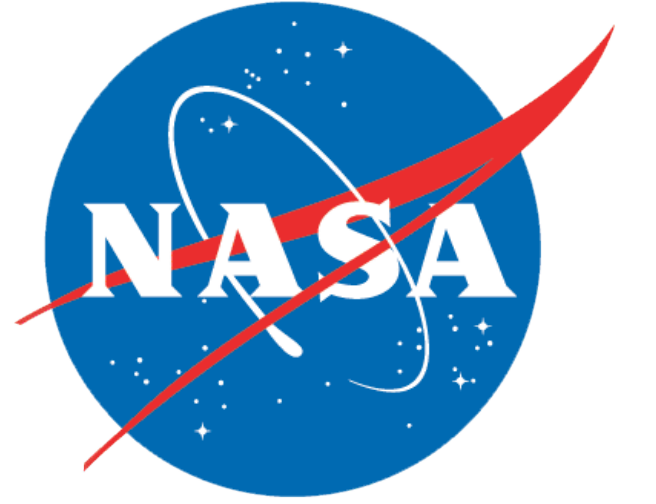# Automatic Etch-a-Sketch

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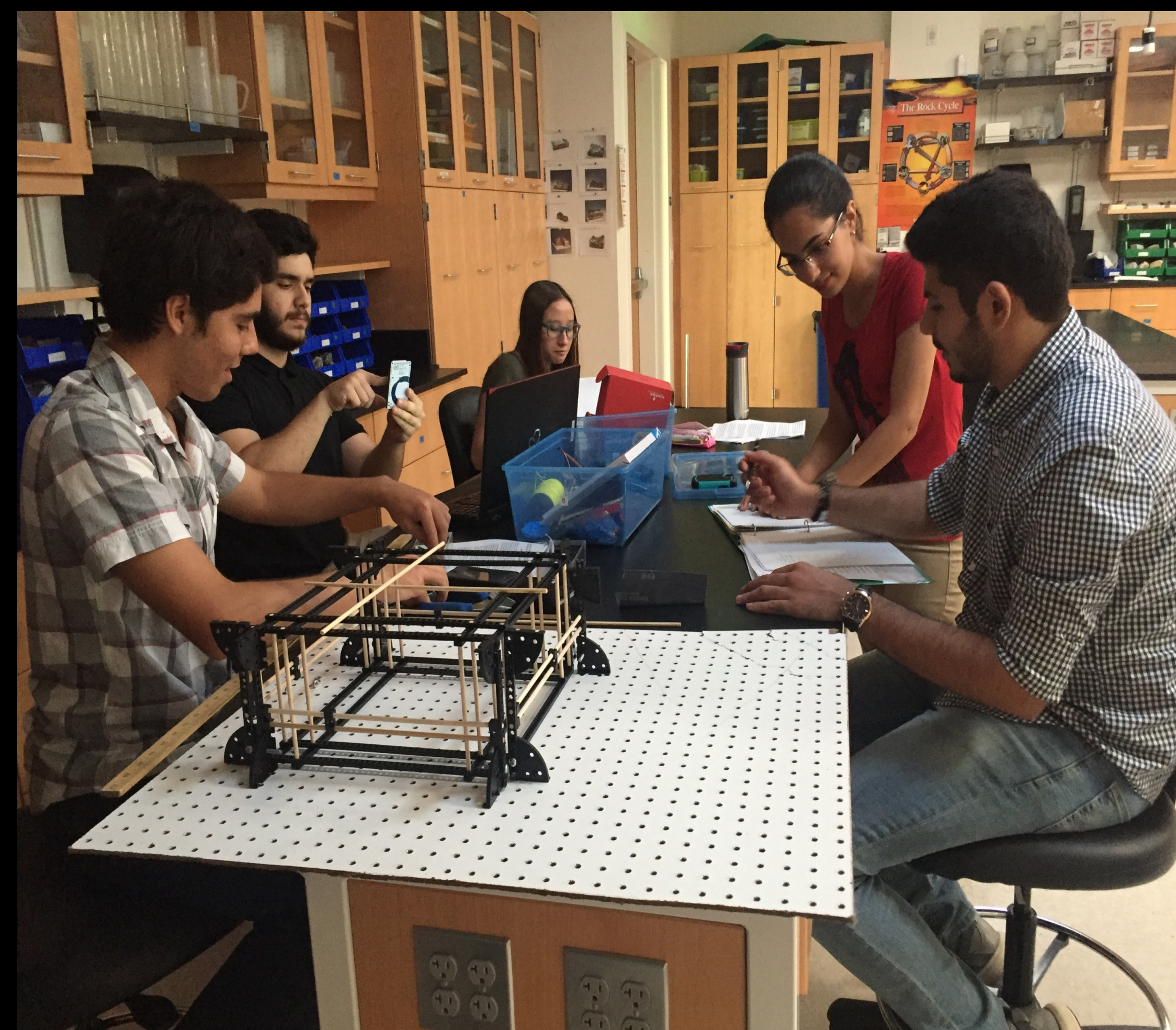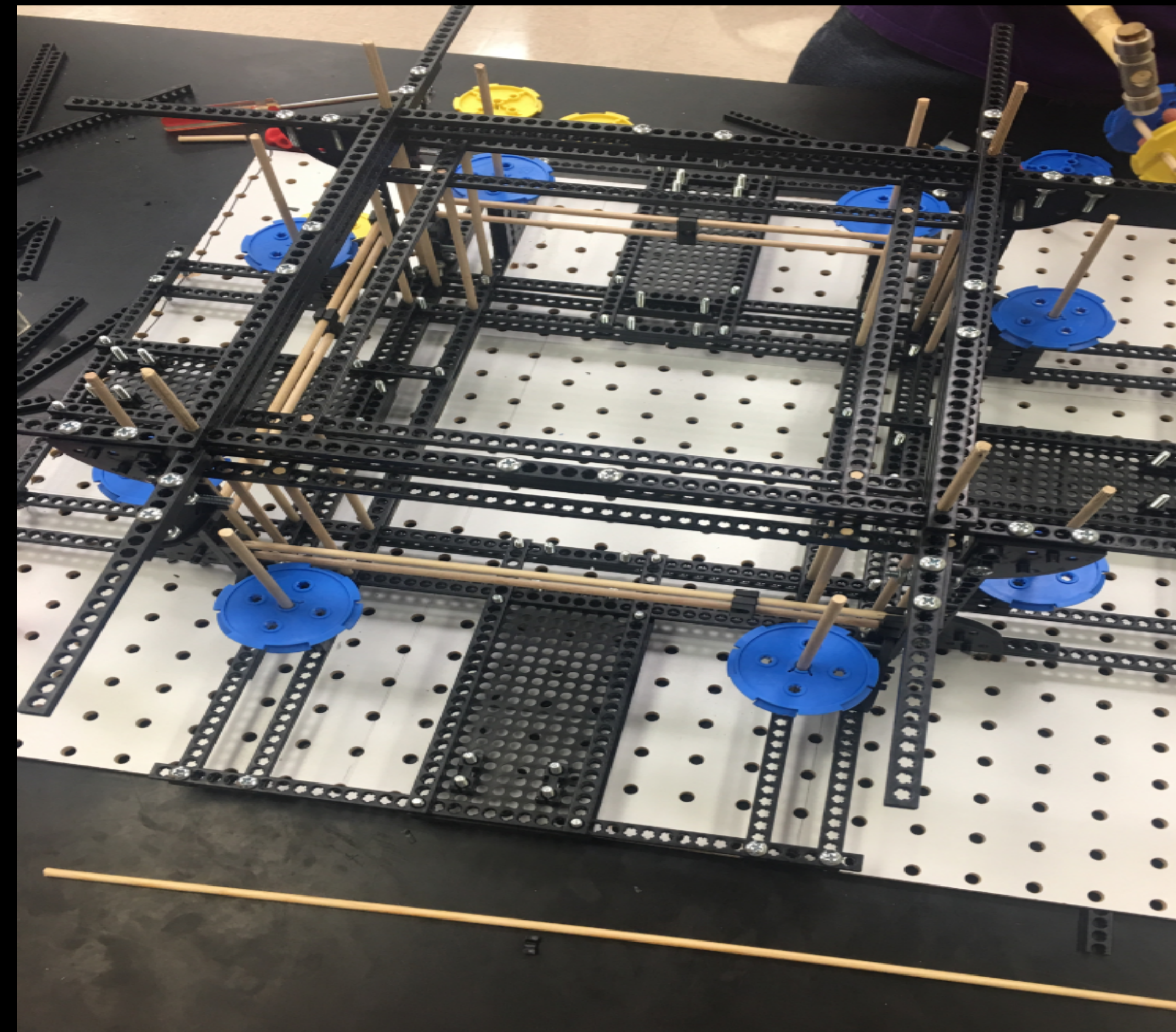
Abstract

Our team has built and programmed an Arduino-controlled XY plotter.

