

Servo Power Enable and PWM Control

Ematch 1 Enable & Fire

The diagram illustrates the circuit for controlling the Ematch 1. It features two NPN transistors, Q16 (SSM3J328R) and Q20 (SIS612EDNT-T1-GE3), which act as switches for the relay J4 (1586038-2). The relay has three terminals: 1, 2, and 3. Terminal 3 is connected to GND. Terminal 1 is connected to the collector of Q16 and one terminal of the relay. Terminal 2 is connected to the collector of Q20 and the other terminal of the relay. The relay's common terminal is connected to GND. The base of Q16 is connected to BATTERY_PWR through a 10K resistor R46. Its emitter is connected to GND through a 12K resistor R48. Its collector is connected to one terminal of the relay and a red LED D12 through a resistor R52. The base of Q20 is connected to EMATCH_1_ARM through a 10K resistor R50. Its emitter is connected to GND through a 10K resistor R54. Its collector is connected to the other terminal of the relay and GND. The relay J4 is labeled with its part number 1586038-2. The red LED D12 is labeled RED. The resistors are labeled R46, R48, R50, R52, and R54. The transistors are labeled Q16 and Q20. The inputs are labeled BATTERY_PWR, EMATCH_1_ARM, and EMATCH_1_CHECK. The output is labeled EMATCH_1_FIRE.

Ematch 2 Enable & Fire

The diagram illustrates the circuit for enabling and firing the Ematch 2. It features two transistors, Q17 (SSM3J328R) and Q21 (SI5612EDNT-T1-GE3), which act as switches. Transistor Q17 is controlled by BATTERY_PWR through a 10k resistor (R47). Its emitter is grounded via a 12k resistor (R49), and its collector drives a red LED (D13) through a resistor (R53). Transistor Q21 is controlled by EMATCH_2_FIRE through a 10k resistor (R55). Its emitter is grounded, and its collector is connected to EMATCH_2_CHECK. A 5-pin header (J5) is shown with pins 1 and 2 connected to the circuit. The diagram is titled "Ematch 2 Enable & Fire".

Rev:
Id: 2/6

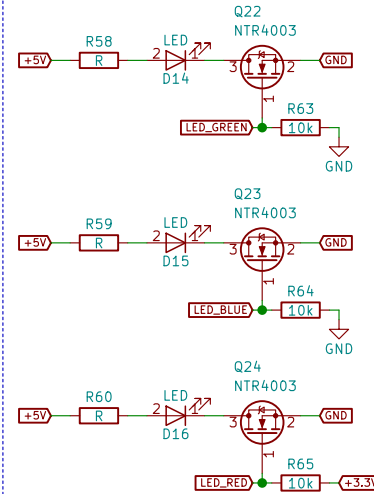
Teensy 3.6 Microcontroller

U11

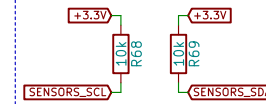


Teensy3.6

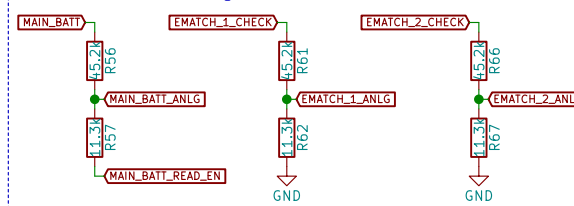
Indicator LEDs



I2C Pullup



Voltage Dividers



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Title:

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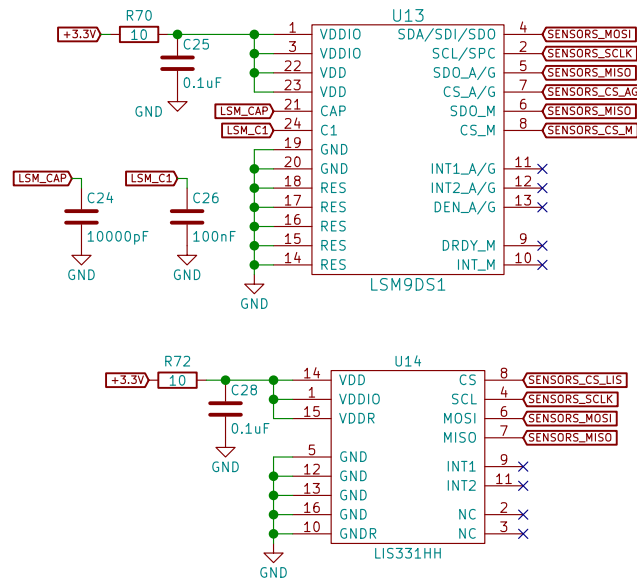
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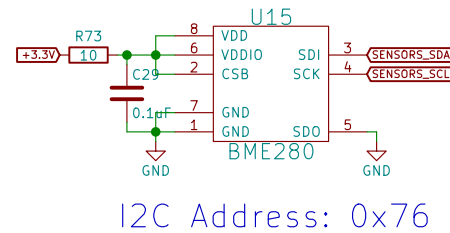
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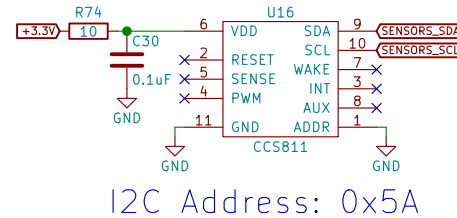
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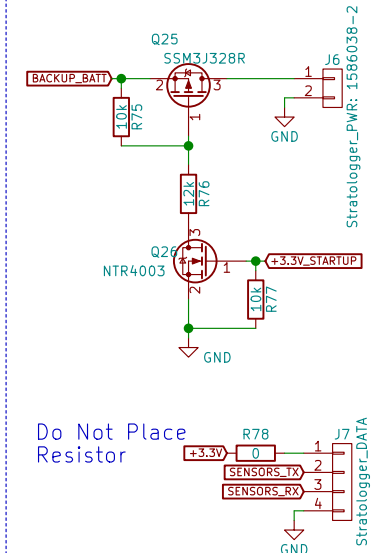
Temperature/ Pressure/ Humidity



