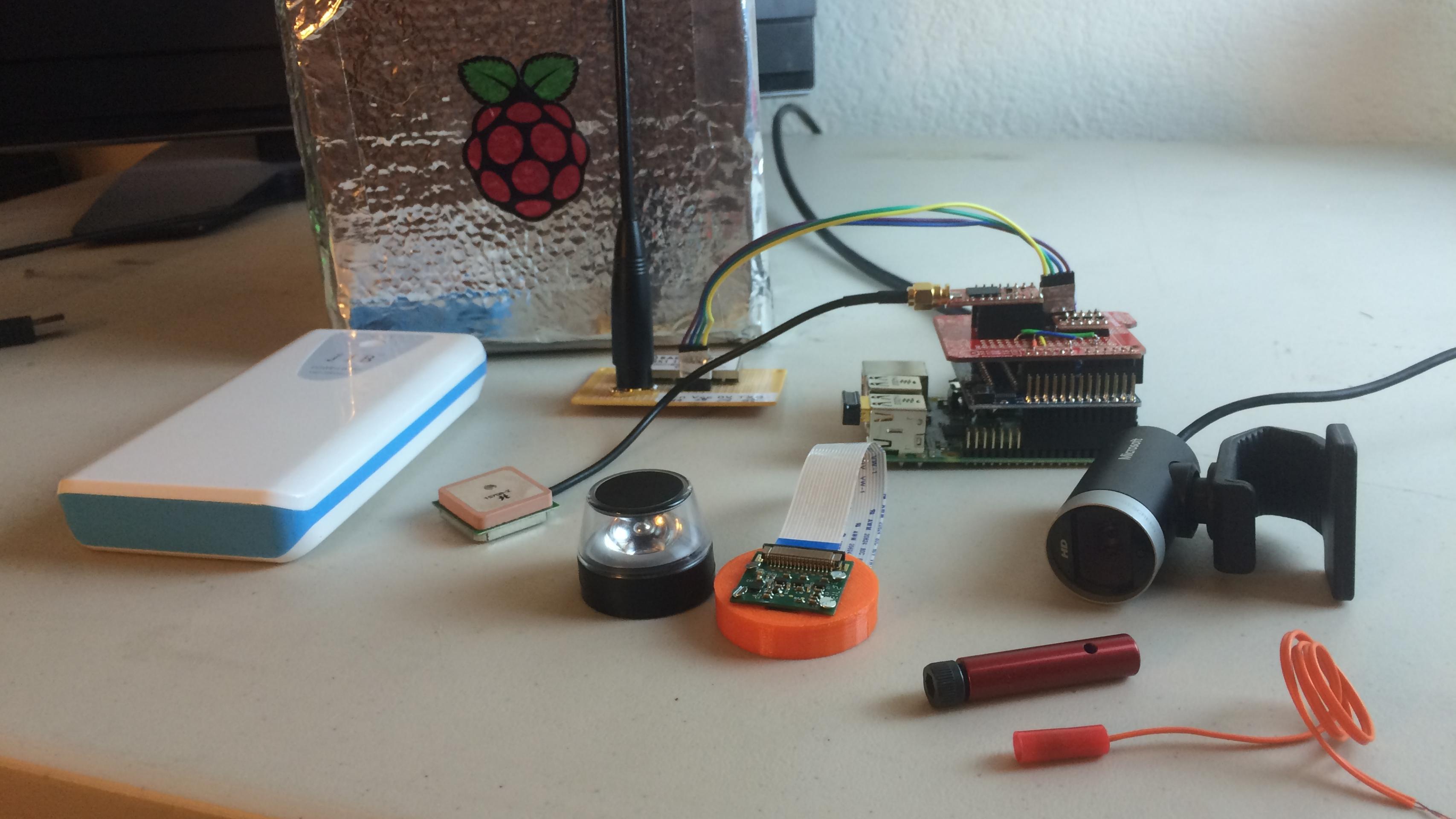


# JS IN (NEAR) SPACE

by @makenai









WHAT IS 'NEAR SPACE'?

