LulzBot TAZ 6.0 Final Mechanical assembly

Step Pictures	Parts and Tools
PARTS 1x- TAZ6 Extruder assembly 1x- TAZ 6 Control box 1	**TOOLS** -Flush cutters -4mm driver -3mm ball end driver -2.5mm ball end driver -2mm driver -Ruler

Tools

LulzBot TAZ 6.0 Final Mechanical assembly

Step Pictures		Attach Control box to frame

  M5x10 BHCS used to attach control box mounts	 Install two control box mount at the rear of the control box	Install two (2) control box mounts to the rear side of the control box using one (1) M5X10 BHCS and one (1) M5 black washer per mount. Tighten to hand tight Insert two (2) M5 T-nuts into the back left Z frame extrusion inside slot from the bottom, hold the T-nuts in place with a device such as a T-Nut holder Mount the control box to the left side of the Z left frame by guiding the control box (with the two rear control box mounts that are already attached) onto the back left frame extrusion so that the mounts go over the extrusion and the control box sits flat against the frame Install two (2) control box mounts using an one (1) each M5X10 BHCS and M5 black washer onto the front left extrusion M5 T-nuts Position the control box flush against the frame left side and so it is fully supported by it's own feet and not distorting the Z frame. Attach the control box mounts to the case (front two mounts) and to the extrusion (back two mounts), tighten the eight (8) M5X10 BHCS to hand tight.
  Stand the control box up next to the frame, position mounts to the frame	 Slide the mounts inside the frame, secure to the extrusion lower T-Nut, tighten control box mount also	
  Secure upper T-Nut to the extrusion to hand tight	 Attach the control box mounts on the front frame to the control box, tighten to hand tight	

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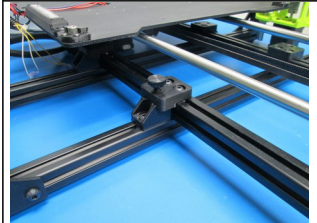| Step Pictures		Align Y axis to frame

  Install Y chassis mounts (2) each on front and back lower extrusions	 Place the Y assembly on the Z frame assembly.	Install four (4) Y chassis mounts onto the front (2) and back (2) lower extrusions (top slot), tapered side oriented toward the outsides of the frame using four (4) M5x8 BHCS and four (4) M5 black washers (they attach to the captured T-Nuts free floating in the extrusion), leave screws loose until later in the assembly. Slide the left Y chassis mounts out to the left side of the frame, right side mounts toward the right side of the frame Set the Y axis assembly (motor side toward the back of the frame) down onto the Z axis assembly approximately in the middle of the frame both front-to-back and side-to-side Slide the left Y chassis mounts in against the left and right sides of the Y axis assembly extrusions Line up the Y assembly mounts and Frame mounts. Loosely install the four (4) M5 Thumb screws (we will tighten these later) Set Y axis location fixtures into the frame extrusion top slots of the Y axis assembly nearest the motor (both sides of the motor) and into the top slot of the frame (front and back extrusion) to the left of the Y axis assembly (Outside of Lulzbot manufacturing the Y axis assembly can be positioned by measuring 136mm from the edge of the aluminum extrusions to the edge Y chassis mounts, and 110mm from the edge of the Y corners to the edge of the table mounts). Slide the mounts tight to the fixtures and the extrusions tight to the mounts at each fixture. Secure the Y chassis mount M5 BHCS to the extrusion to hand tight, then secure the table mounts (these are attached to the Y axis assembly) M5 BHCS to hand tight.
  Set Y axis assembly onto frame (motor toward back)	 Set the motor side distance from the intersecting frame	
  Tighten the two screws in each bed mount.	 Tighten the screw in each chassis mount.	

