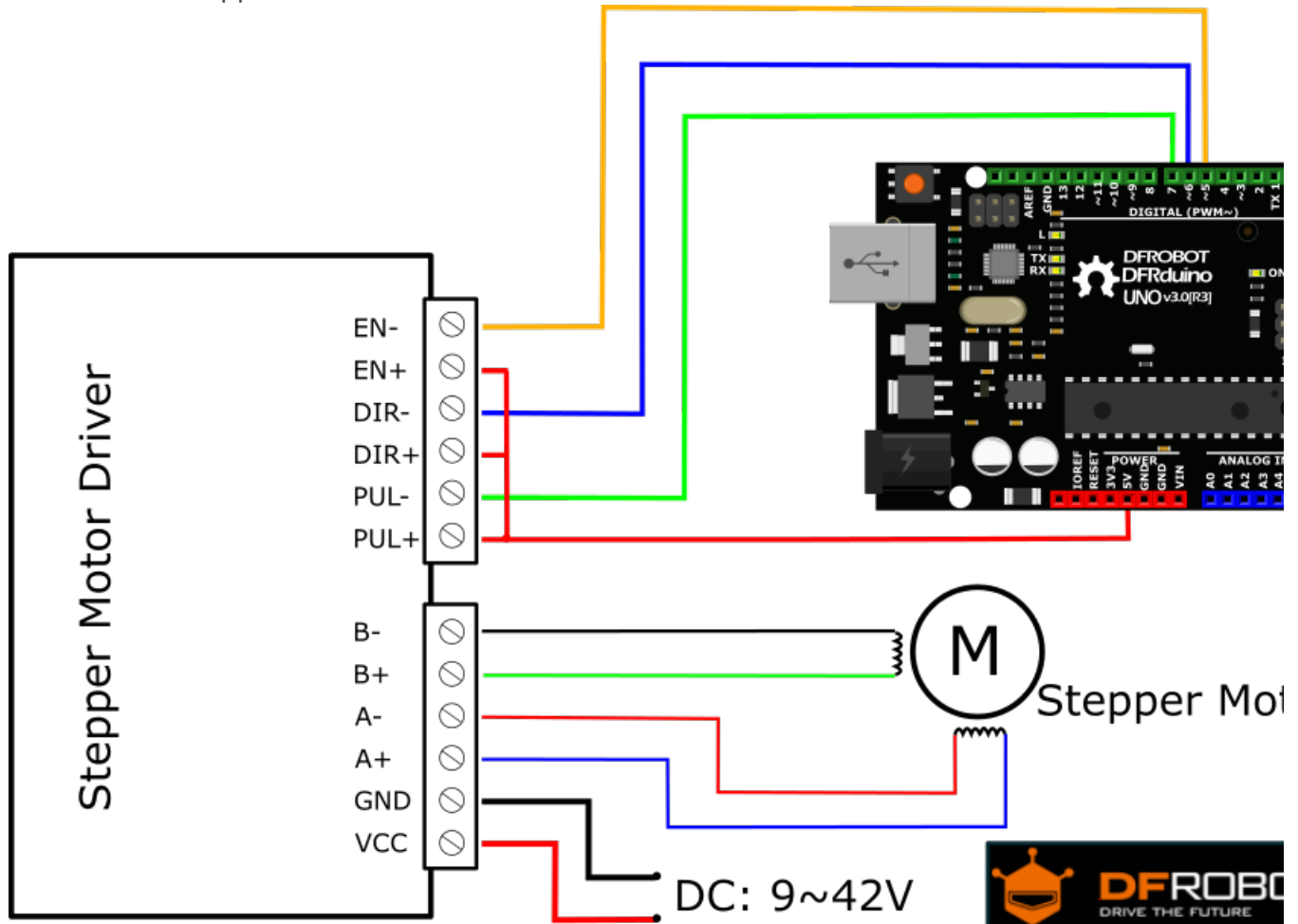


# Stepper motor with TB6000 Microstep driver

We have the [42BYGHM809 Stepper motors](#) with the [TB6600 Stepper motor microstep driver](#) to the Arduino using the [BasicStepperDriver.h](#) library.

1. Connect the stepper and driver as shown:



2. Download and install the driver to arduino from [here](#). (If you need help, check the **manual** library installation wiki page [here](#)).
3. Try this stepper Motor 42BYGHM809 / TB6600 Test Program note the steps are 12800 for a 360 turn (guestimated!).

/\*

Simple demo, should work with any driver board

Connect STEP, DIR as indicated

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Modified for CCI by Matt Jarvis

```
*/  
  
#include <Arduino.h>  
#include "BasicStepperDriver.h"  
  
  
// Motor steps per revolution. Most steppers are 200 steps or 1.8 degrees/step  
#define MOTOR_STEPS 12800  
#define RPM 120  
  
  
// Since microstepping is set externally, make sure this matches the selected mode  
// If it doesn't, the motor will move at a different RPM than chosen  
// 1=full step, 2=half step etc.  
#define MICROSTEPS 1  
  
  
// All the wires needed for full functionality  
#define DIR 6  
#define STEP 7  
//Comment or uncomment line to use enable/disable ENABLE functionality  
#define ENABLE 5  
  
  
// 2-wire basic config, microstepping is hardwired on the driver (use this if not needing to use the enable pin)  
//BasicStepperDriver stepper(MOTOR_STEPS, DIR, STEP);  
  
  
//Uncomment line to use enable/disable functionality  
BasicStepperDriver stepper(MOTOR_STEPS, DIR, STEP, ENABLE);  
  
  
void setup() {  
    stepper.begin(RPM, MICROSTEPS);  
    // if using enable/disable on ENABLE pin (active LOW) instead of SLEEP uncomment next line  
    stepper.setEnableActiveState(HIGH);  
}  
  
  
void loop() {  
  
    // energize the coils  
    stepper.enable();  
}
```

```
/*  
    Moving motor one full revolution using the degree notation  
    and wait for 2 seconds  
*/  
stepper.rotate(360);  
delay(2000);  
/*  
    Moving motor to original position using steps  
*/  
stepper.move(-MOTOR_STEPS * MICROSTEPS);  
  
// release the coils, (disable motor and allow the motor to be moved by hand)  
stepper.disable();  
  
// delay 5 seconds  
delay(5000);  
}
```

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Revision #10

Created 21 February 2023 10:19:47 by Matt Jarvis

Updated 29 April 2024 22:24:58 by Tom Lynch