

Radio Flyers  
EE 41440  
08 February 2012

Minutes 02-08-12

1. Website:

Templet working on  
Theme not fully copyrighted

2. Parts List:

Digi Key parts haven't been ordered yet  
Clint has the rest of the part list  
Have to add a few more connectors

3. I2C Protocol:

Accelerometer is SPI - have to do external pull up resistors (5V sources or externally)  
Clock Frequency error - probably line before or after  
Tricky part of I2C - what happens upon reset  
    hitting reset button on board will not reset I2C, make sure to clear condition  
I2C header file  
    take out all header files to see if compiles  
I2C same?  
    can hang multiple things of I2C and pick which one to talk to  
Don't mind using Filter code - sample sensors at faster rate  
    in C (download off website)  
Axis of gyroscope and accelerometer are identical?  
    doing low-pass filter on each one, clean up sensor noise

4. Schematic:

Hopefully finished by today  
Do first pass on the board  
Make sure little things are accounted for (reset)  
Keep spreadsheet for how to assign pins

5. Design Review:

How to stabilize quadrotor  
Demonstrate algorithm on Arduino? (short turn around though)  
Explain how control system works  
    Worry about sampling rate  
    Figure out what state variables are

6. Misc:

Send new digi key parts  
Convince that project will work with our hardware and algorithms  
    Key thing for design review: show that control algorithm will be able to be practically implemented