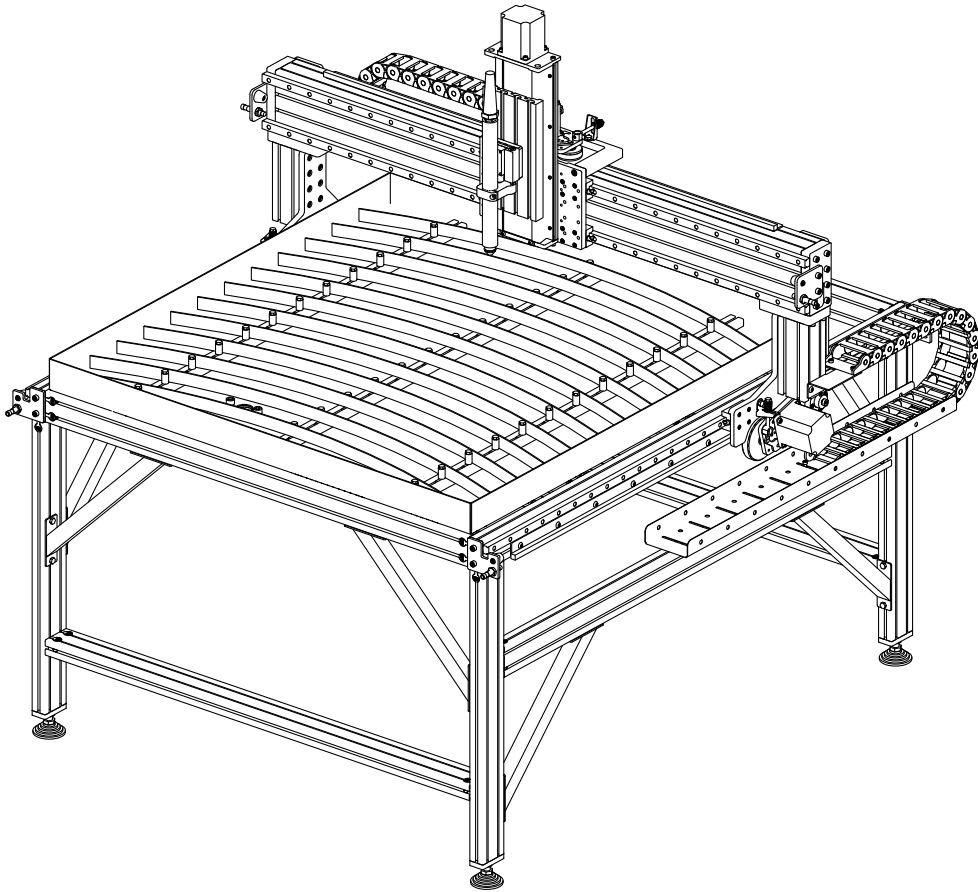


CNC ROUTER PARTS

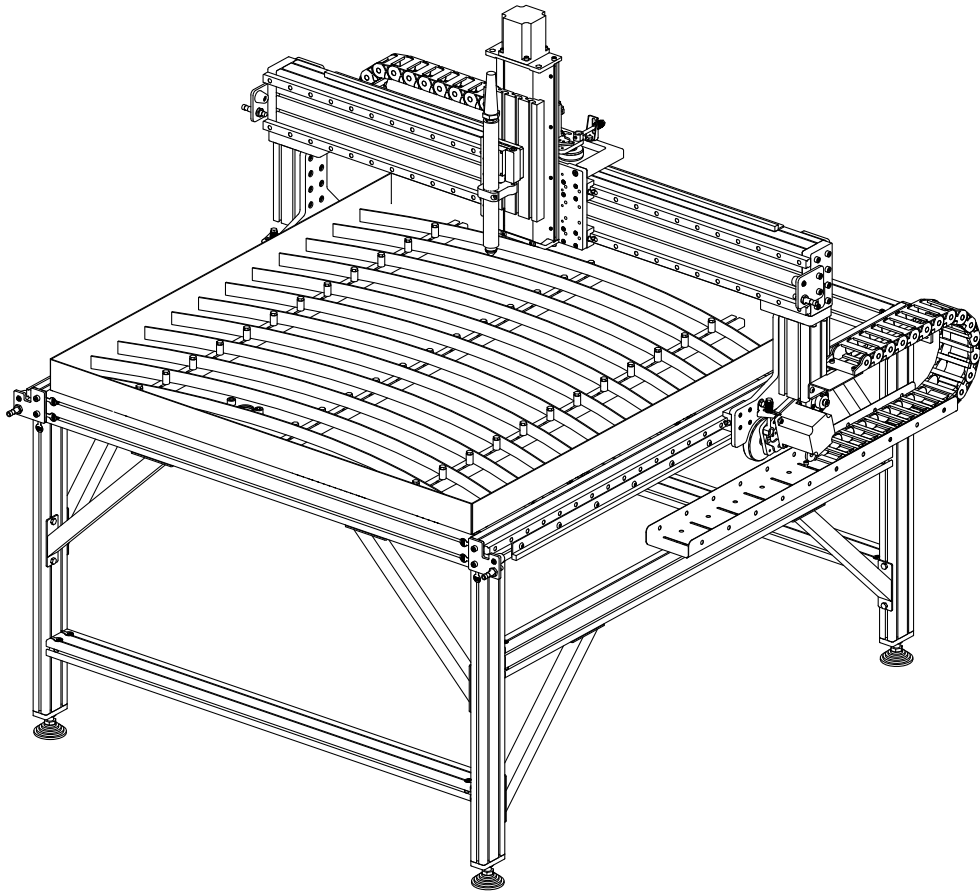
Plasma Upgrade Kit

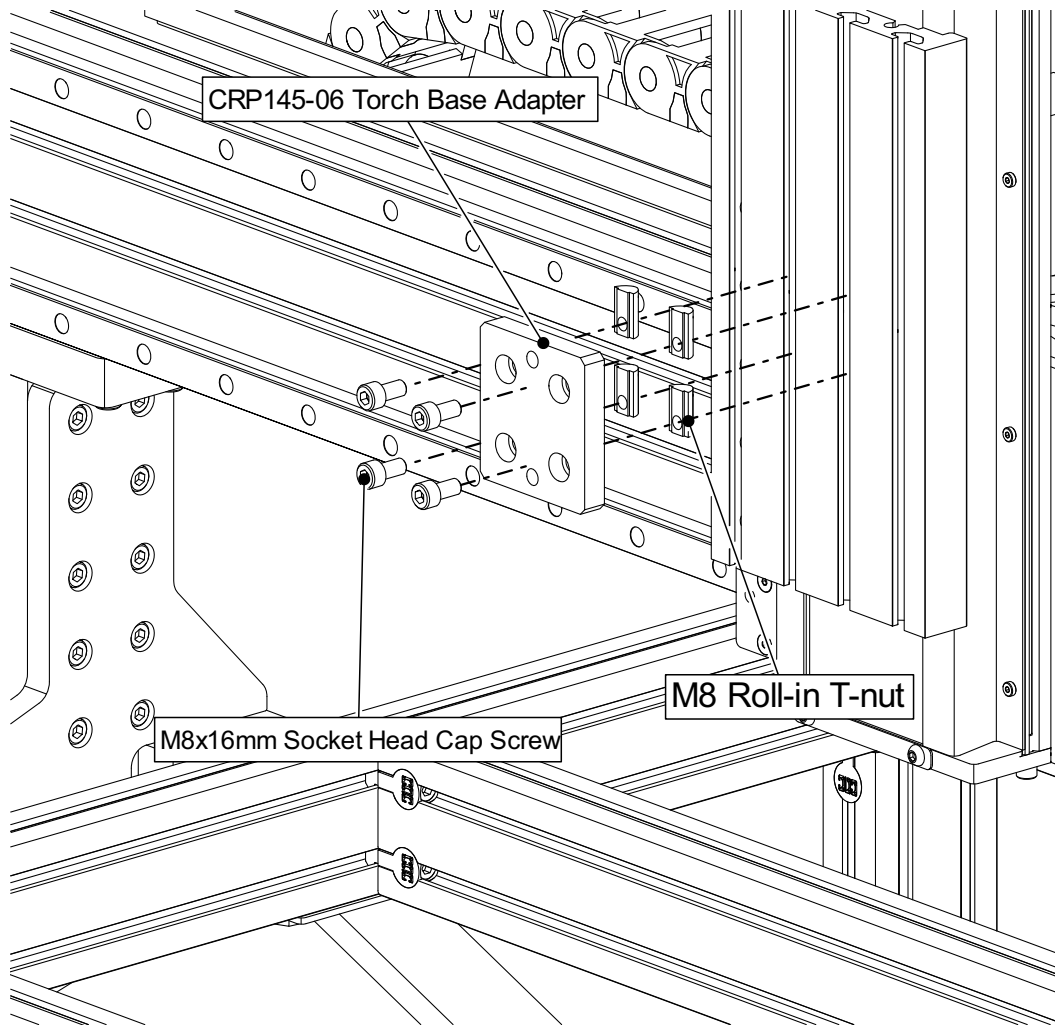
Installation Instructions

Version 2019Q2.1

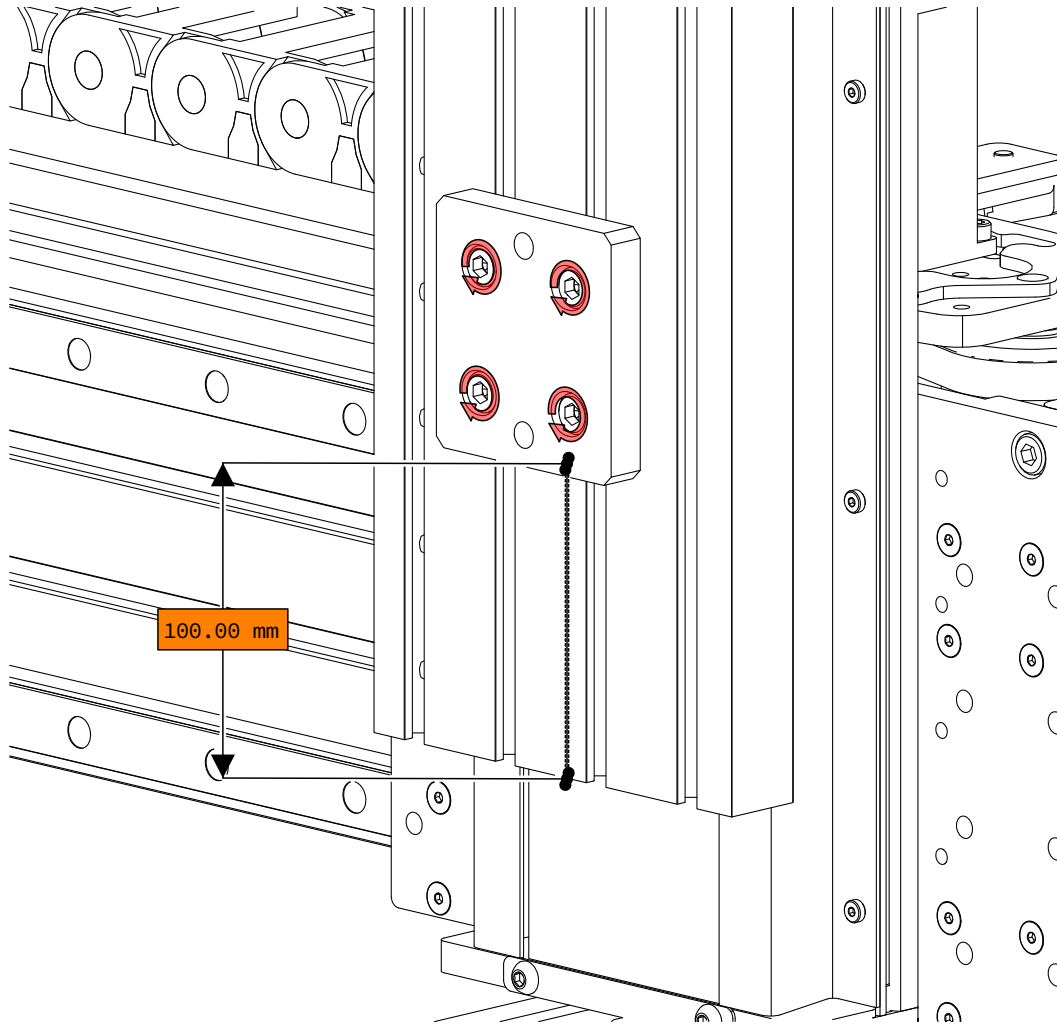


1. Mechanical Components

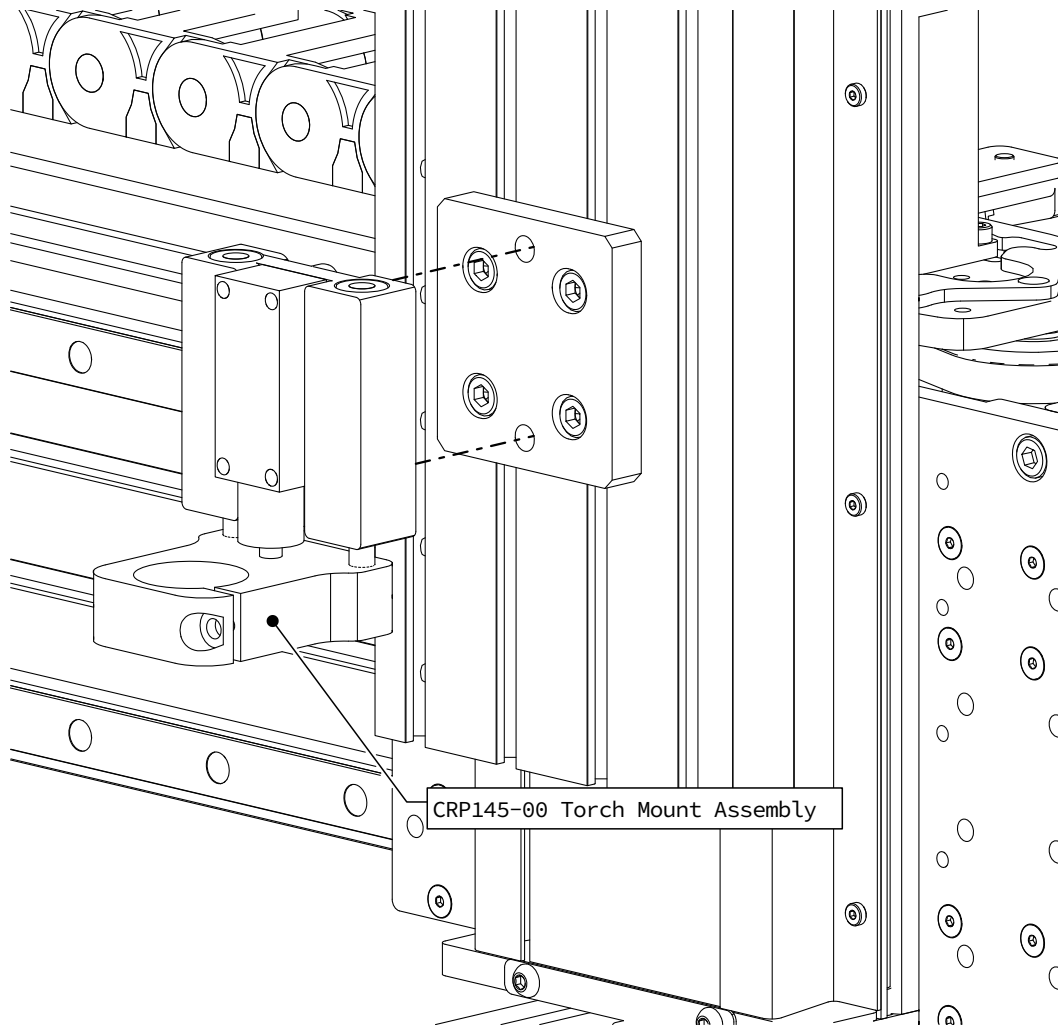





- Remove any existing routers, spindles, or other tooling from your Z-Axis.
- Remove any existing spoilboard or table extrusion from your machine.
- Install the torch base adapter as indicated.



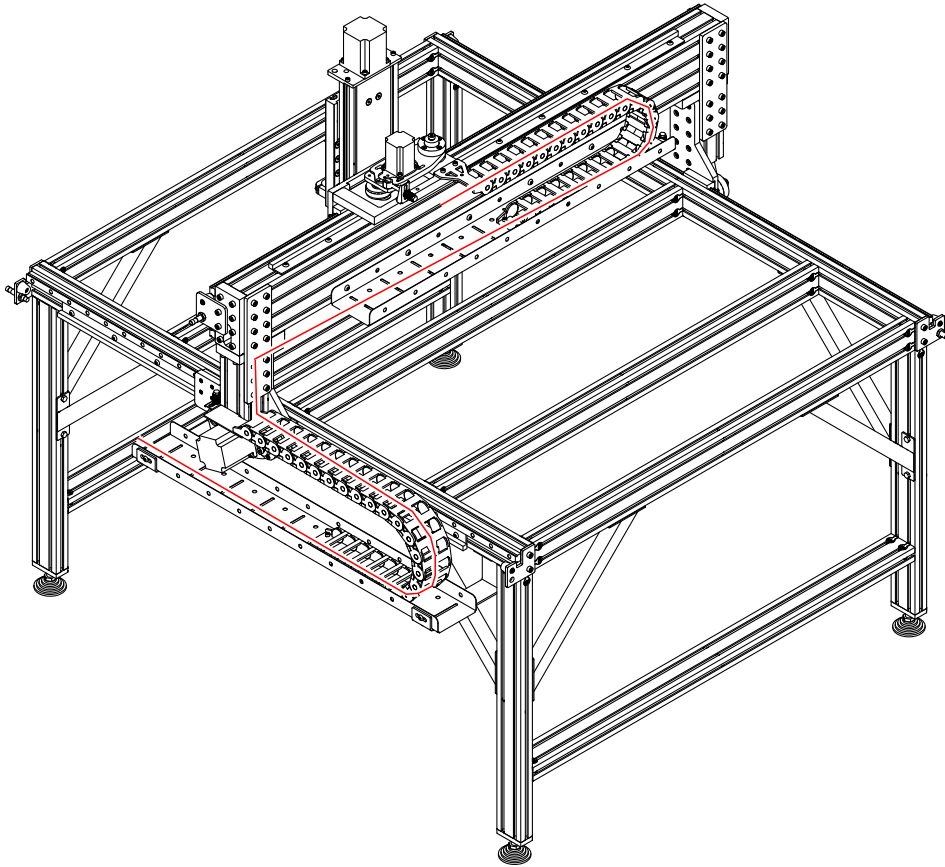
