# ROCKET AVIONICS SYSTEMS

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Abstract

This project deals with how telemetry data in rockets is transmitted, which components are used and how they are controlled. Our main goal is to get the temperature, pressure, instantaneous speed data and position information of the rocket.

Rocket Avionics Systems Block Schematic
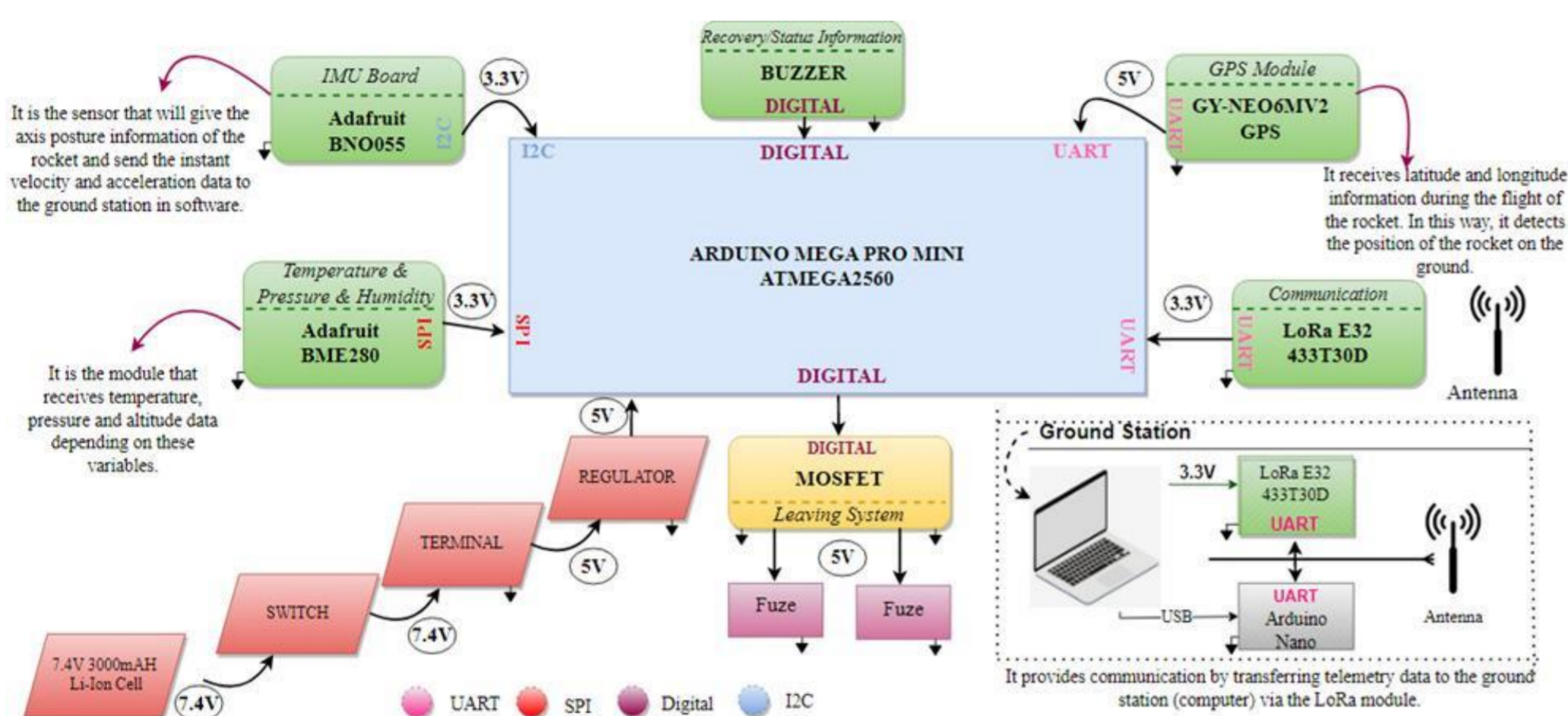

Operation Flow Chart
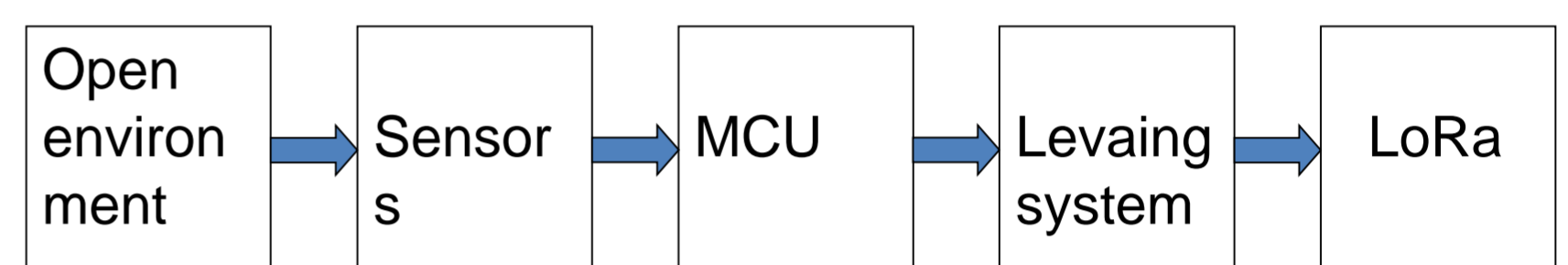
Main Components

Arduino Mega Pro Mini, BME280, BNO055, IRFZ44N, LoRa E32-433T30D

Project Summary

Sensors gets the desired values from the open environment. According to the dedicated altitude leaving system is activated and fuzes are detonated. Through the whole process we are getting the all the parameters with our wireless communication system.
