MAKING STUFF IN THE SHED

MADE FOR CLUG

BY RACHAEL AND HUGH BLEMINGS

Agenda

- Introduction to Makerbot Industries Cupcake CNC

- Building our 'bot #326 Batch VII

- Design process
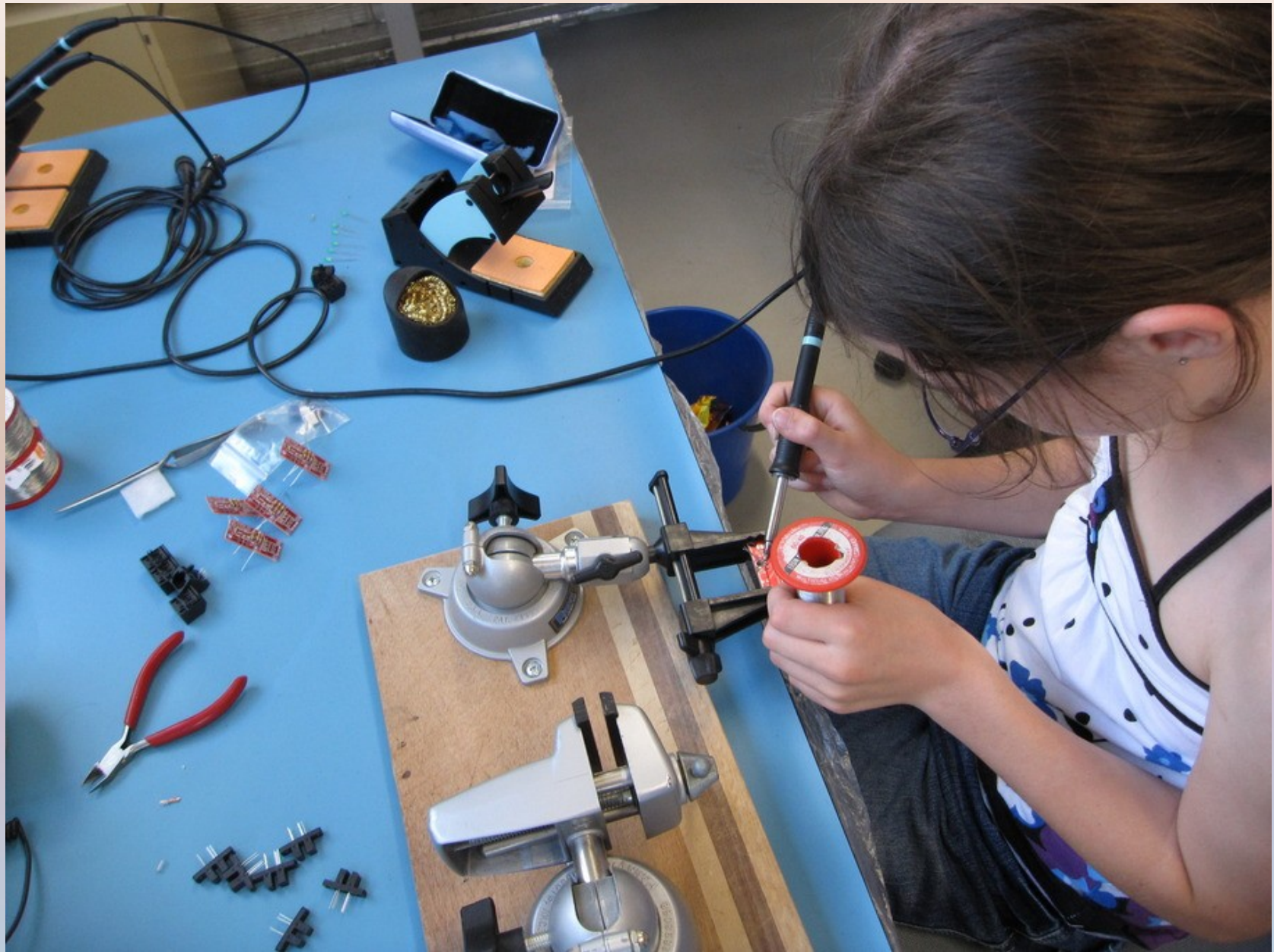
- Quick word about Arduinos

- Cupcake Demo

Introduction to Cupcake CNC

- Open (Software, Hardware) 3D "Printer"