- Position the torch base adapter 100mm (4") from the bottom of the A-axis extrusion.
- Tighten the highlighted fasteners.




- Attach the torch mount assembly to the torch base adapter.

 **Assembly Note**

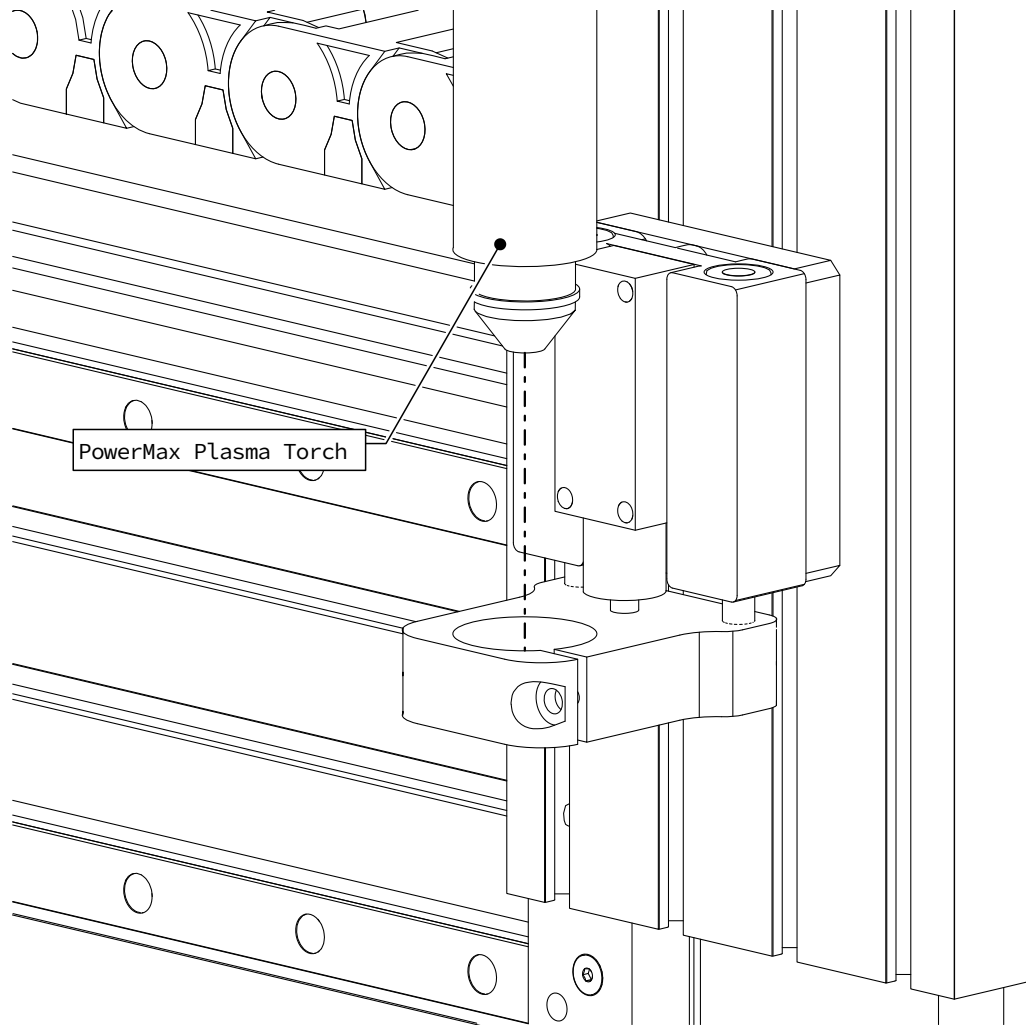
The torch mount assembly is magnetically attached to the torch base adapter. No fasteners are required.



- Route the cables for your plasma torch and sensor through the cable track as indicated.

 **Assembly Note**

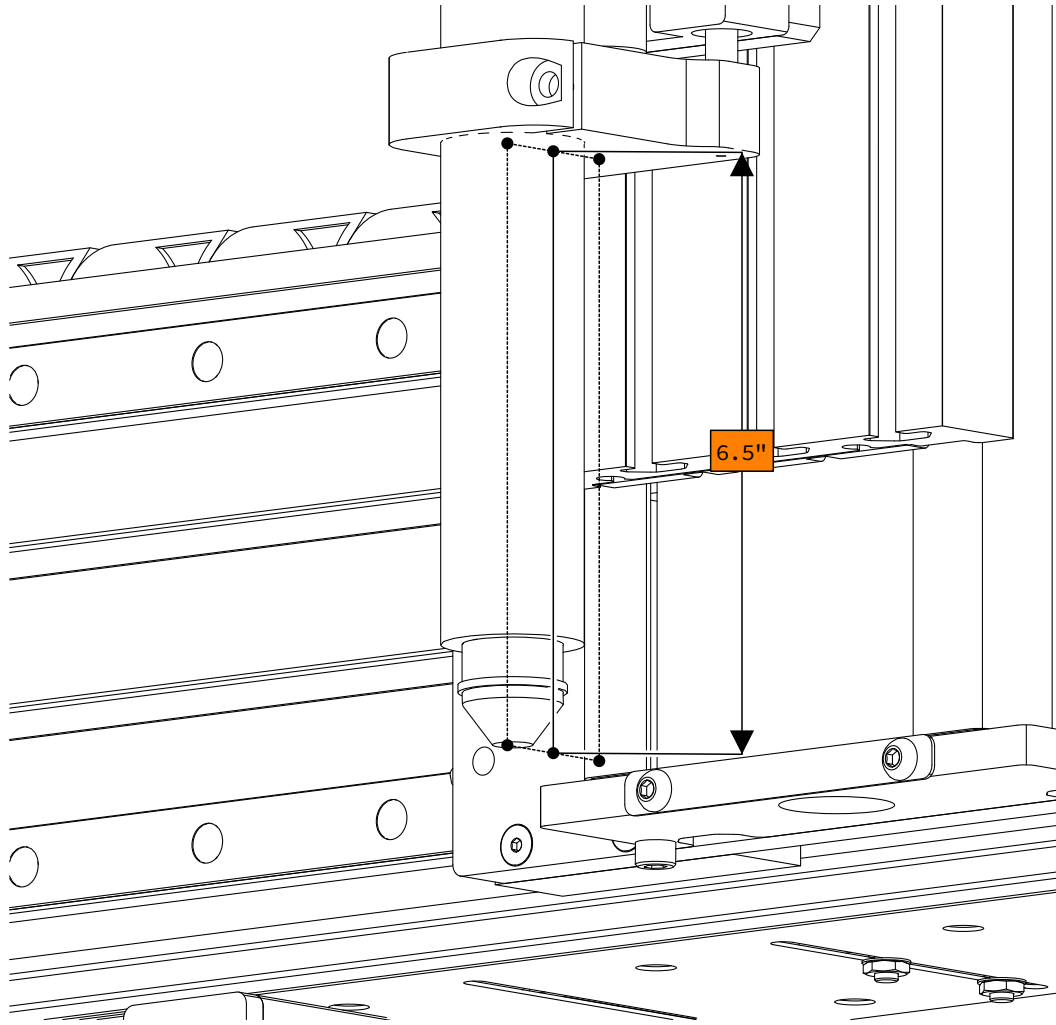
Bundle the sensor cables away from the plasma cable.



