

One step at a time

★ Overview



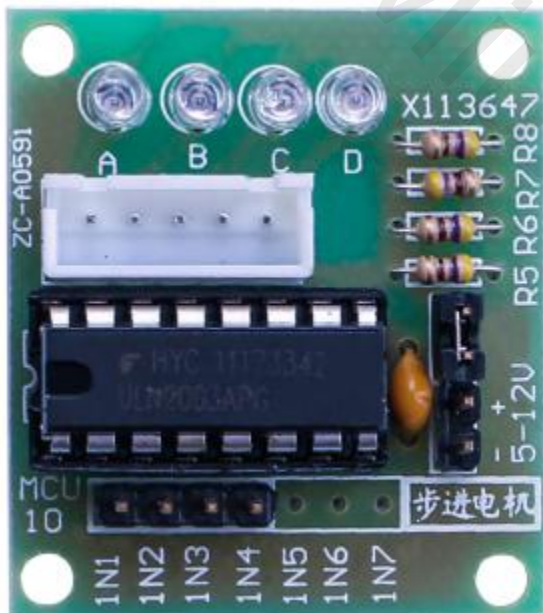
In this example the motor will step one step at a time, very slowly. You can use this to test that you've got the four wires of your stepper wired to the correct pins. If wired correctly, all steps should be in the same direction. You may also use this sketch to count the number of steps that your motor does in one revolution.

★ Specification





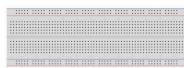


Please view "Stepper-Motor.pdf"

Path: \Public_materials\Datasheet\ Stepper-Motor.pdf

★ Pin definition

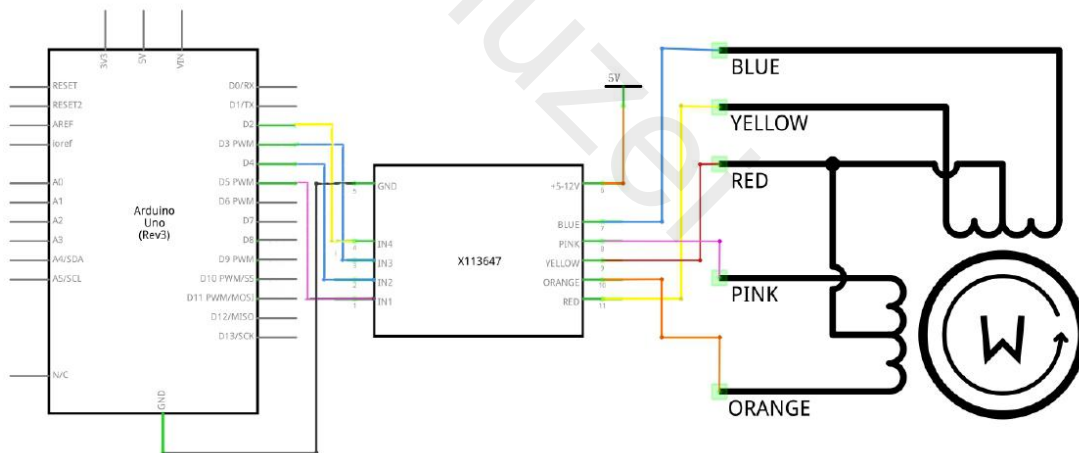


★ Hardware required

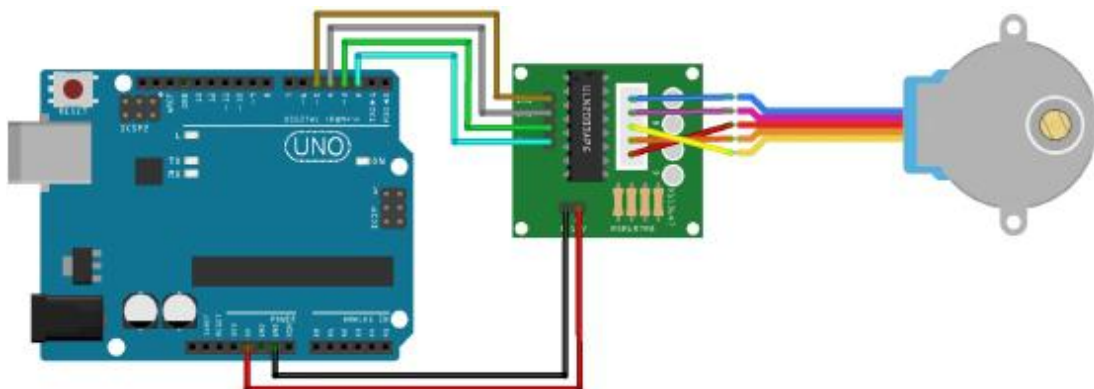
| Material diagram | Material name | Number |
|---|---------------------------------|---------|
|  | Step motor | 1 |
|  | ULN2003 step motor driver board | 1 |
|  | USB Cable | 1 |
|  | UNO R3 | 1 |
|  | Breadboard | 1 |
|  | Female to male Jumper | 6 |
|  | Jumper wires | Several |

