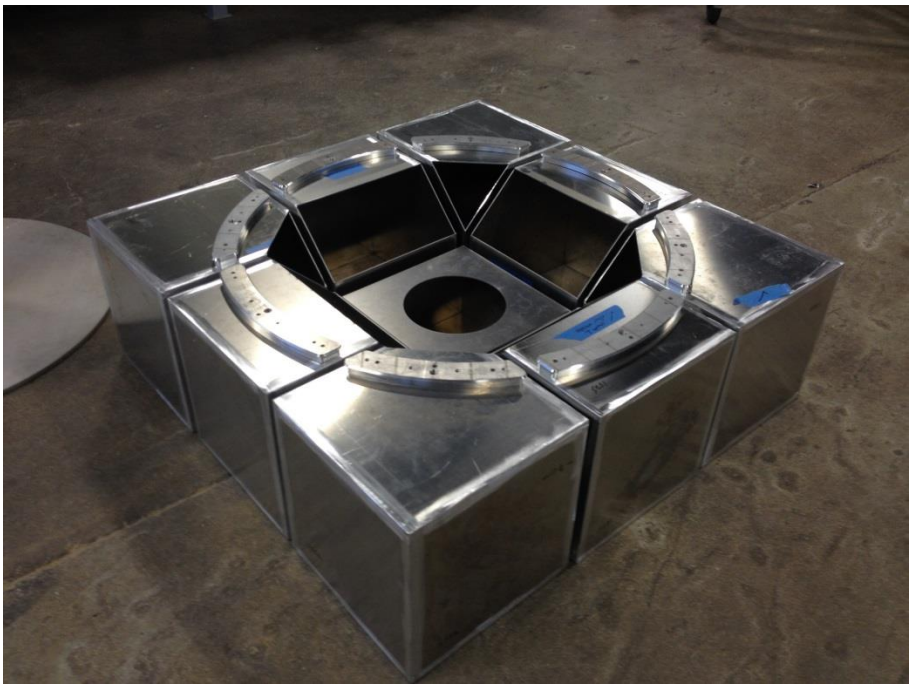
Cube Photo Update

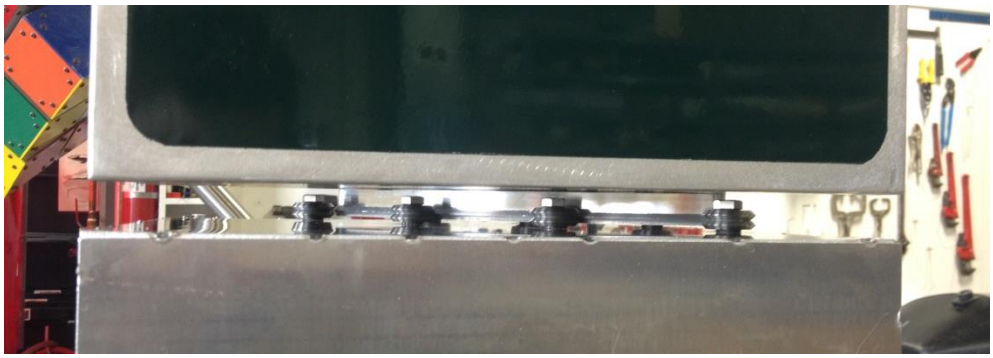
The Cube with the base's raw materials. (8" sch. 40 pipe, 3/8" thick 36" diameter base. Both stainless steel)



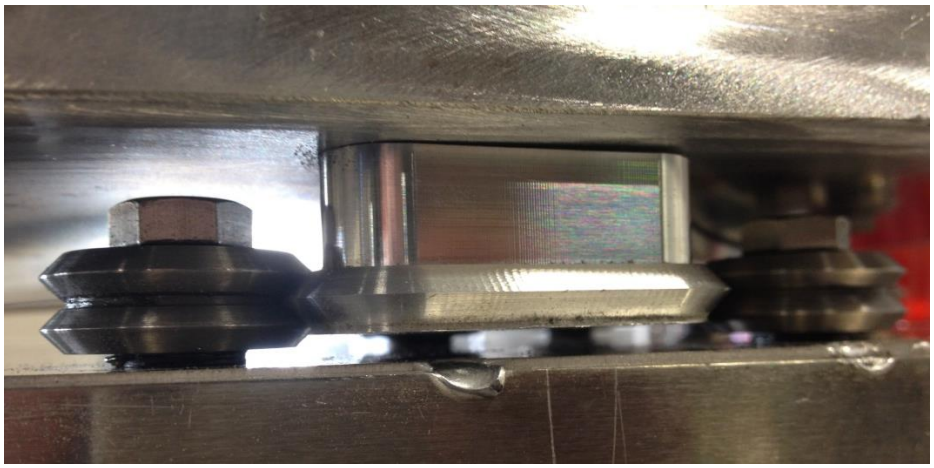
Several rails have been temporarily installed for testing. Finding the bolt locations for the rails is straightforward. The bearings are more complicated.

Bearings

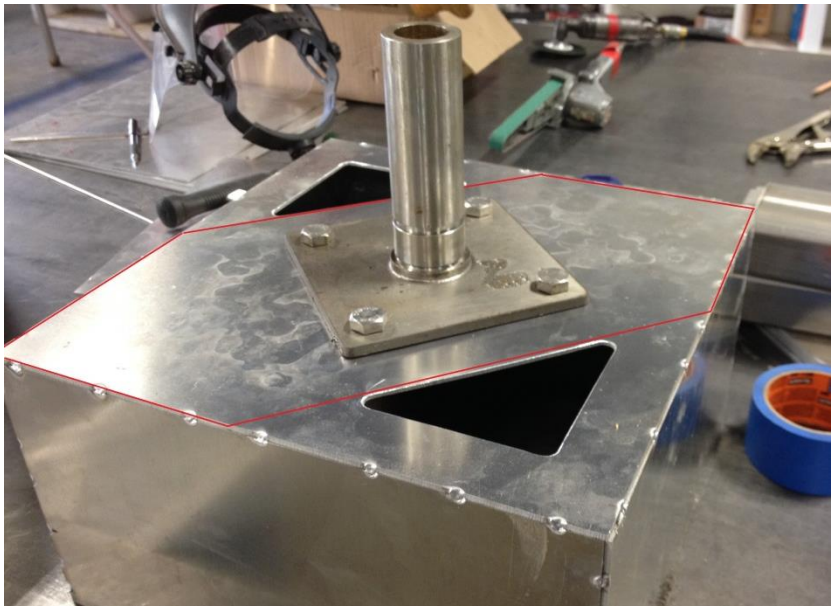
One of the many test pieces for bolt patterns.



An example of assembled and connected test cubes. The slightest play between the rail and bearings causes a visible angled gap between the two cubes. This would cause two adjacent cubes to misalign and jam. Or the worst case scenario would be “skipping the rail,” causing a permanent jam as has happed with the scaled model. This tolerance with material wear is my main concern and where most of the testing has been.



Center Cubes



A test version of the mounting bracket for the center cubes. The new pieces being water-jet cut are extended out to the red line. This maximizes the support to the center cubes while allowing me hand access to install bearing bolts.

These are test gussets to increase the internal structure of the center cubes. They are offset to avoid bolt patterns and their shape is just small enough to allow my hand to pass by to tighten the bolts. They were designed in cardboard first to test hand access. Please ignore my weld quality in this test piece.

Start of the mount and interface

This is the half-built, unique, bottom cube that the base mount enters through. It's design for 3/16" gap.