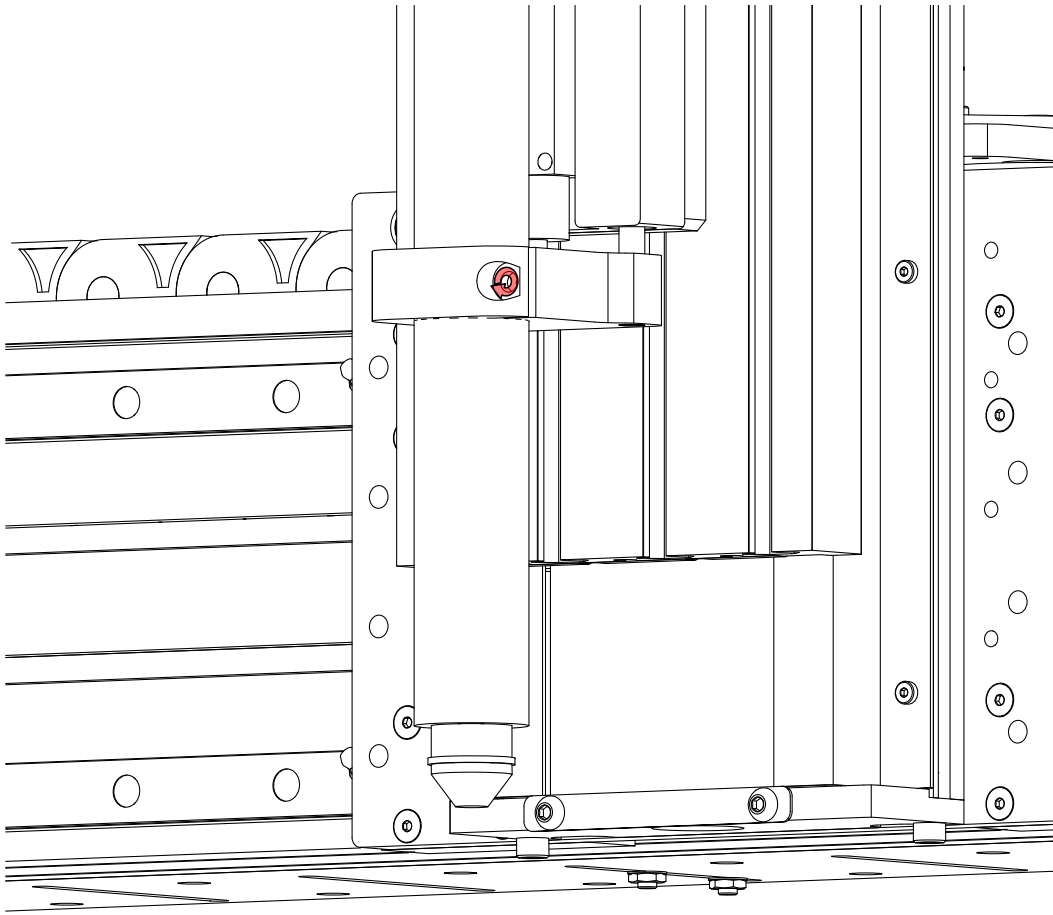
- Install the plasma torch into the torch mount assembly.

Assembly Note


Ohmic retaining cap and tip shield must be removed to slide torch into clamp.



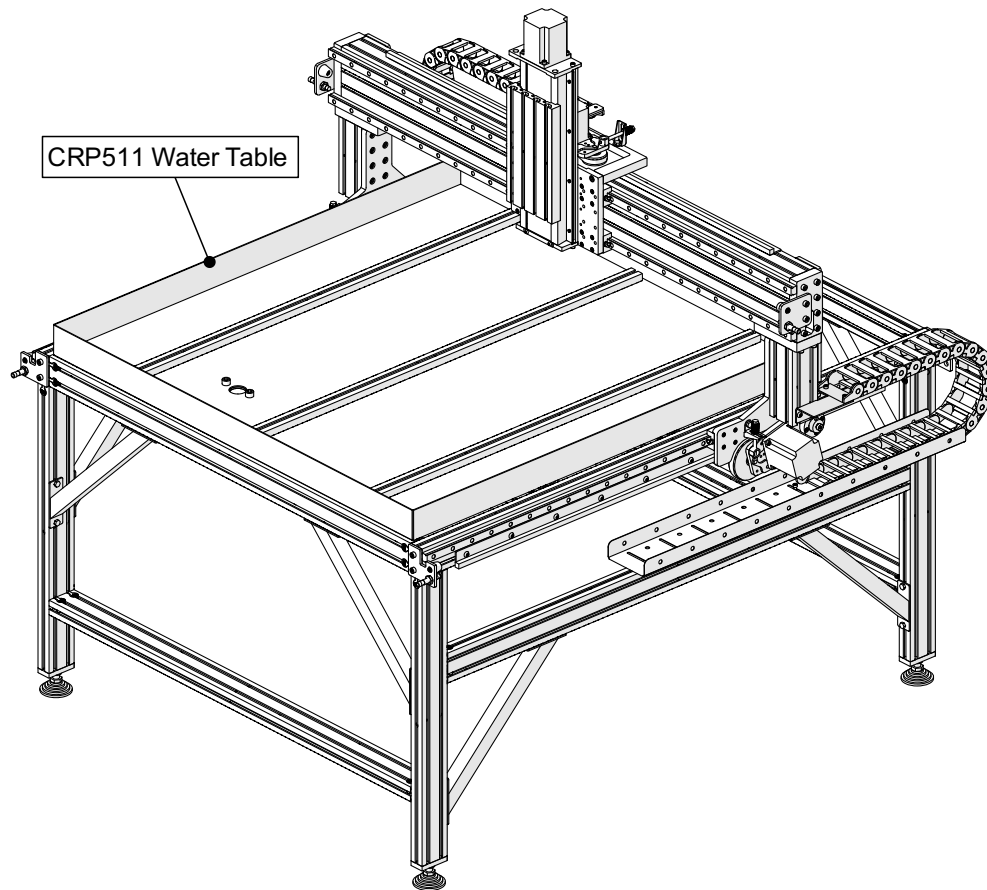
- Locate the tip of the plasma torch about 6.5" from the bottom of the torch mount assembly.



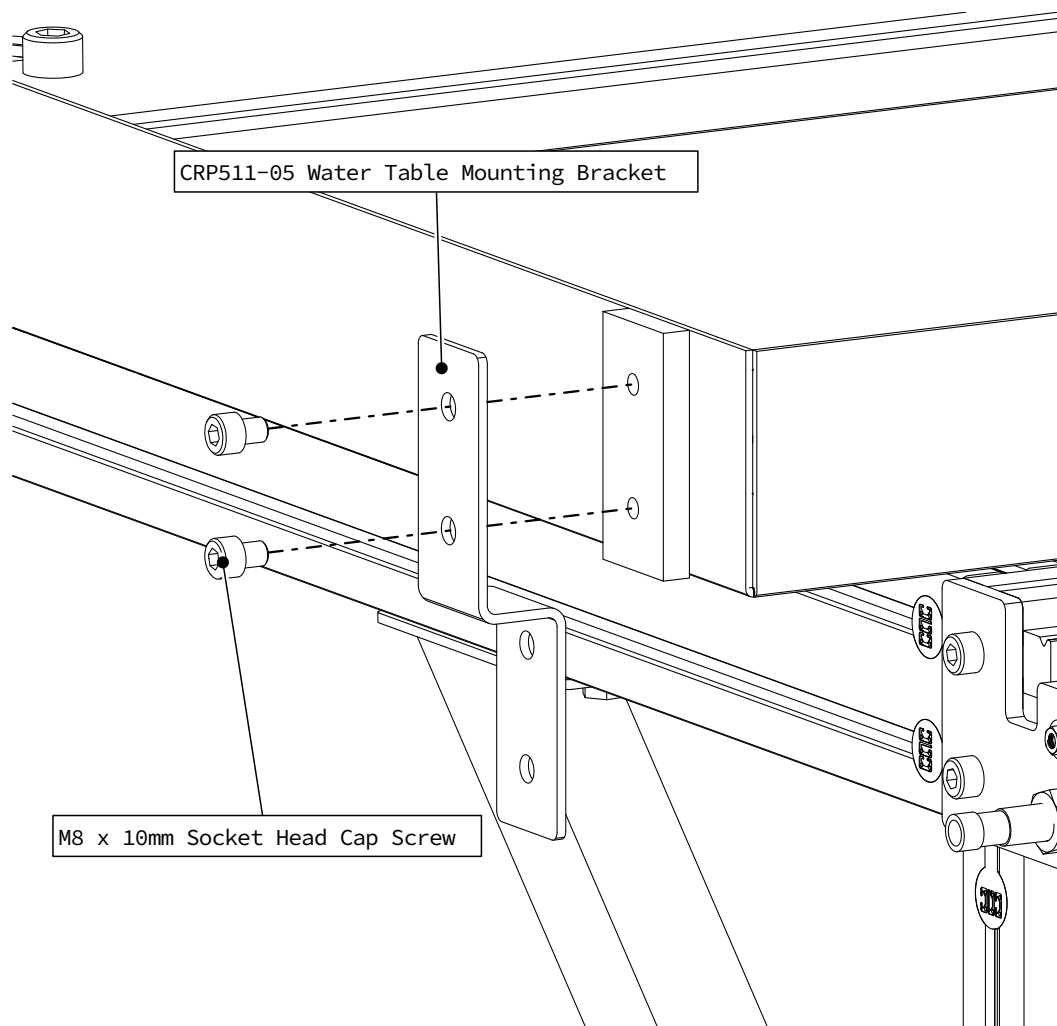
- Tighten the highlighted fasteners.

 **Assembly Note**

Do not over-tighten, just tighten enough to prevent the torch from moving.

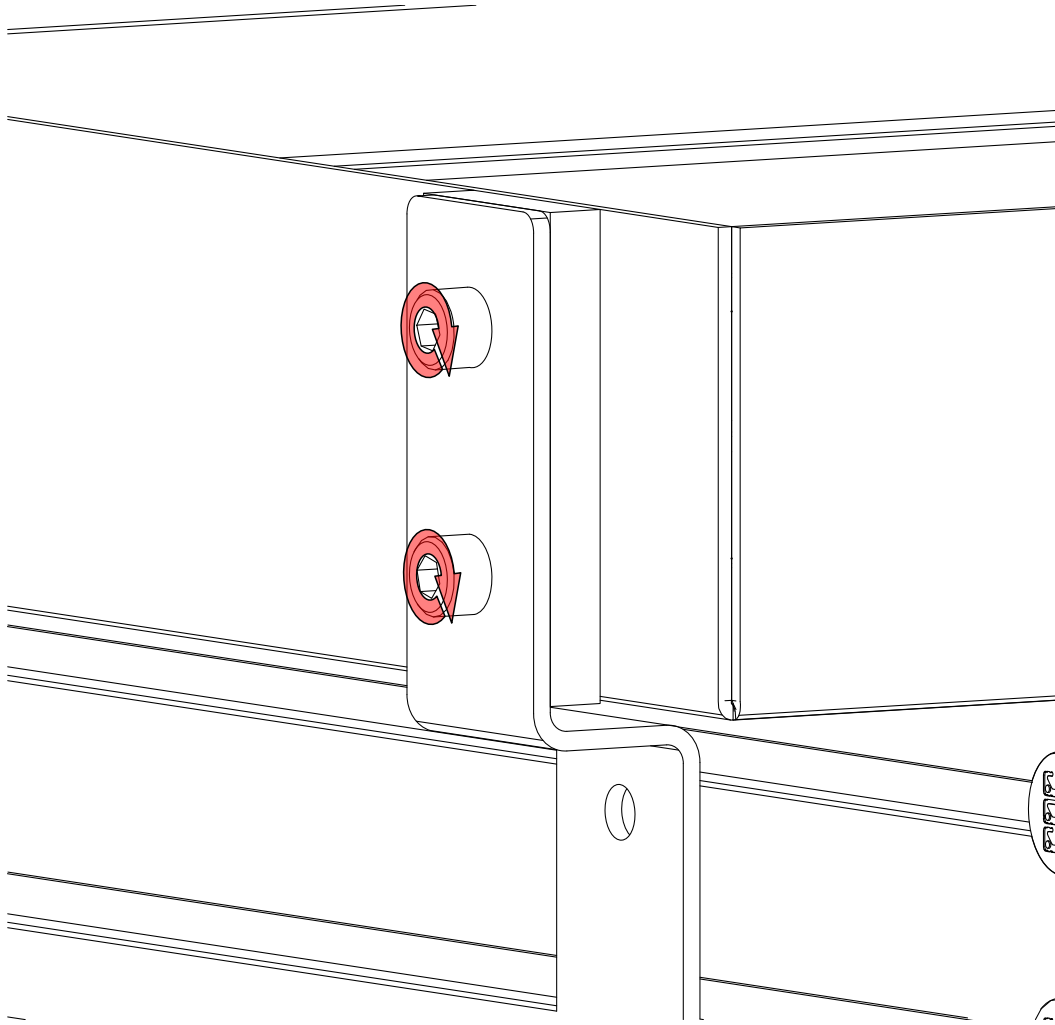


- Place the water table onto the crossmember extrusion as indicated.

