**OMNI WEB DRIVE CODE:-**

// rx code/ due code :

#include <EasyTransfer.h>

//create object

EasyTransfer ET;

#include <stdio.h>

int mapRange(int x, int a, int b, int c, int d) {

return (x - a) \* (d - c) / (b - a) + c;

}

const int p1=13;

const int p2=11;

const int p3=8;

//const int p4=4;

//const int sensor1=6;

//const int sensor2=5;

//const int sensor3=4;

//const int sensor4=3;

//const int sensor5=2;

int d1=12;

int d2=10;

int d3=7;

//int d4=1;

struct RECEIVE\_DATA\_STRUCTURE{

//put your variable definitions here for the data you want to receive

//THIS MUST BE EXACTLY THE SAME ON THE OTHER ARDUINO

int16\_t rx;

int16\_t ry;

int16\_t l1;

int16\_t r1;

int16\_t l2;

int16\_t r2;

};

//give a name to the group of data

RECEIVE\_DATA\_STRUCTURE mydata;

void setup(){

Serial.begin(115200);

pinMode(p1, OUTPUT);

Serial1.begin(115200);

pinMode(p2, OUTPUT);

pinMode(p3, OUTPUT);

// pinMode(p4, OUTPUT);

pinMode(d1, OUTPUT);

pinMode(d2, OUTPUT);

pinMode(d3, OUTPUT);

// pinMode(d4, OUTPUT);

pinMode(sensor1,INPUT);

pinMode(sensor2,INPUT);

pinMode(sensor3,INPUT);

pinMode(sensor4,INPUT);

pinMode(sensor5,INPUT);

int s1;

int s2;

int s3;

// int s4;

//start the library, pass in the data details and the name of the serial port. Can be Serial, Serial1, Serial2, etc.

ET.begin(details(mydata), &Serial1);

}

void loop(){

//check and see if a data packet has come in.

if (ET.receiveData()){

//this is how you access the variables. [name of the group].[variable name]

//since we have data, we will blink it out.

Serial.println("Received: ");

int a = 2\* mydata.rx;

int b = 2\*mydata.ry;

int l =mydata.l1;

int r =mydata.r1;

int r2 = mydata.r2;

int l2 = mydata.l2;

Serial.println(mydata.rx);

Serial.println(mydata.ry);

while( sensor1!=1 && sensor2!=1 && sensor3!=1 && sensor4!=1 && sensor5!=1){

followLine();

}

if (a>255){

a=255;

}if (a<-255){

a=-255;

} if (b>255){

b=255;

}if (b<-255){

b=-255;}

// int mx = mapRange(a, -128, 128, -255, 255);

// int my = mapRange(b, -128, 128, -255, 255);

int mx =a;

int my=b;

// Serial.print("Mapped value of A: ");

// Serial.println(mx);

// Serial.print("Mapped value of B: ");

// Serial.println(my);

int s1=(-0.33\*mx+0.58\*my);// w1

int s2=(-0.33\*mx-0.58\*my);//w2

int s3=(0.67\*mx);//w3

// int s4=(0.7071\*mx+0.7071\*my)\*0.7352;//w4

//for 360

if(l>0){

Serial.println('left button pressed');

digitalWrite(d1, HIGH);

analogWrite(p1,200);

digitalWrite(d2, HIGH);

analogWrite(p2,200);

digitalWrite(d3, HIGH);

analogWrite(p3,200);

// digitalWrite(d4, HIGH);

// analogWrite(p4,200);

delay(100);

}

if(r>0){

Serial.println('right button pressed');

digitalWrite(d1, LOW);

analogWrite(p1,200);

digitalWrite(d2, LOW);

analogWrite(p2,200);

digitalWrite(d3, LOW);

analogWrite(p3,200);

// digitalWrite(d4, LOW);

// analogWrite(p4,200);

delay(100);

}

// For Rumble

//if(r2>0 || l2>0)

//{

// Ps3.setRumble(100.0);

// delay(2000);

//,..}

if(s1>0){

digitalWrite(d1,HIGH);

}

if(s1<0)

{digitalWrite(d1,LOW);

}

if(s2>0){

digitalWrite(d2, HIGH);

}

if(s2<0)

{digitalWrite(d2,LOW);

}

if(s3>0){

digitalWrite(d3, HIGH);

}

if(s3<0)

{digitalWrite(d3,LOW);

}

//if(s4>0){

// digitalWrite(d4,HIGH);

//}

// if(s4<0)

// {digitalWrite(d4,LOW);

// }

// if (s1<0){

// s1=0;

else if (abs(s1)>255){

s1=254;

}

// if (s2<0){

// s2=0;

else if (abs(s2)>255){

s2=254;

}

// if (s3<0){

// s3=0;

else if (abs(s3)>255){

s3=254;

}

// if (abs(s4)<0){

// s4=0;

//else if (abs(s4)>255){

// s4=254;

//}

analogWrite(p1,abs(s1));

analogWrite(p2,abs(s2));

analogWrite(p3,abs(s3));

// analogWrite(p4,abs(s4));

// Serial.println("S1:");

// Serial.println(s1);

// Serial.println("S2:");

// Serial.println(s2);

// Serial.println("S3:");

// Serial.println(s3);

// Serial.println("S4:");

// Serial.println(s4);

}

delay(12.5);

//you should make this delay shorter then your transmit delay or else messages could be lost

}