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#include <Servo.h>

//defining Servos

Servo servohori;

int servoh = 0;

int servohLimitHigh = 160;

int servohLimitLow = 20;


Servo servoverti;

int servov = 0;

int servovLimitHigh = 160;

int servovLimitLow = 20;

//Assigning LDRs

int ldrtopl = 2; //top left LDR green

int ldrtopr = 1; //top right LDR yellow

int ldrbotl = 3; // bottom left LDR blue

int ldrbotr = 0; // bottom right LDR orange


void setup ()

{

servohori.attach(10);

servohori.write(0);

servoverti.attach(9);

servoverti.write(0);

delay(500);

}


void loop()

{

servoh = servohori.read();

```

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servov = servoverti.read();

//capturing analog values of each LDR
int topl = analogRead(ldrtopl);
int topr = analogRead(ldrtopr);
int botl = analogRead(ldrbotl);
int botr = analogRead(ldrbotr);

// calculating average
int avgtop = (topl + topr) / 2; //average of top LDRs
int avgbot = (botl + botr) / 2; //average of bottom LDRs
int avgleft = (topl + botl) / 2; //average of left LDRs
int avgright = (topr + botr) / 2; //average of right LDRs

if (avgtop < avgbot)
{
    servoverti.write(servov +1);
    if (servov > servovLimitHigh)
    {
        servov = servovLimitHigh;
    }
    delay(10);
}
else if (avgbot < avgtop)
{
    servoverti.write(servov -1);
    if (servov < servovLimitLow)
    {
        servov = servovLimitLow;
    }
    delay(10);
}

```

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}  
  
else  
  
{  
    servoverti.write(servov);  
}  
  
if (avgleft > avgright)  
{  
    servohori.write(servoh +1);  
    if (servoh > servohLimitHigh)  
    {  
        servoh = servohLimitHigh;  
    }  
    delay(10);  
}  
else if (avgright > avgleft)  
{  
    servohori.write(servoh -1);  
    if (servoh < servohLimitLow)  
    {  
        servoh = servohLimitLow;  
    }  
    delay(10);  
}  
else  
{  
    servohori.write(servoh);  
}  
delay(50);
```

}