

CanSat 2020-2021 Can code documentation

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December 26, 2020

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1 Can overview

1.1 Modules and sensors in the Can

The micro controller in the Can is an Arduino Mega 2560. There are a few modules/sensors that will be connected to the Arduino.

- The APC220 radio module, it is used to transmit and receive data.
- The Adafruit BMP280 module, it measures the temperature and pressure.
- The Adafruit MPU6050 module, it is an accelerometer and gyroscope, it also measures the temperature.
- The NEO-6M GPS module which receives GPS data.
- The HW-125 SD card module, it is used to save all the radio transmissions (and maybe some additional data).

1.1.1 The APC220 radio tranceiver module

The APC220 radio tranceiver module will be connected to the rx1 and tx1 serial pins.

1.1.2 The Adafruit BMP280 module

The BMP280 module is connected to the I^2C pins on the Arduino. The Adafruit BMP280 library¹ uses the I^2C protocol to communicate with the BMP280 module.

¹Adafruit BMP280 library: https://github.com/adafruit/Adafruit_BMP280_Library