CODE

```
#include <AccelStepper.h>
#include <Servo.h>
Servo servo1;
Servo servo2;
int servopin1 = 5;
int servopin2 = 4;

#define HALFSTEP 8
int IN1 = 8;
int IN2 = 9;
int IN3 = 10;
int IN4 = 11;
int fullrev = 2048;

int swpin = 2;
int potx = A1;
int poty = A0;

int swstatus;
int xdat;
int ydat;

long lasttime = 0;
int movetime = 20;
int flag = 0;
int j = 0;
int remainder;
int mapy;

int switchl;
int switchr;
int pos;
int x;
int spos;
int maps;
int y;
```

```
AccelStepper myStepper(HALFSTEP, 8, 10, 9, 11);

void setup() {
  Serial.begin(9600);
  pinMode(swpin, INPUT_PULLUP);

  myStepper.setMaxSpeed(1000.0);
  myStepper.setAcceleration(200.0);
  myStepper.setSpeed(400);
  delay(1000);

  servo1.attach(servopin1);
  servo2.attach(servopin2);
  pinMode(7, INPUT);
  pinMode(6, INPUT);

}

void loop() {


  if(millis()-lasttime > movetime) {

    xdat = analogRead(potx);
    ydat = analogRead(poty);


    mapy = map(ydat, 0, 669, -30, 30);
    if(abs(mapy) < 5) {
      mapy = 0;

    }
    if(xdat > 569){
      flag = 1;
    }
    if(xdat < 100){
      flag = 2;
    }
```

```
  if(xdat > 101 && xdat < 569){
    flag = 3;
  }

  if(j == 50) {
    Serial.println(myStepper.currentPosition());
    j = 0;
  }
  lasttime = millis();
  j++;
}

if(flag == 1) {
  servo1.writeMicroseconds(1100);
}

if(flag == 2) {
  servo1.writeMicroseconds(1700);
  }

if(flag == 3) {
  servo1.writeMicroseconds(1500);

  }

  myStepper.move(mapy);
  myStepper.runSpeed();
  myStepper.run();


  switchl = digitalRead(7);
  switchr = digitalRead(6);
```

```
    if(switchl==HIGH){
       servo2.writeMicroseconds(1950);
    delay(1);
    }
    if(switchl==LOW && switchr==LOW){
       servo2.writeMicroseconds(1500);
   delay(1);
    }
    if(switchr==HIGH){
      servo2.writeMicroseconds(1050);
    delay(1);
    }

}
```