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#include "LedControl.h"
#include <Servo.h>
Servo myservo;
LedControl lc=LedControl(12,11,10,1);
const int FSR_PIN = A0; // Pin connected to FSR/resistor divider
const int trigPin = 5;
const int echoPin = 6;
// Measure the voltage at 5V and resistance of your 3.3k resistor, and enter
// their value's below:
const float VCC = 4.98; // Measured voltage of Arduinio 5V line
const float R_DIV = 5000000.0; // Measured resistance of 3.3k resistor
float force;
long pos,duration,jarak,cm;
void setup()
{
  Serial.begin(9600);
  myservo.attach(9);
  pinMode(FSR_PIN, INPUT);
  pinMode(trigPin, OUTPUT); // Sets the trigPin as an Output
  pinMode(echoPin, INPUT); // Sets the echoPin as an Input
  pinMode(FSR_PIN, INPUT);
  lc.shutdown(0,false);// turn off power saving, enables display
  lc.setIntensity(0,8);// sets brightness (0~15 possible values)
  lc.clearDisplay(0);// clear screen
}
void printberat(float num)
{
  int ones;
  int tens;
  int hundreds;
  int v=(int)num;

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float diff=num-v;
diff=diff*100;
int fones,ftens;
fones=(int)diff%10;
diff=diff/10;
ftens=(int)diff%10;
diff=diff/10;
ones=v%10;
v=v/10;
tens=v%10;
v=v/10;
hundreds=v;
//Now print the number digit by digit
lc.setDigit(0,6,(byte)hundreds,false);
lc.setDigit(0,5,(byte)tens,false);
lc.setDigit(0,4,(byte)ones,true);
}
void printtinggi(float num)
{
int ones;
int tens;
int hundreds;
int v=(int)num;
float diff=num-v;
diff=diff*100;
int fones,ftens;
fones=(int)diff%10;
diff=diff/10;
ftens=(int)diff%10;
diff=diff/10;
ones=v%10;

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v=v/10;
tens=v%10;
v=v/10;
hundreds=v;
//Now print the number digit by digit
lc.setDigit(0,2,(byte)hundreds,false);
lc.setDigit(0,1,(byte)tens,false);
lc.setDigit(0,0,(byte)ones,true);
}
void loop()
{
  // Clears the trigPin
  digitalWrite(trigPin, LOW);
  delayMicroseconds(2);
  // Sets the trigPin on HIGH state for 10 micro seconds
  digitalWrite(trigPin, HIGH);
  delayMicroseconds(10);
  digitalWrite(trigPin, LOW);
  // Reads the echoPin, returns the sound wave travel time in microseconds
  pinMode(echoPin, INPUT);
  duration = pulseIn(echoPin, HIGH);
  // Calculating the distance
  jarak = duration*0.034/2;
  cm=jarak;
  // Prints the distance on the Serial Monitor
  Serial.print(cm);
  Serial.print("cm");
  Serial.println();
}

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printinggi(cm);

int fsrADC = analogRead(FSR_PIN);
// If the FSR has no pressure, the resistance will be
// near infinite. So the voltage should be near 0.
if (fsrADC != 0) // If the analog reading is non-zero
{
    // Use ADC reading to calculate voltage:
    float fsrV = fsrADC * VCC / 1023.0;
    // Use voltage and static resistor value to
    // calculate FSR resistance:
    float fsrR = R_DIV * (VCC / fsrV - 1.0);
    Serial.println("Resistance: " + String(fsrR) + " ohms");
    Serial.println("Voltage: " + String(fsrV) + " volt");
    // Guesstimate force based on slopes in figure 3 of
    // FSR datasheet:

    float fsrG = 1.0 / fsrR; // Calculate conductance
    // Break parabolic curve down into two linear slopes:
    if (fsrR <= 600)
        force = (fsrG - 0.00075) / 0.00000032639;
    else
        force = fsrG / 0.000000642857;
    Serial.println("Force: " + String(force) + " Kg");
    Serial.println();

    delay(500);
    printberat(force);
}
if (force<1){
myservo.writeMicroseconds(1000);

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    delay(1000);  
  }  
  else  
  {  
    myservo.writeMicroseconds(2000);  
    delay(500); // No pressure detected  
  }  
}
```