

Internship 2022

Progress report format for team meeting

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26/01/2022 - 02/02/2022

Tasks completed last week

- [#52] Nozzle fabrication.
- [#55] Test new load cell fabrication.
- [#68] Igniter test

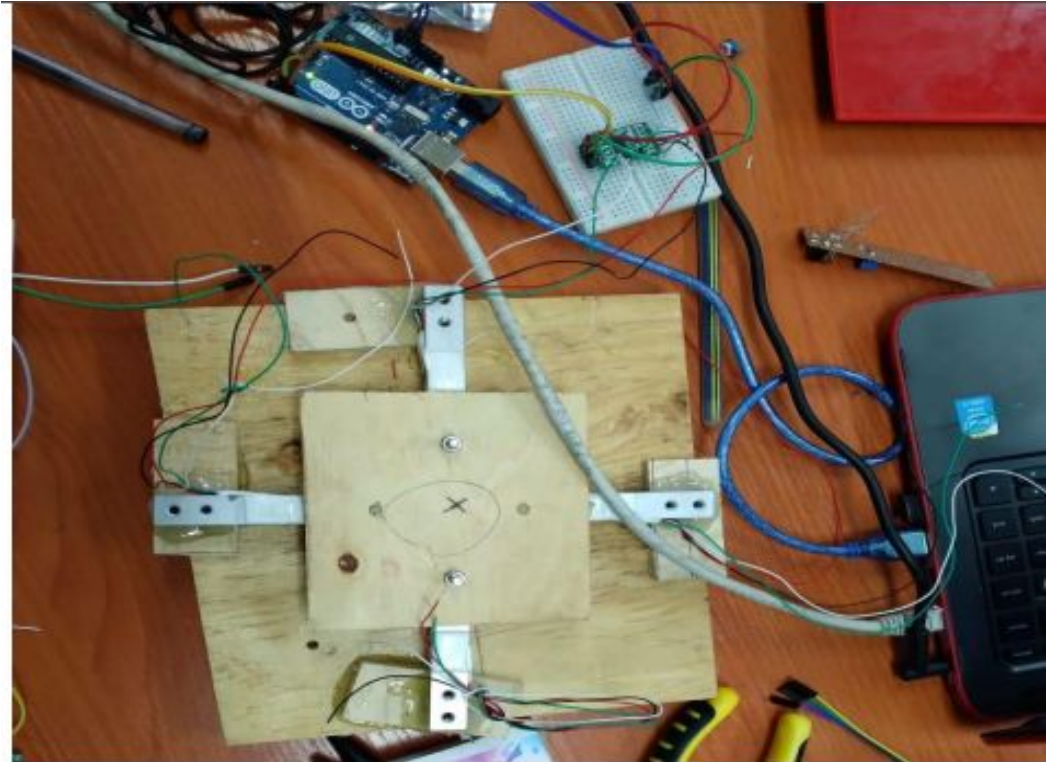
Nozzle Fabrication

This is the nozzle being fabricated. Failed to meet the design specifications, still in progress.



Test New Load Cells Configuration.

The load cells worked but we found it more reliable to use one load cell.



Igniter Test

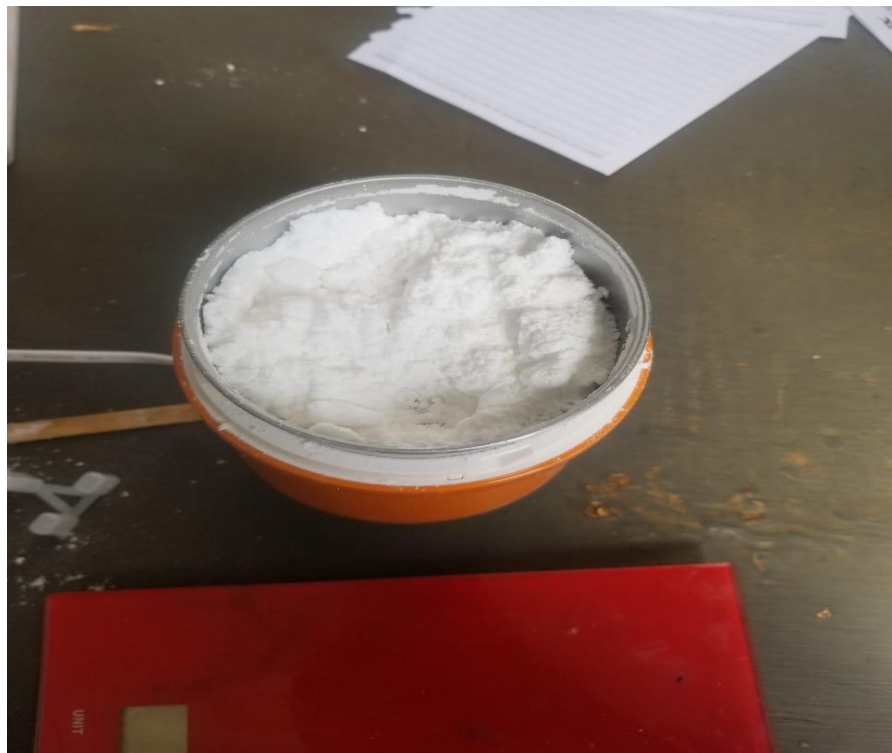
We used potassium nitrate and charcoal as our igniter.

The two were mixed in the ratio 80:20, potassium nitrate and charcoal respectively.

We used nichrome wire and a battery as our source of power to check whether the mixture would ignite.

The mixture ignited with a big flame, but the burning rate was slower compared to the N1 black powder mixture.

Potassium nitrate



Charcoal



Igniter test

The flame did burn for long. It was therefore suitable for igniting KNSB.



Tasks in this week

- [#64] Test stand fabrication
- [#56] Fuel casting
- [#11] Casting tools fabrication.

Timeline

Month	Intern week	Tasks
Jan		
	Week 1	Research and going through N1 reports.
	Week 2	Fabrication of the test stand PCB.
	Week 3	Nozzle fabrication, Igniter test.
Feb	Week 4	Fuel Casting.
	Week 5	Test stand design and fabrication.
	Week 6	Launch pad design and fuel tests.
	Week 7	Testing and improvement of the final work.