SeeMeCNC Guides

Step 2. REV2 Rostock Max v3 Base Assembly

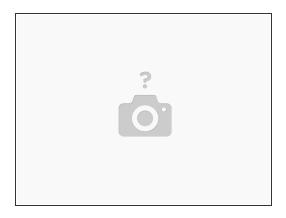
Second edition Rostock Max v3 assembly guide.

Written By: SeeMeCNC

INTRODUCTION

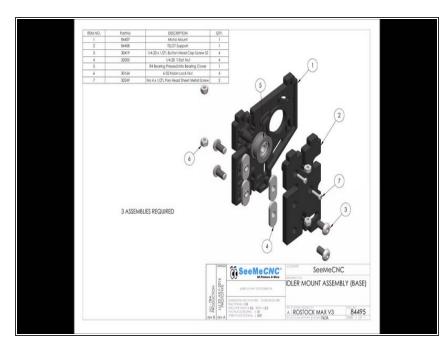
This assembly guide will walk you though the steps of assembly the base of the Rostock Max v3 printer.

Step 1 — Preparing for the Build



The first step in preparing for your build is to remove the masking from both sides of all laser cut panels. This masking helps protect the components during the cutting, packing, & shipping process.

Step 2 — Base Tower Supports Overview

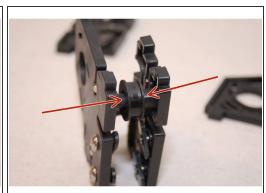


- You'll be making three of these assemblies using injection molded parts 84407 & 84408 (1 each per assembly).
- When inserting the nylon lock nuts, do so from the "inside" of the injection molded part. This will allow the nut to fit more easily into the nut pocket. Needle nose pliers make this a breeze.
- Only thread the t-slot nuts on a few threads - you need to leave room for the tower channel to slide between the t-slot nut and the face of the injection molded mount.
- The threads on the blind nuts have a flange on one side. The flanged side should be away from the head of the screw.

Step 3 — Base Tower Support Tips

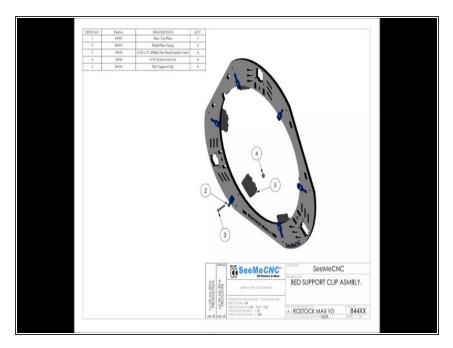






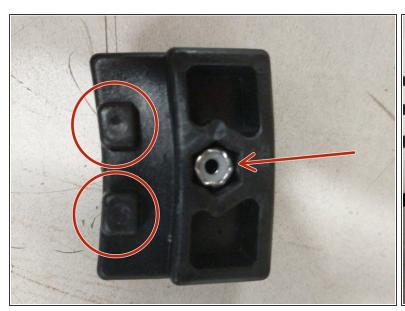
- Insert the 6-32 nylon lock nuts into the injection molded parts first. There will be 2 of these nuts inserted per injection molded piece
- Then install the 1/4-20 button head screws and T-SLOT nuts. Remember to only get the nut started on the screw.
- Press the bearing / cover assembly (pre-assembled by SeeMeCNC) onto the posts inline with the 1/4-20 hardware (position shown)
- The two halves will be fastened together with #4 x 1/2"screws.
- Complete 3 identical assemblies.

Step 4 — Installing Bed Insulator Clips Overview



 This animation will provide you with an overview of what will be assembled.

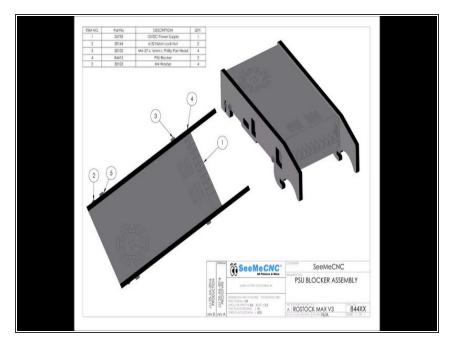
Step 5 — Installing Bed Insulator Clips





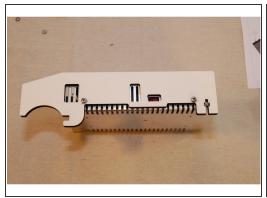
- Insert stainless steel nylon lock-nuts into the side with circular marks.
- Using 6-32 x 1" phillips pan head machine screws, gently tighten as shown. Blue bed clamps should rotate very easily, but not be loose.
- You will be installing 6 bed clamps and support blocks around the periphery of the hole in the center of the laser cut plate.

Step 6 — Installing the PSU Blocker Overview



 This animation will provide you with an overview of what will be assembled.

