Initial program for getting HumBird started


```cpp
//----------------------------------------------------
// Humbird
//----------------------------------------------------
void Pilot::humBirdInit()
{
        setLevel(1);
}

void Pilot::humBirdUpdate()
{
        double theta = dat.getAngle();
        double thetaDot = dat.getAngleDot();
        double tgx = getXTg();
        double tgy = getYTg();

        double mainThrustSignal;
        double rollSignal;

        // Here's the version in the video
        mainThrustSignal = getStickVR();
        rollSignal       =  -getStickHL();

        // If you're a multi-rotor pilot, this one may be more natural to you
        //mainThrustSignal = getStickVL();
        //rollSignal       =  -getStickHR();

        send(0,mainThrustSignal);    // main thruster
        send(1,rollSignal);          // lower right thruster
        send(2,-rollSignal);         // lower left thruster
        send(3,-rollSignal);         // upper right thruster
        send(4,rollSignal);          // upper left thruster

        msg.set(0,"xError",tgx-getX());
        msg.set(1,"yError",tgy-getY());
}
```
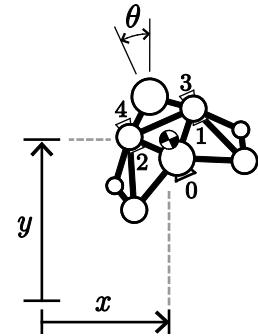
HumBird Nominal (Level 1) Parameters

m = 18.7 kg
g = 2.0 m/s^2
I_G = 170.342 kg m^2
Tmax = 100 N
Mmax = 120 N m