    – A RepRap derivative

    – Arduino derived control electronics

- Prints ABS and PLA Plastic

    – PLA is biodegradable

- Print volume of ~ 100 x 100 x 120 mm

- Resolution ~0.5mm

- Control software builds for Linux, OSX and Windows

- Kits from Makerbot Industries

    – Principals met at NYC Resistor Hakerspace

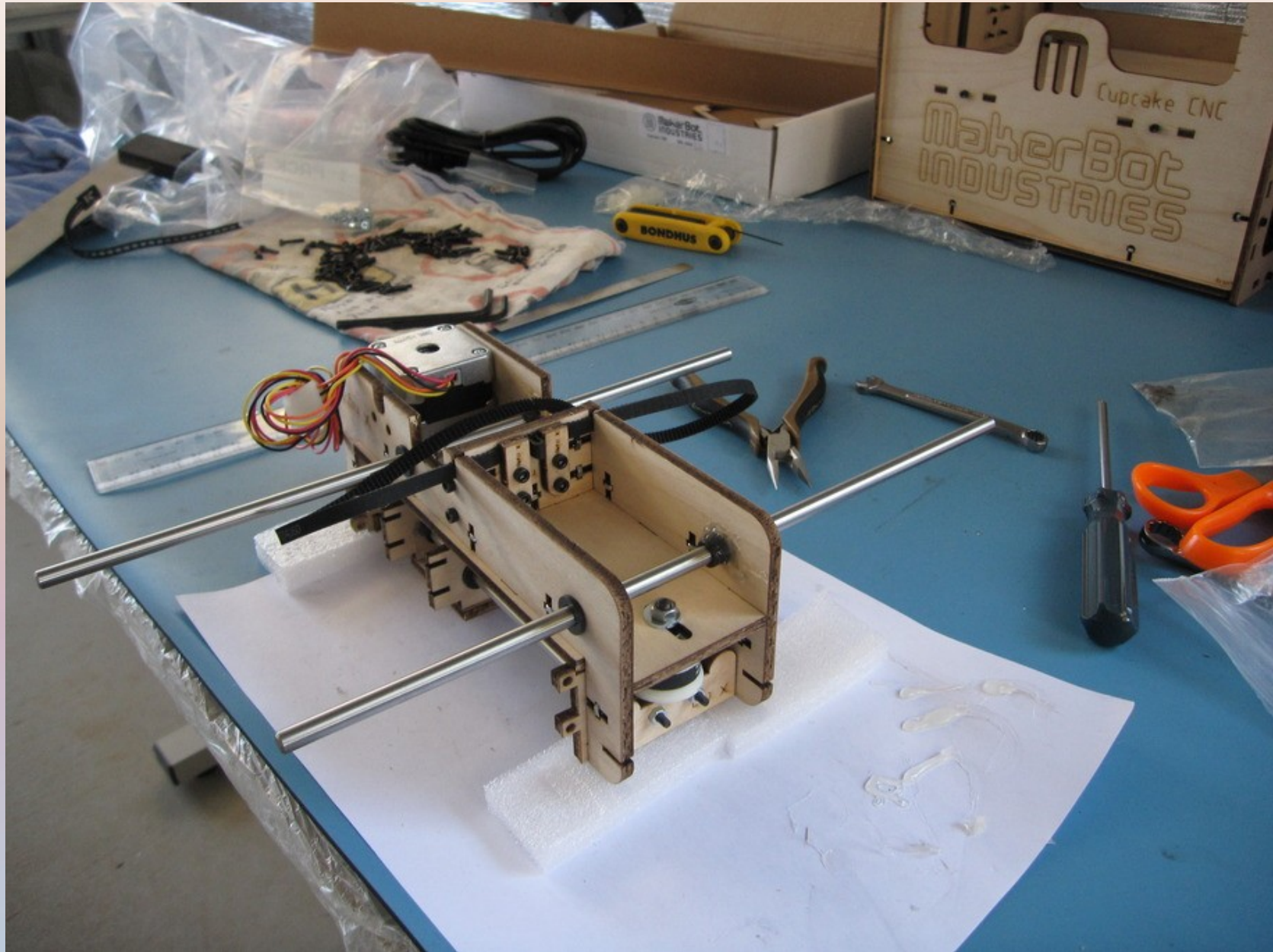# Building our 'bot – Getting started
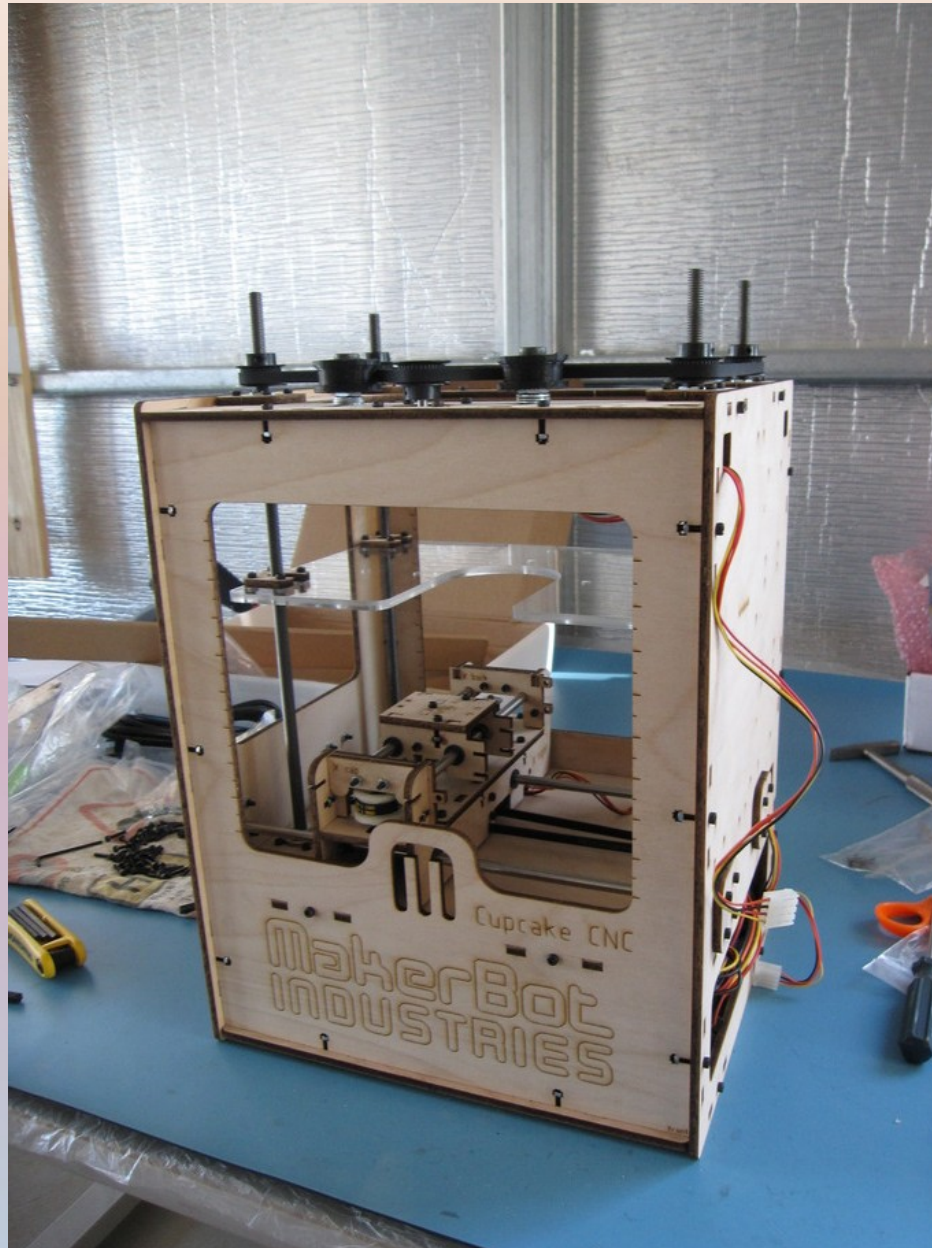
Building our 'bot – Soldering endstops

