clc

clear all;

clear all;

clf

ax = axes('XLim',[-1.5 1.5],'YLim',[-1.5 1.5],'ZLim',[-1.5 1.5]);

view(3); grid on; axis equal;

%axis off;

% Create objects to group

[cylx,cyly,cylz]=cylinder(.4);

[conx,cony,conz]=cylinder([1,0]);

[mx,my,mz]=cylinder([0,0.1]);

[x,y,z]=sphere(50);

h(1)=surface(x/10,y/10,z/10+2,'FaceColor','black');

h(2)=surface(cylx,cyly,cylz\*2+1,'FaceColor','blue'); %orta gövde

h(3)=surface(conx/2-0.01,cony/2-0.01,conz+3,'FaceColor','black'); %baş kısımı

h(4)=surface(my/2,mx/4+0.4,mz/1.5+0.5,'FaceColor','yellow');

h(5)=surface(my/2,mx/4-0.4,mz/1.5+0.5,'FaceColor','yellow');

h(6)=surface(my/2+0.4,mx/4,mz/1.5+0.5,'FaceColor','yellow');

h(7)=surface(my/2-0.4,mx/4,mz/1.5+0.5,'FaceColor','yellow');

set(h,'Clipping','off');

t = hgtransform('Parent',ax);

set(h,'Parent',t);

drawnow;

k=0;

%%%%%%%%%%%%%% obje oluşturma kısmı bitti şimdi arduinodan veri alışı var

radians\_degree = pi/180;

% a = arduino('COM4', 'Uno', 'Libraries', 'I2C');

% imu = mpu6050(a,'SampleRate',50,'SamplesPerRead',5,'ReadMode','Latest');

% gyroReadings = readAngularVelocity(imu);

d=5;

for d=1:1000000

m=importdata('denm.txt');

% m.data(d:d+1)

gyroReadings= [m.data((length(m.data)-1));m.data((length(m.data)))];

a0=gyroReadings(1); %xaxis reading

a1=gyroReadings(2);

k=(a0-335);%yaxis reading

k0=(a0-335); %shifting to 0

k1=(a1-335);

r0 = k0\*radians\_degree;

r1=k1\*radians\_degree;

Rz = makehgtform('xrotate',r0,'yrotate',r1);

set(t,'Matrix',Rz)

drawnow;

% pause(.05);

%%%%%%%%%%%%%%%%%5

%%%%%%%%%%%%%%%%%%%%%%%%%%%%5

%%%%%%%%%%%%%%%%%%%%%%%%%%% GPS

%%%%%%%%%%%%%%%%%%%

%%%%%%%%%%%%%%%%%%%%%%% GPS İÇİN

a=37.0866;

b=29.35225;

%transmitter

tx = txsite('Name','MathWorks Apple Hill',...

'Latitude',a, ...

'Longitude',b);

%show(tx);

%receiver

rx = rxsite('Name','MathWorks Lakeside', ...

'Latitude',37.3021, ...

'Longitude',29.3764);

%distance

dm = distance(tx,rx); % Unit: m

dkm = dm / 1000; %unit:km

azFromEast = angle(tx,rx); % Unit: degrees counter-clockwise from East

azFromNorth = -azFromEast + 90; % Convert angle to clockwise from North

ss = sigstrength(rx,tx);

margin = abs(rx.ReceiverSensitivity - ss); %hassassiyeti çıkararak ölçer

link(rx,tx)

% coverage(tx,'close-in', ...

% 'SignalStrengths',-100:5:-60) %sinyl gücüneg göre kapsadığı alan

end

%%%%%%%%%%%%%%%%%%%

%%%%%%%%%%%%%%%%%%%%%%% GPS İÇİN

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%

% b=29.35225;

% %transmitter

% tx = txsite('Name','MathWorks Apple Hill',...

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