Step 7 — Installing the PSU Blocker

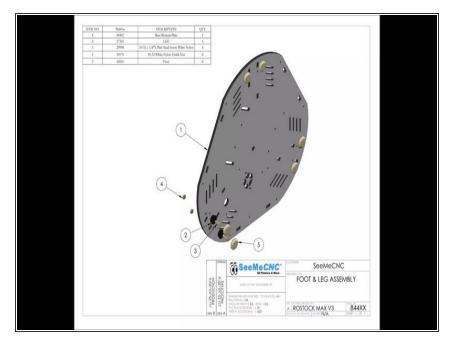






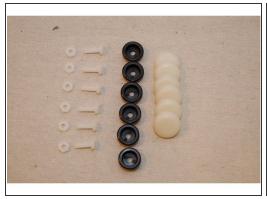
- Install the PSU Blocker sides using (2) M4 x 12 screws and washers per side (In base electronics hardware pack - 84493).
- **WARNING:** Don't forget the washers in this step! The 1mm spacing they provide prevents the screws from contacting electrical components on the inside of the PSU. Failure to include these washers can cause the PSU to fail.
- If you are located in the US, make sure the 220/110 switch is in the 110 (115) position, as indicated by the arrow. This defines the input voltage the power supply expects.
- ↑ If you're in a country where 220v is the standard, make sure the switch is on the 220 setting.

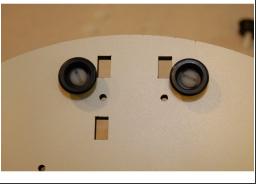
Step 8 — Foot & Leg Assembly Overview

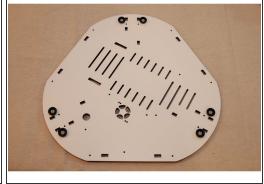


 This animation will provide you with an overview of what will be assembled.

Step 9

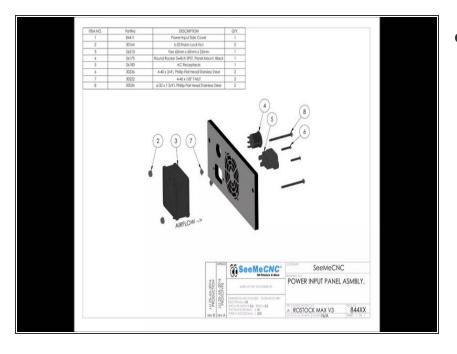






- Make sure you don't over-tighten the nylon fasteners. They can be easily damaged if you overtightne
- (i) You may wish to leave the soft rubber feet off until you've completed the assembly of your Rostock MAX v3. The soft feet have a strong grip to them and can make turning the printer difficult.

Step 10 — Assembly Power Input Panel Overview



 This animation will provide you with an overview of what will be assembled.

Step 11 — Assembling the Power Input Panel

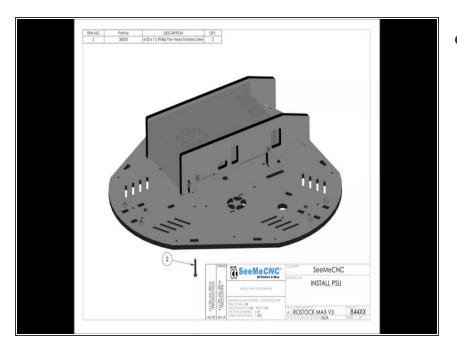






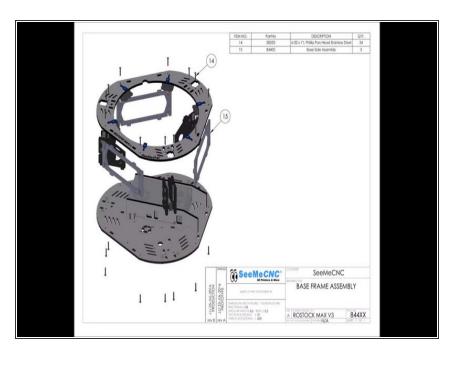
- When installing the power switch, ensure it's in the "off" position by setting the switch so that the "low" point of the rocker is closest to the terminal near the edge of the switch.
- The power supply cooling fan has both rotation and airflow direction marks on the side of the fan.
 Make sure that the airflow direction arrow points towards the panel.
- Don't forget to apply the safety warning sticker!

Step 12 — **Installing the Power Supply (PSU)**



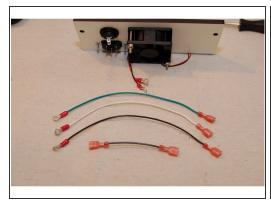
 Attach the PSU to the base plate using (2) 6-32 x 1" screws.

Step 13 — Base Frame Assembly



- This animation will provide you with an overview of what will be assembled.
- Assemble all components / subassemblies to the base plate first.
 Then install the top plate. All fasteners used are 6-32 x 1"

Step 14 — Install AC Wiring







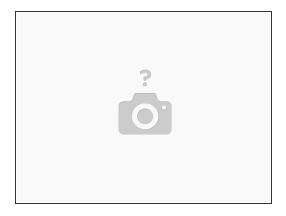
- Add connectors to the 200mm and 75mm wires as shown.
- The red & black wires for the cooling fan are connected to the first terminal in the V- and V+ sections as indicated by the blue arrows.
- Secure the panel to the base assembly using (2) 10-32 socket head cap screws. The holes in the injection molded side panels are not tapped / threaded. Make sure you put some pressure on the screws and keep them straight.
- (i) Make sure you put some pressure on the screws and keep them straight. They will be a little difficult to get started, but will go in perfectly with a little pressure. The screws will go in much easier the second time.

Step 15 — Base Assembly Complete



 Congrats! The base assembly is now complete. We will focus on the top assembly next.

Step 16 — Wrap-Up



- This Sub-Assembly can be set aside until Step 4. Rostock Max v3 Final Assembly.
- Proceed to: <u>Step 3. Rostock Max v3 Top Assembly</u>