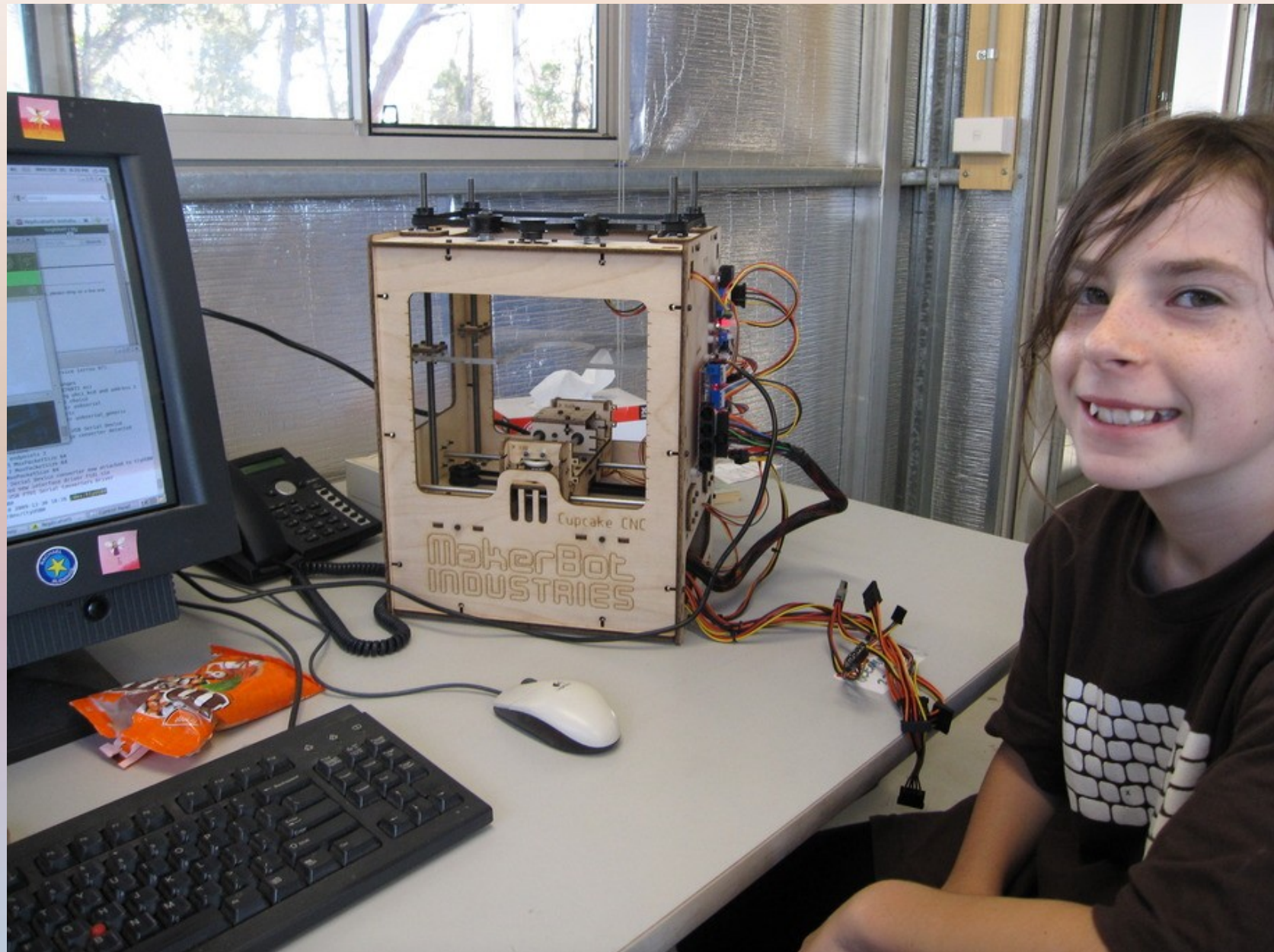# Building our 'bot – Assembling frame

Building our 'bot – Assembling x/y stage

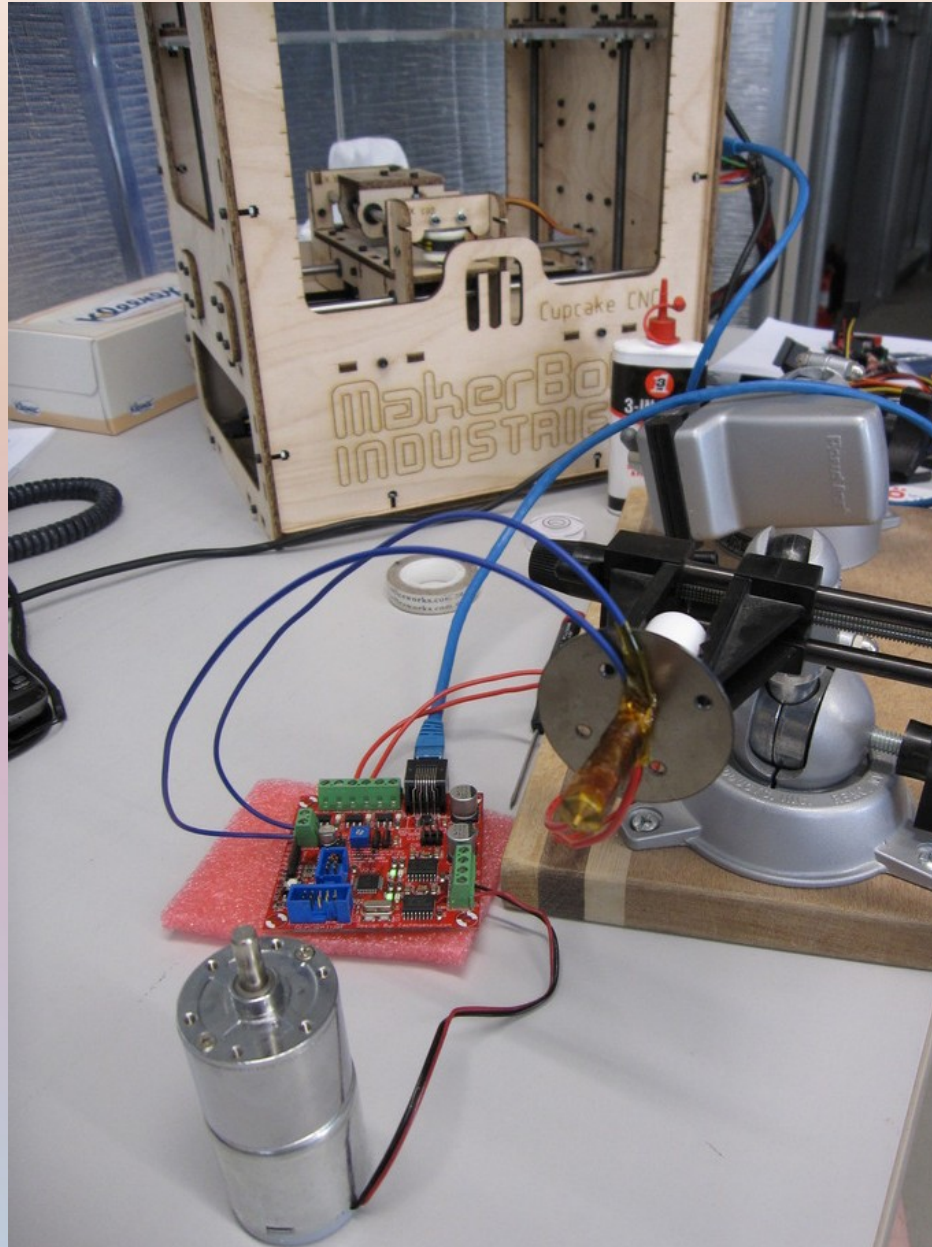# Building our 'bot – main mechanicals done