Troposphere

S

6 - 20 km



Mount Everest

# ZASA PROJECT



# PHYSICAL REQUIREMENTS



HIGH ALTITUDE BALLOON



# LEGAL REQUIREMENTS



# CODE OF FEDERAL REGULATIONS

Title 14  
Chapter I  
Subchapter F  
Part 101  
Subpart D

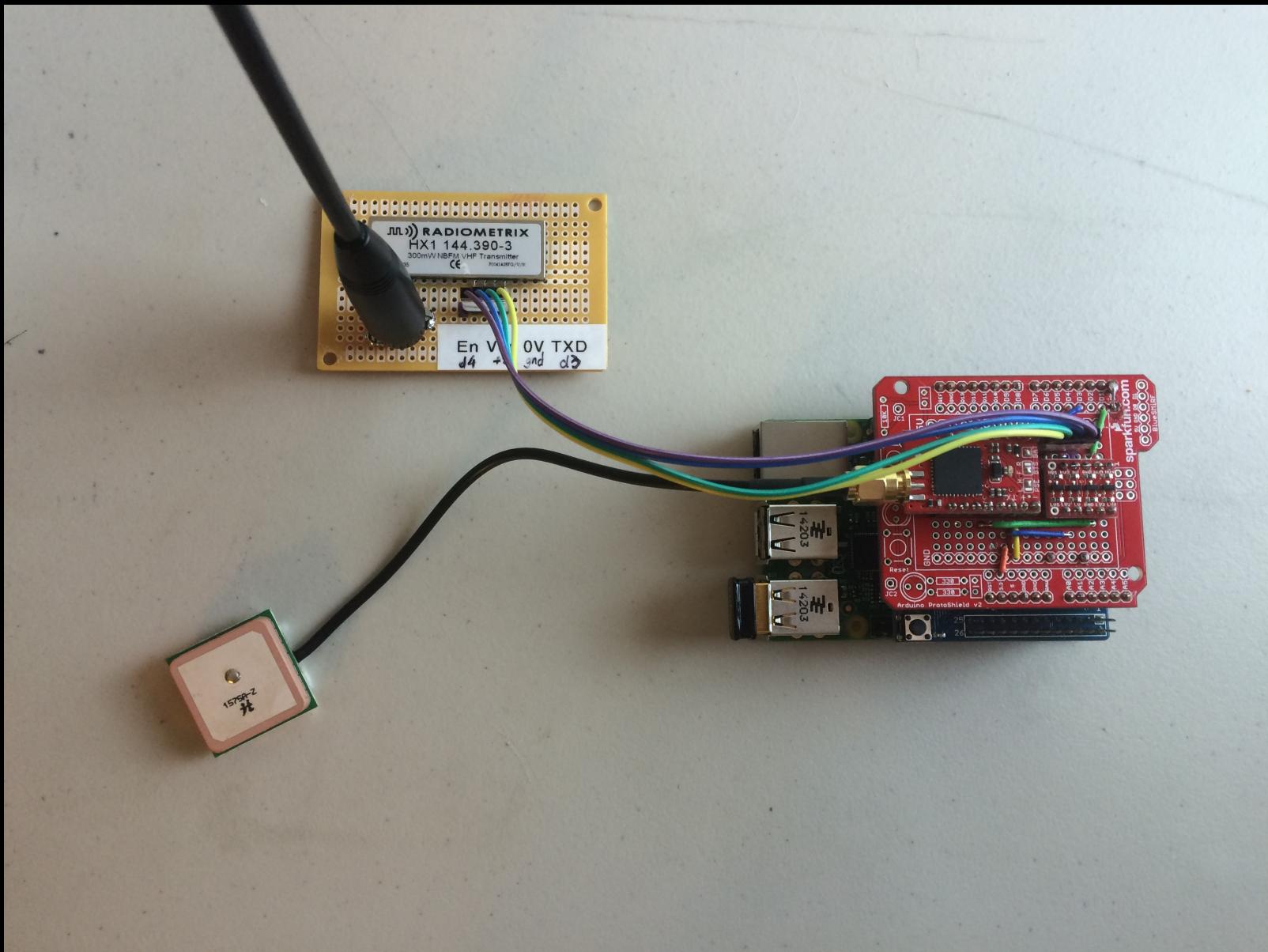
# RECOVERY REQUIREMENTS

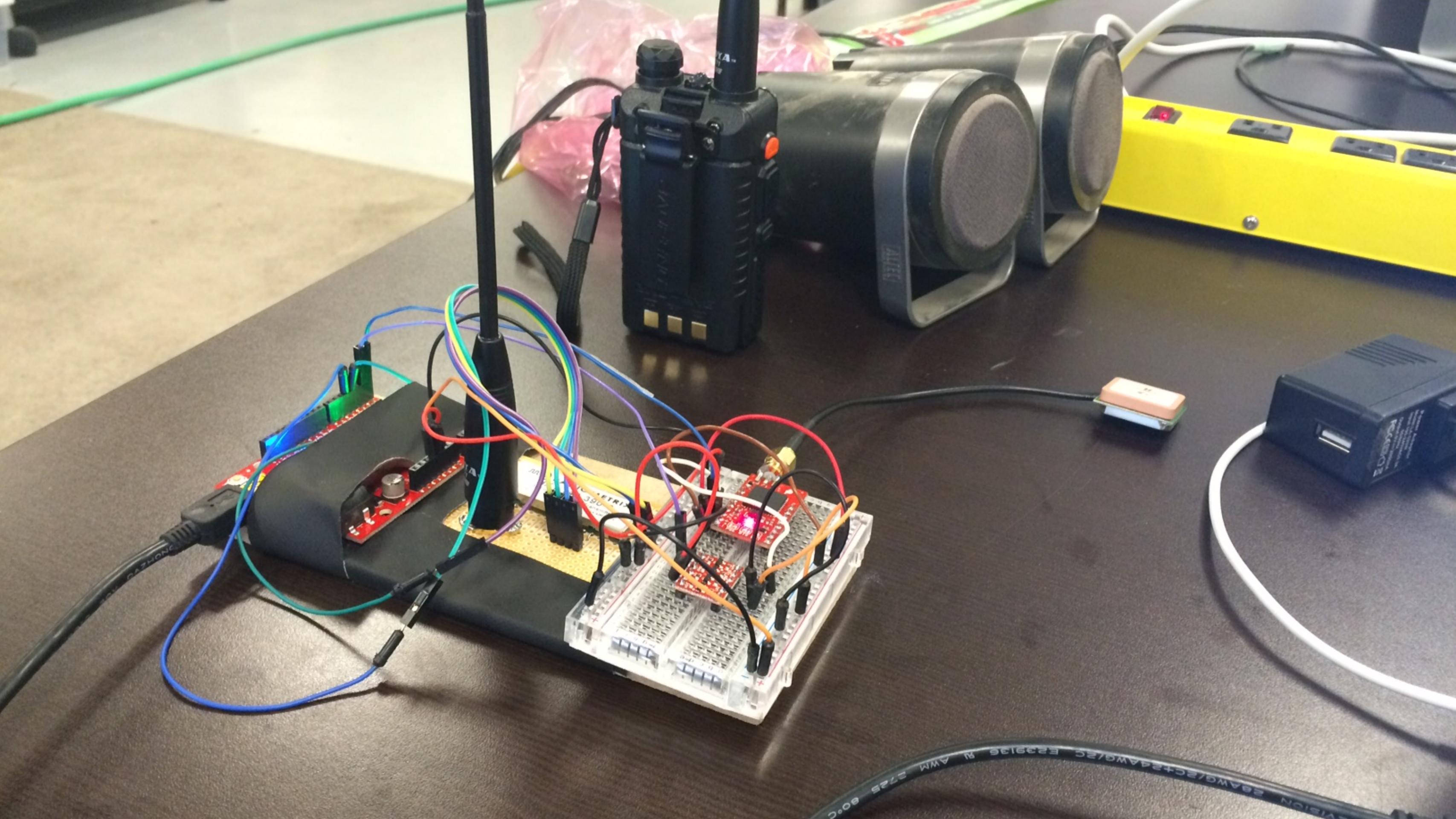




PARACHUTE

# TRACKING SYSTEM









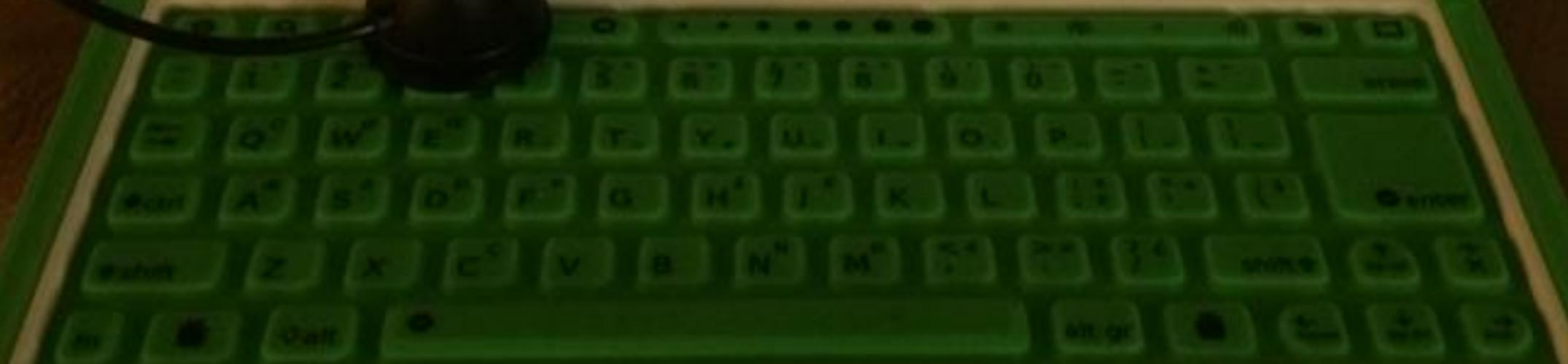
@NooElec  
RR20T SDR & DVB-T  
NESDR Mini

