

Internship 2022

Personal Progress Report

Name: Washington Kamadi

17/02/2022 - 23/02/2022

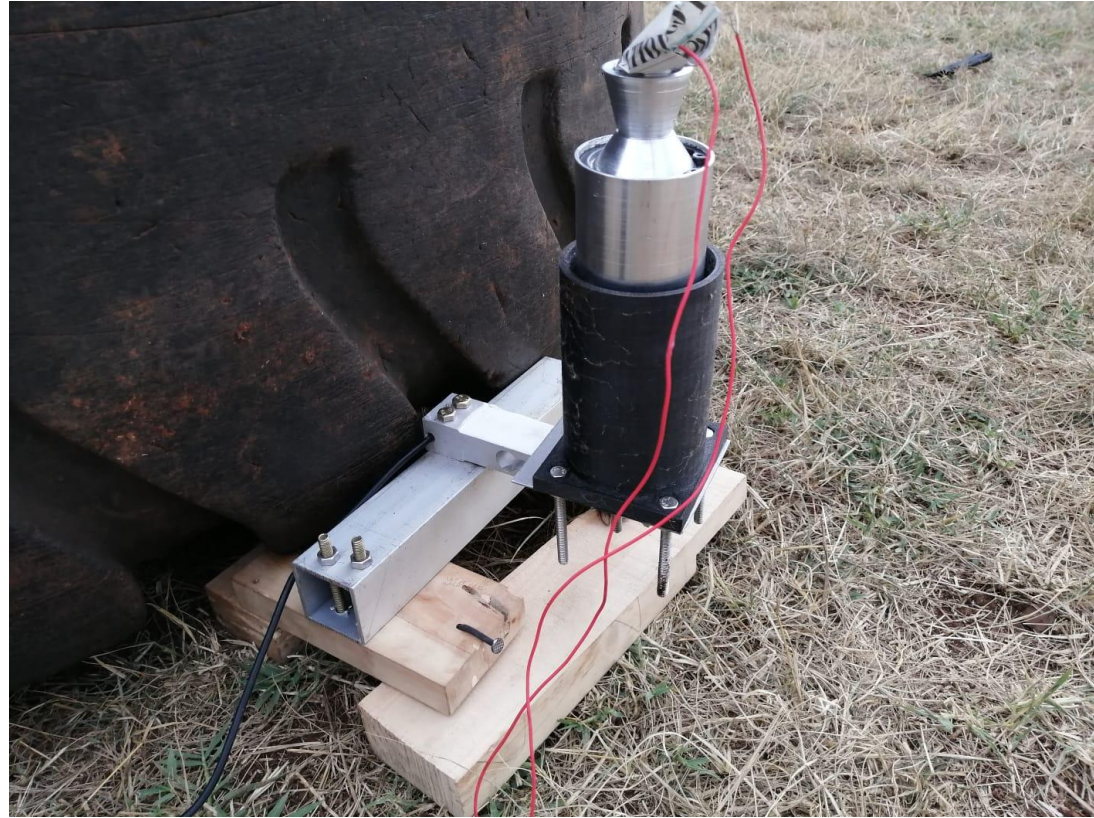
Tasks completed last week

- [#19] Static Test #1
- [#86] Fabricate snap rings groove
- [#87] Modify bulkhead to fit snap rings
- [#32] Test stand PCB Design