Building our 'bot – testing electronics

Building our 'bot – extruder heater
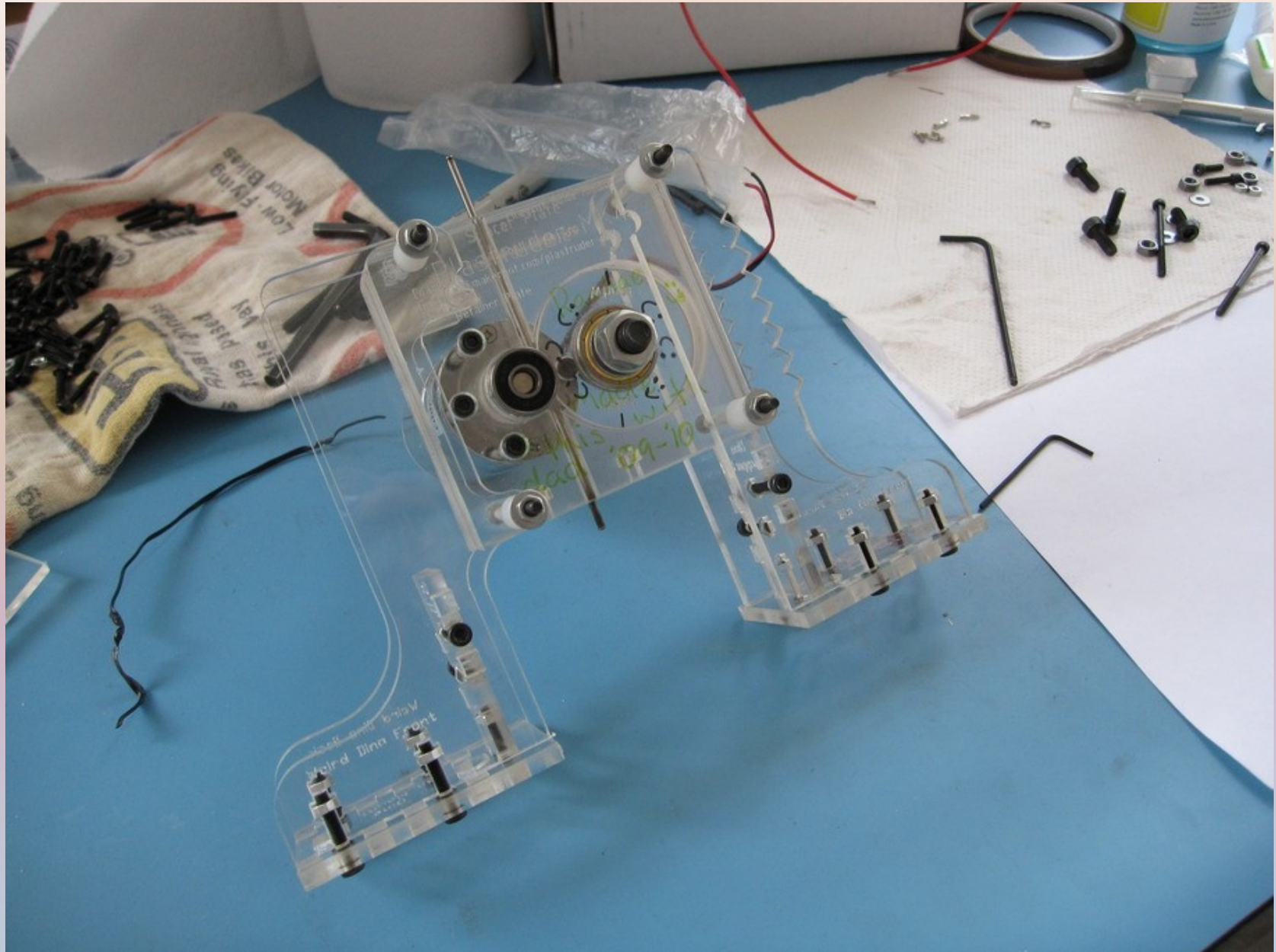
Building our 'bot – extruder heater
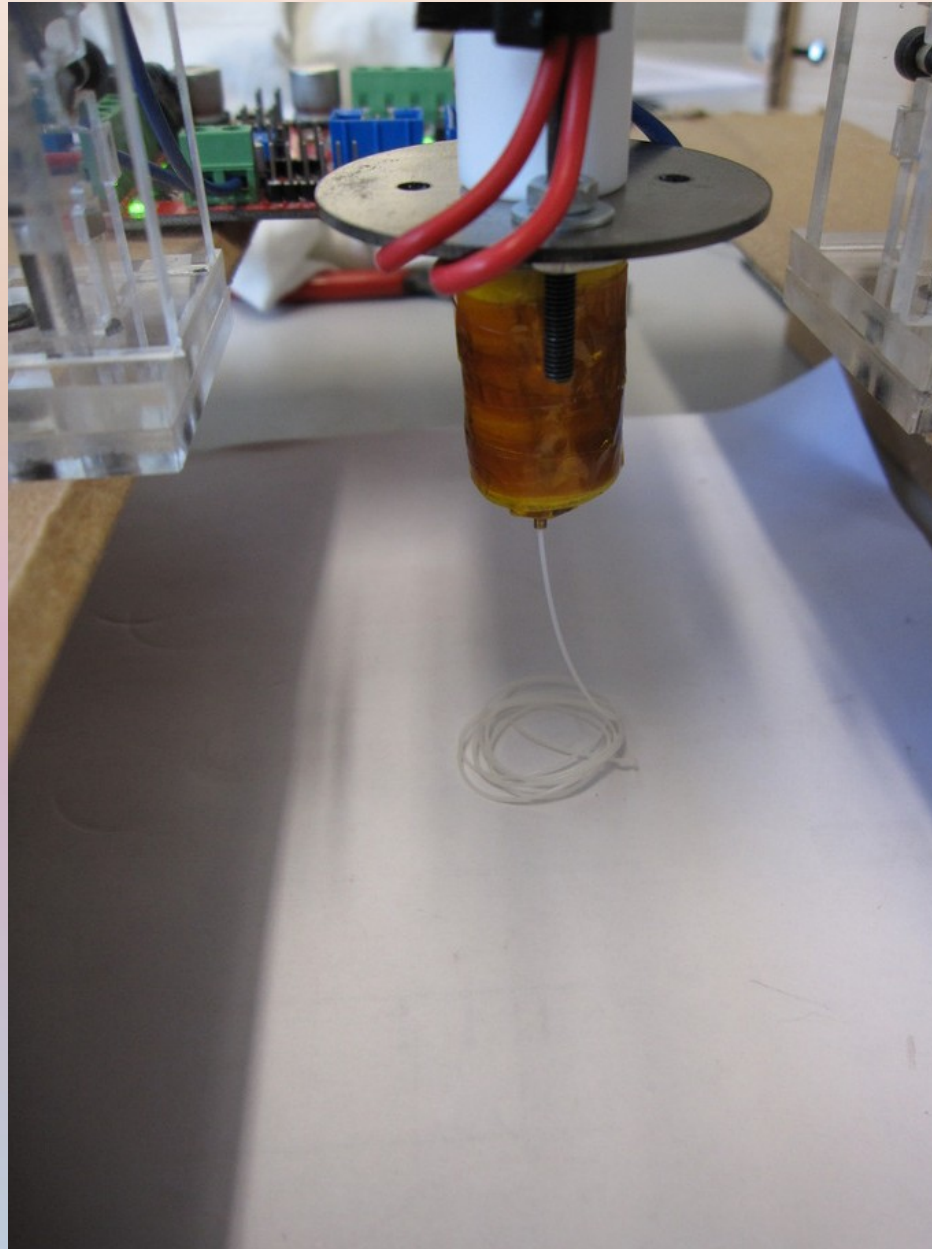
Building our 'bot – testing extruder electronics
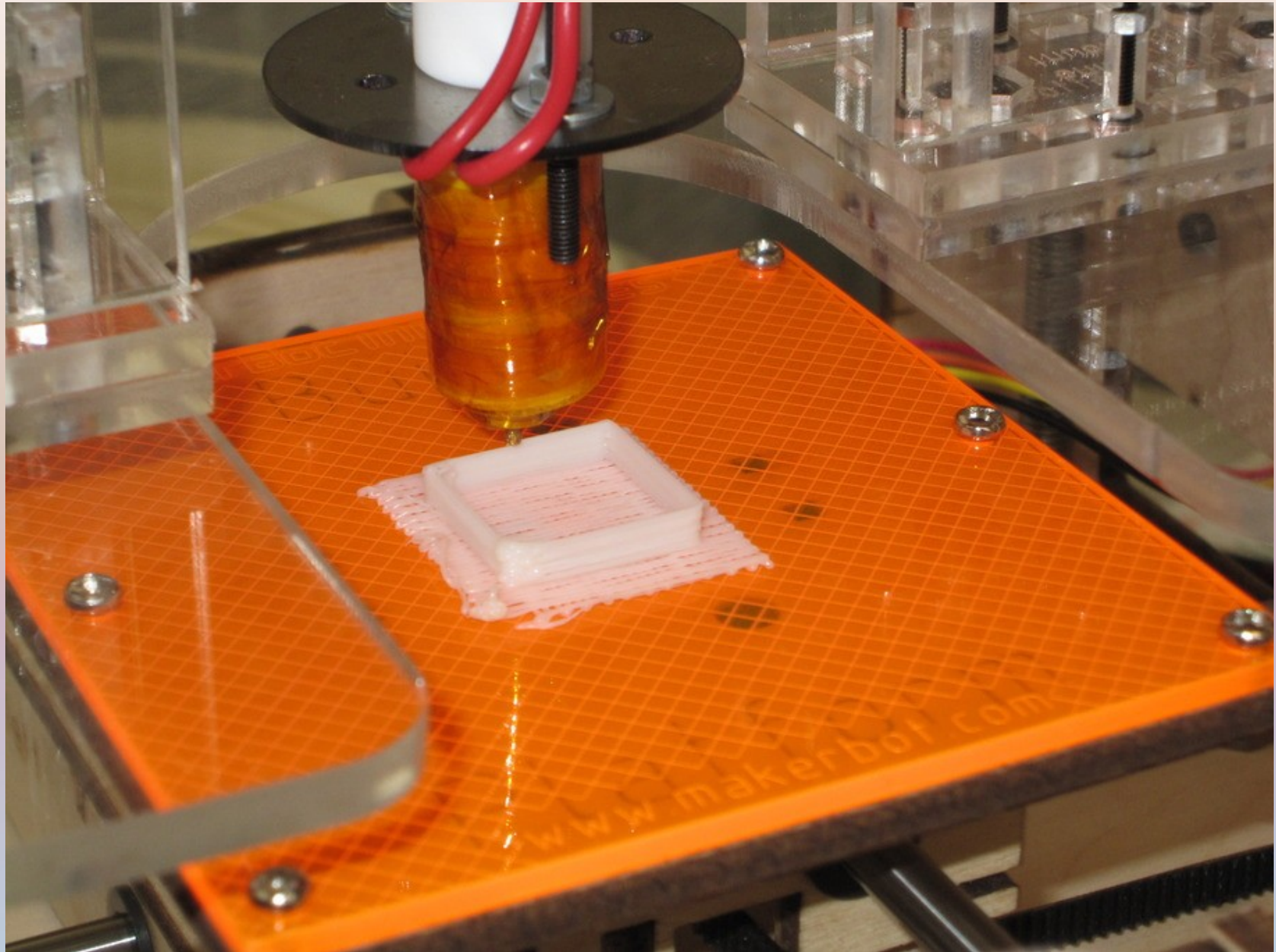
Building our 'bot – extruder mount