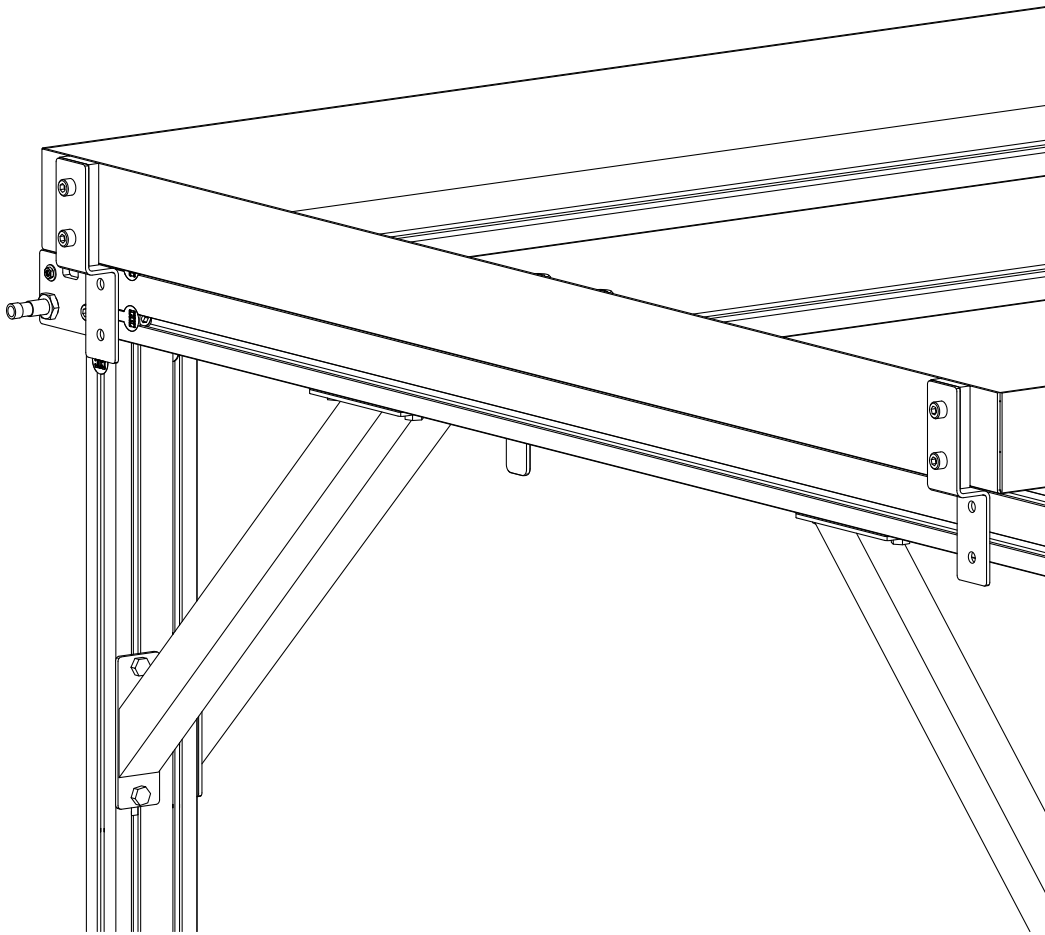


- Attach a mounting bracket to the front of the water table as indicated.

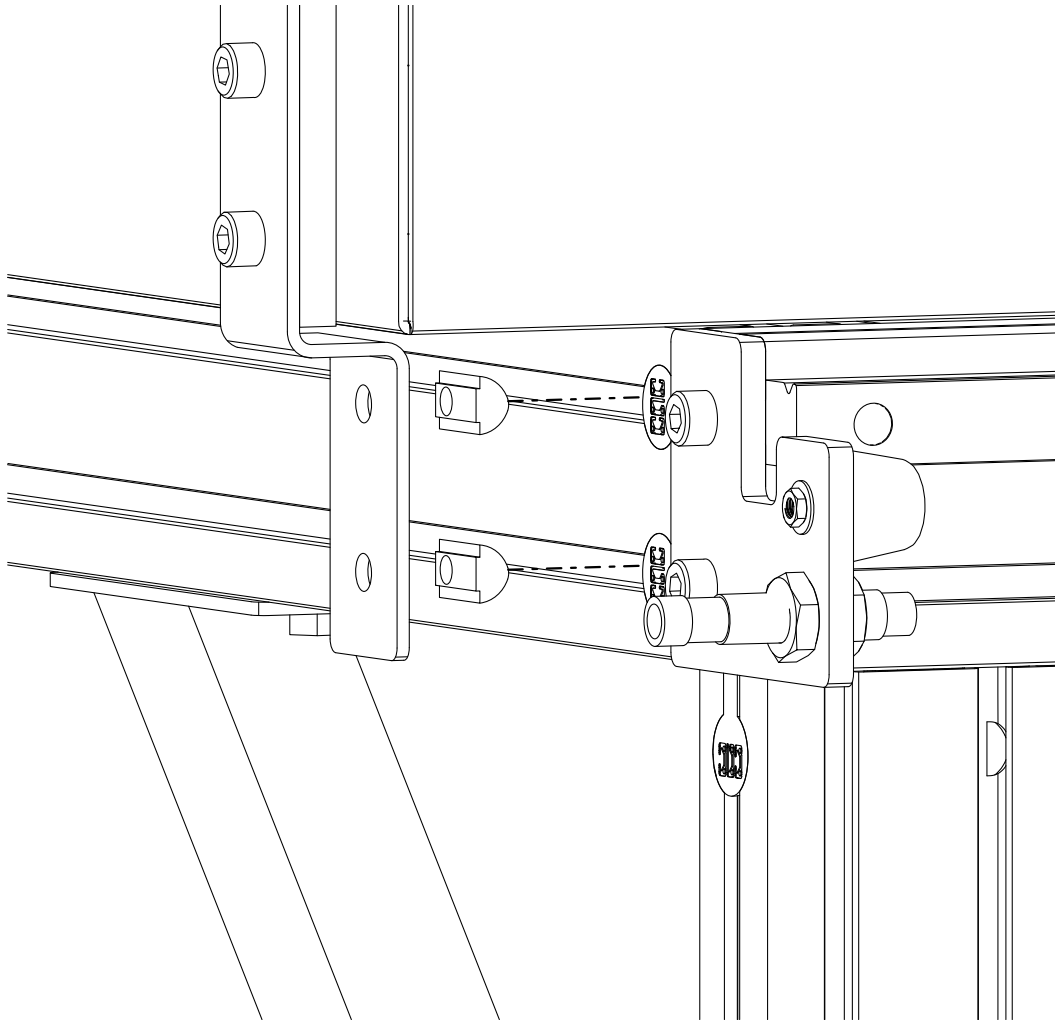
1.10



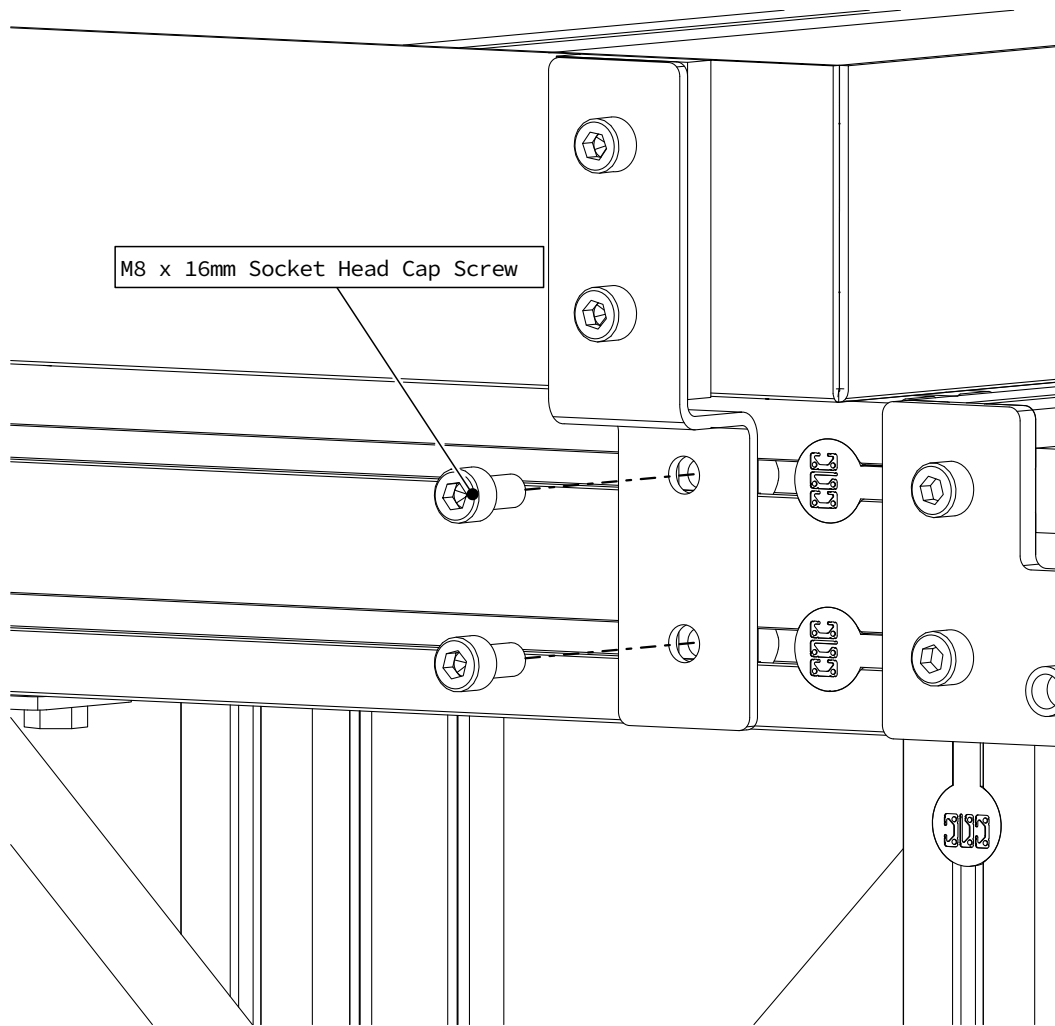
- Tighten the highlighted fasteners.



- Repeat the previous steps on the other side of the water table.



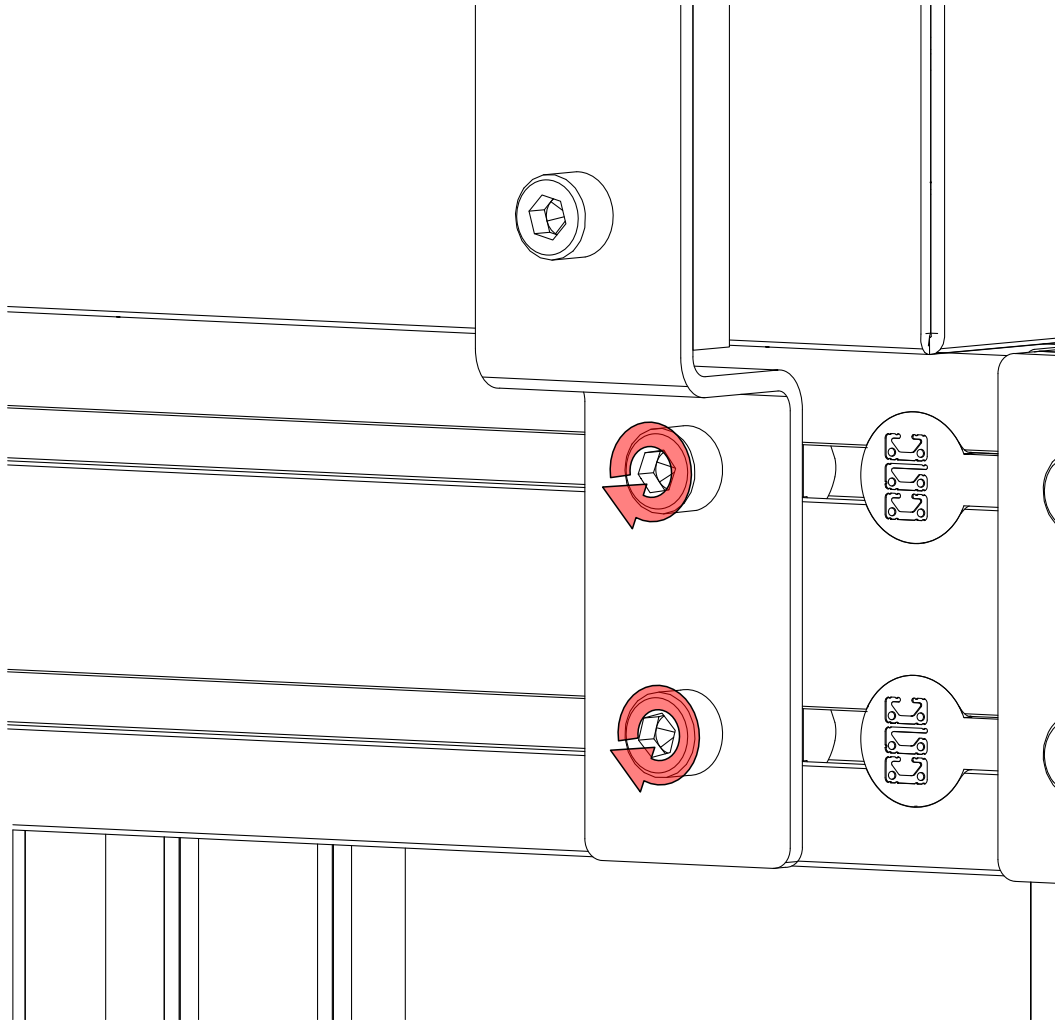
- Place two Roll-in T-Nuts into the t-slots behind each of the two water table mounting brackets.