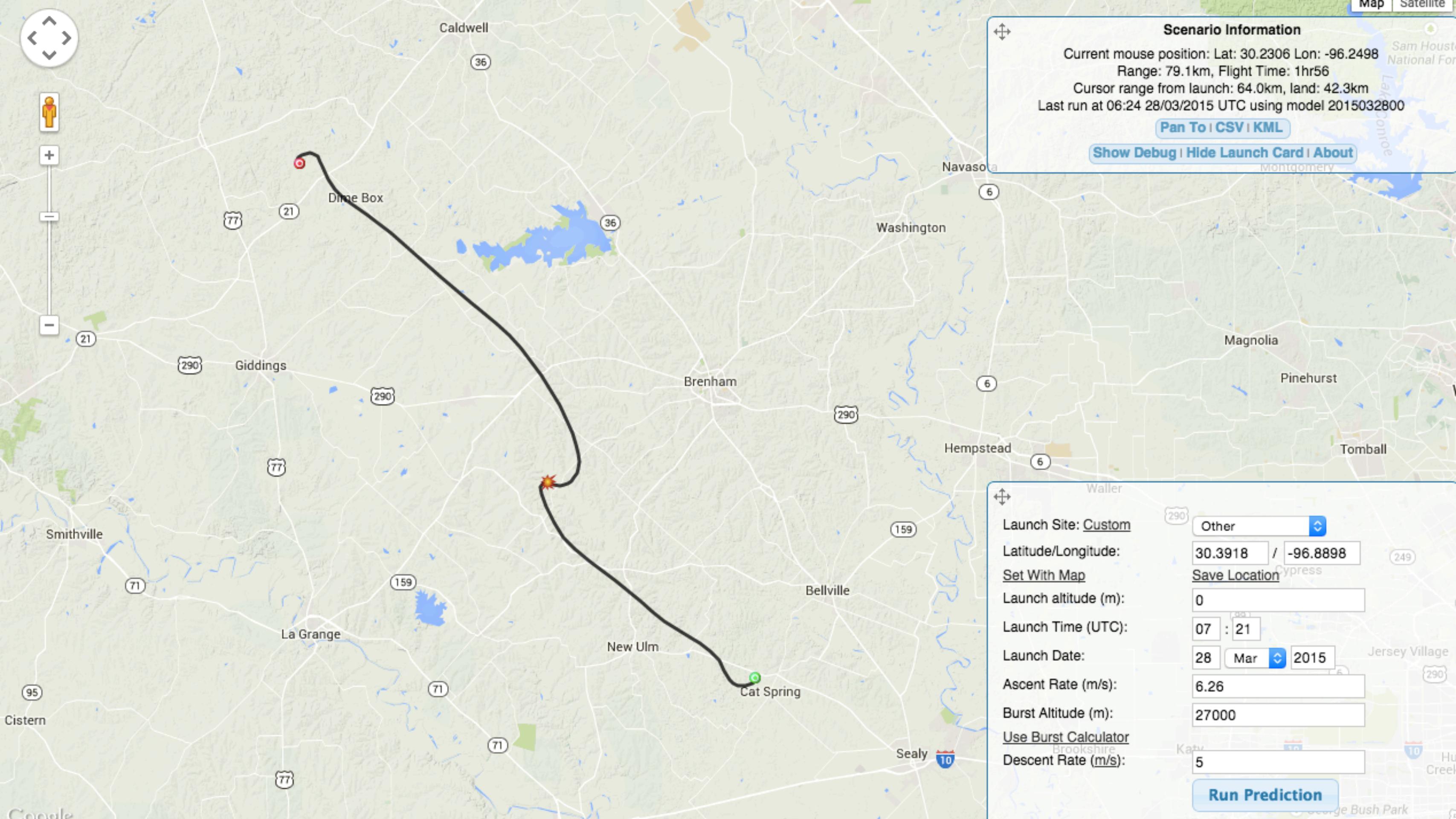
```
beacon_postpoll()  
error timer_init() to be called  
beacon_postpoll()  
beacon_postpoll()
```

