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FALCON - QUADROTOR FLIGHT CONTROL SYSTEM

OUR PROJECT

- ✖ IARC Competition
 - + Autonomously navigate a building
 - + Find and retrieve USB flash drive
- ✖ We are making the flight controller for this vehicle.
 - + Stability control
 - + Dead reckoning

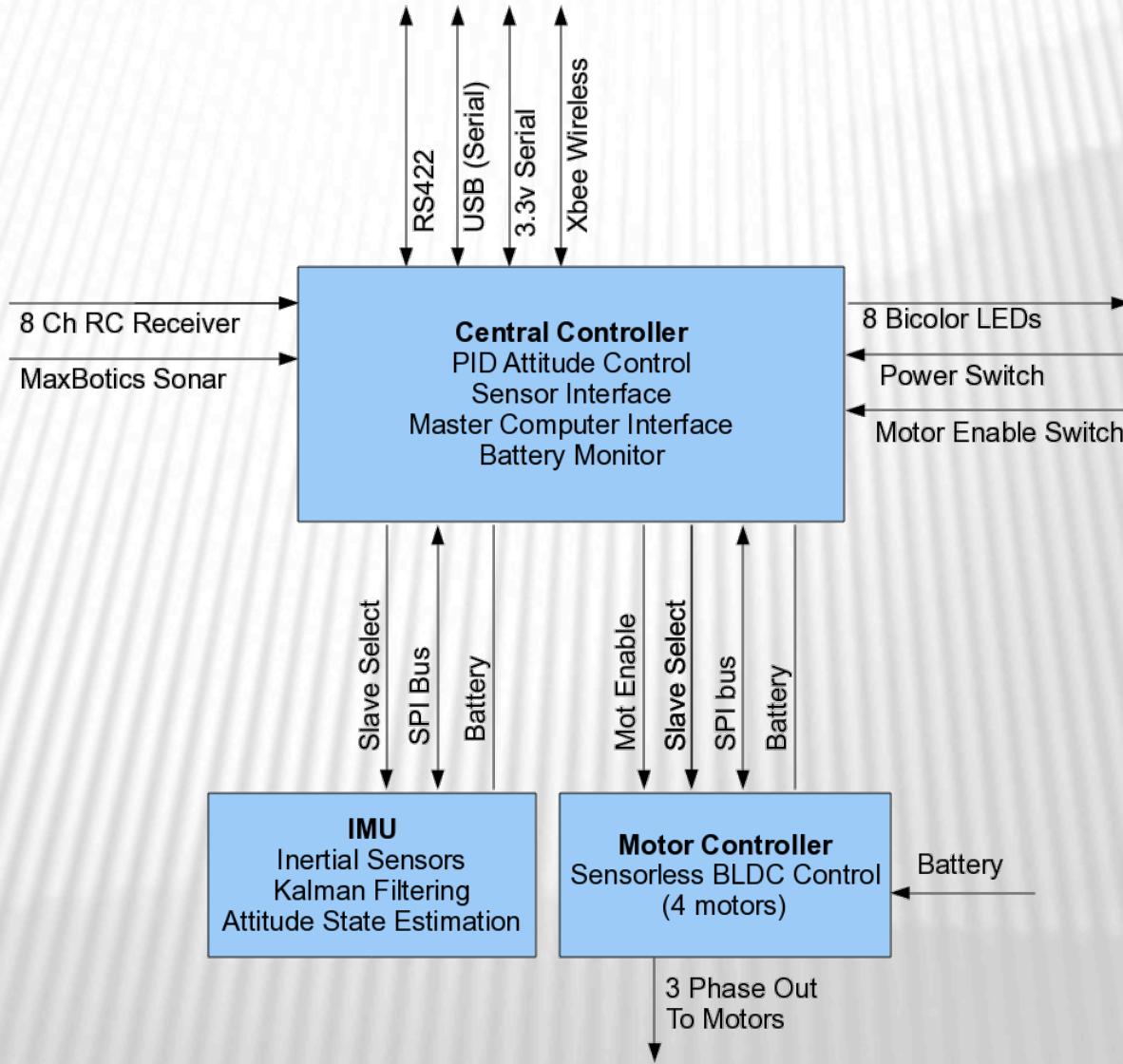
VIDEO

- ✖ [http://www.youtube.com/watch?
v=ulaZ91LmbfA](http://www.youtube.com/watch?v=ulaZ91LmbfA)

