



YOUMAGINE

# 3DRmega - the BIG RepRap Delta printer

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Located at: <http://www.youmagine.com/designs/3drmega-the-big-reprap-delta-printer>

## Short description:

It's a 1.8M tall RepRap Delta printer, printed parts and a simple frame - very strong and light weight.

## Description:

For more info take a look at this blog post - <http://richrap.blogspot.co.uk/2014/07/3d-printers-big-printers-small-printers.html>

Outline (new) spec-

- Bigger Motors - NEMA 23's
- Bigger Drivers - Dedicated 3A 128microstep (prototype used normal Ramps and drivers)
- Bigger Electronics - The great ARM based Smoothie board is being used for the (new) prototype.
- Bigger Rods and Frame (10mm Rods and 30mm Aluminium box-section)
- Bigger Printed parts - most parts are 100+mm is size (total printed parts weight is just under 2KG)
- Bigger Print head / multiple / materials / feeds etc.

A set of 3DRmega 3D printed frame parts, just under 2Kg of filament used for these, they are also designed to minimize warp and maximise adhesion to the build platform.

The carriages snap-fit onto LM10UU Linear bearings and are running on 10mm smooth stainless steel rods, just like 3DR but bigger and stronger.

The arms are made from carbon fiber tent poles, cut to size and have an all metal universal ball joint fitted to each end. This allows the center carriage to move in any direction as each arm moves up and down.

Like the nano, but unlike the standard 3DR I have mounted the Motors at the top, this allows much more freedom for the design and flexibility of printing on almost any surface.

Design files! - where are the design files - hang on a little, I'll get them all up as soon as I can.

If you can, please use the online documentation found at <http://www.youmagine.com/designs/3drmega-the-big-reprap-delta-printer> because those may have been updated. Also, there you can interact and provide praise and/or feedback.