Connection

★ Schematic



★ Connection diagram



★ Connection:

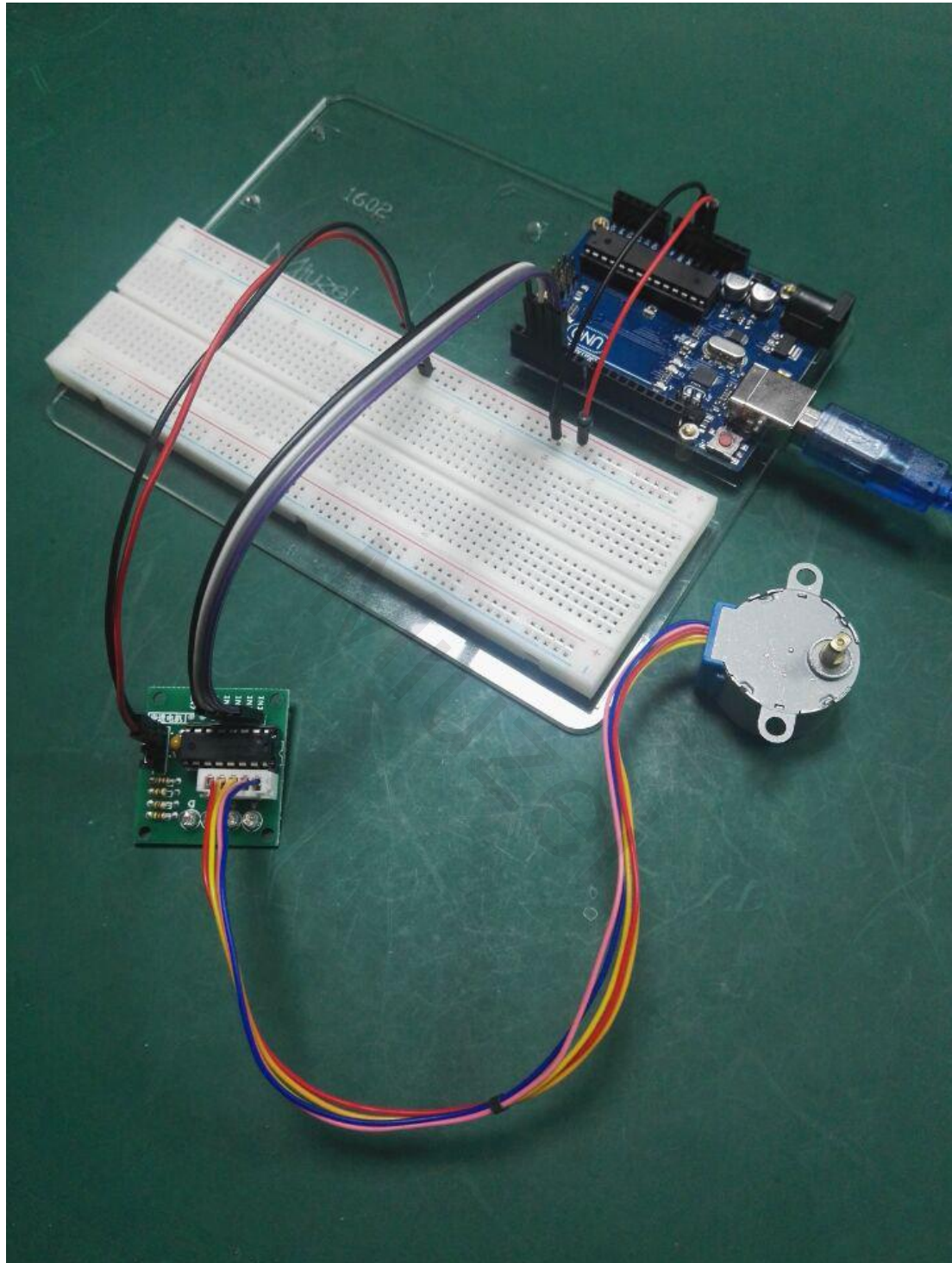
| | |
|---------|---------|
| ULN2003 | Arduino |
| IN4 | ->D2 |
| IN3 | ->D3 |
| IN2 | ->D4 |
| IN1 | ->D5 |
| '-' | ->GND |
| '+' | ->+5V |