- Slide the water table such that the mounting bracket is flush with the crossmember extrusion.
- Attach the bracket to the table as indicated.

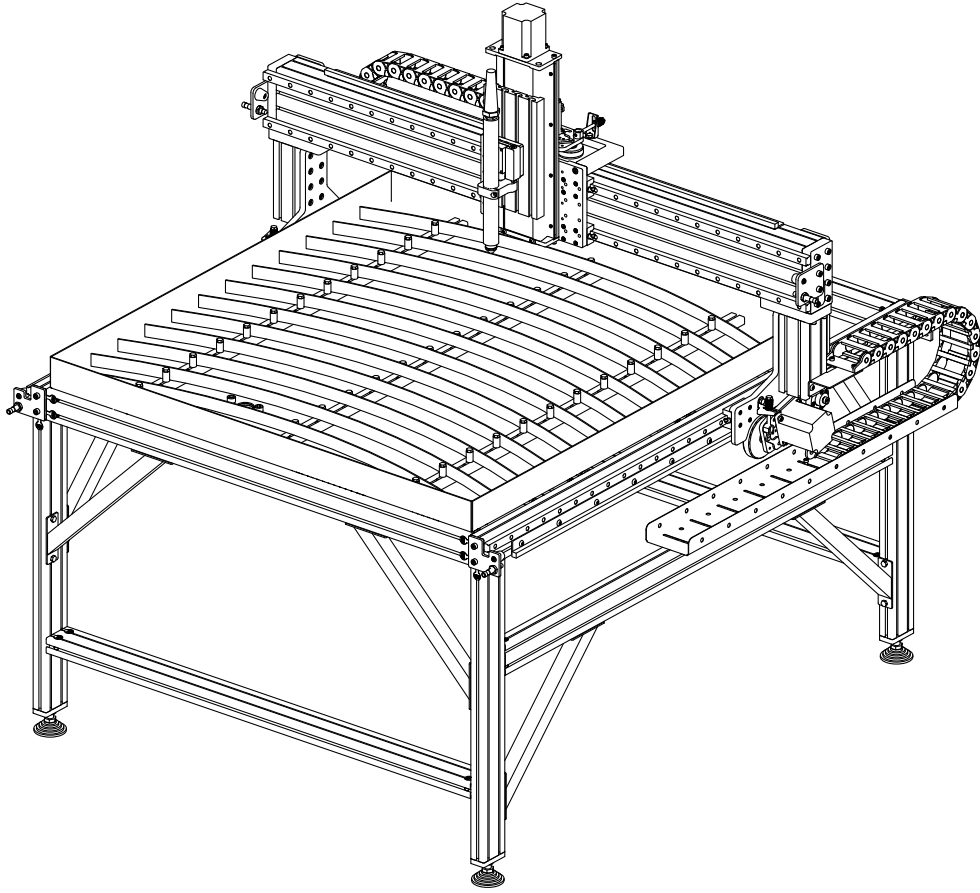
Assembly Note

The water table should be roughly centered between the table side rails.

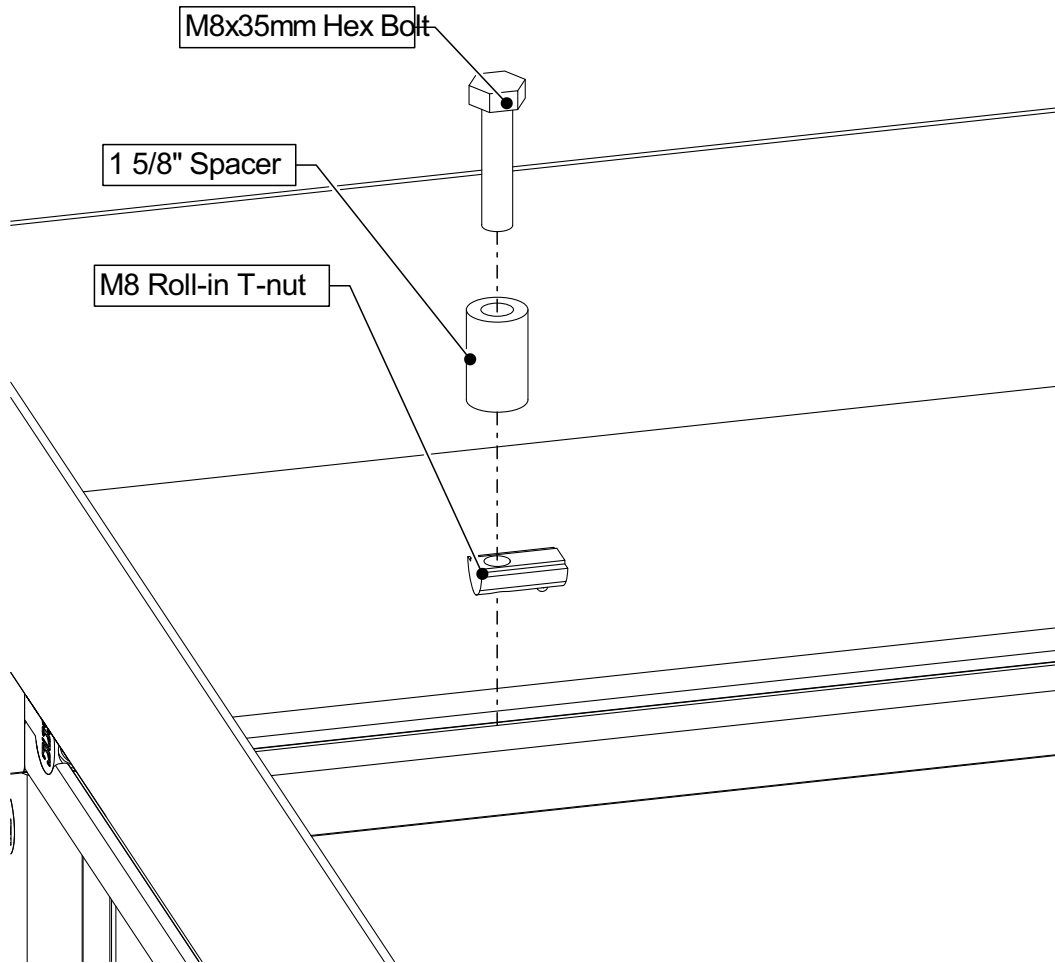


- Tighten the highlighted fasteners.

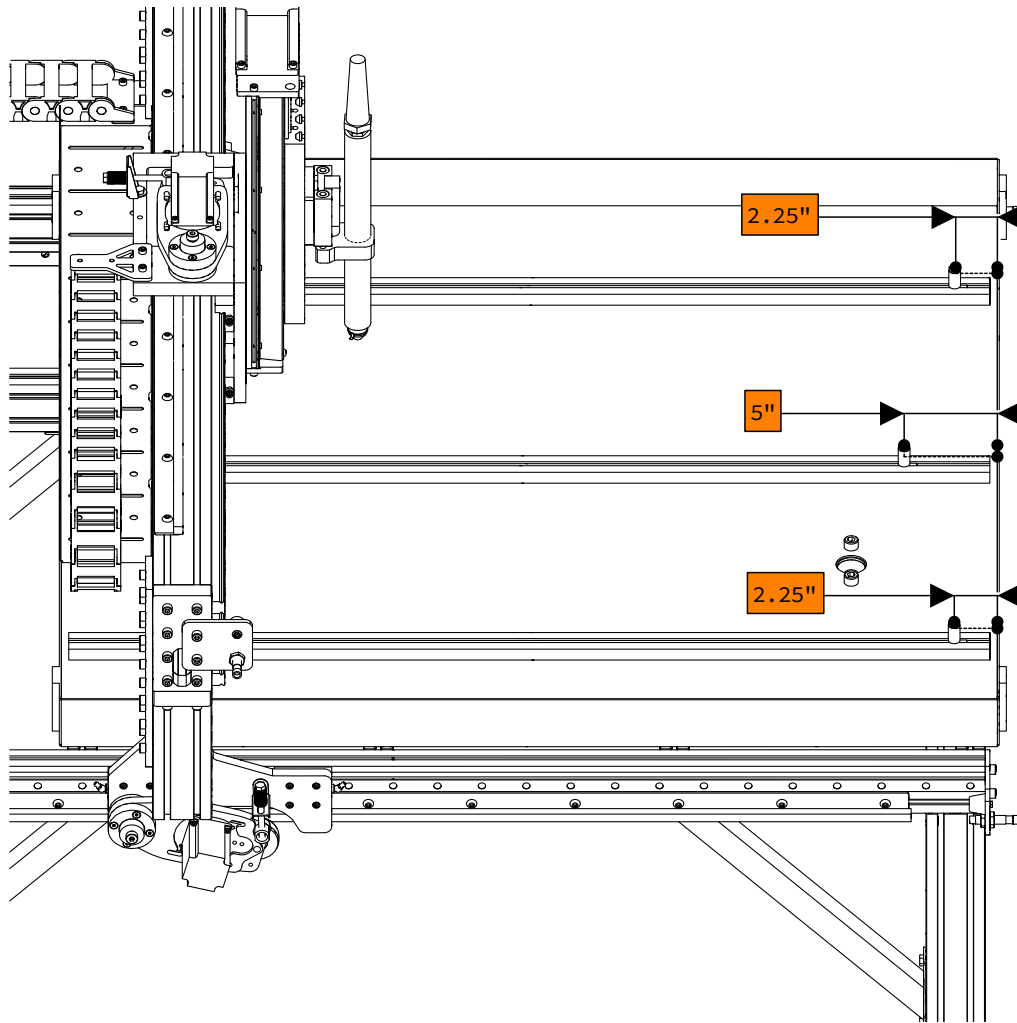
2. Slat Installation



2.1

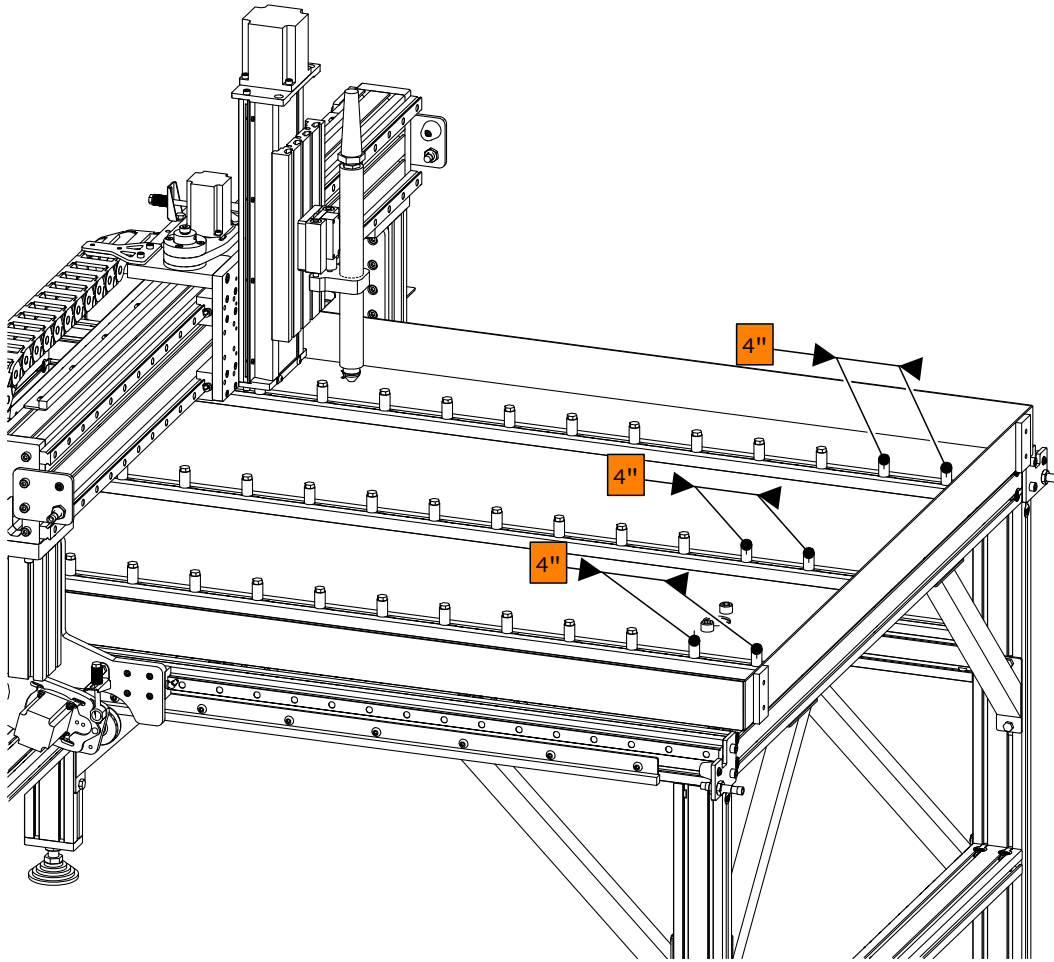


- Install a spacer into the water table as indicated.

