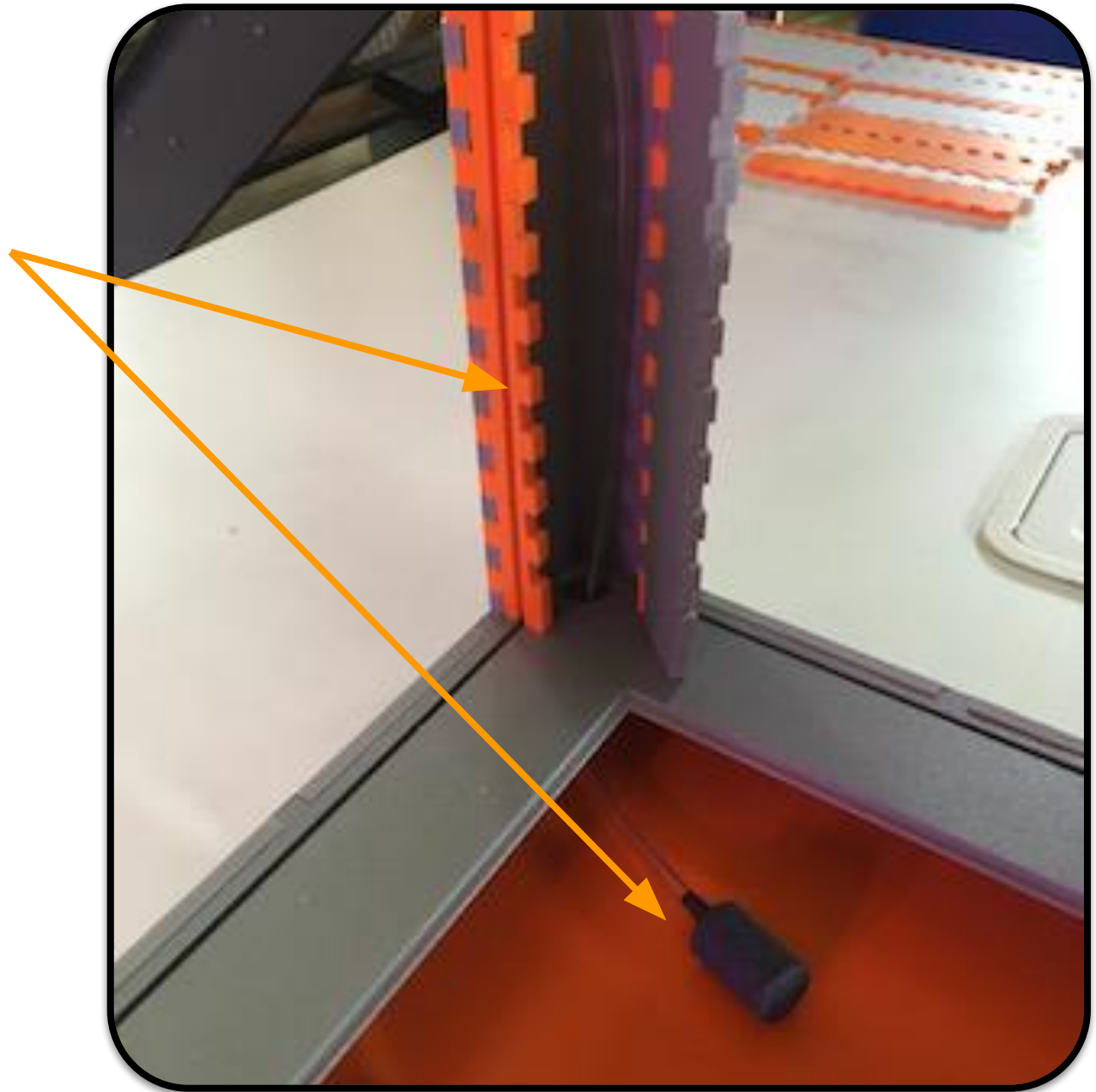
1. Thread the pH sensor cable up through *bottom right column* (blue cable cap, bottom right of CNS) and leave about 3” coming out of the top.
2. Thread the water thermometer cable up through bottom left column (red cable, bottom left of CNS) and leave about 3” coming out of the top.
3. Your air stone tubing is already sticking out of the top left of the top assembly. Thread the tube down through the top left column, and down into the reservoir.