LulzBot TAZ 6.0 Final Mechanical assembly	
Step Pictures	Attach Y Axis to frame

Align and Secure Y Chasis Mount

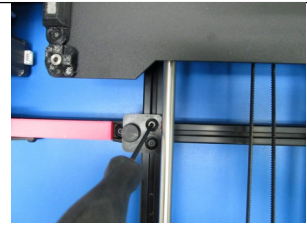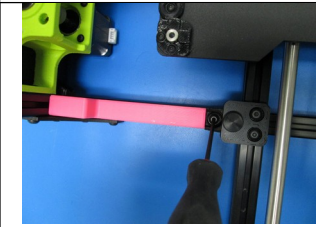Align and Secure Table Mount

Push the opposite side of the table's Y chassis mounts firmly against the extrusions and tighten the mounts to hand tight;
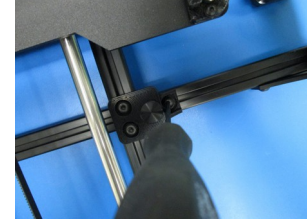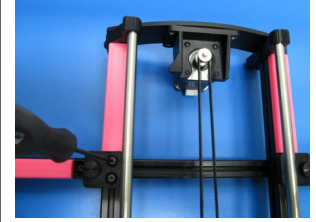
Push the opposite side table mounts firmly against the extrusions and tighten the mounts to hand tight.

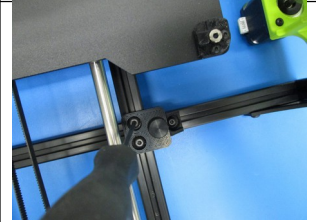There should be NO space between the struts or mounts. Tighten the thumb screws.
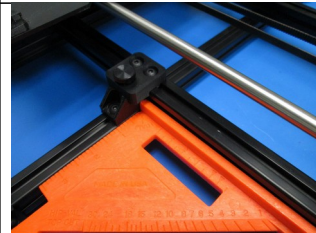

Align and Secure Table Mount

Align and Secure the final Y chassis mount

Align and Secure Table Mount

Secure the table mounts to the chassis mounts with thumb sc

Check to be sure the y axis is square with the frame.

LulzBot TAZ 6.0 Final Mechanical assembly	
Step Pictures	Connect cables to motors and switches

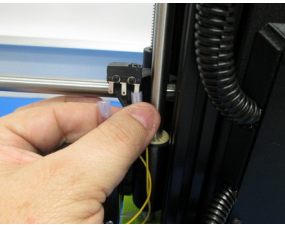Secure extruder cable onto the extruder mount

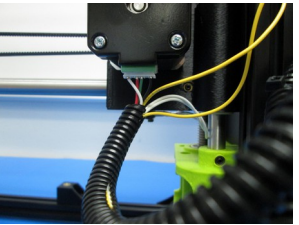Connect the X right side cable to the X right motor

Connect the Y axis cable to the X right motor

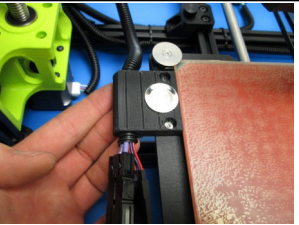Connect the X left side cable to the X left motor

Connect the Z Max switch wires to the Z max switch

Connect the Extruder motor cable to the Extruder Motor

Connect the X Min switch to the X right assembly lower switch

Install the Bed harness into the Z switch mount, connect the power and switch cables

Place the extruder harness into the X carriage as shown and secure with a tie wrap and trim with flush cutters. Make sure to leave about 15mm of the harness on the x carriage.

Take the right Z motor harness and plug it into the left Z motor as shown.

Plug the Y harness into the Y motor as shown.

Plug the Right Z motor into the right Z motor as shown.

Take the X carriage harness and plug the yellow pair of wires and install them on the Z max switch making sure to use the outside pins on the switch.
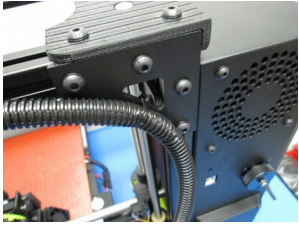
Plug in the X motor.

Take the white pair of wires and install them onto the outside pins of the X min switch.