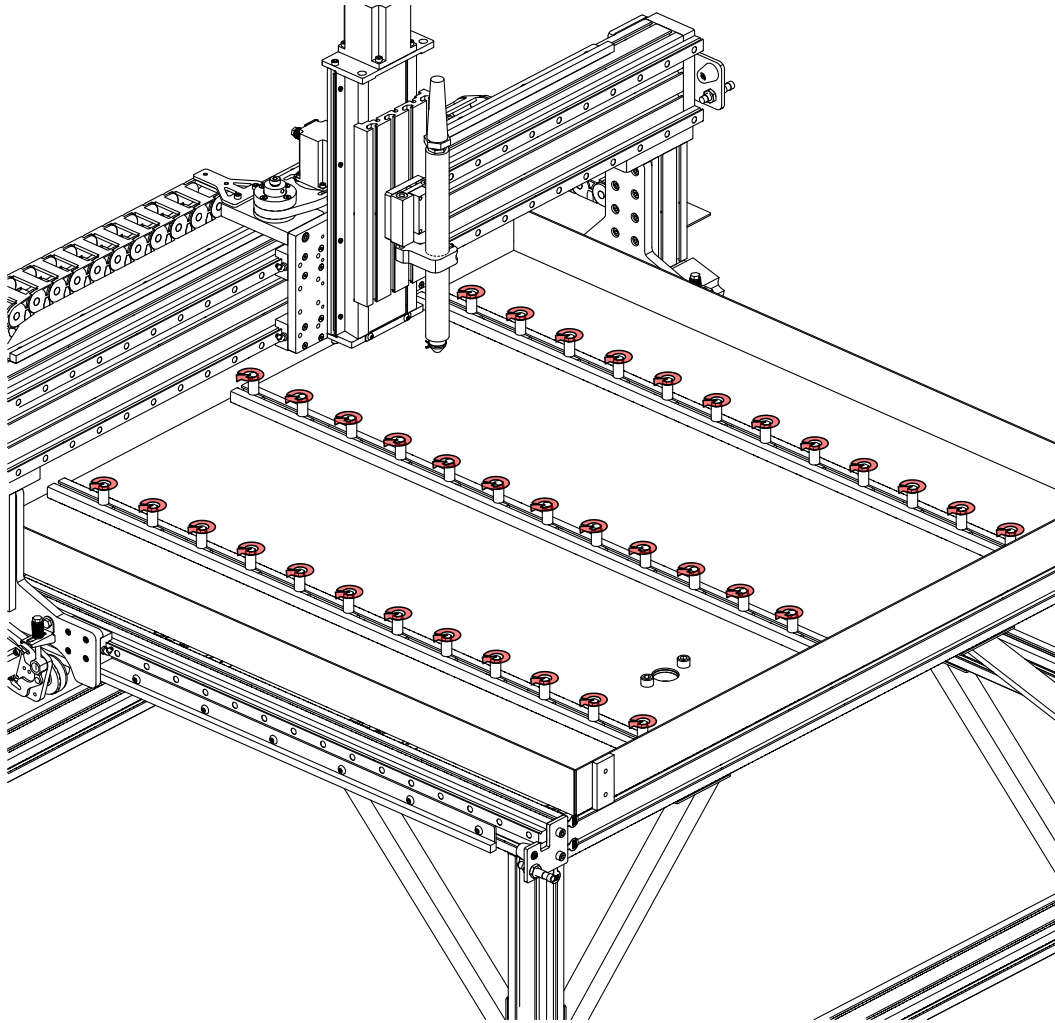


- Install spacers in each of the three t-slots as indicated.

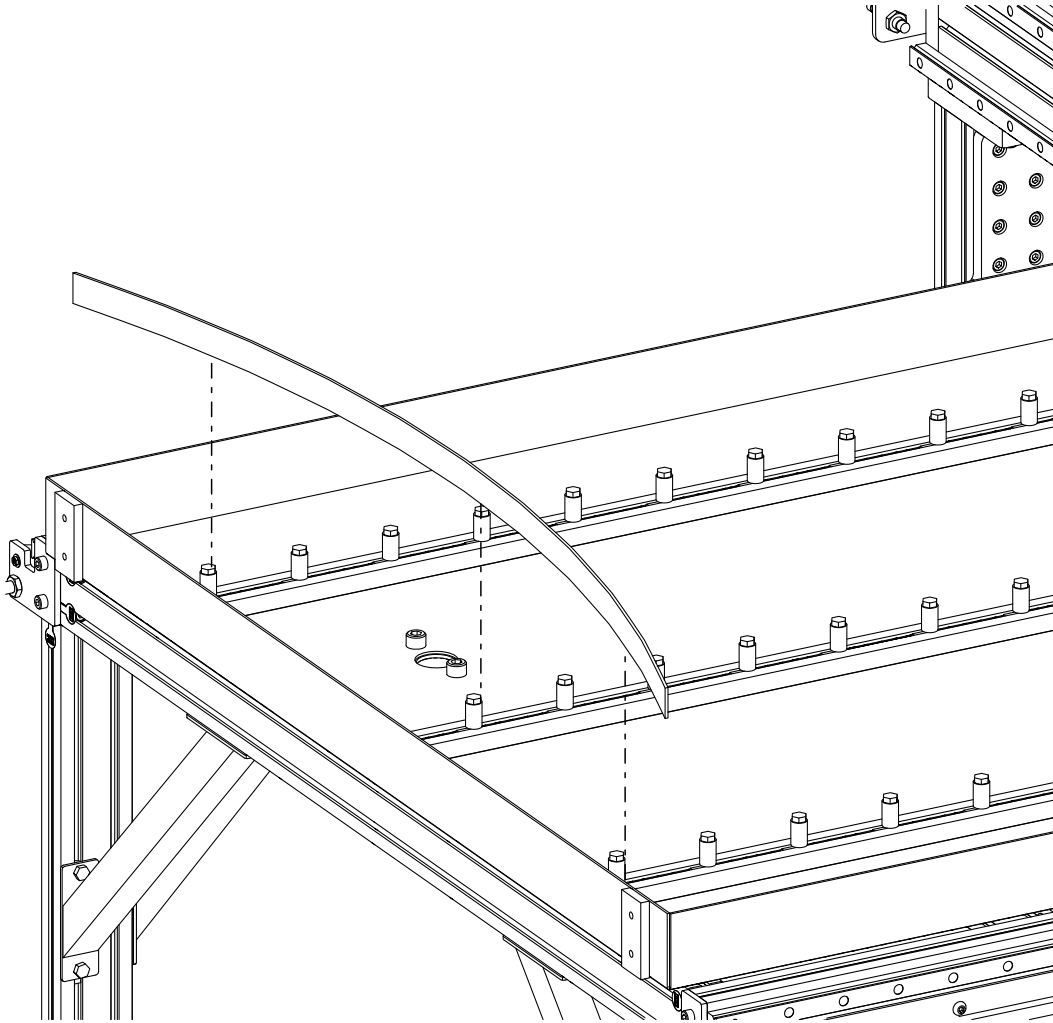
2.3



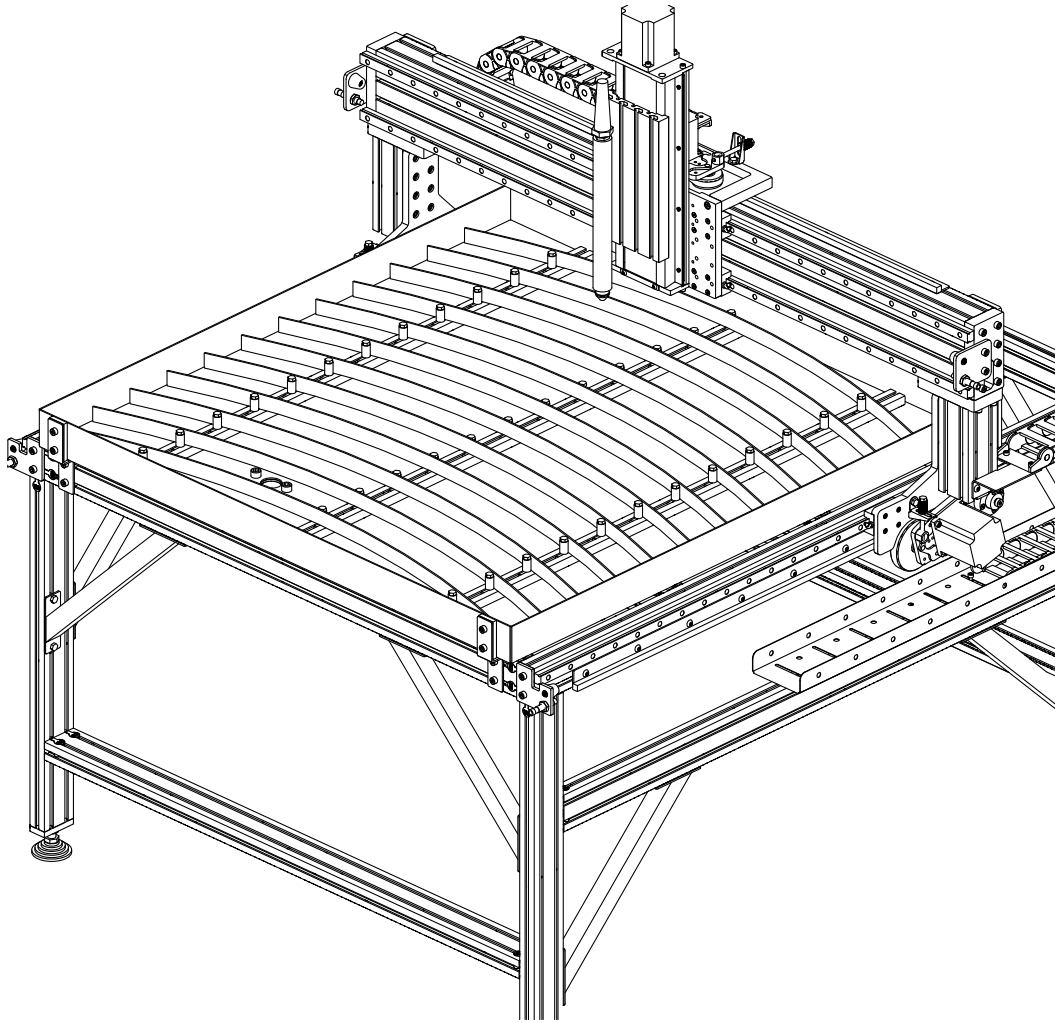
- Install the remaining standoffs with the indicated spacing.