Note: Like the air stone, the ends of the red water temp probe, the EC probe, and the pH probe should be threaded to eventually sit all the way inside the reservoir. The EC and pH probes have caps on them that prevent them from fitting inside the bottom assembly holes, and will need to be removed when you fill the reservoir for the first time, get growing.



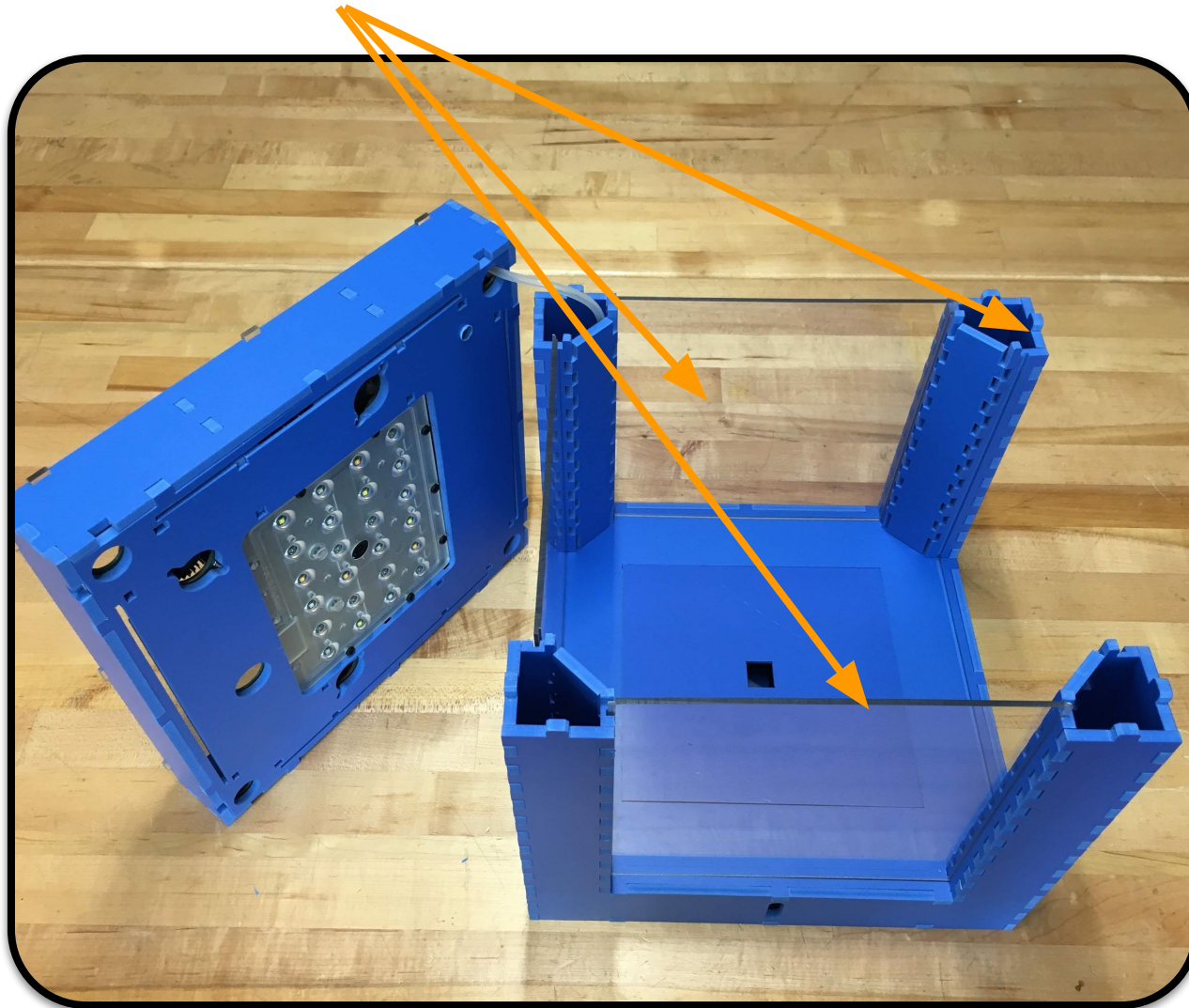
## Chassis Assembly: Step 4

1. Once you've threaded the rubber hose through the corner hole in the base, push the rubber hose onto the end of the air stone, and set it in the water tray.



## Chassis Assembly: Step 5

1. You'll attach each of the cables sticking out of the columns to the top assembly in a moment.