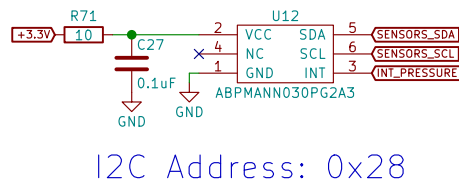
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Stratologger Altimeter



Balloon Network Pressure

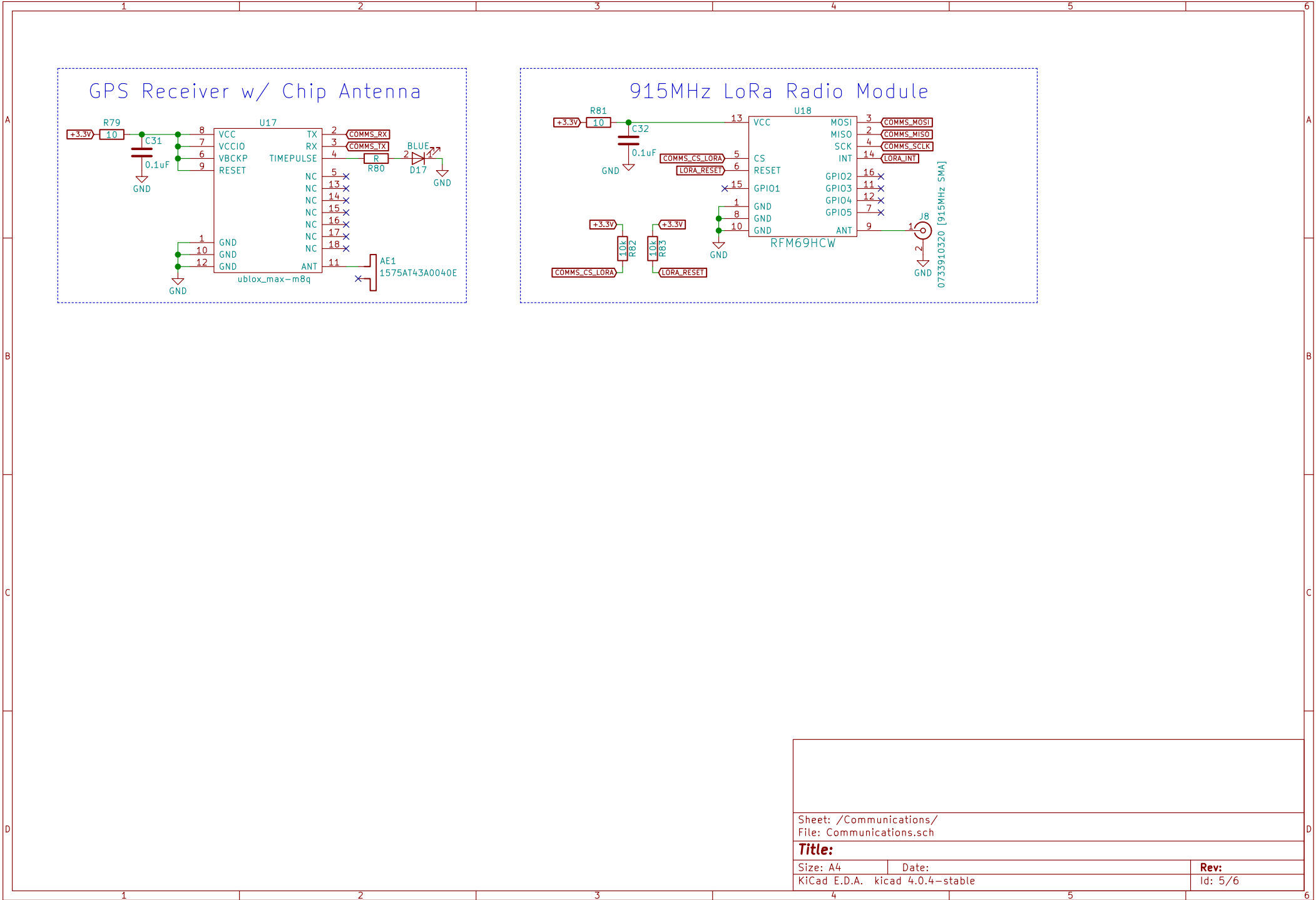


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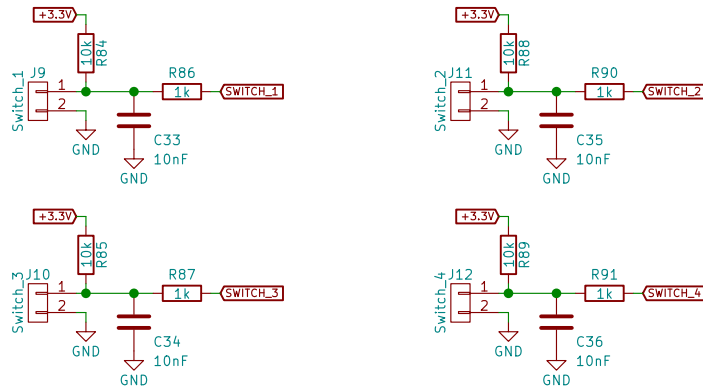
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Mechanical Deployment Detection Switches



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