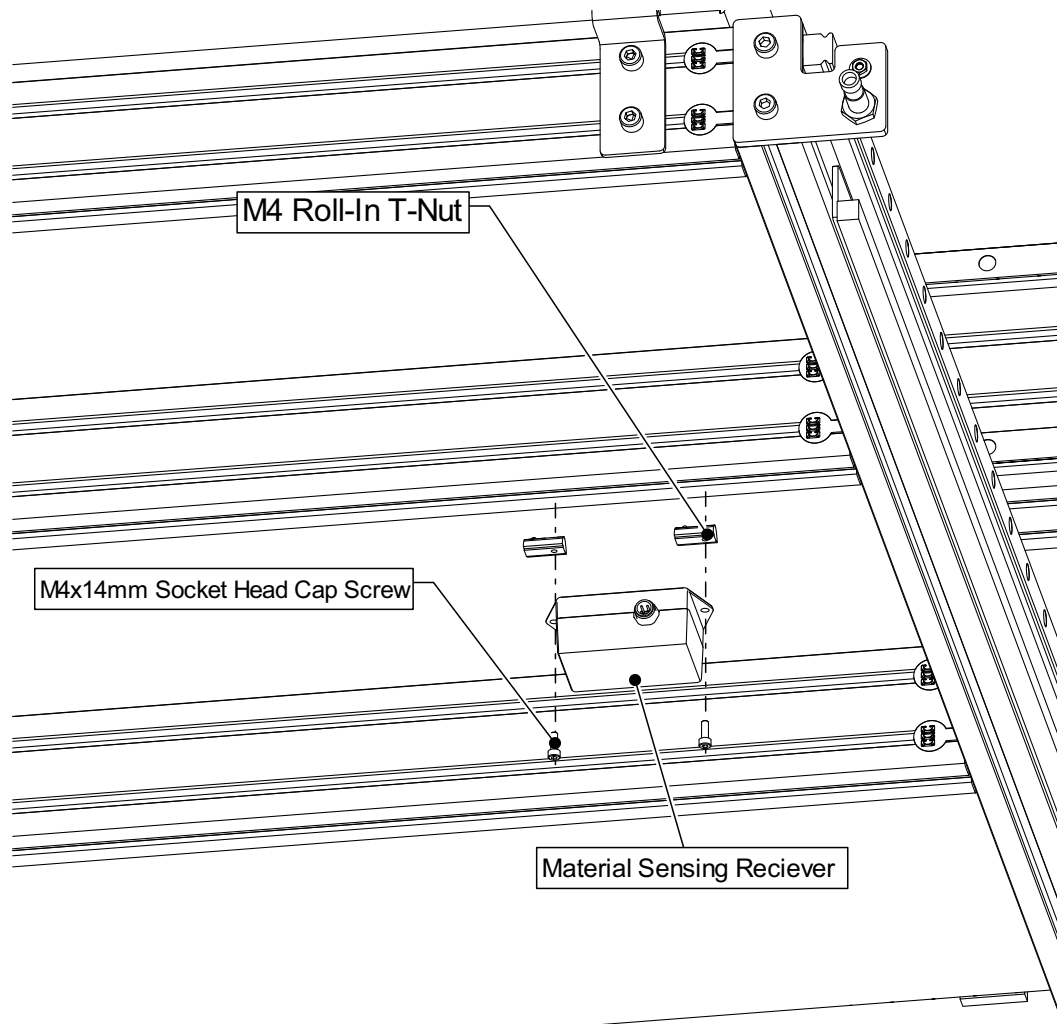
- Tighten the highlighted fasteners.



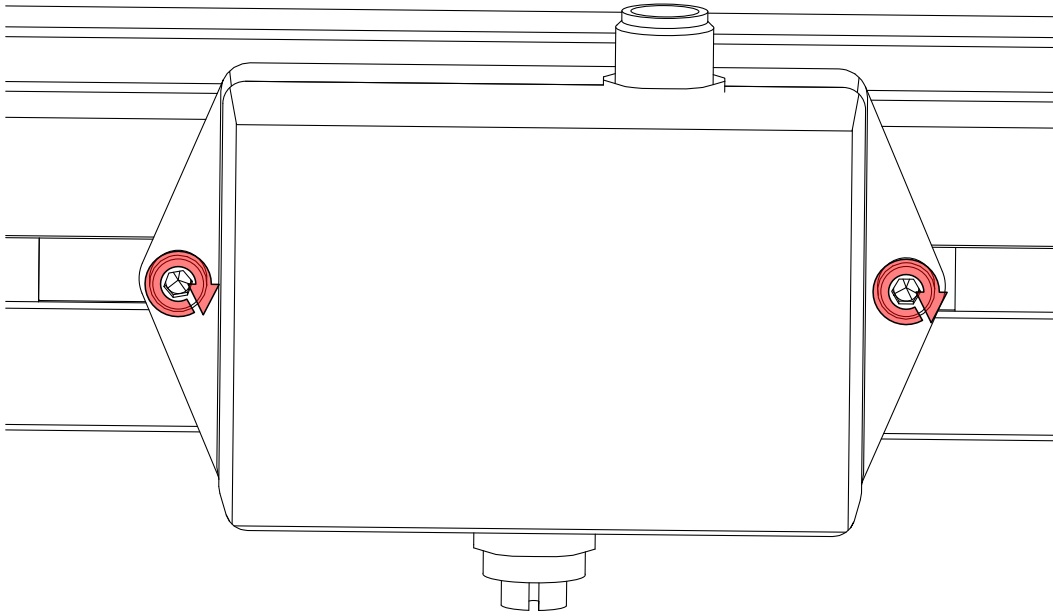
- Bend a water table slat and install it between the front 3 standoffs, using the standoffs to maintain tension on the slat.



- Install the remaining slats in the same way.

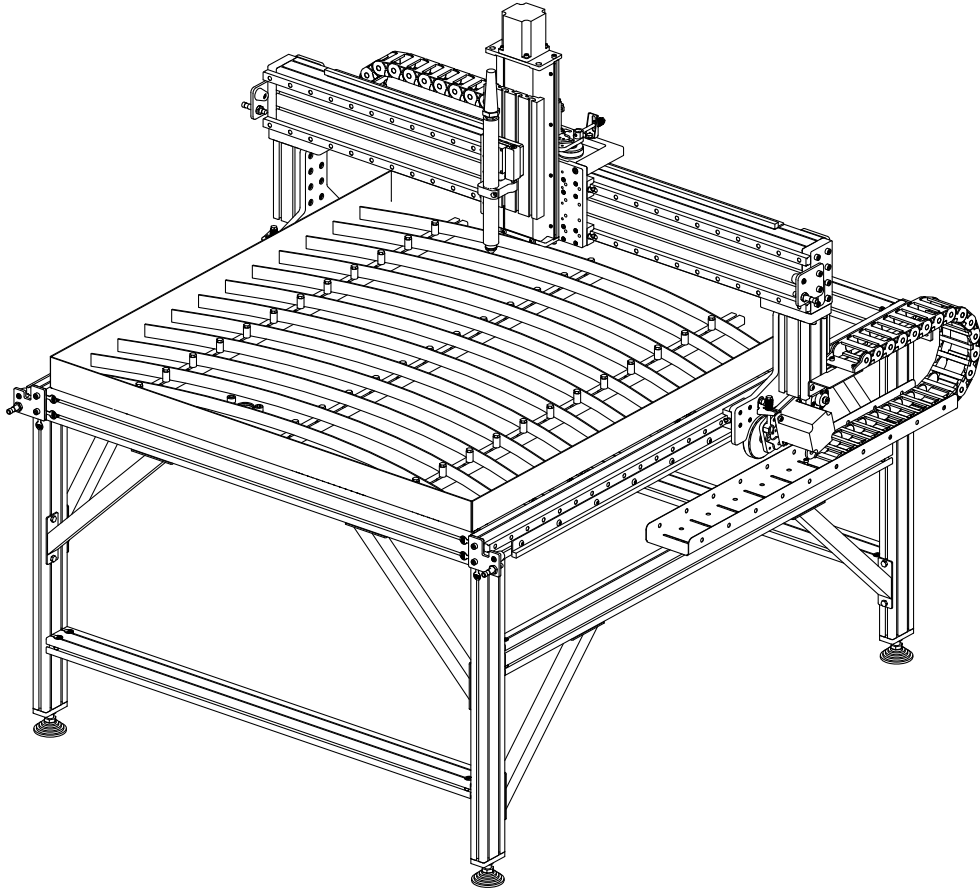


- Install the material sensing receiver beneath one of the crossmembers as indicated.



- Tighten the highlighted fasteners.

3. Material Sensor Installation



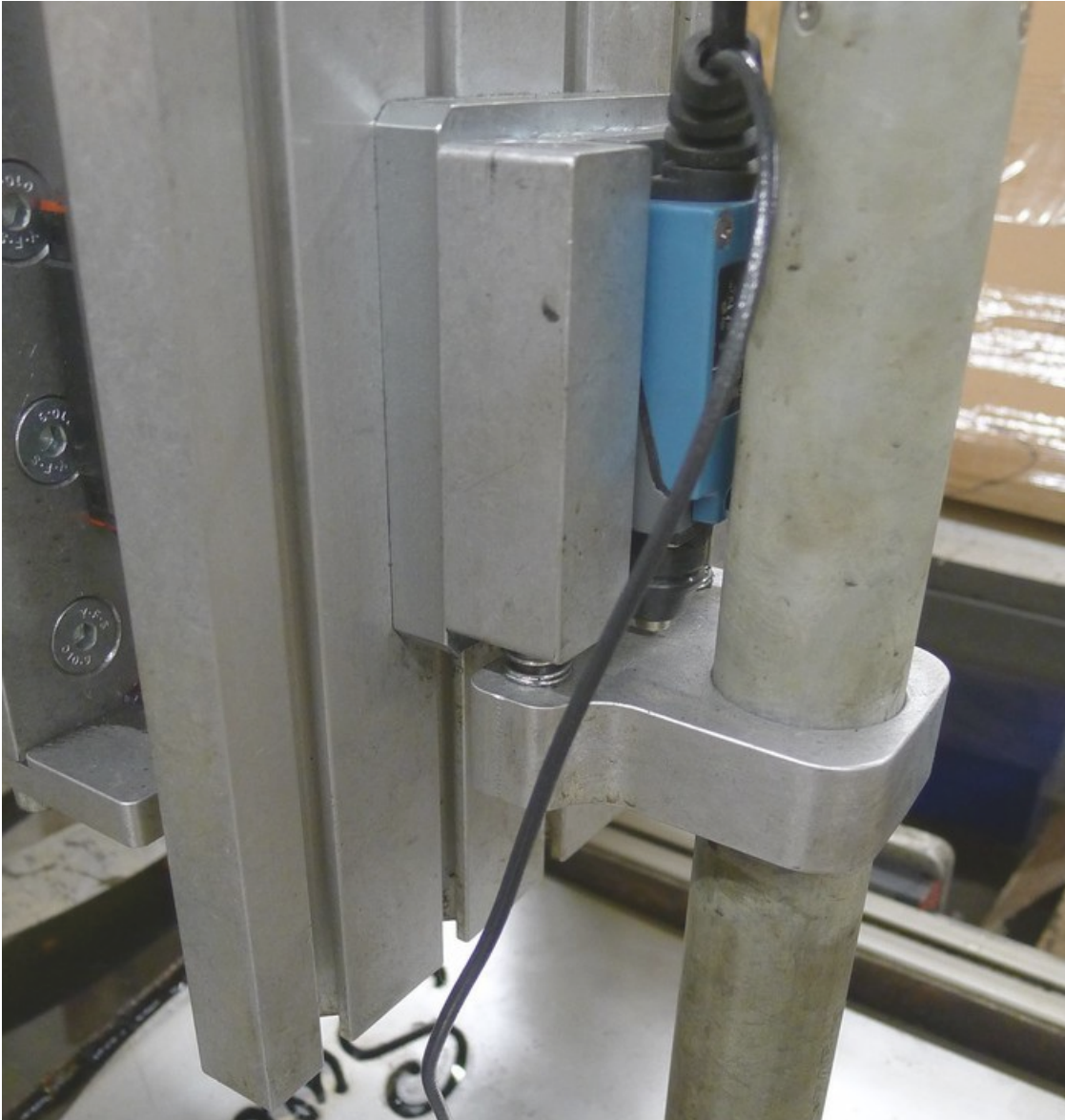
- This section will describe the wiring of the Ohmic protection circuit and floating head sensor to your plasma torch and CRP800 control unit.



