

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

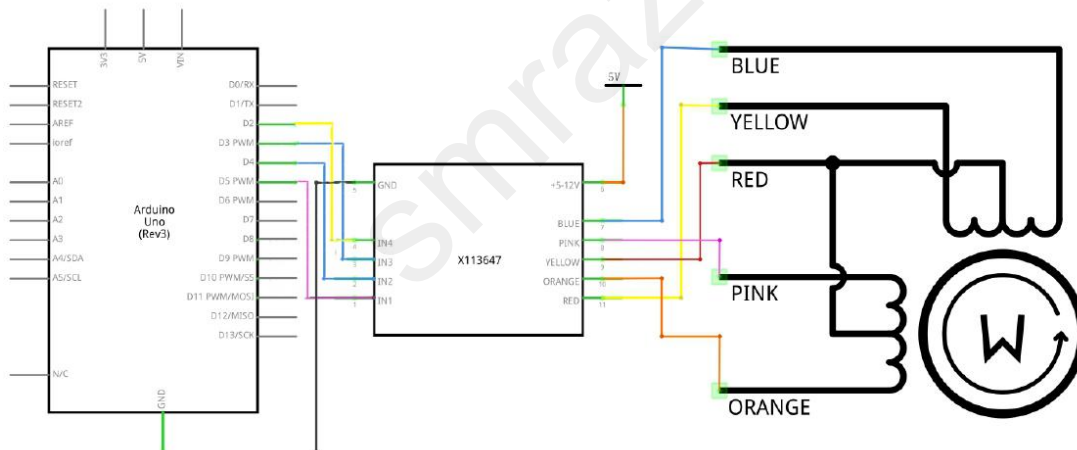


Hardware required

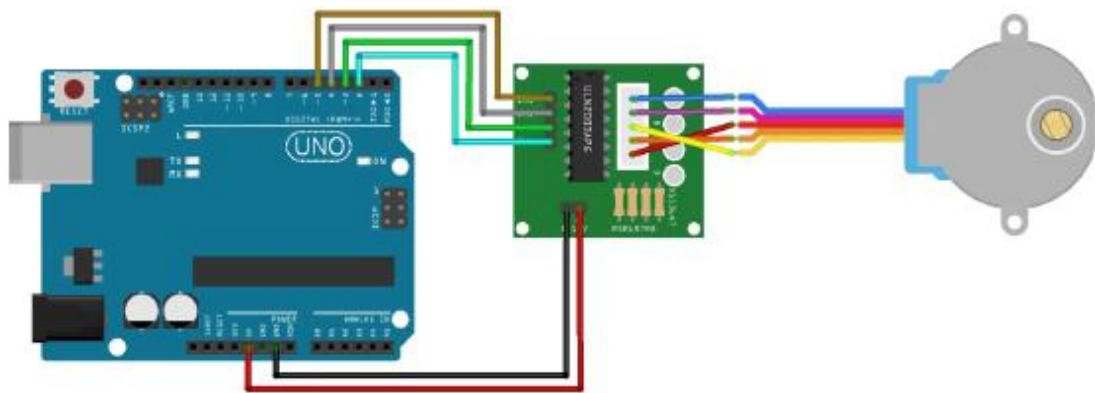
Material diagram	Material name	Number
	Step motor	1
	ULN2003 step motor driver board	1
	USB Cable	1
	UNO R3	1
	Breadboard	1
	Female to male Jumper	6
	Jumper wires	Several

