Data Acquistion

GPS (UART)
IMU (I2C)
Pressure (SPI)
Accel (I2C/SPI)
Thermocouples (ADC Pins)
External I2C Bus (Remote sensors i.e. 1 foot away)

Algorithms

Clock rate? Code size? Data size? EEPROM?

Control

Pyrotechnics (1 amp for 2 sec) x6 Motor (PWM) x 1 Soleniods (GPIO Current = ?) x4 Data Storage

SD Card (SPI)
Radio Downlink: 100 bytes
each 1 sec
Radio Uplink: ~20 bytes in
emergency