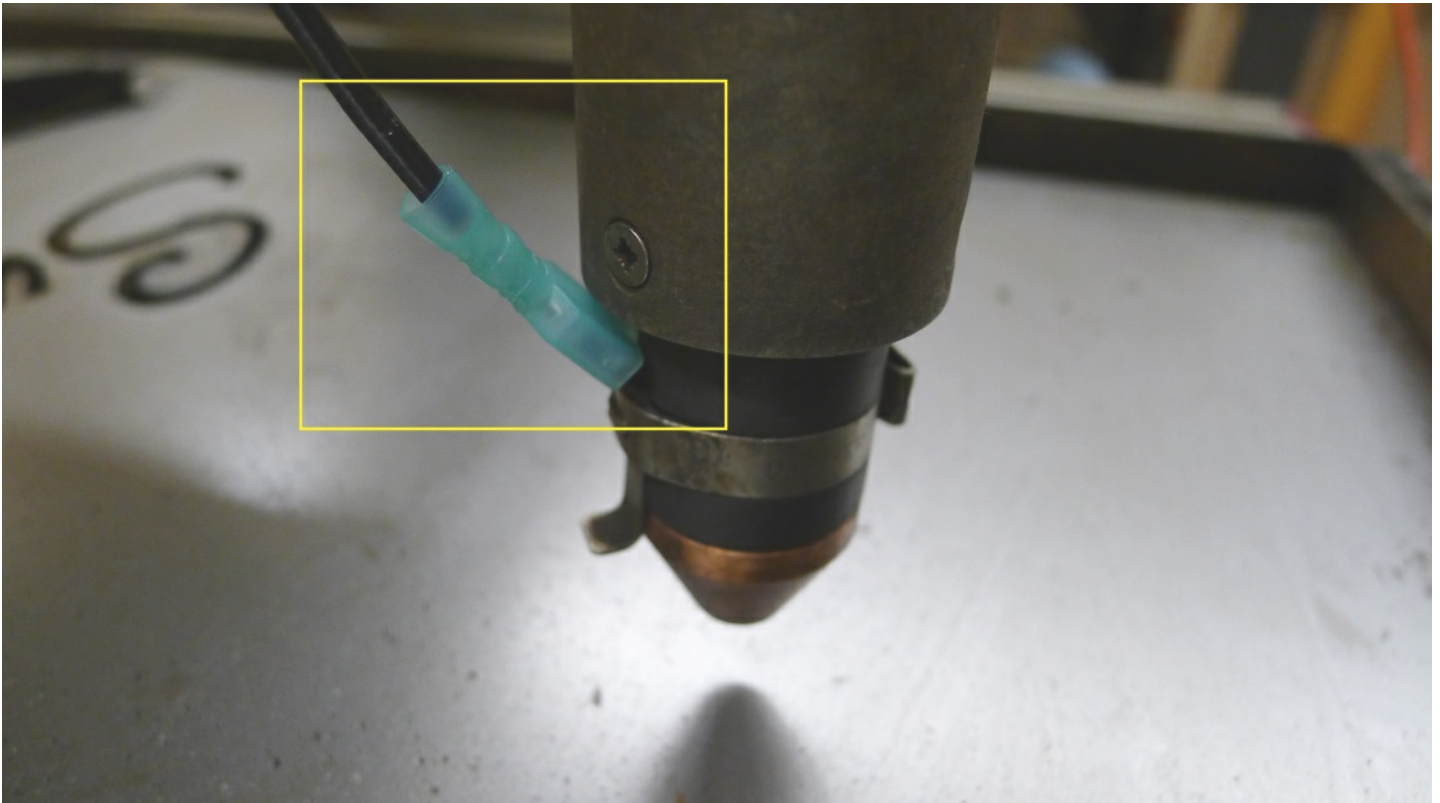
- Hypertherm Ohmic Retaining Cap must be used (pictured above the Standard Retaining Cap). Remove the standard retaining cap but do not install Ohmic Retaining Cap until the torch has been inserted into the torch mount.

Note

The Hypertherm Powermax 45XP, 65, and 85 use a different retaining cap than older Powermax 45 models. Be sure you order the correct retaining cap for your plasma torch, they are not interchangeable.

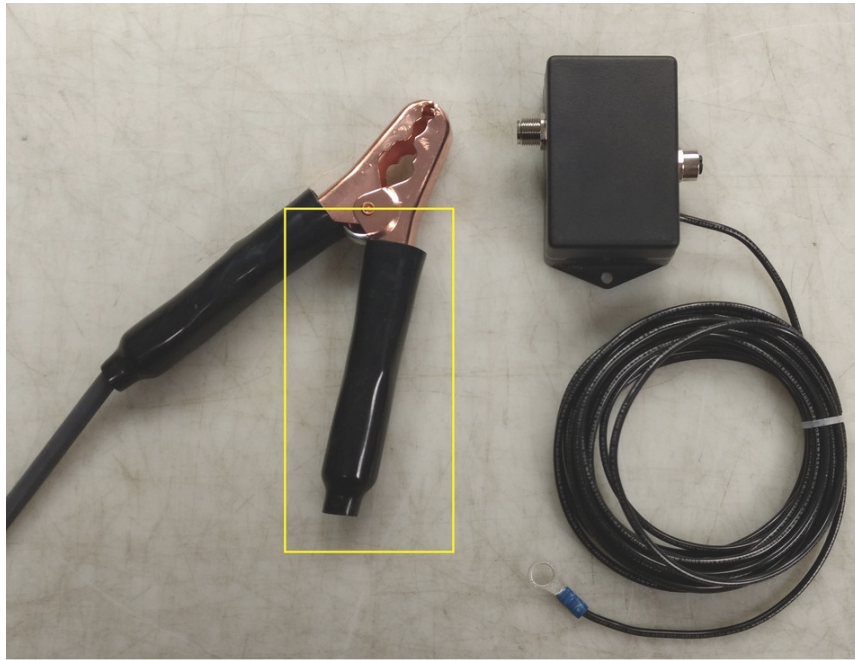


- Once the torch has been inserted into the torch mount assembly and fastened, the Ohmic Retaining Cap should be fitted. The indicated female quick disconnect of the Floating Head Sensor should then be attached to the Ohmic Retaining Cap.



- The female quick disconnect should be attached to the Ohmic Retaining Cap as shown.

3.4



- Remove the indicated rubber sheathing from the Hypertherm torch clamp.



- String the grounding wire from the Ohmic protection box through the rubber sheathing of the Hypertherm torch clamp.



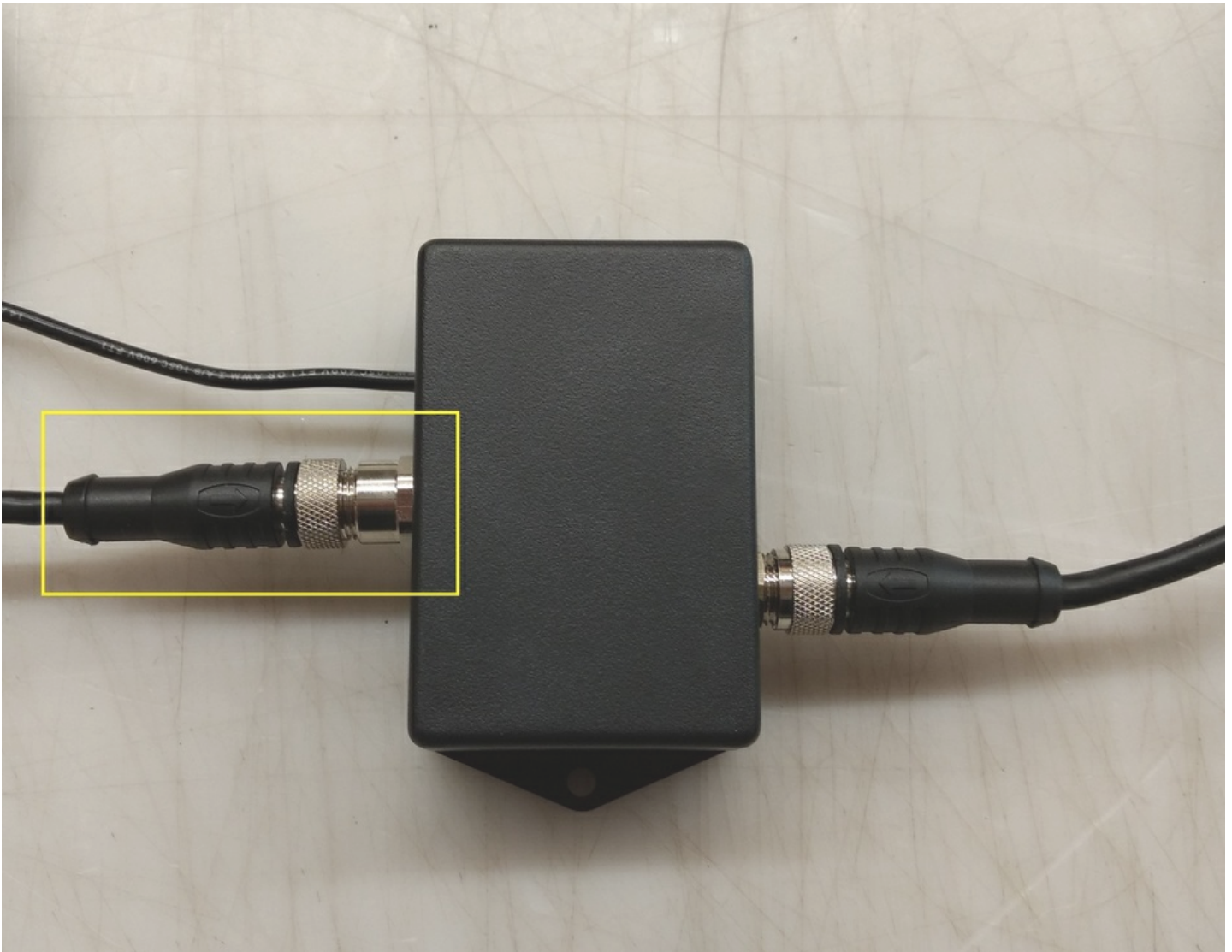
- Use the indicated bolt and nut to attach the ring terminal of the grounding wire to the existing hole in the handle of the Hypertherm torch clamp.



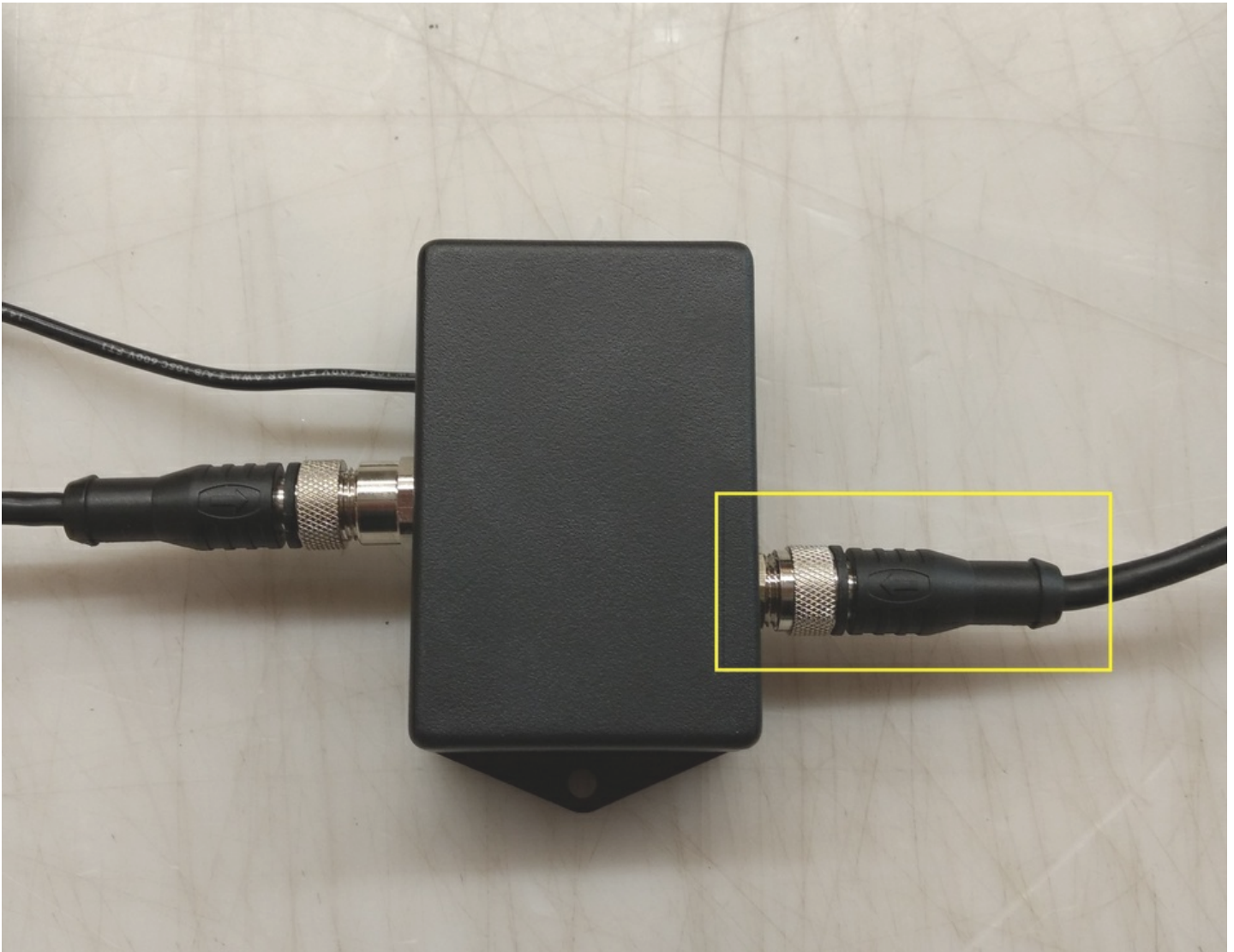
- The sheathing for the torch clamp can now be slid back over the clamp handle and grounding wire as indicated.

▲ Note

The clamp should always be fastened to material before cutting.



- The material sensing switch should connect to the Ohmic protection box as indicated.



- The opposite port of the Ohmic protection box should be connected to the CRP800 control unit.



- The Ohmic protection box should now be connected to the "Aux 2" input of the CRP800 control unit as shown.