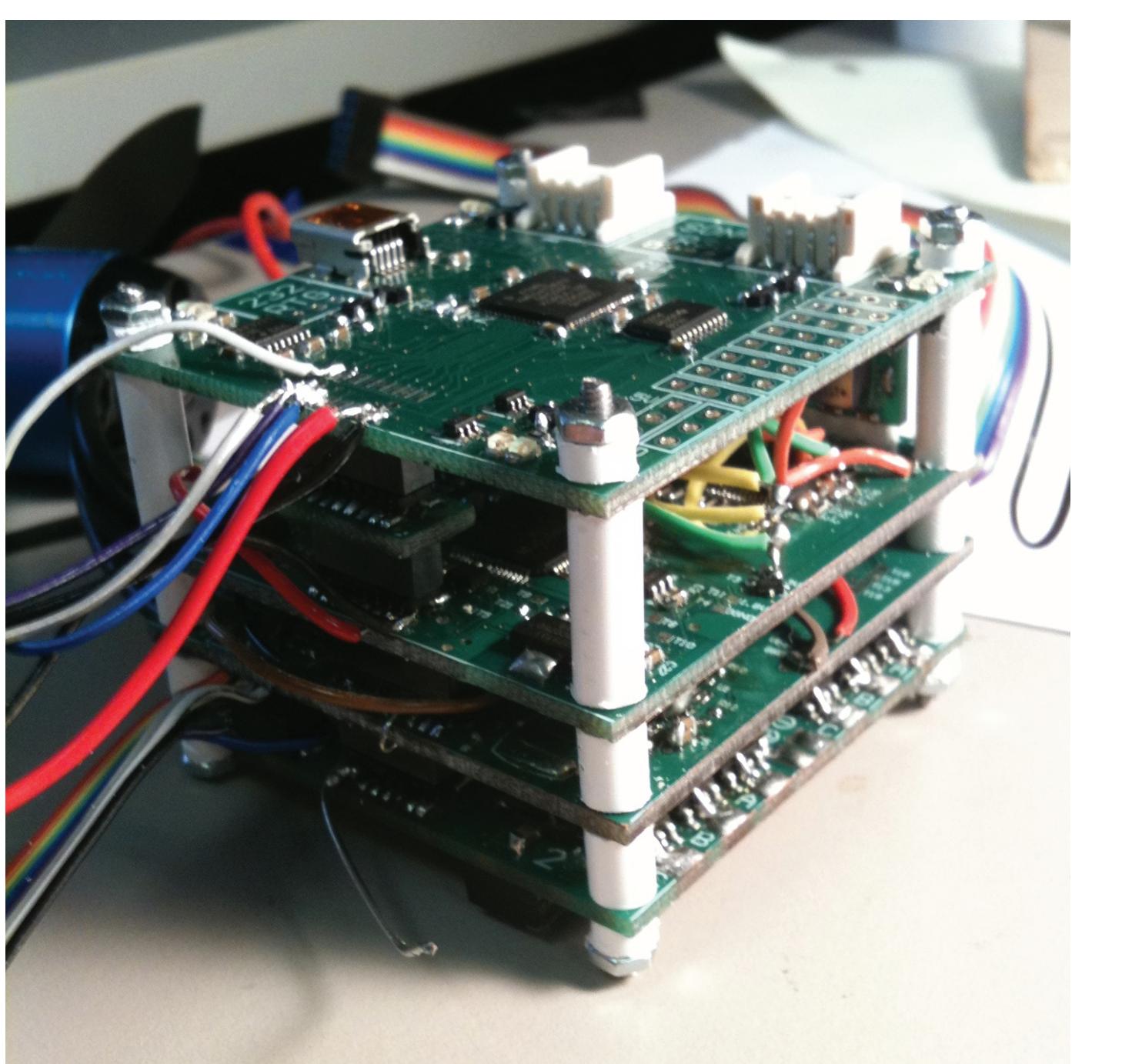


# Falcon

## Flight Controller

falconquadrotor.dyndns.org

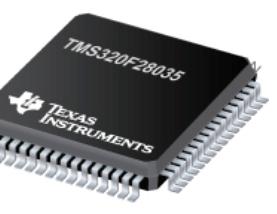


The Falcon flight controller is a complete solution for **aerial vehicle motion control**. It is designed to provide stability control suitable for **autonomous robotics applications**.