Command Prompt

01:39

(\*)





PURPOSE

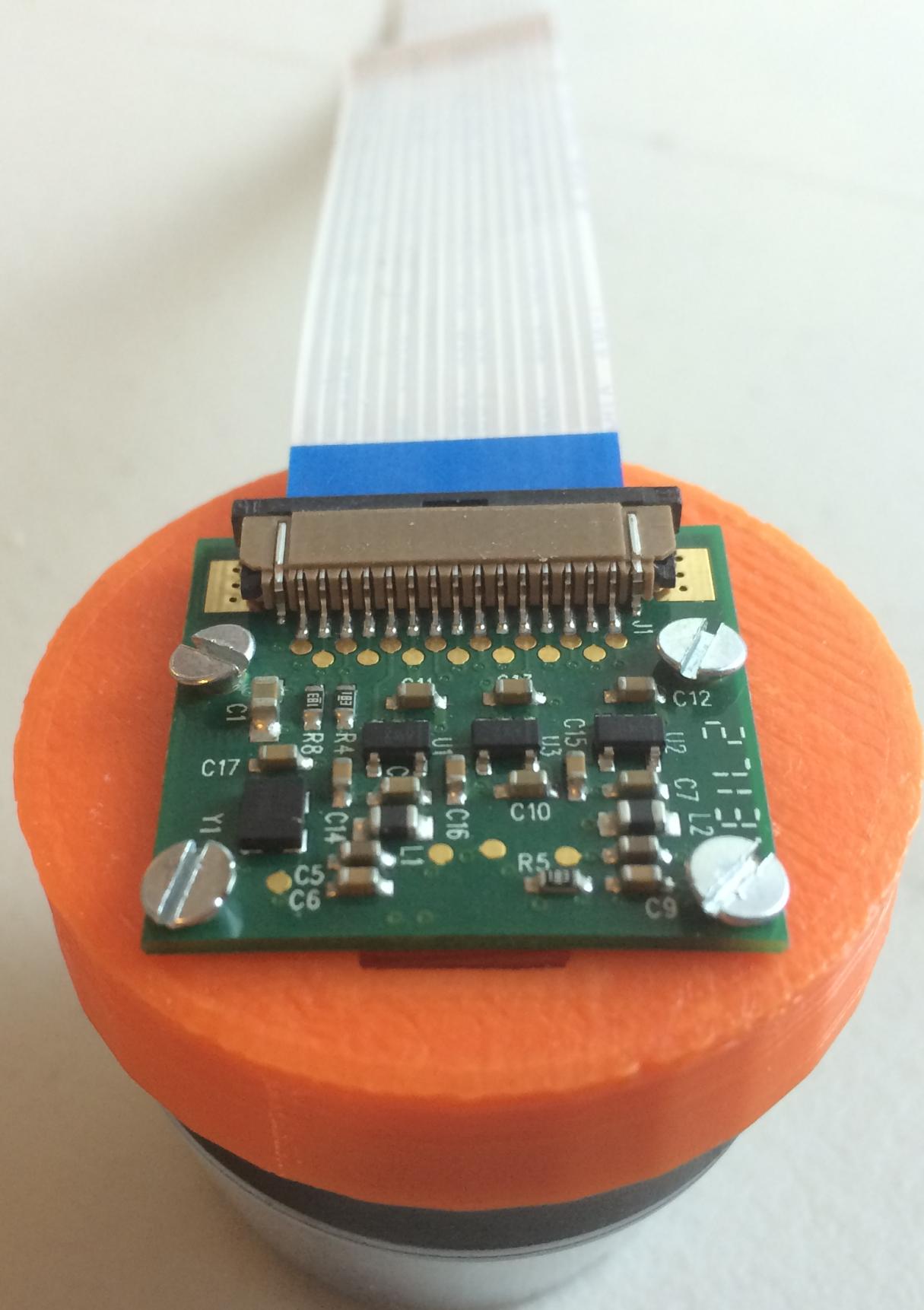
PAYLOAD

# SENSOR INVENTORY

