Nakuja Internship Week 8 Progress Report

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Tasks completed last week

- Portable power for raspberry pi
- Strengthened the launch pad
- Test launch
- Logged data with GPS

GPS Data logging

- Logged data to file for easy analysis, plotting.
- Code(github)

Z:\home\kibandi\projects\Nakuja\GPS1\gps_data.txt - Notepad++ [Administrator] View Encoding Language Settings Tools Macro Run Plugins Window ? gps data.txt <RMC(timestamp=datetime.time(11, 10, 5), status='A', lat='0105.69603', lat dir='S', lon='03700.74588', lon dir='E', spd over grnd=0.368, true course=None, datestamp=datetim</p> <VTG(true track=None, true track sym='T', mag track=None, mag track sym='M', spd over grnd kts=Decimal('0.368'), spd over grnd kts sym='N', spd over grnd kmph=0.</p> <GGA(timestamp=datetime.time(11, 10, 5), lat='0105.69603', lat_dir='5', lon='03700.74588', lon_dir='E', qps_qual=1, num_sats='06', horizontal_dil='1.11', altitude=1556.3, altitude=1556.3 <GSA(mode='A', mode fix type='3', sv id01='02', sv id02='05', sv id03='25', sv id04='15', sv id05='12', sv id06='29', sv id07=", sv id08=", sv id09=", sv id10=", sv id11=", sv <GSV(num messages='3', msg num='1', num sv in view='12', sv prn num 1='02', elevation deg 1='15', azimuth 1='029', snr 1='25', sv prn num 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Launch Test

- Launch Pad withstood thrust
- Rubber bands caused friction with the launch rod
- Payload not properly balanced
- Look into a longer launch rod

Integrating pi to avionics bay

- 3.7V battery + powerboost + usb cable
- The usb port has a better protection circuit that GPIO

Tasks to complete this week

- Make the necessary changes to the launch pad
- Continue working with GPS test, analysis.
- Assist the avionics team.
- Integrate the picamera with the rocket

Timeline

Month	Week	Tasks
March	Week1	Design and fabrication of nozzle
	Week2	Design and fabrication of test stand
	Week3	Casting propellant
	Week4	Testing the model rocket on motor
April	Week1	Avionics bay development
	Week2	Payload Camera research and implementation
	Week3	GPS testing
	Week4	Test and Launch of N-1 rocket