**ΠΑΡΑΔΕΙΓΜΑ ΚΩΔΙΚΑ ΓΙΑ ΕΛΕΓΧΟ ΒΗΜΑΤΙΚΟΥ ΚΙΝΗΤΗΡΑ ΚΑΙ ΣΕΡΒΟΚΙΝΗΤΗΡΑ ΜΕ ARDUINO**

int delay\_time = 10;

// pins 8,9,10,11 for step motor

int stepper0 = 8;

int stepper1 = 9;

int stepper2 = 10;

int stepper3 = 11;

//pins 12,5 for servo motors

int servo1 = 12;

int servo2 = 5;

int count;

void setup() {

// pins set as outputs

pinMode(stepper0, OUTPUT);

pinMode(stepper1, OUTPUT);

pinMode(stepper2, OUTPUT);

pinMode(stepper3, OUTPUT);

pinMode(servo1, OUTPUT);

pinMode(servo2, OUTPUT);

}

void loop() {

count = 0;

do {

// control the direction of step motor to turn clockwise

digitalWrite(stepper0,0); // negative

digitalWrite(stepper1,1);

digitalWrite(stepper2,0); // negative

digitalWrite(stepper3,1);

delay(delay\_time);

digitalWrite(stepper0,1); // positive

digitalWrite(stepper1,0);

digitalWrite(stepper2,0); // negative

digitalWrite(stepper3,1);

delay(delay\_time);

digitalWrite(stepper0,1); // positive

digitalWrite(stepper1,0);

digitalWrite(stepper2,1); // positive

digitalWrite(stepper3,0);

delay(delay\_time);

digitalWrite(stepper0,0); // negative

digitalWrite(stepper1,1);

digitalWrite(stepper2,1); // postive

digitalWrite(stepper3,0);

delay(delay\_time);

count++;

} while(count<100);

count = 0;

do {

// control the direction of step motor to turn counter clockwise

digitalWrite(stepper3,0); // negative

digitalWrite(stepper2,1);

digitalWrite(stepper1,0); // negative

digitalWrite(stepper0,1);

delay(delay\_time);

digitalWrite(stepper3,1); // positive

digitalWrite(stepper2,0);

digitalWrite(stepper1,0); // negative

digitalWrite(stepper0,1);

delay(delay\_time);

digitalWrite(stepper3,1); // positive

digitalWrite(stepper2,0);

digitalWrite(stepper1,1); // positive

digitalWrite(stepper0,0);

delay(delay\_time);

digitalWrite(stepper3,0); // negative

digitalWrite(stepper2,1);

digitalWrite(stepper1,1); // postive

digitalWrite(stepper0,0);

delay(delay\_time);

count++;

} while(count<100);

//USE PWM TO CONTROL SERVO MOTOR- set at 150

analogWrite(servo2, 150);

//MANUALLY CONTROL SERVO MOTOR

while(1) {

digitalWrite(servo1, 1);

delayMicroseconds(875); // half of 1750

digitalWrite(servo1, 0);

delayMicroseconds(125); // half of 250

}

}