Connect the bed harness and push the harness into the clip as shown.
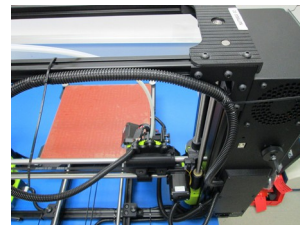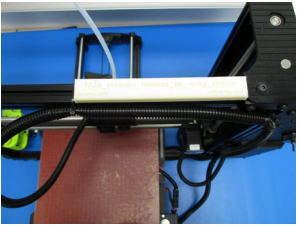
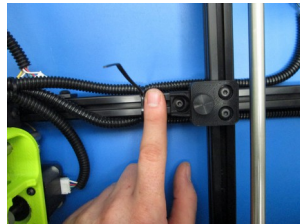| LulzBot TAZ 6.0 Final Mechanical assembly		
Step Pictures		**Secure cables to frame**
Secure the Extruder harness to the back side frame corner	Determine 155mm distance from left side, back top frame	Use tie wraps in the following steps to secure the harnesses as shown. Make sure to keep a nice radius at each bend in the harnesses. Leaving a nice radius to the extruder harness, secure the harness to the corner bracket. Secure the rest of the harness to the backside of the frame 155mm from the edge of the left top drive by measure or using a jig as shown. Secure the two Z, and the Y motor harness to the lower corner bracket. Tie wrap the Z and Y harnesses to the lower rear extrusion leaving a fingers width of space between the tie wrap and the mount. Tie wrap the Y harnesses to the lower rear extrusion leaving a fingers width of space between the tie wrap and the mount. Tie wrap the Z harnesses to the lower rear extrusion leaving a fingers width of space between the tie wrap and the mount. There should be a nice liberal radius at each turn in the harnesses to prevent premature wear and motor disconnections. Cut the excess of the tie wraps using flush cutters.
Secure the Extruder harness frame back top extrusion	Remove the positioning fixture	
Secure both of the Z motor harnesses and Y motor harness to the frame corner	Secure these harnesses to the frame cross member nearest the control box	
Secure the Z right and Y axis motor harnesses again to the frame cross member just inside the Y axis assembly	Secure the Z right side motor harness to the frame cross member near the Y table mount nearest the X right side motor	

LulzBot TAZ Single Flexystruder Tool Head V2		
Step Pictures		**Install tool head and Filament supports**
Attach Extruder to the X carriage mount	Align the extruder connector and the extruder harness connector	Install the tool head on the X carriage making sure to put the bottom of the mount into the guide at the bottom of the carriage. Secure with an M3X12SHCS tighten finger tight. Plug in the tool head. **Make sure the the sides with the missing pin position are on the same side.** Install the spool arm as shown using one M5X12 SCHS and an M5 black washer . Tighten hand tight. Install the feed tube spinner as shown.
install the spool arm	install the feed tube holder as shown	
Install the spinner onto the feed tube holder		

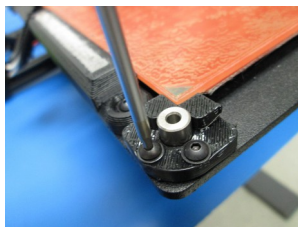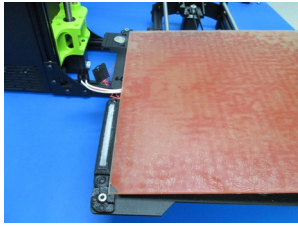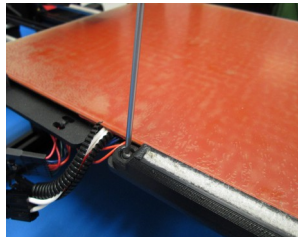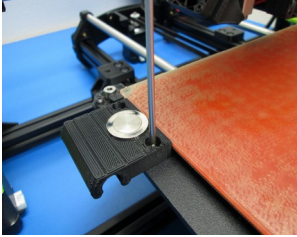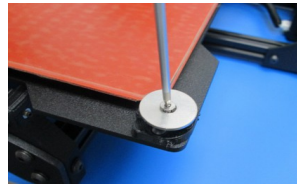| Step Pictures		install heat bead assembly
 Orient and install the bed assembly	 Align the bed to the corners and tighten corner screws	Align the print bed assembly onto the bed plate orienting the print bed assembly wiring with the Z switch mount Align the four edges of the bed assembly with the four bed corner supports ensuring the bed is sitting within the 90degree notch in the corner Secure each of the two M3 screws that are holding each of the bed corners to finger tight Secure the Z switch mount to the bed plate by tightening the two screws to hand tight, the M3 SS FHS has a M3 nut, this nut must be tight as well once the screw has been secured Tighten the wiper mount M3 screws to hand tight Install a bed leveling washer onto each of the four corners, secure the washers to the bed with one (1) stainless M3X14 FHCS per washer tightened to hand tight.
 Tighten the Z switch mount (secure the backside nut)	 Tighten the Wiper mount screws	
 Install and secure bed leveling washers		