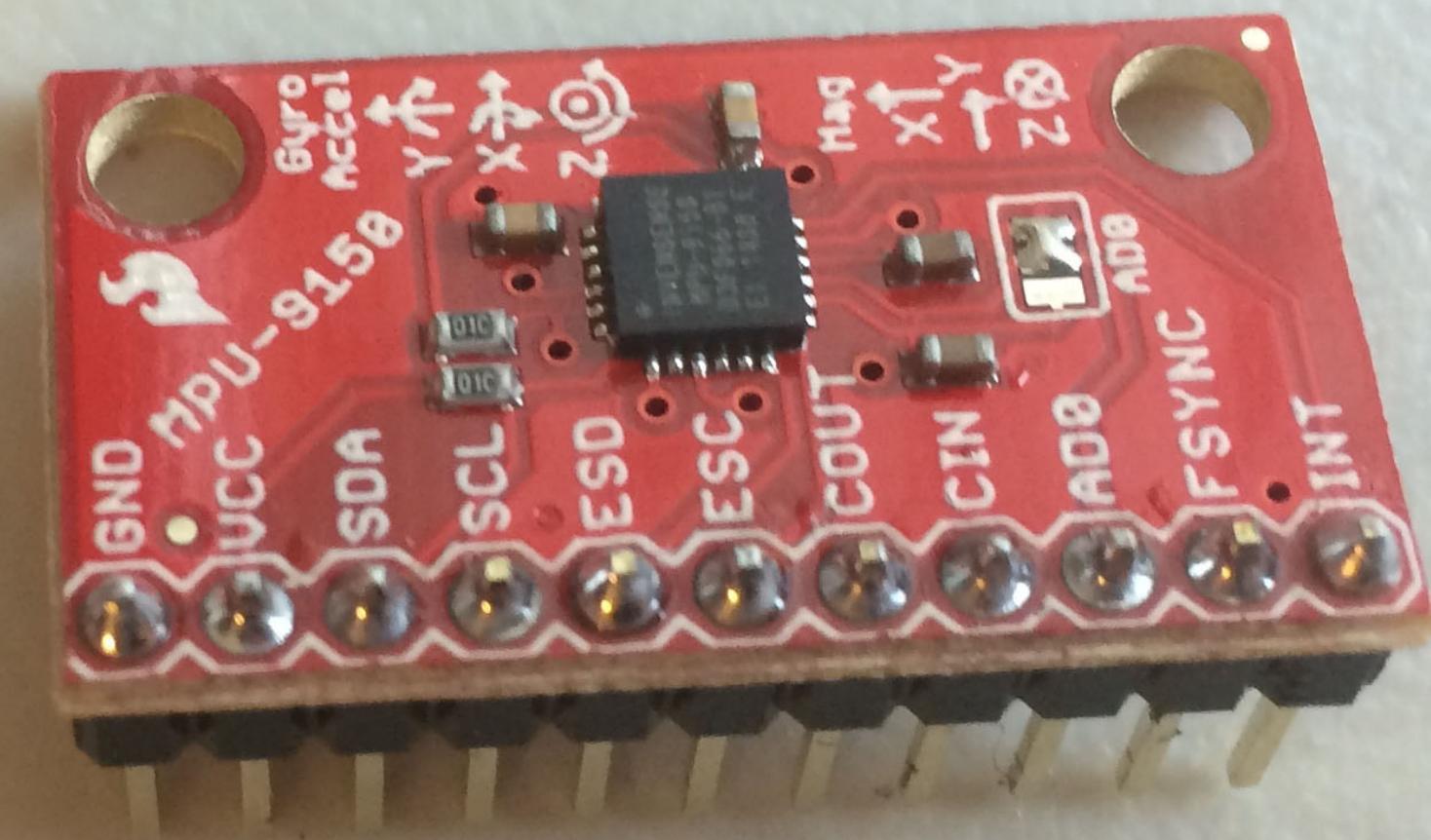
- Downward camera
- 360 degree camera
- Electronic compass
- GPS (on tracker)

