What units does the complimentary filter take in? Angles? So that means the acceleration data in G’s has to be converted to angles using atan. But the sensitivity is 8194 mg/LSB. So how does that mean a value of 16894 is 1G? 16894/8194=2. Finally. So if after dividing, it’s only in mg, I’m assuming because it’s atan, it’s a ratio, hence I don’t have to convert it back to G.

Didn’t know that the raw values had to be divided by a scaling factor based on the spec sheet: http://www.i2cdevlib.com/forums/topic/4-understanding-raw-values-of-accelerometer-and-gyrometer/

Had to test mpu6050

Mpu 6050 had fifo overflow, fixed by reseting fifo every read becuase before, it just adds to the fifo ntil it oveflows

hmc5883L still isn't working

bmp180 readings seem to be faulty

bluetooth receiver wasn't working initally - faulty wire

didn't know how to send yaw because it isn't 2 digits like the others, decided I don't need yaw, think of easier solutions ( cut costs )

designing the pcb, I didn't know what I didn't know. I didn't know what sizes of holes the connectors needed to be so I didn't know I could export a schematic of the breakout board to take the corresponding components for my board

figuring out the values for the motor was troublesome - had to use a potentiometer to find the values the motors run at

understanding the arming procedures of the esc's

tuning the PID values

Had to tune offset values for sensor

Had to make sure phone can calibrate values( did this myself beause I didn't want to have the arduino compute too many things)

Had to map values from -180 to 180 to match values coming from MPU6050 for yaw

Made sure the PCB board was throughplated

Found out that the power supply on the old arduino got burnt out -had to buy a new one

Not all motors were compensating - isolate each motor to see which one isn't hooked up correctly, found out that only two sides were compentating by lowering speed enough to notice a difference in power - am going to do console debugging to figure out why only two sides are compensating - thought of possible reason and need to figure out if it's true(did not set setY variable)

Power was getting disconnected from arduino - try to use connector cleaner

Metal surface is causing connection problems - add foam underneath arduino

lock screws

make sure android app doesn't lag

sensor is not working correctly