//add servo library

#include <Servo.h>

//define our servos

Servo servo1;

Servo servo2;

Servo servo3;

Servo servo4;

//define our potentiometers

int pot1 = A1;

int pot2 = A2;

int pot3 = A3;

int pot4 = A4;

//variable to read the values from the analog pin (potentiometers)

int valPot1;

int valPot2;

int valPot3;

int valPot4;

void setup()

{

  //attaches our servos on pins PWM 3-5-6-9 to the servos

  servo1.attach(3);

  servo1.write(0);  //define servo1 start position

  servo2.attach(5);

  servo2.write(90); //define servo2 start position

  servo3.attach(6);

  servo3.write(90); //define servo3 start position

  servo4.attach(9);

  servo4.write(70); //define servo4 start position

}

void loop()

{

  //reads the value of potentiometers (value between 0 and 1023)

  valPot1 = analogRead(pot1);

  valPot1 = map (valPot1, 0, 1023, 0, 180); //scale it to use it with the servo (value between 0 and 180)

  servo1.write(valPot1); //set the servo position according to the scaled value

  valPot2 = analogRead(pot2);

  valPot2 = map (valPot2, 0, 1023, 0, 180);

  servo2.write(valPot2);

  valPot3 = analogRead(pot3);

  valPot3 = map (valPot3, 0, 1023, 0, 180);

  servo3.write(valPot3);

  valPot4 = analogRead(pot4);

  valPot4 = map (valPot4, 0, 1023, 70, 150);

  servo4.write(valPot4);

}