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/*
  MotorKnob

  A stepper motor follows the turns of a
  potentiometer
  (or other sensor) on analog input 0.

  http://www.arduino.cc/en/Reference/Stepper
  This example code is in the public domain.
*/

#include <Stepper.h>

//      change this to the number of steps on your
//      motor
#define STEPS 400

//      create an instance of the stepper class,
//      specifying
//      the number of steps of the motor and the
//      pins it's
//      attached to
Stepper stepper(STEPS, 2, 3, 4, 5);           _____ Set The Pins for
                                           Stepper Motor

//      the previous reading from the analog input
int previous = 0;

void setup() {
  //      set the speed of the motor to 30 RPMs _____ Speed 30 RPMs
  stepper.setSpeed(30);
  Serial.begin(9600); _____ Sets the data rate in bits per second (baud) for
                                serial data transmission. For communicating
                                with the computer, use one of these rates: 300,
                                600, 1200, 2400, 4800, 9600, 14400, 19200,
                                28800, 38400, 57600, or 115200.
}

void loop() {
  //      get the sensor value _____ Potentiometer Input Pin
  int val = analogRead(A4);

  //      move a number of steps equal to the change
  //      in the
  //      sensor reading
  Serial.println(val); _____ Normal Analog Read Value
  val = map(val, 0, 1023, 0, 400); _____ Number of the steps Input
  if ((val > previous + 6) || (val < previous - 6)) { _____ Easy Driver is 0.9 deg/step _____ Avoid Jittering
    stepper.step(val - previous);
    Serial.println("!"); _____ Potentiometer can change the value even when we
                                are not touching it
  }
  //      remember the previous value of the sensor
  previous = val;
}
}

```