NAKUJA PROJECT INTERNSHIP

PROGRESS REPORT

WEEK 2 (26TH JANUARY – 2ND FEBRUARY)

Tasks achieved:

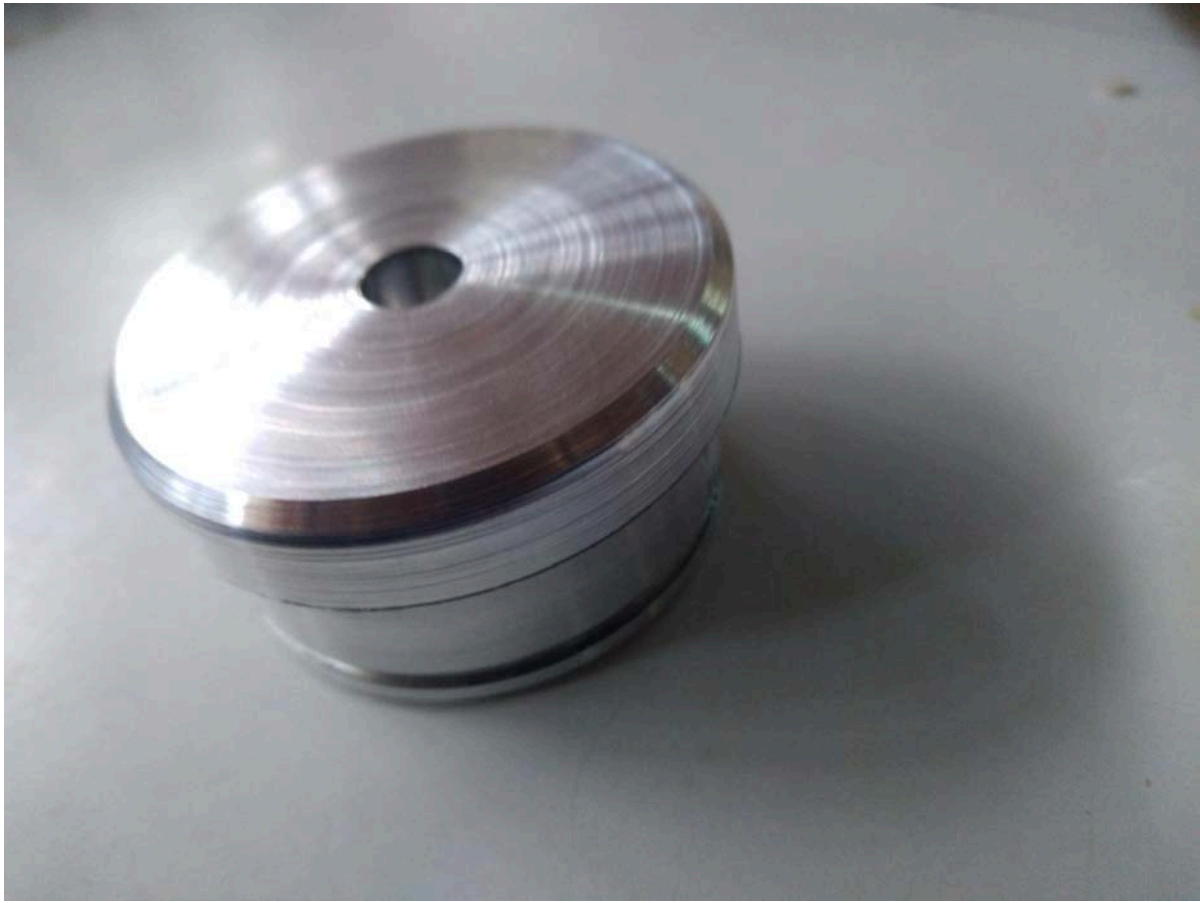
- [#68] Igniter design & testing
- [#53] Bulkhead fabrication.
- [#73] Test stand design
- [#52] Continued Nozzle fabrication
- [#55] Tested new load cell configuration
- [#73] Test stand design

