Open Builds CBeam

About the Machine

The C-Beam machine is based upon the OpenBuilds CBeam machine which is documented here http://openbuildspartstore.com/openbuilds-c-beam-machine/. It uses a smoothieboard as the controller the documentation for the smoothieboard is located here http://smoothieware.org/smoothieboard-v1.

To connect and control the machine you will have to download printrun from http://www.pronterface.com/#download. Once this is downloaded and installed you can connect to the CNC by plugging in the USB cable and using the following parameters. Port (Will depend upon machine) baud speed = 115200.

Machine Setup

Z0 Setup

To set the Z0 using the probe you will need to perform the following process

For Z0 at the top of the material perform the following

1. Make sure the router is turned off
2. Attach the red alligator clip onto the endmill
3. Move the machine to the location you want to measure the z height to. I use the XY starting point of the cut
4. Move the Z high enough to allow you to place the probe contact point under the end mill
5. plate the probe contact plate under the endmill
6. Run the following command via gcode G30 Z19.25
7. This will set the Z0 to the top of the material.

For Z0 at the top of the bed perform the following

1. Make sure the router is turned off
2. Attach the red alligator clip onto the endmill
3. Move the machine to the location over the bed that is not covered by the material you are cutting
4. Move the Z high enough to allow you to place the probe contact point under the end mill
5. plate the probe contact plate under the endmill
6. Run the following command via gcode G30 Z19.25
7. This will set the Z0 to the top of the material.

X0 and Y0 Setup

To Set the X0 and Y0

1. Move the machine to the location you want X0 and Y0 to be
2. Issue a G92 X0 Y0 command to set this to the be the X0 and Y0
3. Issue a M114 to confirm