### Gyroscopes and Accelerometers

measure the platform's movement in three dimensions.



### TI Piccolo Processor

estimates the platform's orientation and position based on sensor data.



### Atmel AVR XMEGA Micro-controller

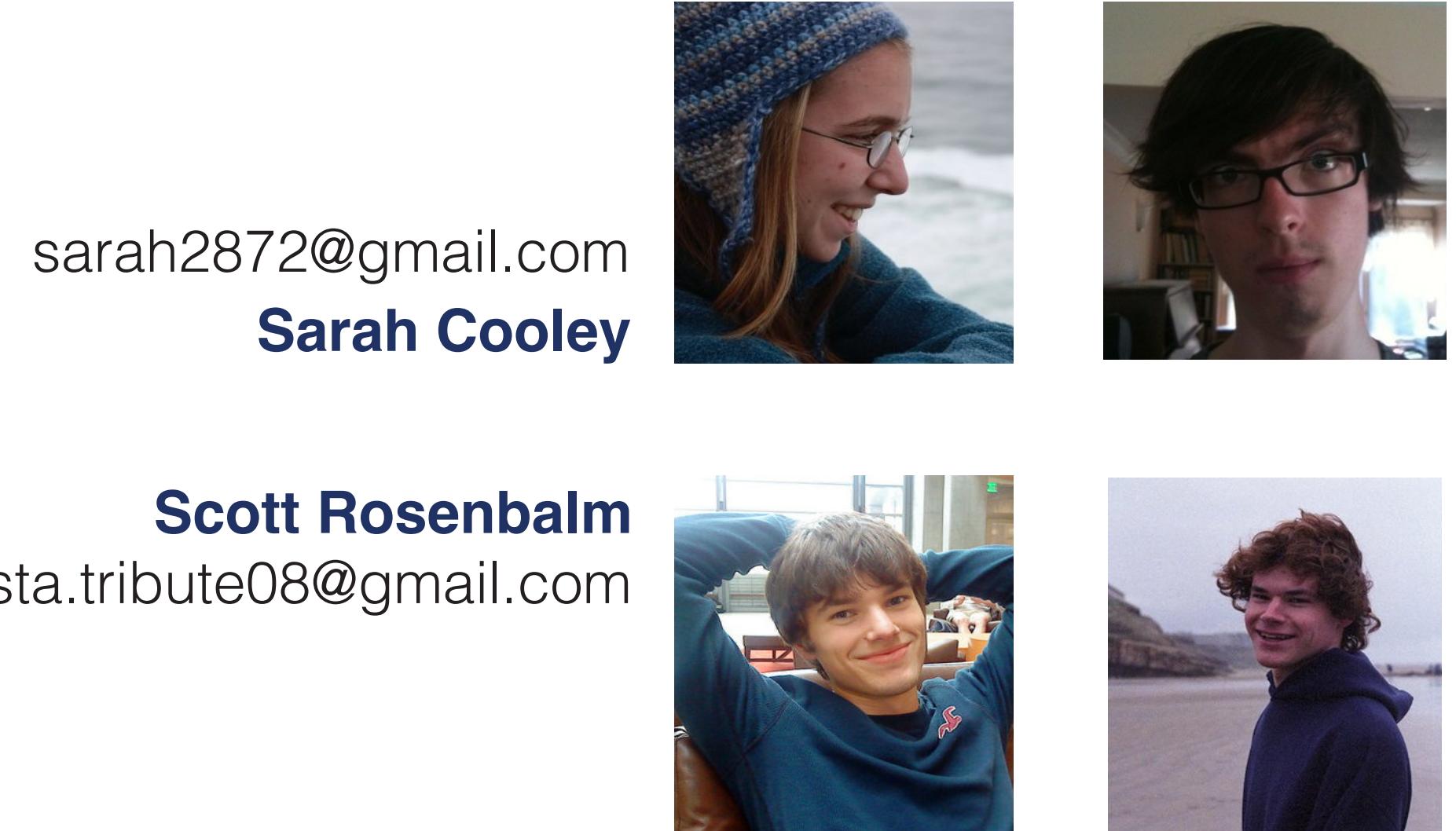
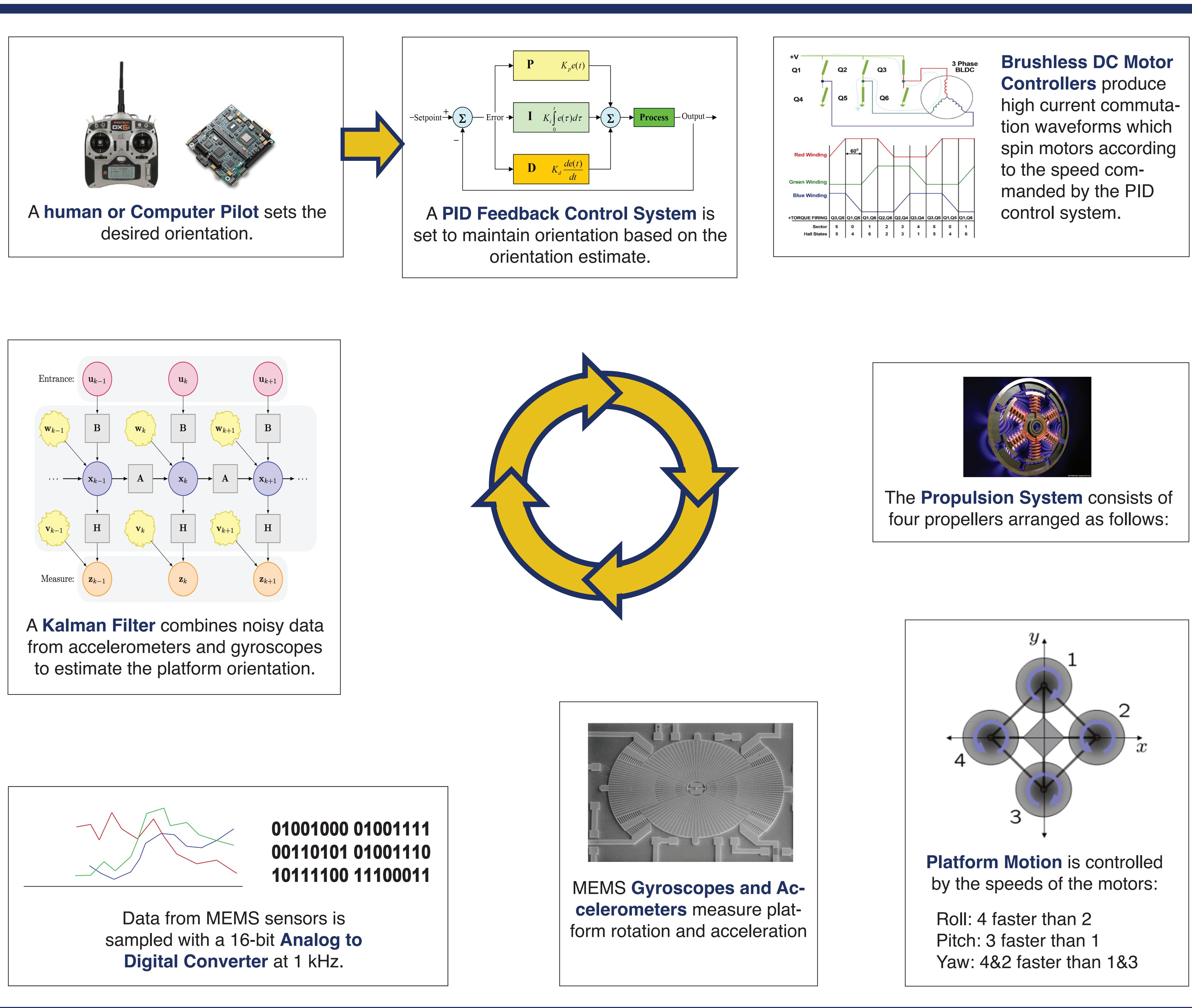
controls propeller speed according to sensor data to stabilize the platform.