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:");
```

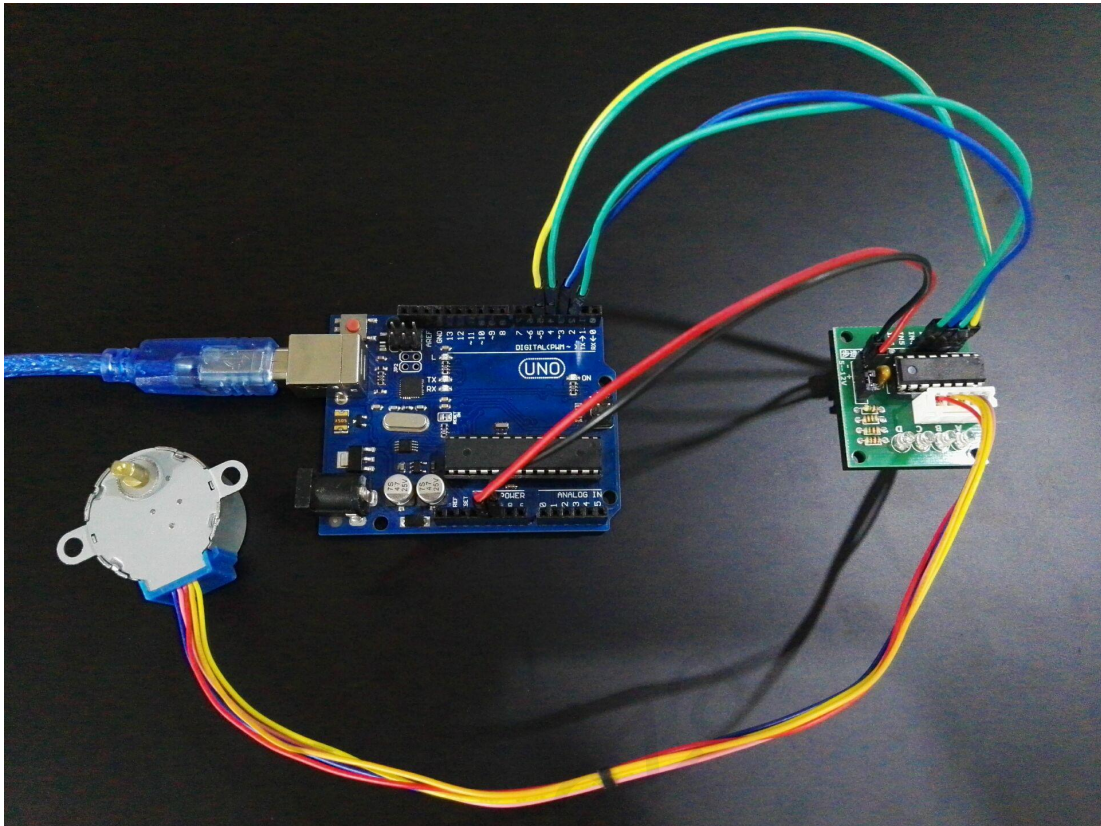
```
  Serial.println(stepCount);
```

```
  stepCount++;
```

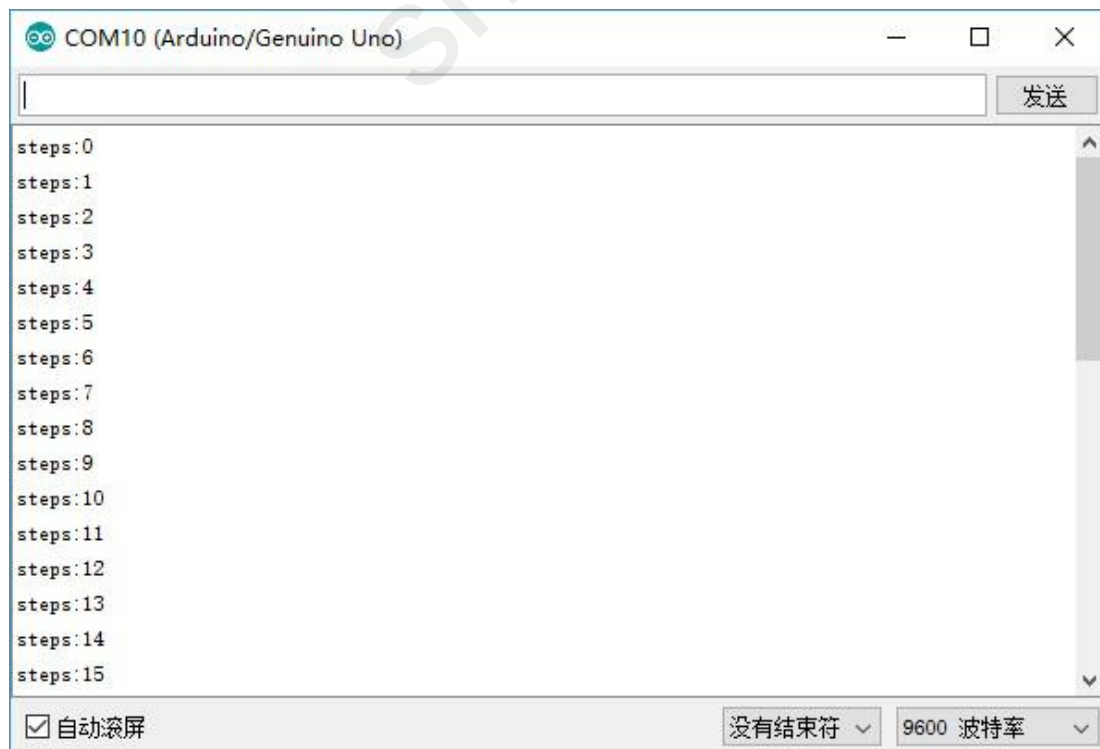
```
  delay(500);
```

```
}
```

Example picture



Result



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.

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