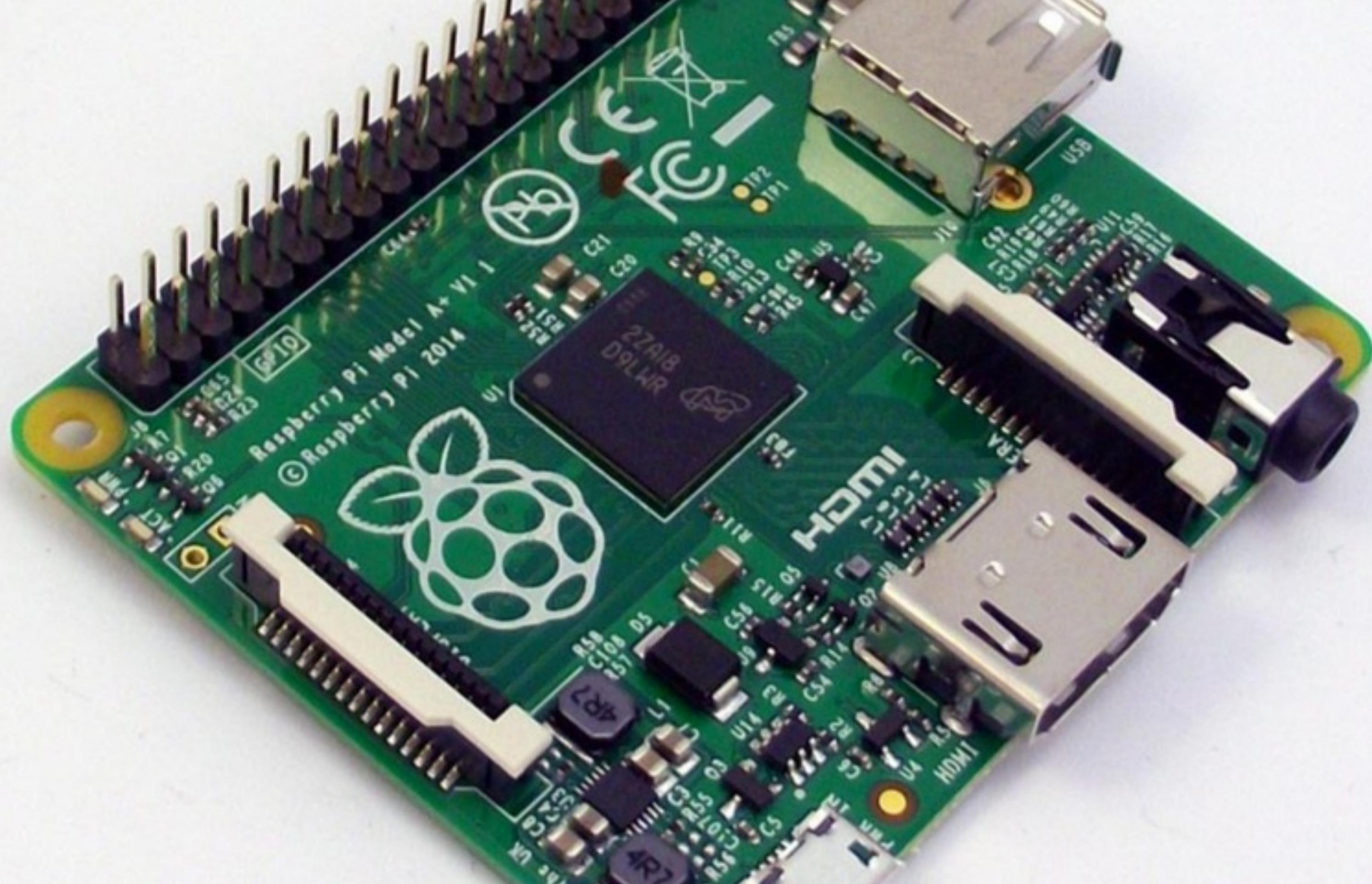
# SENSORS (CONT)

- Barometric pressure
  - 3 axis gyroscope
  - 3 axis accelerometer
- Thermistor (temperature)

