

3D Printing guide for the KAPtery [Redstone Rig Kit](#)

Parts List and User Guide at KAPtery.com/guides

For spare parts: KAPtery.com Technical support: <http://kaptery.com/contact/>

Files at Thingiverse

Below are some typical settings for printing on a Makerbot Replicator 1 with PLA filament, single 0.4 mm MK8 nozzle, 205° to 215°C, build plate at 45°C. These are hot temperatures for PLA, but with many brands, cooler temperatures will not produce parts strong enough to trust with your camera in the air.

Layer height = 0.2 mm, base print speed = 120 mm/second, travel speed = 200 mm/second (acceleration is ON).

I print all leg brackets from ABS for extra resilience.



The MakerBot Replicator just finishing a standard tray for the Redstone Rig.

Slicing: I have sliced these parts with good results in both MakerWare and Simplify 3D. For other printers, slicers, and materials different settings may be appropriate.

Upper frame:

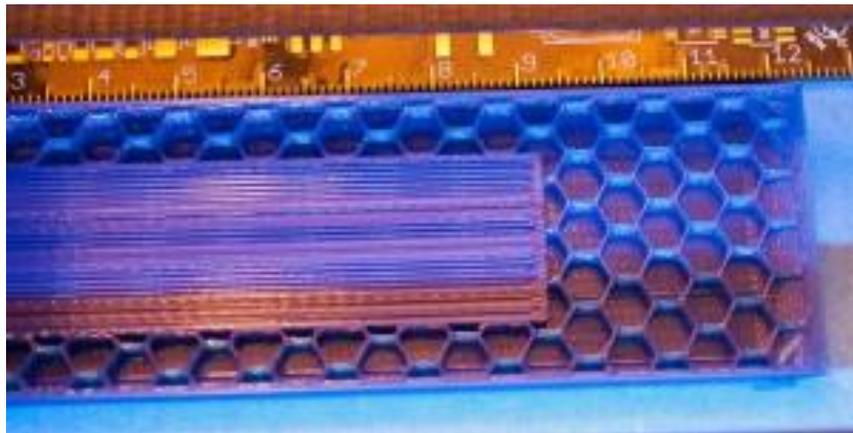
- *Position:* The frame must lie on its back with the printed labels upward. The model has tabs at the end of each arm to improve adhesion to the build plate there.
- *Size:* The long dimension of the part should be 155 mm.
- *Support:* ON (required for the suspension attachment bracket, otherwise none is needed)
- *Infill:* 25%
- *Shells:* 2
- *Time:* 3.6 hours

Leg brackets:

- Inserting dowels into the tubes can crack the plastic, so I print these in ABS.
- *Position:* Lay horizontally on the flat back.
- *Size:* The long dimension should be 36.3 mm
- *Support:* OFF (otherwise support must be drilled out of the long tube)
- *Infill:* 35%
- *Shells:* 4
- *Time:* 1.3 hours (for two)

Camera tray: (regardless of model)

- *Position:* Lay upright on bottom.
- *Size:* The long dimension should be 140 mm
- *Support:* ON (just for the curve at the base of the sides)
- *Infill:* 25%
- *Shells:* 2
- *Time:* 2.5 to 3 hours



A camera tray being printed from a file sliced in MakerWare. Honeycomb fills the interior except in a solid pad where the hole for the tripod screw will be drilled.