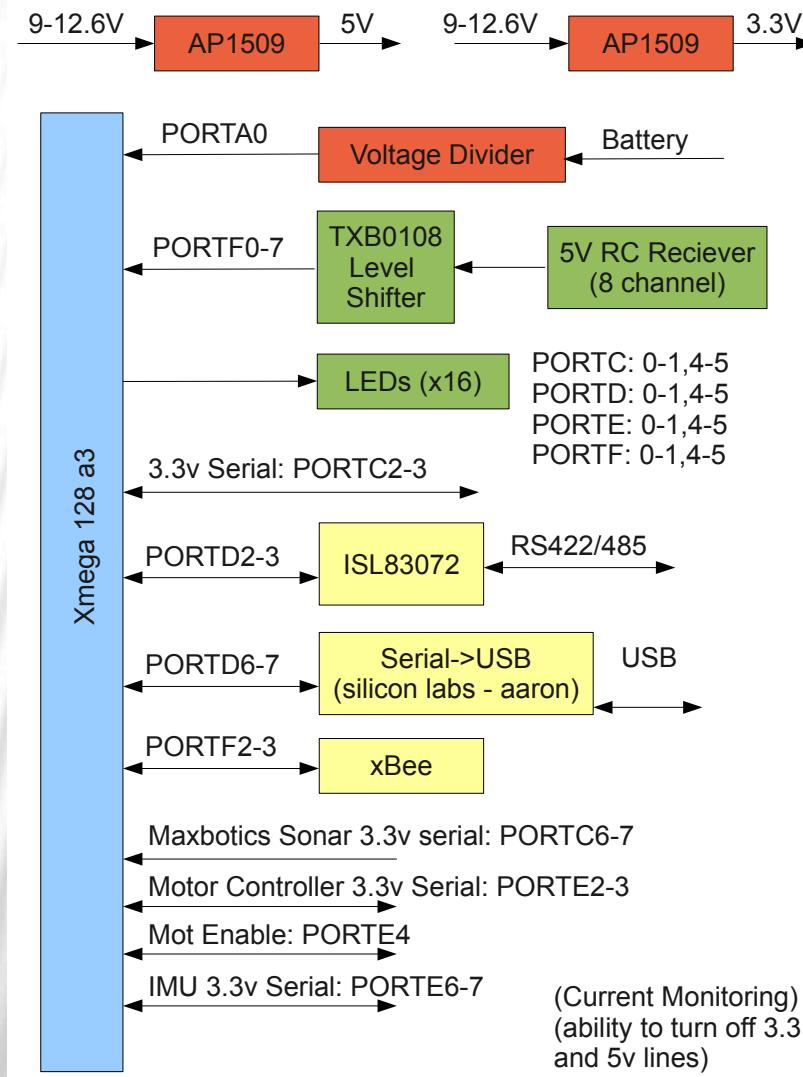
MOTIVATION FOR A NEW DESIGN

- ✖ Create an integrated solution
- ✖ Increase robustness
- ✖ Increase performance
- ✖ Reduce cost