NOZZLE FABRICATION

1 Failed,
Started again

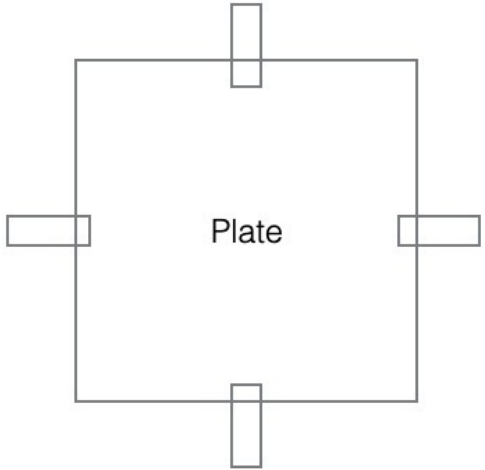
Bulkhead fabrication

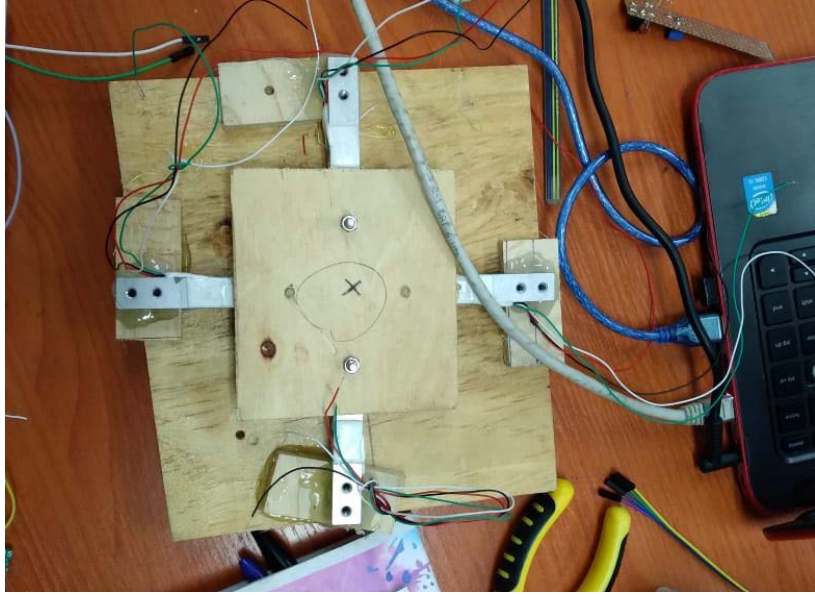
Fabrication complete



New Load Cells Configuration

- 5kg Load cells used for testing

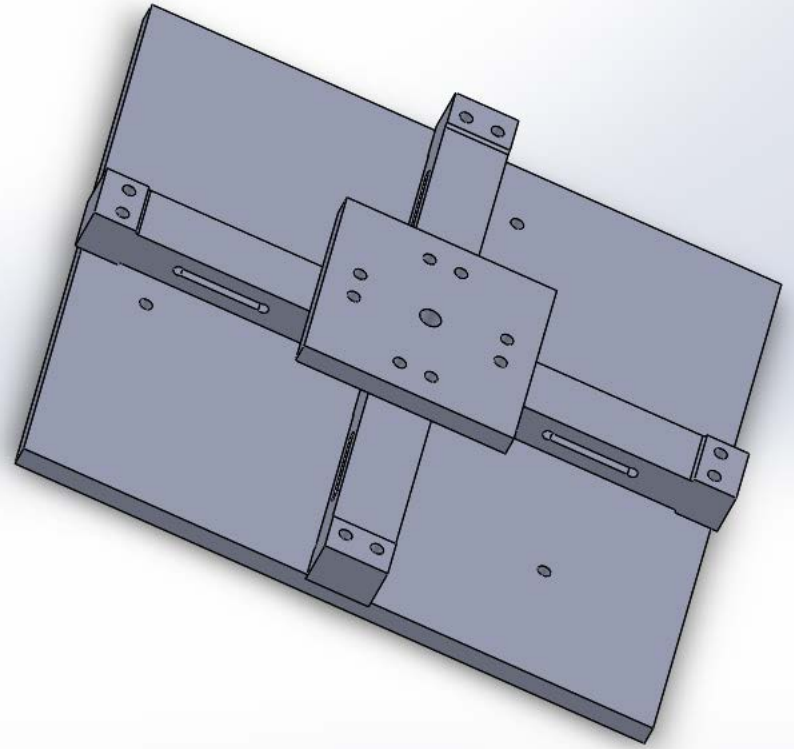




They were accurate and more consistent.
Error was a maximum of +/- 50g

Even when imbalance is induced

TEST STAND
CAD DESIGN (V1)



Materials to be used

Wood, plywood

EMT (Electrical Metal Tubing))

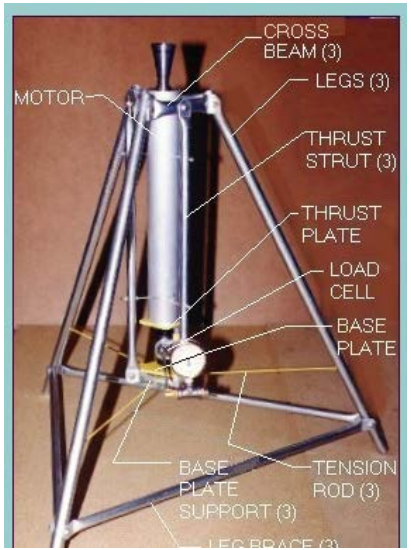
Wood - Ease of fabrication & Readily available