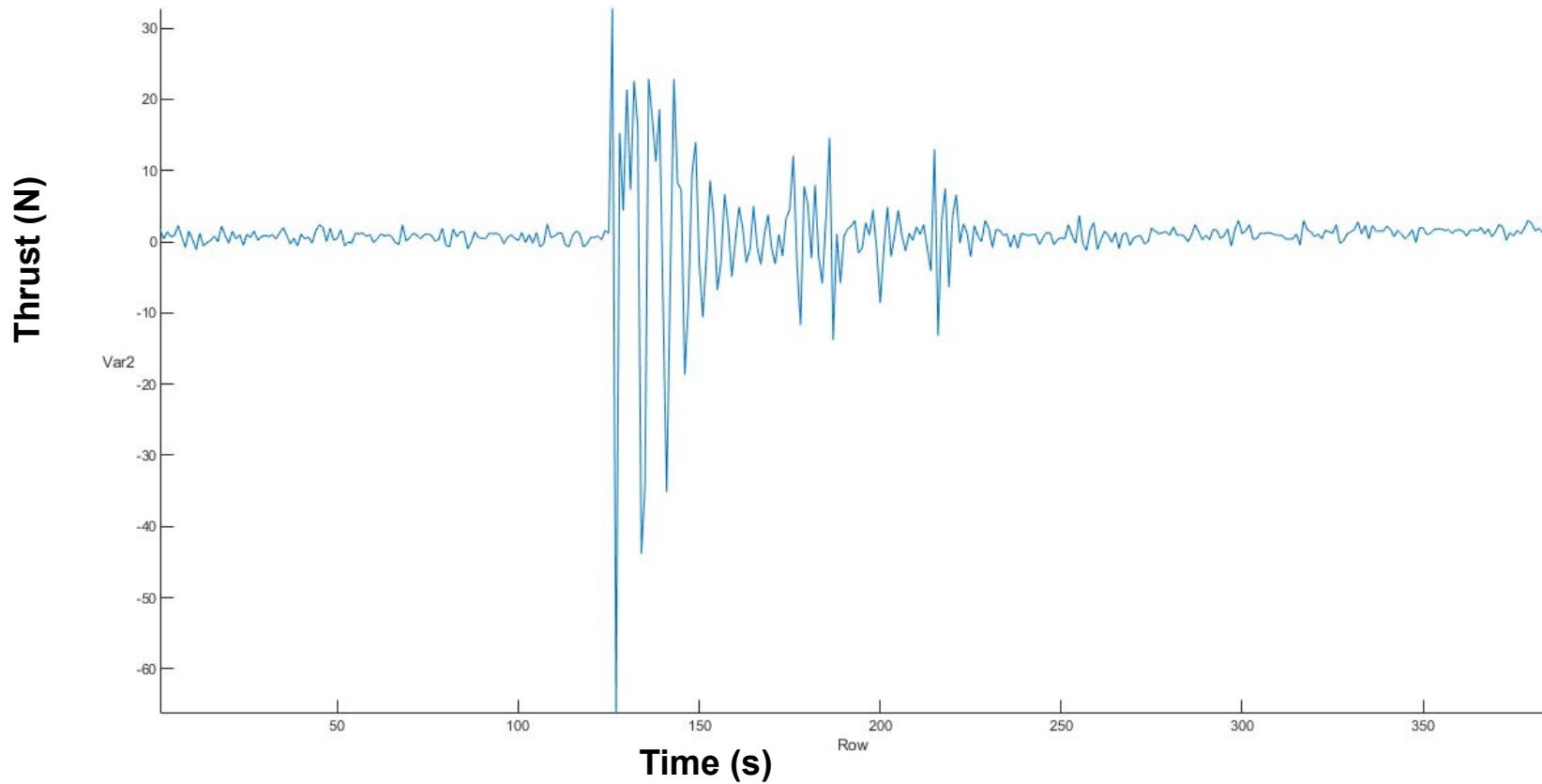
STATIC TEST #1

Report

1. Too long and slow burn due to moisture content
2. Unreliable igniters
3. Data logging to raspberry pi was not successful
4. Implement wireless ignition



THRUST-TIME CURVE



SNAP RINGS GROOVE ON CASING

The snap rings fit perfectly, performing well during the static firing test.



BULKHEAD MODIFICATION

The bulkhead was modified to enable it to fit below the snap ring for fastening

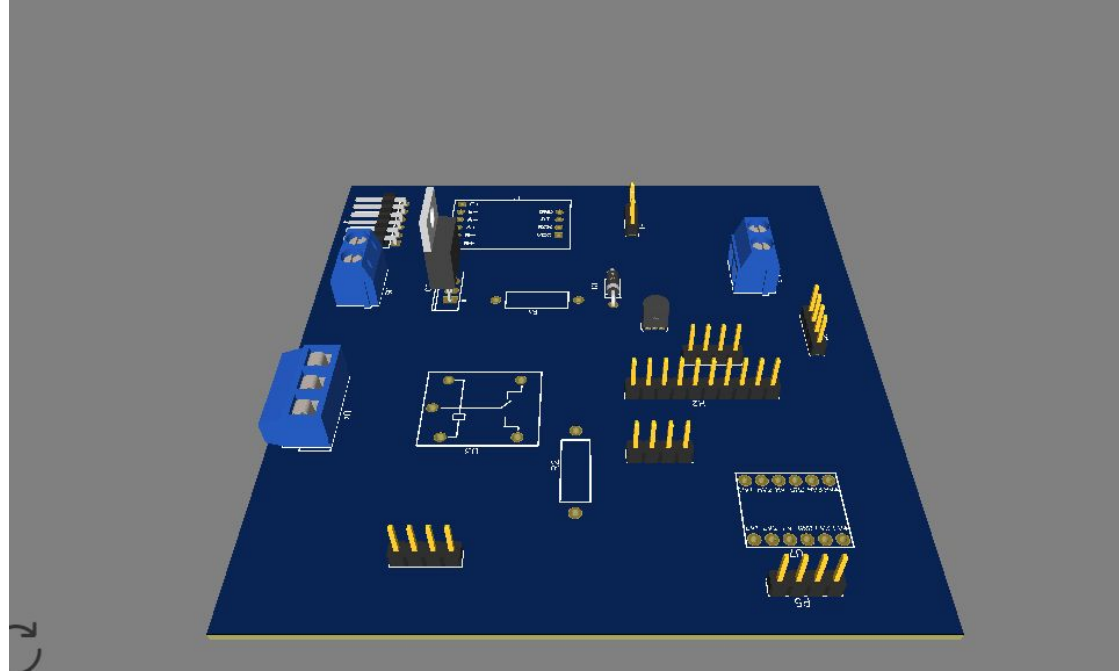


TEST STAND PCB DESIGN

Designs were made;

Design 1, 2 & 3 all failed.

Design 4 is complete,
etching in progress



Tasks in this week

- [#71] Casing Fabrication [In progress]
- [#97] Data Fetcher - Test Stand
- [#19] Static Firing Tests #2 & #3
- [#32] Test stand PCB Etching
- [#68] Igniters improvement
- [#98] Temperature & Pressure measurement during static testing
- [#99] Camera mount for test stand

Timeline

Month	Intern week	Tasks
Jan		
	Week 1	Designs [Fuel, Casing, Nozzle, Bulkhead, Casting tools, Test stand]
	Week 2	Fabrication of items
	Week 3	Fuel Fabrication and test stand revamp
Feb	Week 4	Fabrication of items & Fuel casting
	Week 5	Iterative Fuel tests
	Week 6	Launch Pad design and iterative fuel tests
	Week 7	Iterative fuel testing and improvement