```cpp
//Include the Arduino Stepper Library
#include <Stepper.h>

// Define Constants
// Number of steps per internal motor revolution
const float STEPS_PER_REV = 32;

//  Amount of Gear Reduction
const float GEAR_RED = 64;

// Number of steps per geared output rotation
const float STEPS_PER_OUT_REV = STEPS_PER_REV * GEAR_RED;

// Define Variables
// Number of Steps Required

int stepCount = 0;
// Create Instance of Stepper Class
// Specify Pins used for motor coils
// The pins used are 8,9,10,11
// Connected to ULN2003 Motor Driver In1, In2, In3, In4
// Pins entered in sequence 1-3-2-4 for proper step sequencing

Stepper myStepper(STEPS_PER_REV, 8, 10, 9, 11);

// constants won't change. They're used here to
// set pin numbers:
const int switchPin = 2;     // the number of the direction switch pin

// variables will change:
int switchState = 0;         // variable for reading the direction switch status

void setup()
{
pinMode(switchPin, INPUT);
}

void loop()
{
// read the state of the switch value:
  switchState = digitalRead(switchPin);
  if (switchState == HIGH)
  {
    // read the sensor value:
    int sensorReading = analogRead(A0);
    // map it to a range from 0 to 300 (Alter this figure to set the max speed of the motor):
    int motorSpeed = map(sensorReading, 0, 1023, 0, 300);
    // set the motor speed:
    if (motorSpeed > 0) {
      myStepper.setSpeed(motorSpeed);
      // step 1/100 of a revolution:
      myStepper.step(STEPS_PER_OUT_REV / 100);
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    }
  } else {
    // read the sensor value:
    int sensorReading = analogRead(A0);
    // map it to a range from 0 to 300 (Alter this figure to set the max speed of the motor):
    int motorSpeed = map(sensorReading, 0, 1023, 0, 300);
    // set the motor speed:
    if (motorSpeed > 0) {
      myStepper.setSpeed(motorSpeed);
      // step 1/100 of a revolution:
      myStepper.step(-STEPS_PER_OUT_REV / 100);
    }
  }
}
```