2. There are three clear plastic sides that do *not* have a pull tab. Slide them into the top, bottom, and left sides, making sure that they sit in the slots on the base.



**Important note!** The clear plastic sides are NOT square - they're slightly rectangular. They should be slightly taller than they are wide. If you're not sure which way they should be inserted, align them with the pull tab side, and make sure they're inserted in the same orientation. (See next slide for more detail.)

## Chassis Assembly: Step 6

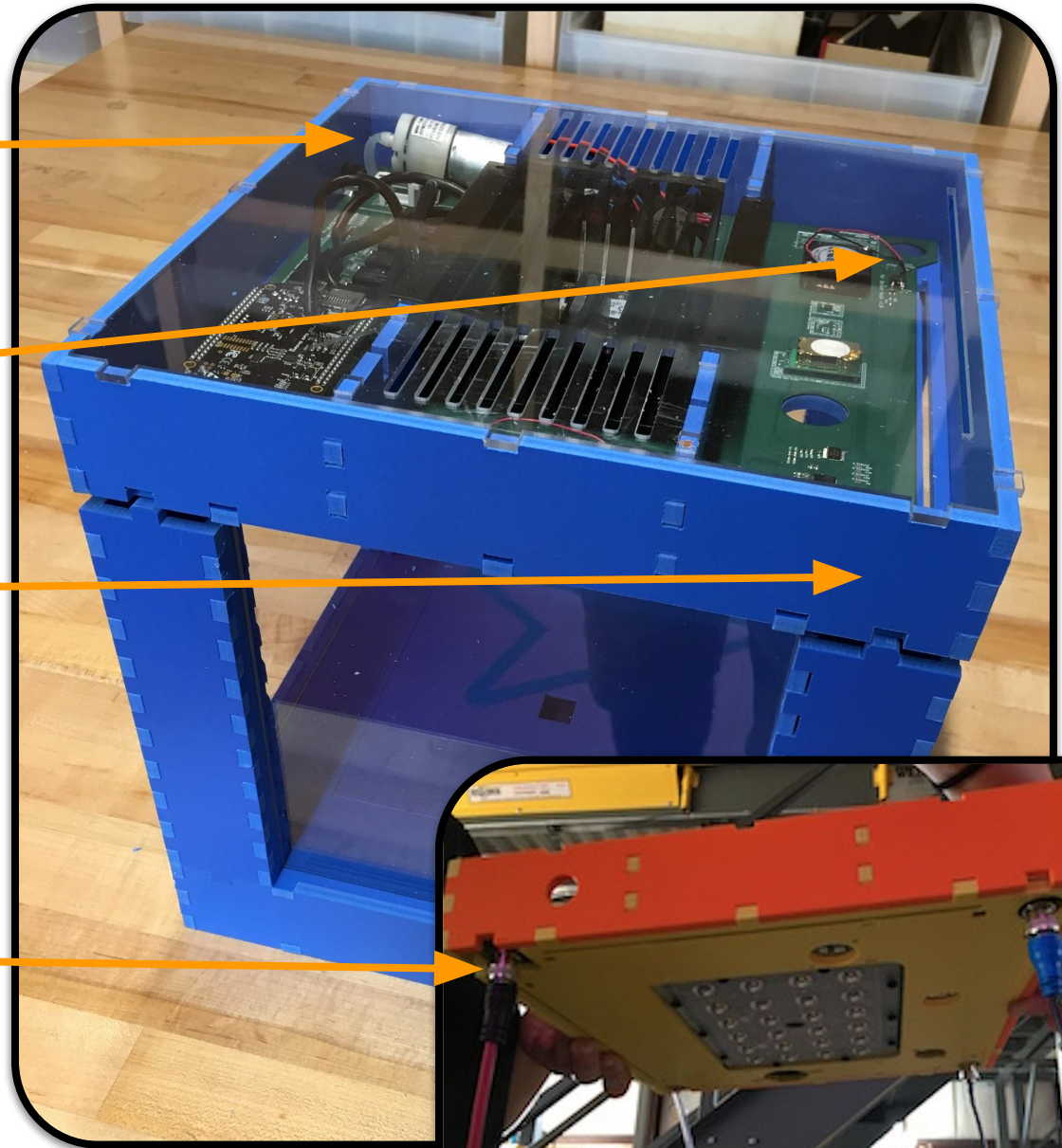
1. Line up all the plexiglass pieces so that the left and right edges are all aligned.
2. The edge closest to the tab is the top.