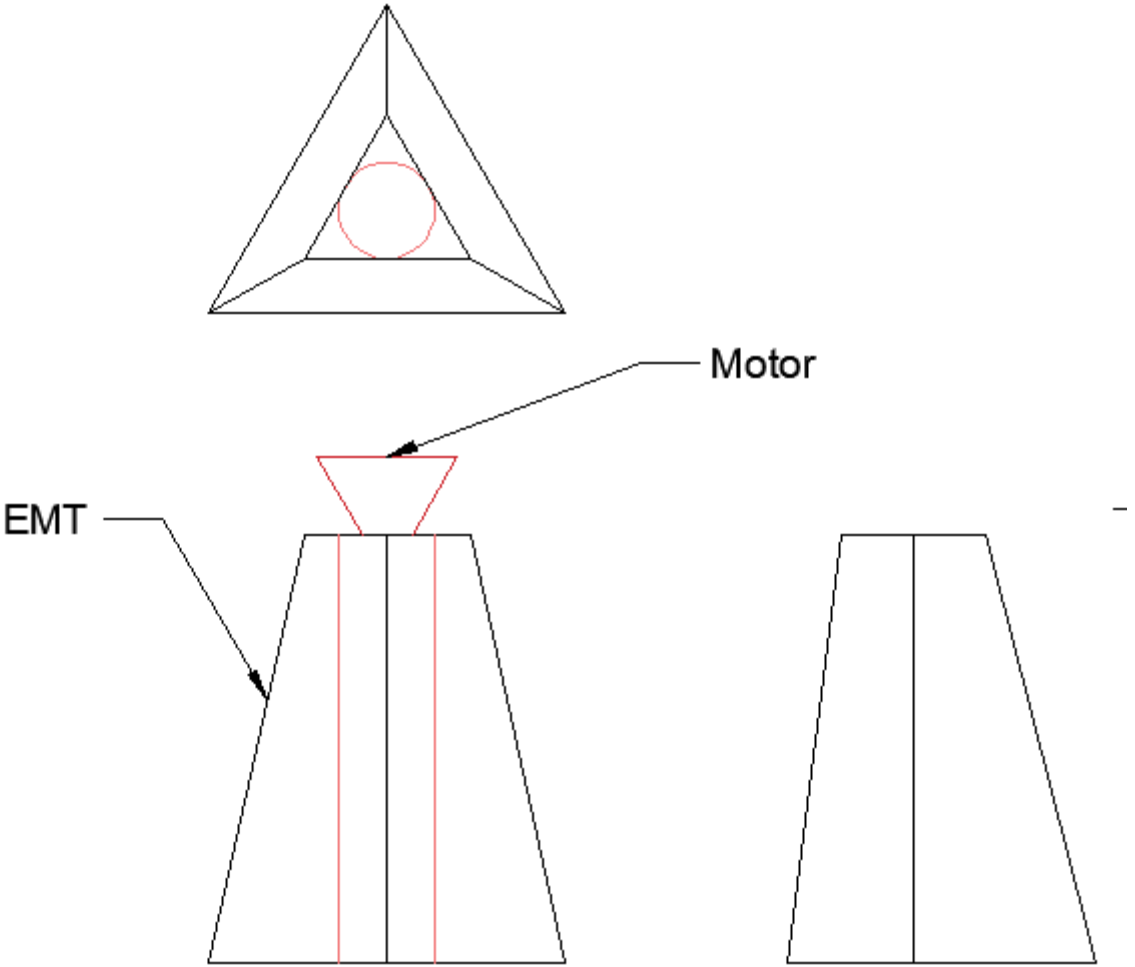
EMT - Ease of Fabrication, Rigid support

EMT + M6 bolts for clamp mechanisms

>> 1 Load cell will work

TRI-POD BASED CLAMP FOR TEST STAND





IGNITER DESIGN AND TESTING

- Potassium Nitrate
  + Wood Charcoal

- Provides a flame that lasts long enough to ignite KNSB

Tasks to be done

- Fabrication of Casing.
- Research on Snap rings [#57]
- Nozzle fabrication (Finalising) [#52]
- Casting tools fabrication. [#11]
- Test stand fabrication. [#64]
- Cast fuel. [#56]
- KNPSB trials [#69]