★ Sample code

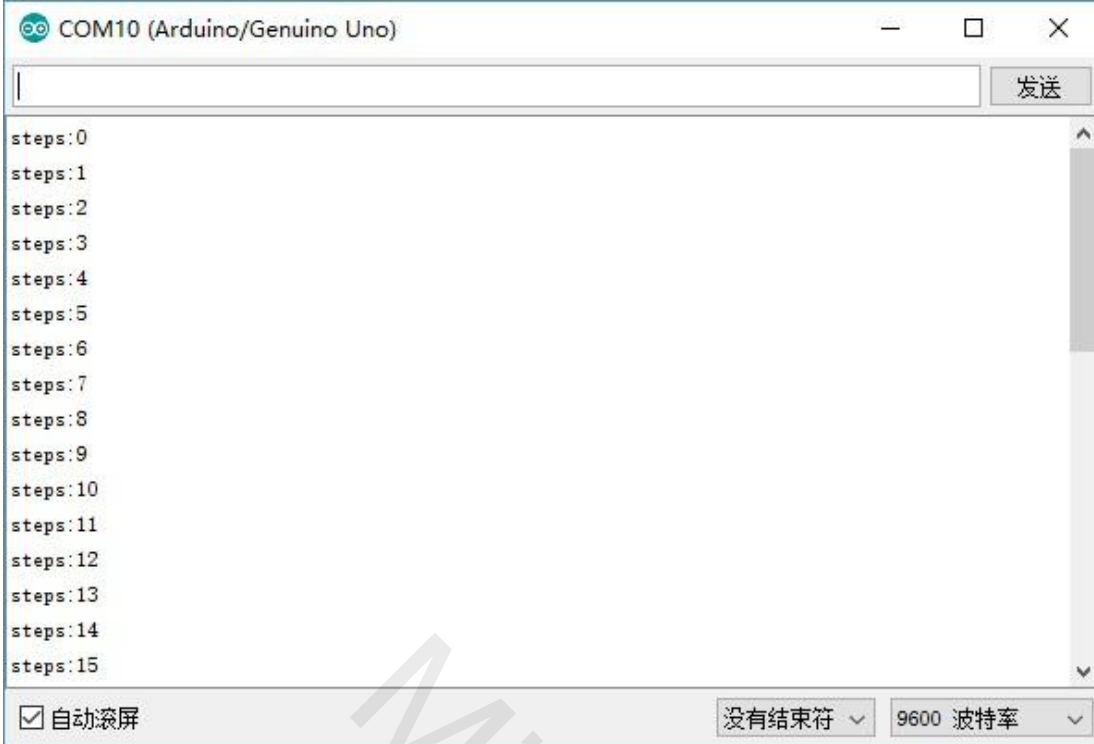
Note: sample code under the **Sample code** folder

```
#include <Stepper.h>
const int stepsPerRevolution = 200; // change this to fit the number of steps per
revolution
// for your motor
// initialize the stepper library on pins 2 through 5:
Stepper myStepper(stepsPerRevolution, 2, 3, 4, 5);
int stepCount = 0; // number of steps the motor has taken
void setup() {
// initialize the serial port:
Serial.begin(9600);
}
void loop() {
// step one step:
myStepper.step(1);
Serial.print("steps:");
Serial.println(stepCount);
stepCount++;
delay(500);
}
```

★ Example picture



★ Result



The screenshot shows a serial monitor window titled "COM10 (Arduino/Genuino Uno)". The window contains a text input field with a "发送" (Send) button. Below the input field, the serial output displays a list of 16 lines, each starting with "steps:" followed by a number from 0 to 15. At the bottom of the window, there is a checkbox labeled "自动滚屏" (Auto scroll) which is checked, and two dropdown menus: "没有结束符" (No terminator) and "9600 波特率" (9600 baud rate).

```
steps:0
steps:1
steps:2
steps:3
steps:4
steps:5
steps:6
steps:7
steps:8
steps:9
steps:10
steps:11
steps:12
steps:13
steps:14
steps:15
```

★ Language reference

Note : click on the following name to jump to the web page.
If you fail to open, use the Adobe reader to open this document.

[Stepper myStepper = Stepper\(steps, pin1, pin2, pin3, pin4\)](#)

[stepper.setSpeed\(\)](#)

[stepper.step\(\)](#)

★ Application effect

The motor will step one step at a time, very slowly.

About Miuzei:

Miuzei found in 2011 , which is a professional manufacturer and exporter that concerned with open-source hardware research & product development, We have more than hundred engineers devote to developing open source hardware like Arduino, Raspberry pi ,3d printers , robots.

Miuzei committed to make more creative open source products and provide richer knowledge for enthusiasts worldwide. No matter what your ideas are, we provide various mechanical parts and electronic modules to turn your ideas into success.

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