Arduino Coding:

- Our project has two modes of use, an automatic mode and a manual mode
- Automatic mode: From choosing an image or entering coordinates the XY plotter will automatically draw the picture
- Manual mode: One can manually control the robot using buttons to drive the motors forward and backwards
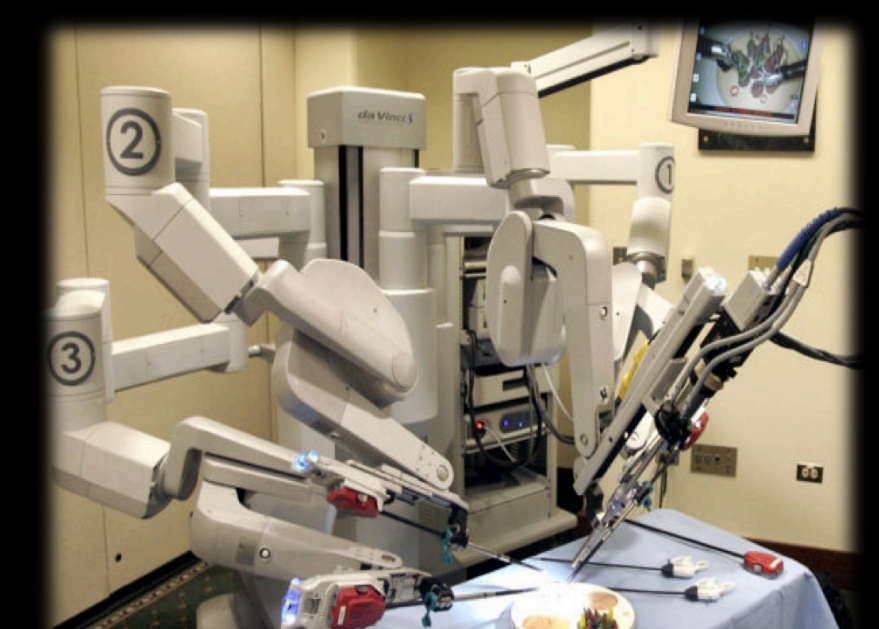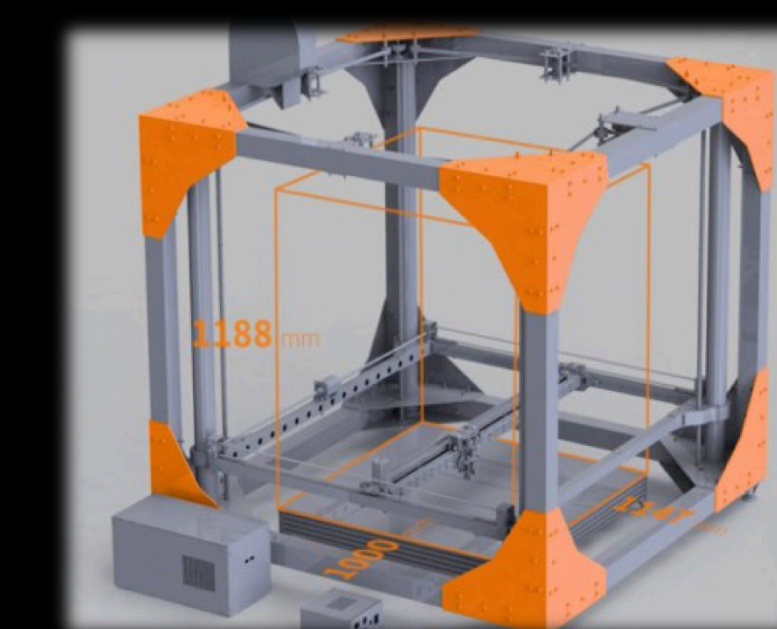
Mechanical Structure:

- Plotter built from wooden sticks, plastic strips, and pulleys
- Motors on each side work in parallel to pull cross section in different directions to draw
- Controlled using Sparkfun Tinkerkit provided by NASA

Lessons Learned

- To quickly put together a prototype
- To divide up the work, working on both software and mechanics simultaneously
- Things don't work out as expected, changes and adjustments have to be constantly made
- How to quickly learn new software skills and how to do the research
- To overcome ruts in the debugging process

Future Use

Acknowledgements

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