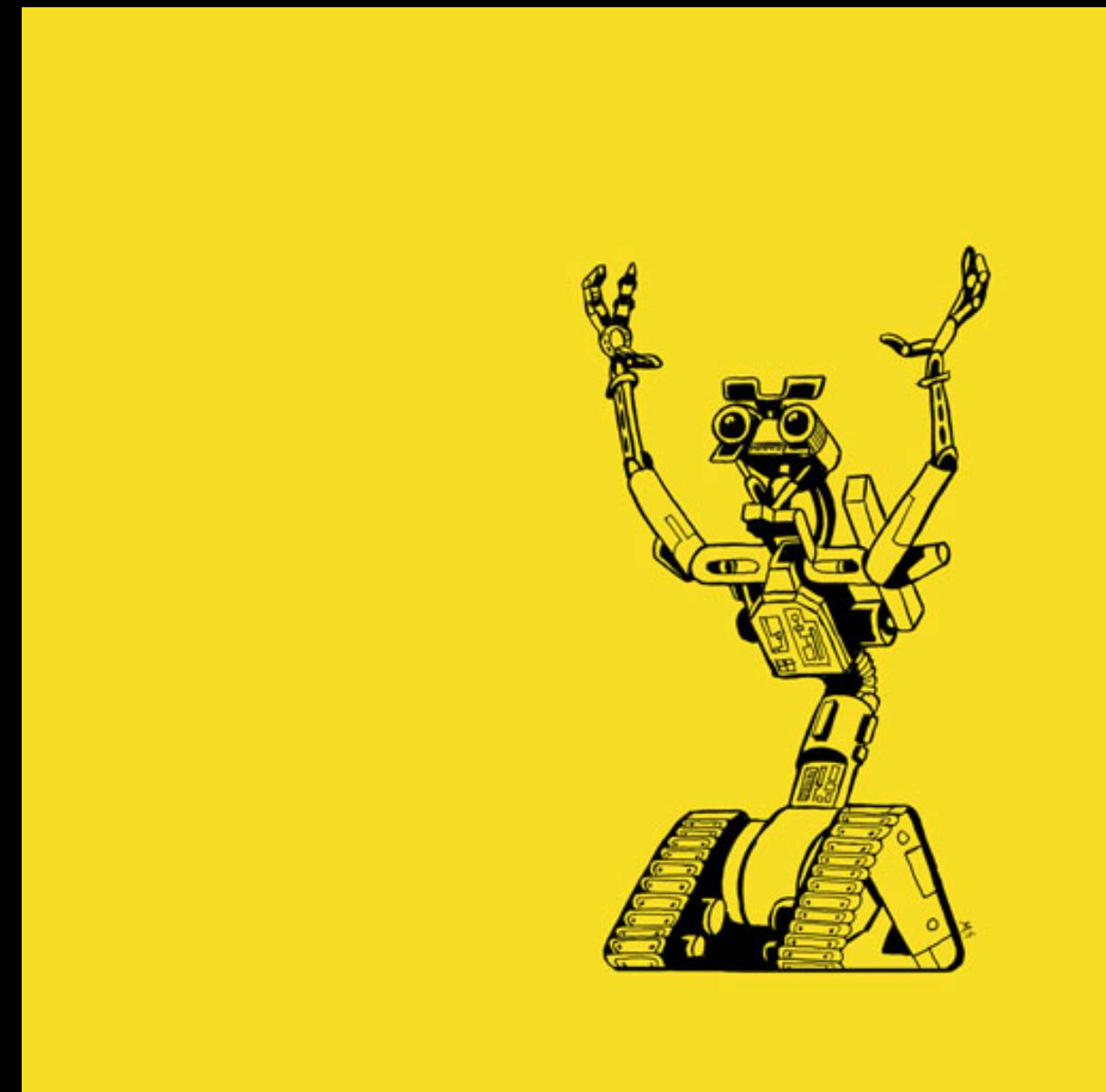








# JOHNNY-FIVE



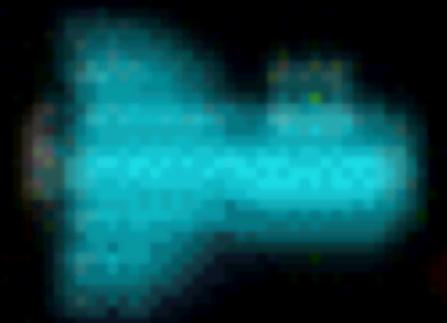
```
var five = require("johnny-five");

five.Board().on("ready", function() {

  var temperature = new five.Temperature({
    controller: "LM35",
    pin: "A0"
  });

  temperature.on("data", function(err, data) {
    console.log("temperature");
    console.log("  celsius      : ", this.celsius);
    console.log("  fahrenheit   : ", this.fahrenheit);
    console.log("  kelvin       : ", this.kelvin);
    console.log("-----");
  });
});

});
```



# RESOURCES

- FCR - <http://www.ecfr.gov/>
- Trackuino - <http://www.trackuino.org/>
  - APRS.fi - <http://aprs.fi/>
  - HabHub - <http://habhub.org/>
- Johnny-Five - <https://github.com/rwaldron/johnny-five>

# THANKS!

Slides : <http://makenai.github.io/SpaceJS>