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## **Tech Specs**

For the Techno-buffs, below is an outline of what you can expect to find in a RoboBeast 3D Printer:

- Build bed size:
  - o z = 300mm
  - $\circ$  y = 320mm
  - $\circ$  x = 385mm; (Supersize x=800mm)
- Outer diameter 600mm x 600mm x 600mm (Supersize 1100mm)
- Total weight 25 kilograms; (Supersize 35kg)
- Will come fully assembled with 45 hrs test print time;
- Main construction is Aluminum 44mm x 44mm extrusion;
- Battery back up (8 kilograms);
- · Solar panel (15 kilograms);
- · Battery will maintain a 5 hour back up print;
- Self leveling print (not bed);
- Print with PLA 1.75 filament;
- 0.3mm nozzle;
- 0.9mm Nema 17 motors;
- Aluminum filament extruder (compliments of Printrbot);
- No heat bed;
- The optional BBB runs the GNU/Linux <u>Ångström distribution</u> which was configured to boot directly into a <u>Qt</u> application to present the user with a simplified user interface. The Qt application consists of a webkit frame which serves static and dynamic HTML5 content;
- The HTML5 content uses <u>Bootstrap</u> and <u>jQuery</u> as the main supporting libraries and the user interface is served from a Python web server containing a <u>Flask</u> application. Static contents was generated using <u>Jekyll</u> and dynamic contents using <u>Jinja2</u> templates;
- Interfacing to the Printrbot is done through the excellent Python printcore library which is part of the PrintRun project (Pronterface and Pronsole)
- The board configuration and software development was contributed to RoboBeast by Guy van den Berg and Schalk Heunis from Microsmart – a House4Hack supported start-up. Microsmart specializes in intelligent interconnected devices and service