### Brushless DC Motor Controller

controls commutation of four motors.

## Overview



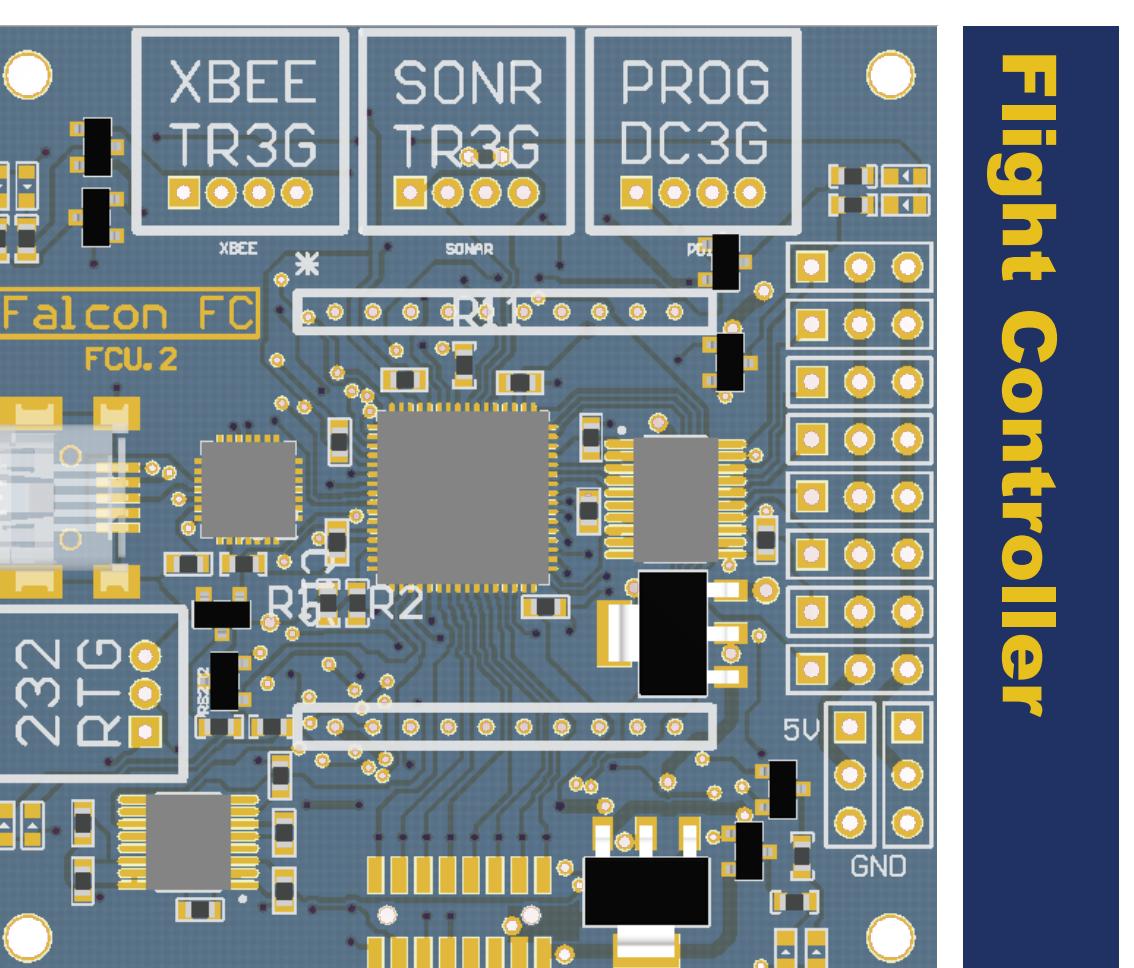
## Our Team



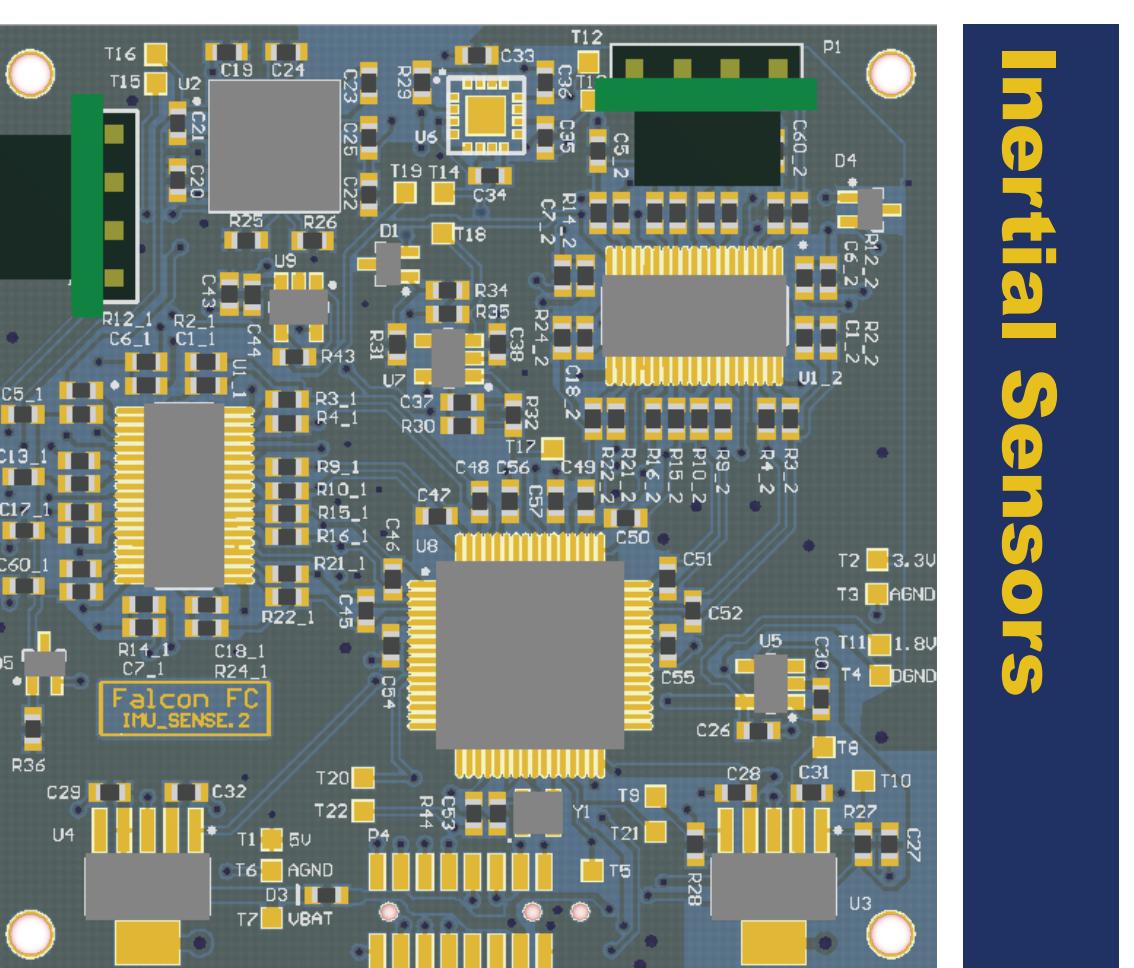
## Our Sponsors

- ✓ 1 kHz Update Rate
- ✓ 3 Cell Li-Poly Power Source
- ✓ Up To 15 Amps Per Motor
- ✓ Weight: < 100 grams
- ✓ USB Computer Interface
- ✓ Integrated Wireless Kill Switch
- ✓ Locking Connectors

