



## QUALITY ASSURANCE RECORD

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Model: LulzBot Mini 1.0 3D Printer

Serial Number: \_\_\_\_\_  
Date Completed: \_\_\_\_\_  
Tested by: \_\_\_\_\_

### Configuration:

Electronics: Mini-RAMBo 1.0a  
Firmware: Marlin for Mini 2014-Q4  
Nozzle: 0.5mm diameter nozzle  
Settings:

Stepper Motor	Steps/mm	Max Length	Microstep Mode	Digipot
X	100.5	155	16	175
Y	100.5	155	16	175
Z	1600	155	16	220
E0	833	NA	16	135

### General:

- ☐ Are all the screws and zip ties tight?
- ☐ Are the current version of parts being used?
- ☐ Is the Spool Mount properly mounted so it flips up and sits securely?
- ☐ Is the Finger Clip properly mounted with the taller side on the left?
- ☐ Are the switches tight? They shouldn't wiggle side to side.
- ☐ Are all 4 rubber feet installed?
- ☐ Is the PEI tape free of bubbles and wrinkles?
- ☐ Is the heat bed adhesive smooth and consistent with no finger prints?

### Y Axis:

- ☐ Does the Y bed move freely back and forth?
- ☐ Is the belt mounted in the correct orientation?
- ☐ Is the Y bed tight side to side from motion and twisting?
- ☐ Are all the screws on the bearing holders tight?
- ☐ Does the Y belt rub the bottom of the y-idler by the bearings?
- ☐ Is the Y pulley tight?
- ☐ Is one of the set screws on the Y pulley aligned with the flat on the motor shaft?
- ☐ Are both pulley set screws tightened?
- ☐ Is the level of the Y pulley at the same height as where the belt mounts on the belt holder?
- ☐ Is the Y belt tight?
- ☐ Are the four bed leveling washers tight?
- ☐ Are the belts trimmed far enough to not interfere with the pulley or bearing?



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### X Axis:

- ☐ Is the X pulley tight?
- ☐ Is one of the set screws on the X pulley aligned with the flat on the motor shaft?
- ☐ Are both pulley set screws tightened?
- ☐ Is the belt mounted in the correct orientation?
- ☐ Is the belt free from rubbing anywhere during motion?
- ☐ Is the X belt tight?
- ☐ Does the X axis move freely end to end?
- ☐ Are the X bars flush with the right side?
- ☐ Are the set screws that hold the X bars tight?
- ☐ Are the belts trimmed far enough to not interfere with the pulley or bearing?

### Z Axis:

- ☐ Do the Z drive rods rotate smoothly with no up and down movement between the bearings?
- ☐ Are the set screws that hold the Z bars tight?
- ☐ Are the coupler set screws tight?
- ☐ Are the drive rods and motor shafts aligned so the couplers are not bent?

### Extruder:

- ☐ Can you adjust the extruder springs?
- ☐ Are the V grooves on the extruder gears lined up?
- ☐ Is the extruder mount secure on the X carriage?
- ☐ Is the extrusion fan mounted correctly?
- ☐ Is the extruder blower mounted correctly?
- ☐ Does the idler bearing stick out of the idler block?
- ☐ Is the hobbing aligned to the hole in the extruder?
- ☐ Is the set screw in the small gear tight and on the flat of the motor shaft?
- ☐ Can you feed filament about 100mm from the top of the extruder?
- ☐ Are the gears tight with no back-lash?
- ☐ Do the extruder gears turn smoothly for several rotations?

### Electronics:

- ☐ Are all connections to the Mini-Rambo plugged in correctly?
- ☐ Can you plug in USB cable from the outside of the enclosure?
- ☐ Is the case fan plugged in?
- ☐ Are all cables free from contacting any moving parts?



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### Test and Verification Results:

- ☐ Verify case fan is running.
- ☐ Verify extruder blower is running.
- ☐ Verify control of the extrusion fan.
- ☐ Nozzle temperature control verified.
- ☐ Nozzle re-tightened during first heat cycle.
- ☐ Extruder control verified.
- ☐ X, Y, and Z min and max stop switches verified.
- ☐ X and Y homing are making contact with bed leveling washer.
- ☐ Bed leveling is functioning properly.
- ☐ Bed temperature control verified.
- ☐ Bearing conditioning complete.
- ☐ X, Y, and Z motion smooth over full range and speeds.
- ☐ Test print (Rocktopus\*) successful.
- ☐ Print head moved to shipping position.

\*Rocktopus by Kent Johnson is licensed under CC BY-SA 4.0 and derived from work by dietz1 and yeoldebrian - [lulzbot.com/rocktopus](http://lulzbot.com/rocktopus)



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