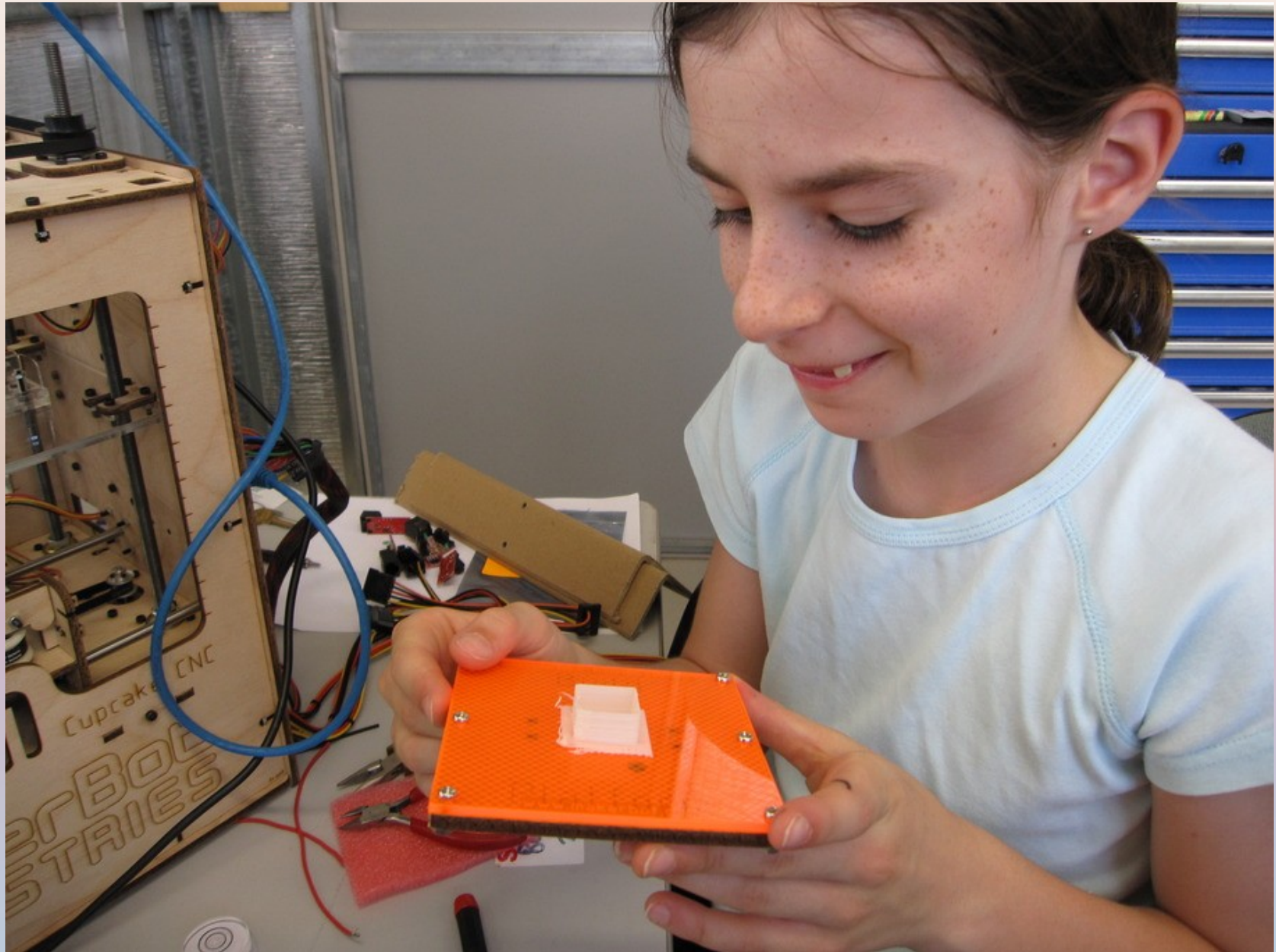
Building our 'bot – extruder mount - 2

Building our 'bot – testing extruder

Building our 'bot – first print...

Building our 'bot – Success! :)

Design process

- 3D models in .stl (Stereo Lithography) file format
    - OpenSCAD, Blender (FOSS)
    - Solidworks, AutoCAD (proprietary)
- skeinforge converts from .stl files to gcode
- replicatorg drives reprap board directly
    - or writes to file for use with SD card
- Demo...

Links

- http://makerbot.com

- http://replicat.org

- http://thingiverse.com

- http://pics.blemings.org/gallery/cupcake326

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THANKS FOR COMING ! :D