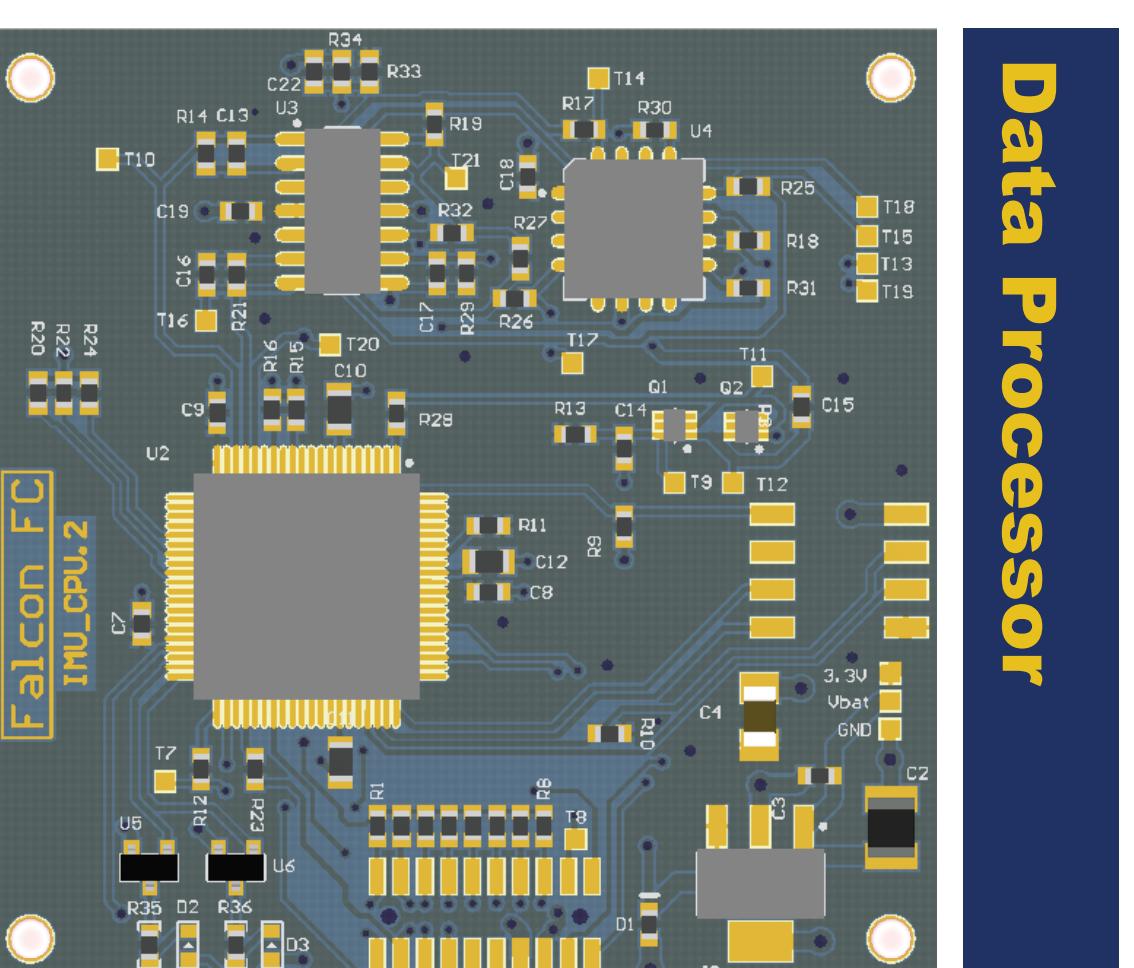
## Requirements



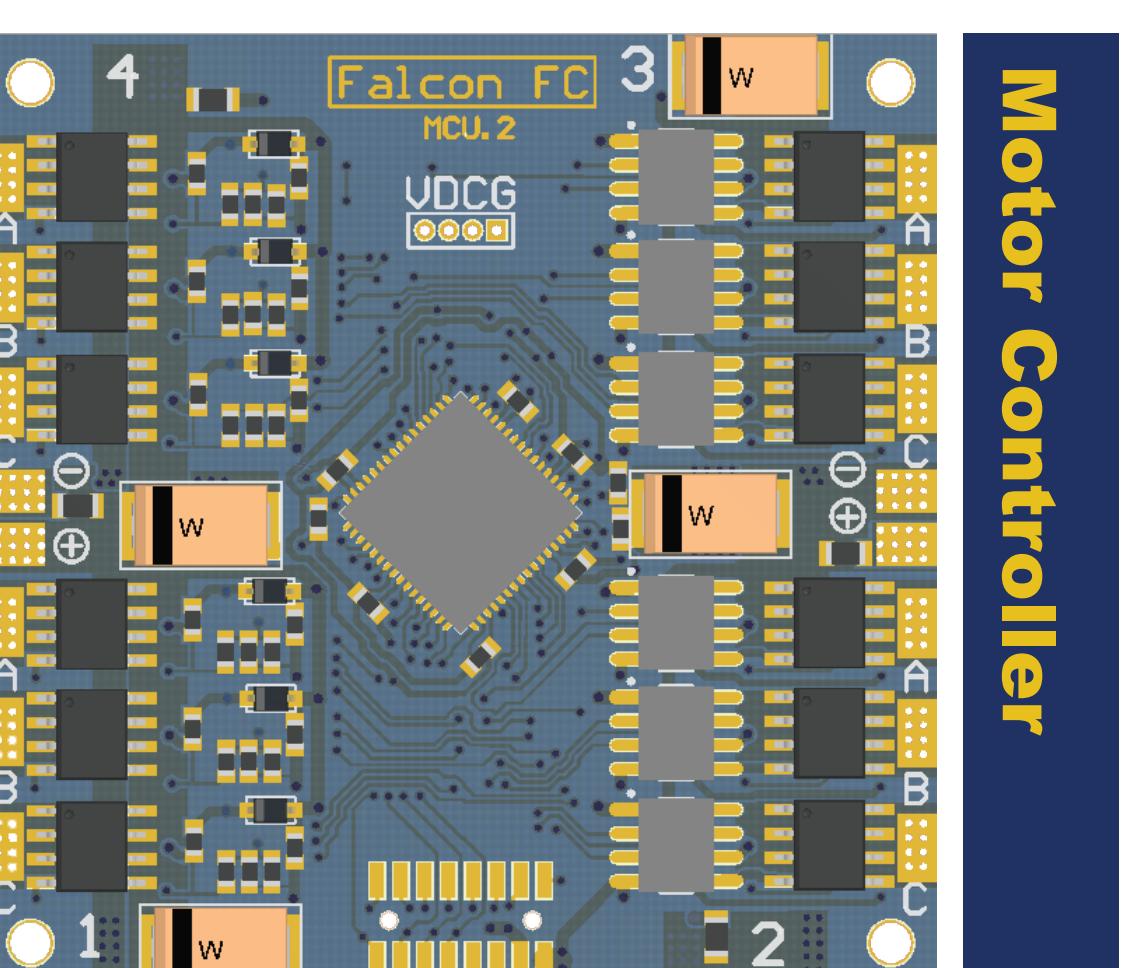
Flight Controller



Inertial Sensors



Data Processor



Motor Controller

## Circuit Boards