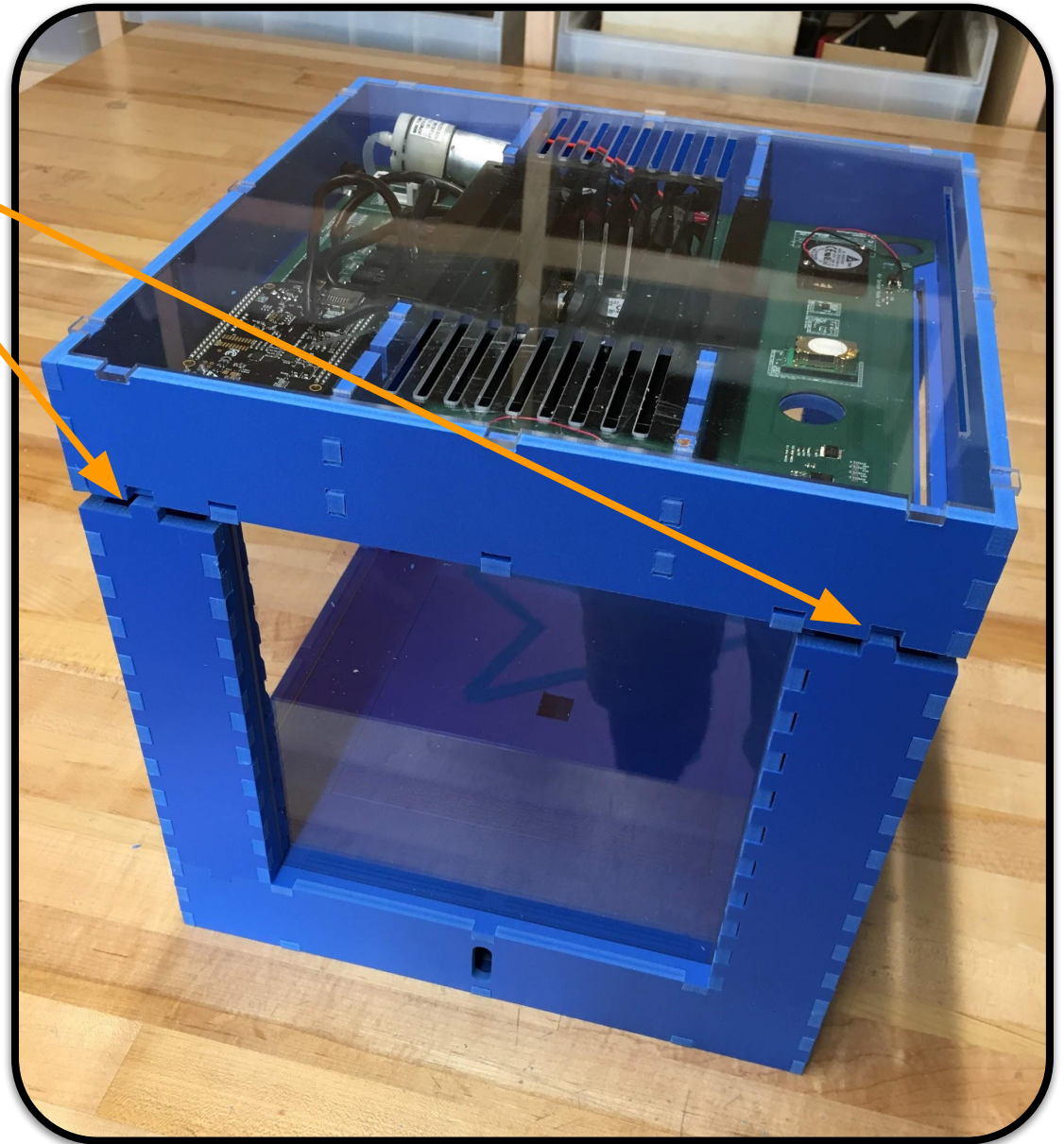
# Final Assembly: Step 1

1. Gently lift and rotate the top assembly and place it on top of the columns. Make sure that the air pump is in the top left, and that the slot in the top is on the right.
2. Attach the black EC sensor cable (coming through the top right column) to the CNS.
3. Attach the blue pH probe (coming through the bottom right column) to the CNS.
4. Attach the red Water Thermometer (coming through the bottom left column) to the CNS.



## Final Assembly: Step 2

1. Carefully align the slots in the top assembly with the tabs on the columns, and press down to push it together.
2. **Note: This step can be challenging.** Make sure that the tops of each of the clear sides fit neatly into the slots on the underside of the top assembly.

