

# EverydayThanks

Memorandum of electronic tools such as PIC · arduino

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## Turning the stepping motor in ArduinoUNO + A4988

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## Arduino + A4988でステッピ...



Original text

参考1 : pololu社サイト

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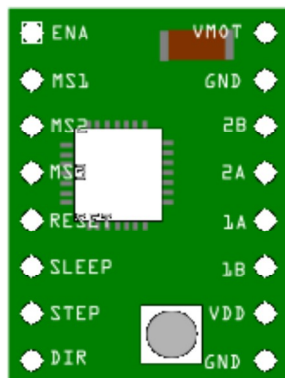
🌸 Poti bag of Daiso is too cute!

Previously, because there was a stepping motor, which had been taken from the broken printer (EM-483), this time, I tried to move in arduinoUNO use the Pololu manufactured motor driver. It shows the actual conditions wiring diagram is shown in Figure 1. (Video, are powered by the USB to the board.)

## Use parts

1. Bipolar stepping motor (EM-483 ,,, no data sheet)
2. ArduinoUNO
3. Electrolytic capacitor (100μF)
4. Stepping motor driver (Pololu A4988)

## About A4988



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ブログの新規作成

Clockwise from upper right

VMOT: stepping motor power supply (8V-35V)

GND: stepping motor power supply GND

2A ~ 1B: stepping motor terminal

VDD: board power supply (3.3V or 5V)

GND: board GND

DIR: direction of rotation of the motor (High  
· Low)

STEP: rotate to give a pulse (one revolution  
in 200step When set to Full step)

SLEEP · RESET: keep short

MS1 ~ MS3: by High · Low state of each Pin,  
can change the step size.

#### MS1 MS2 MS3 Microstep Resolution

Low Low Low Full step

High Low Low Half step

Low High Low Quarter step

High High Low Eighth step

High High High Sixteenth step

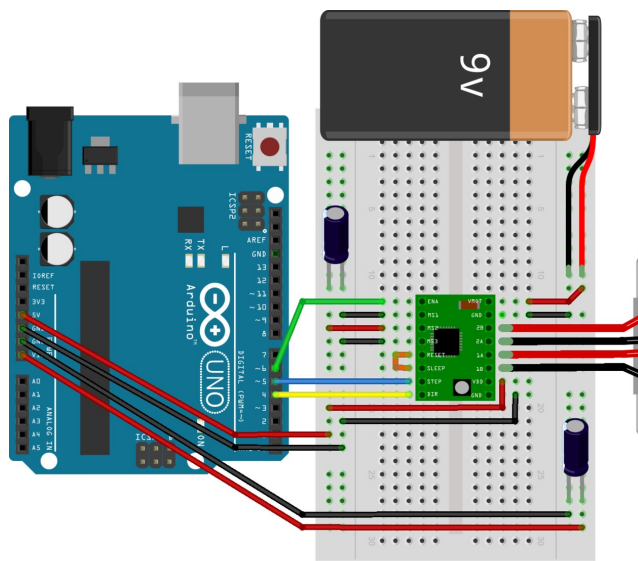
This time, since the High only MS2 Quarter

step. Four times the Full step. That is, one rotation in 800step.

ENA: Enable terminal. Operating in the Low state.

---

Figure 1) actual wiring diagram according to Fritzing



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Source list

```
int x;
```

```
Setup Void () {
```

```
    PinMode (6, OUTPUT); // Enable → Arduino  
    to 6 pin
```

```
    pinMode (5, OUTPUT); // Step → Arduino  
    to pin 5 of
```

```
    pinMode (4, OUTPUT); // Dir → to 4 pin of  
    the Arduino
```

```
DigitalWrite (6, LOW); // Set Enable Low →  
Enable at Low state  
}  
  
void loop () {  
  
    digitalWrite (4, HIGH); // Set Dir High →  
    set the direction of rotation  
    for (x = 0; x < 200; x ++) // brackets in the  
    run 200 times  
    {  
        digitalWrite (5, HIGH); // 5 pin the to the  
        High state  
        delayMicroseconds (500); // 500ms  
        waiting  
        digitalWrite (5, LOW); // 5 pin to Low  
        state  
        delayMicroseconds (500); // 500ms  
        waiting  
    }  
    Delay (1000); // 1 seconds wait  
  
    digitalWrite (4, Low); // Set Dir Low → set  
    the direction of rotation in the opposite  
    direction  
    for (x = 0; x < 200; x ++) // 200 times run in  
    the brackets  
    {  
        digitalWrite (5, HIGH); // 5 pin to High  
        state  
        delayMicroseconds (500); // 500ms  
        waiting  
        digitalWrite (5, LOW); // 5 pin to Low  
        state  
        delayMicroseconds (500); // 500ms  
        waiting
```

```
}  
  Delay (1000); / / wait 1 seconds  
}
```

Please try while changing the value of the delay and delayMicroseconds.

---

The following site we were allowed to reference.

The source is almost the same.

Reference 1: [Pololu Corporation site](#)

Note 2: [Fritzing A4988 Single Stepper Test](#)

"Other" ranking of the genre



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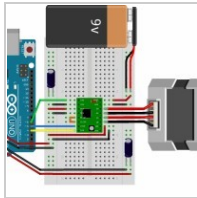
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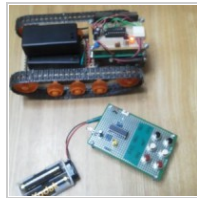
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