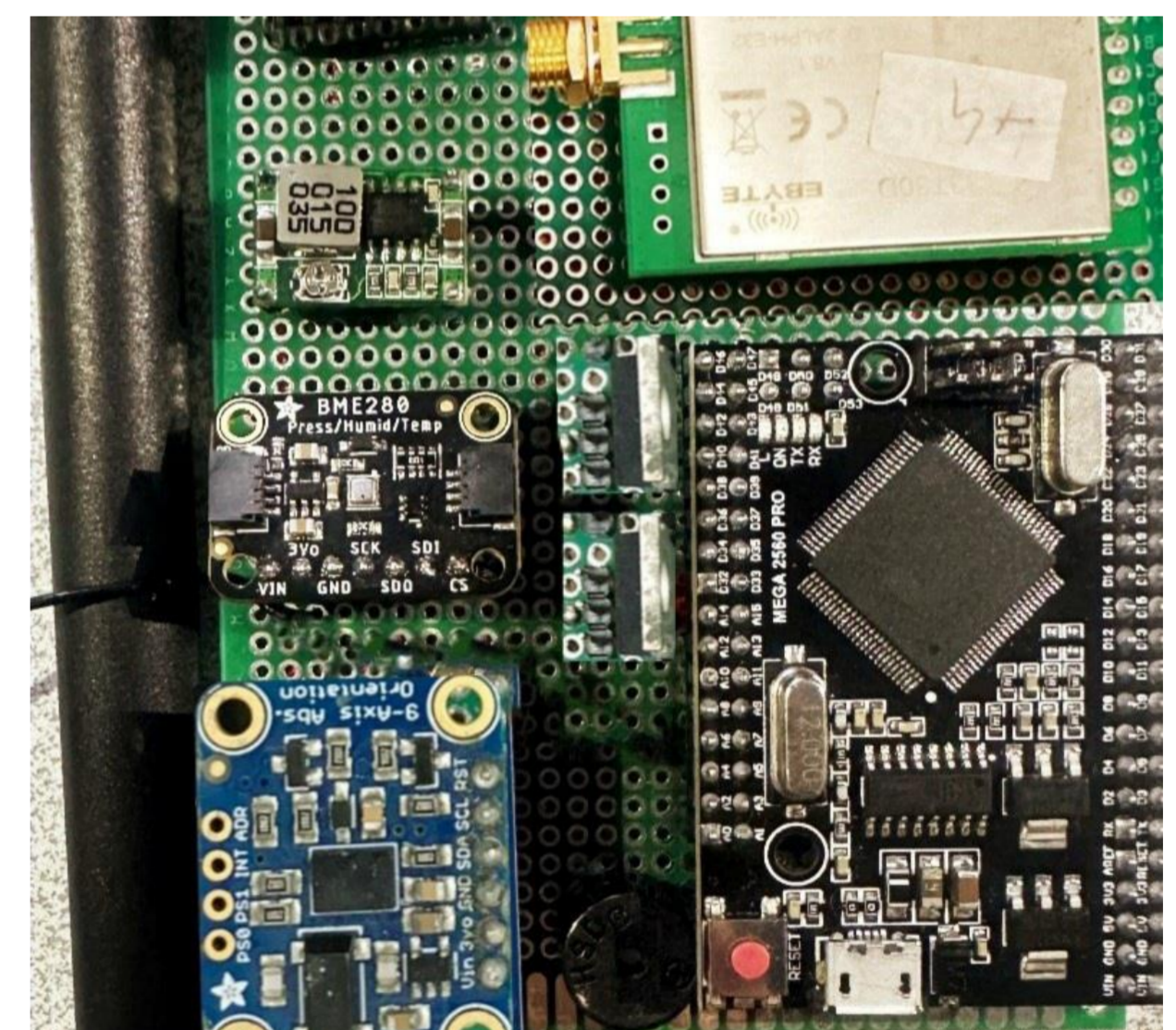
Conclusion

In this project we mainly aimed to get the dedicated values from the rocket to the monitoring system. Leaving system has an crucial effect for the project to be successfully land. Reading the desired values from the sensors is intended.

References:

1. Lacek, Monica; Bryant, Clark III; Dalvin, David; and Wolgamott, Nicholas, "Rocket Telemetry System" (2019). Williams Honors College, Honors Research Projects. 931.
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4. Conflating Best-Source-Selector for telemetry data streams with inter- stream error correction of sounding rockets. Aicher Moritz 2019