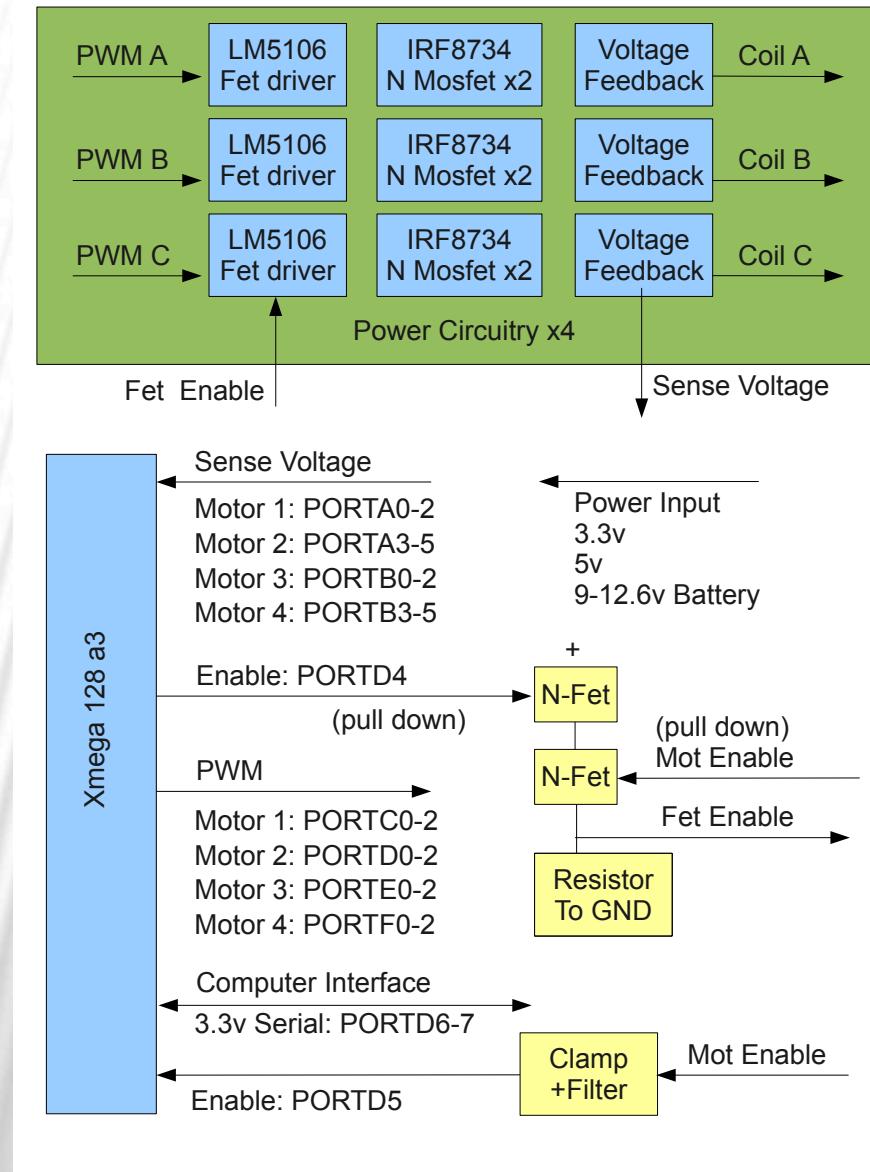
HIGH LEVEL BLOCK DIAGRAM



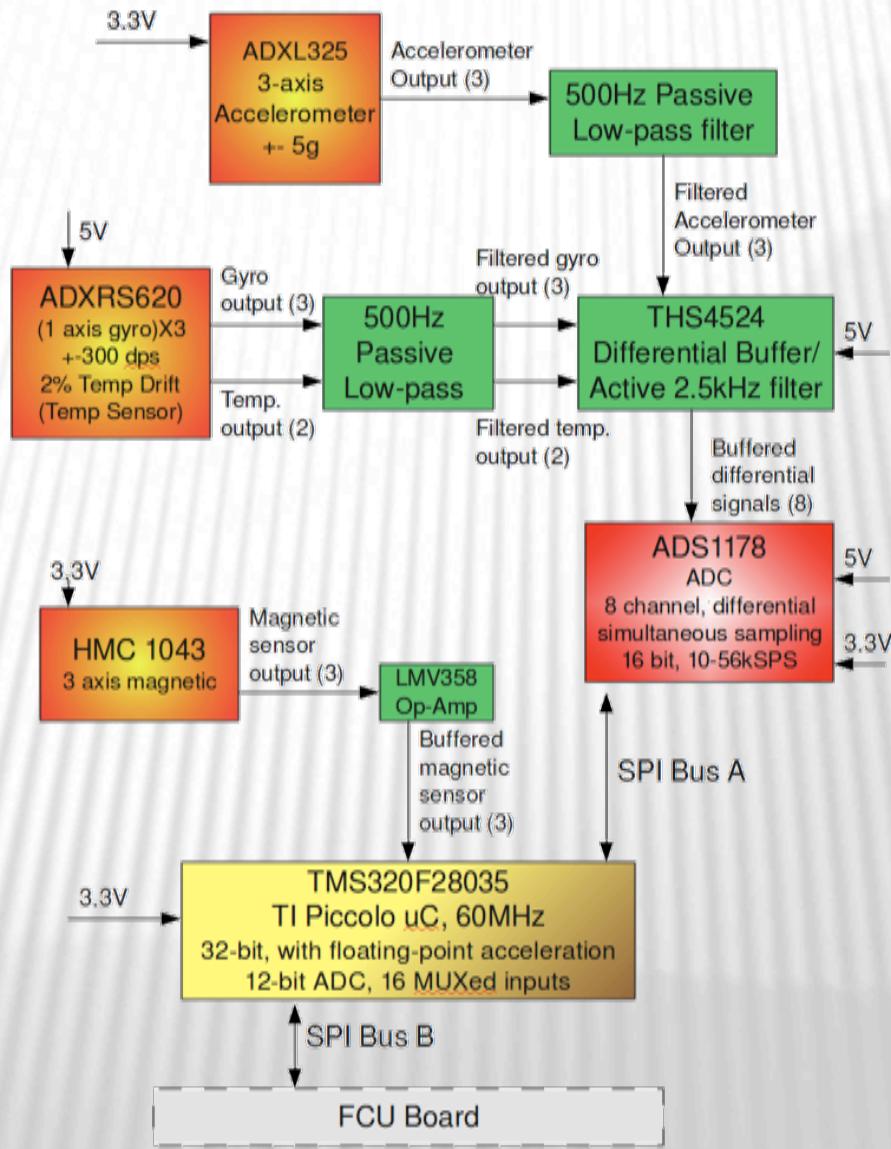
FCU



MCU

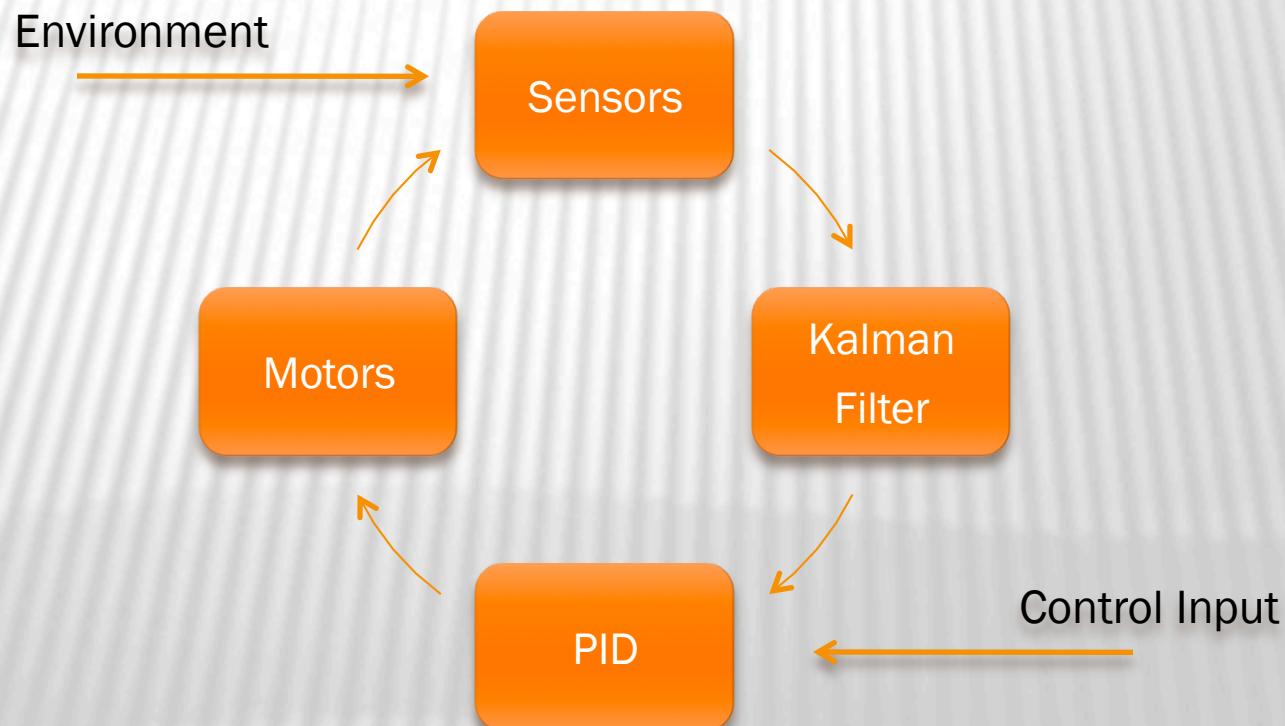


IMU



CONTROL SYSTEMS

- ✖ Kalman Filtering
- ✖ PID
- ✖ Sensorless BLDC Motor Controllers



SPONSORS

Revolution Robotics



Aaron Moore

ANY QUESTIONS?
