Robotikäsi

<https://create.arduino.cc/projecthub/ChanR19/simple-programmable-robotic-arm-bd28a0?ref=platform&ref_id=424_trending_part__&offset=42>

#include <Servo.h>

Servo servo1; //Servos

Servo servo2;

Servo servo3;

const int LED1 = 2; //LEDit

const int LED2 = 3;

const int LED3 = 4;

const int LED4 = 7;

const int LED5 = 8;

const int button1 = 12; //nappit

const int button2 = 13;

int button1Presses = 0; //nappien arvot

boolean button2Pressed = false;

const int pot1 = A0; // pinnit mihin potentiometeri on yhdistetty

const int pot2 = A1;

const int pot3 = A2;

int pot1Val; //Potentiometerin arvot

int pot2Val;

int pot3Val;

int pot1Angle; // potentiometrin kulmat

int pot2Angle;

int pot3Angle;

int servo1PosSaves[] = {1,1,1,1,1}; //servojen asento arvot.

int servo2PosSaves[] = {1,1,1,1,1};

int servo3PosSaves[] = {1,1,1,1,1};

void setup() {

servo1.attach(5); // pinnit mihin servot on kytketty arduino levyl

servo2.attach(6);

servo3.attach(9);

pinMode(LED1, OUTPUT); // Annat arduinolle tietoa mihin ledit ja nappit on kytketty

pinMode(LED2, OUTPUT);

pinMode(LED3, OUTPUT);

pinMode(LED4, OUTPUT);

pinMode(LED5, OUTPUT);

pinMode(button1, INPUT);

pinMode(button2, INPUT);

Serial.begin(9600);

}

void loop() {

pot1Val = analogRead(pot1); // potVal tallentta potentiometrin arvot .

pot1Angle = map(pot1Val, 0, 1023, 0, 179); // ... ja tämä kartoittaa potentiometrien arvot arvoihin, joita servot voivat käyttää, ja tallentaa ne myöhempää käyttöä varten

pot2Val = analogRead(pot2);

pot2Angle = map(pot2Val, 0, 1023, 0, 179);

pot3Val = analogRead(pot3);

pot3Angle = map(pot3Val, 0, 1023, 0, 179);

servo1.write(pot1Angle); // servo.write(potAngle) saavat servot siirtymään kartoitettuihin kulmiin mitkä on tallenettu

servo2.write(pot2Angle);

servo3.write(pot3Angle);

if(digitalRead(button1) == HIGH){ //tämö funktio tarkista monta kerta nappi ykköstä on painettu ja näyttä ledeil monta asento on tallennettu

button1Presses++;

switch(button1Presses){

case 1:

servo1PosSaves[0] = pot1Angle; //kaikki liiket mitkä servot teke tallennettaan muistiin

servo2PosSaves[0] = pot2Angle;

servo3PosSaves[0] = pot3Angle;

digitalWrite(LED1, HIGH); // jos servon asento tallennettaan, mene ledi pala.

Serial.println("Pos 1 Saved");

break;

case 2:

servo1PosSaves[1] = pot1Angle;

servo2PosSaves[1] = pot2Angle;

servo3PosSaves[1] = pot3Angle;

digitalWrite(LED2, HIGH);

Serial.println("Pos 2 Saved");

break;

case 3:

servo1PosSaves[2] = pot1Angle;

servo2PosSaves[2] = pot2Angle;

servo3PosSaves[2] = pot3Angle;

digitalWrite(LED3, HIGH);

Serial.println("Pos 3 Saved");

break;

case 4:

servo1PosSaves[3] = pot1Angle;

servo2PosSaves[3] = pot2Angle;

servo3PosSaves[3] = pot3Angle;

digitalWrite(LED4, HIGH);

Serial.println("Pos 4 Saved");

break;

case 5:

servo1PosSaves[4] = pot1Angle;

servo2PosSaves[4] = pot2Angle;

servo3PosSaves[4] = pot3Angle;

digitalWrite(LED5, HIGH);

Serial.println("Pos 5 Saved");

break;

}

}

if(digitalRead(button2) == HIGH){

button2Pressed = true;

}

if(button2Pressed){ // Jos 1 nappilla on tallennettu liikeittä, 2 nappista se käy kaikki tallennettut asennot läpi loopissa.

for(int i = 0; i < 5; i++){

servo1.write(servo1PosSaves[i]);

servo2.write(servo2PosSaves[i]);

servo3.write(servo3PosSaves[i]);

Serial.println(" potentimeter Angles: ");

Serial.println(servo1PosSaves[i]);

Serial.println(servo2PosSaves[i]);

Serial.println(servo3PosSaves[i]);

delay(1050);

}

}

delay(300);

}

# 