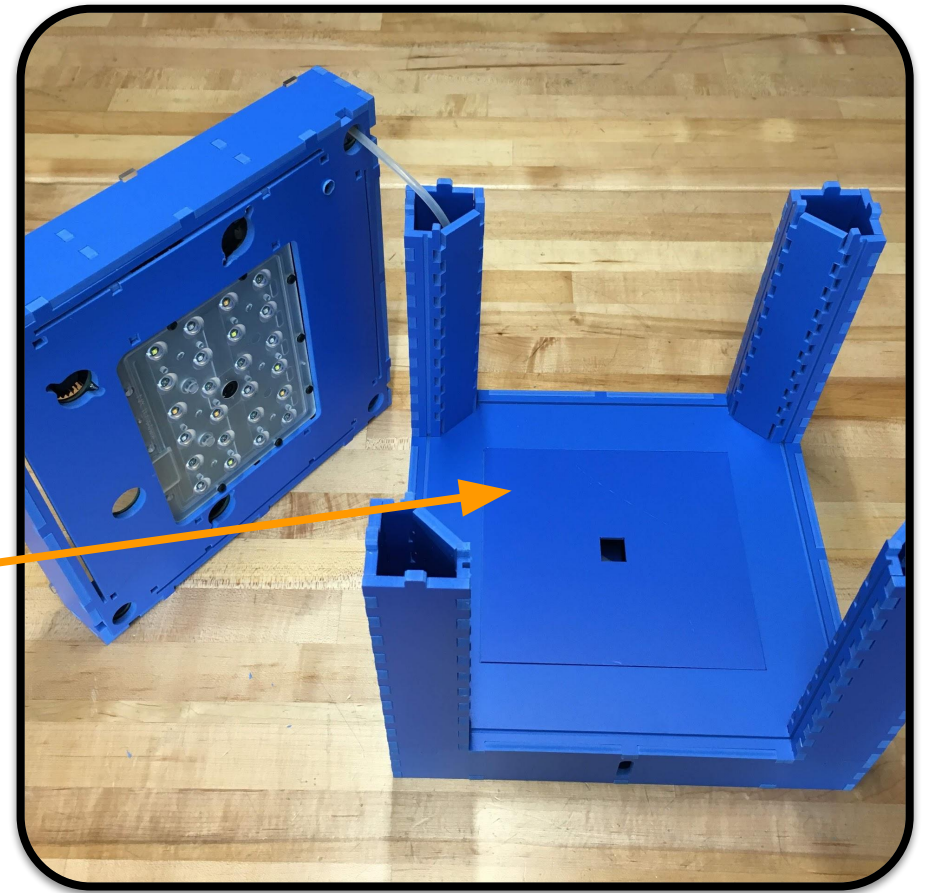
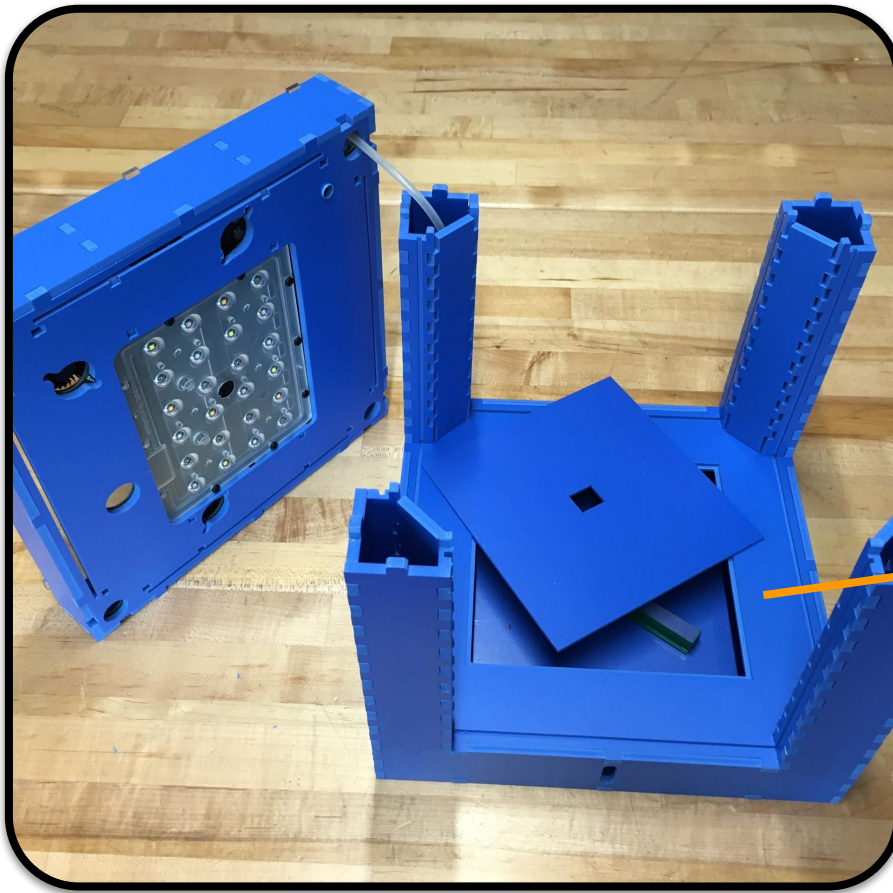


## Final Assembly: Step 3

1. With top assembly in place, stick the plant cube tray inside the chassis and press down to set it in place.

*\*Notes: Your PFC\_EDU may come with a 1-hole, 3-hole, or 5-hole tray.*

*It's best to wait until you've put the top assembly on before you put the plant cube tray in place.*



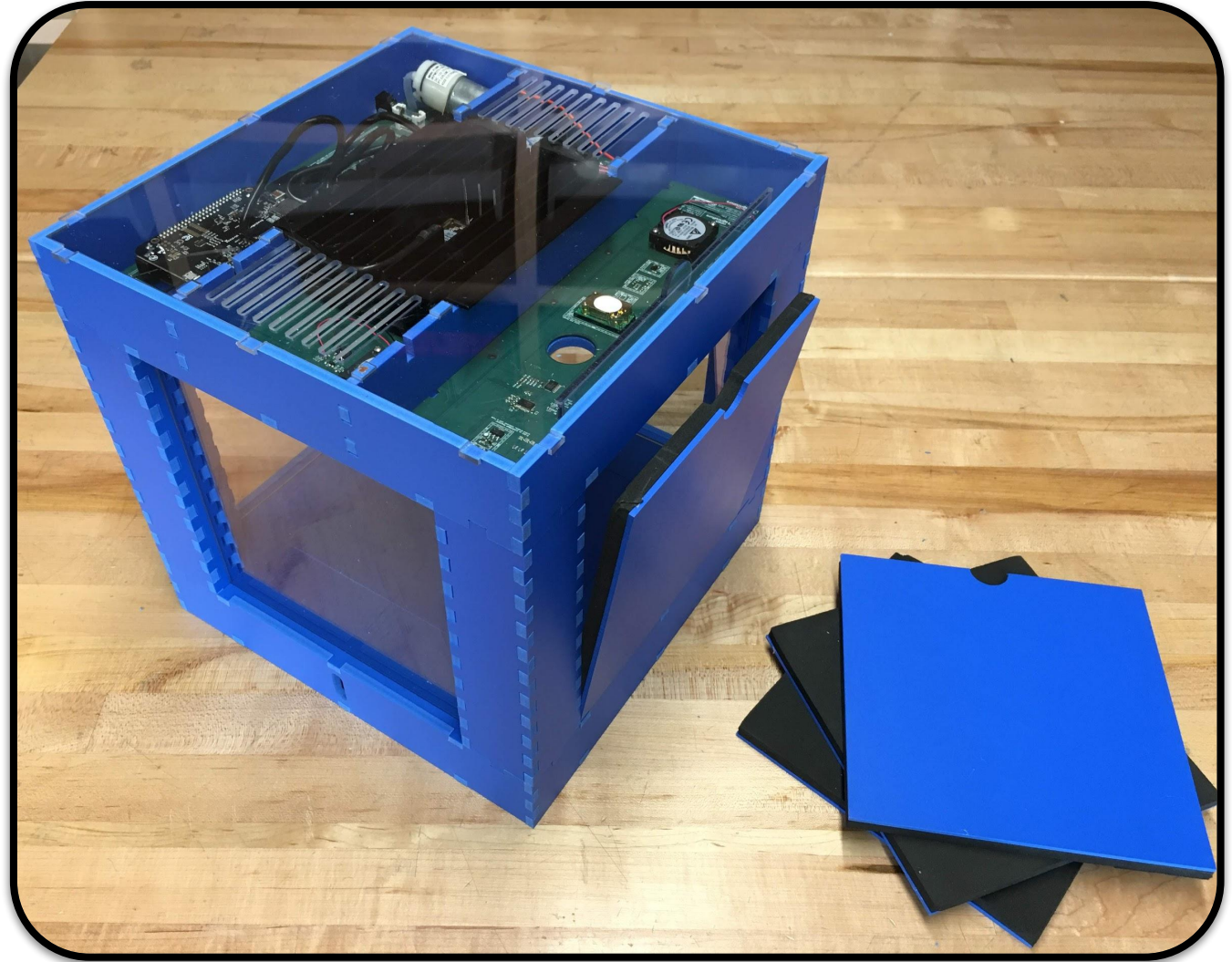
## Final Assembly: Step 4

1. Insert the final clear side (with the pull tab) into the slot on the right side. It should slide in smoothly.



## Final Assembly: Step 5

1. Congratulations!! Sit back and admire your work.
2. The foam-padded sides will be used once you're growing, to help keep the climate at the desired temperature, and to help keep the light levels constant.
3. When you're ready to use them, simply push them into place.



Get excited for growing!!