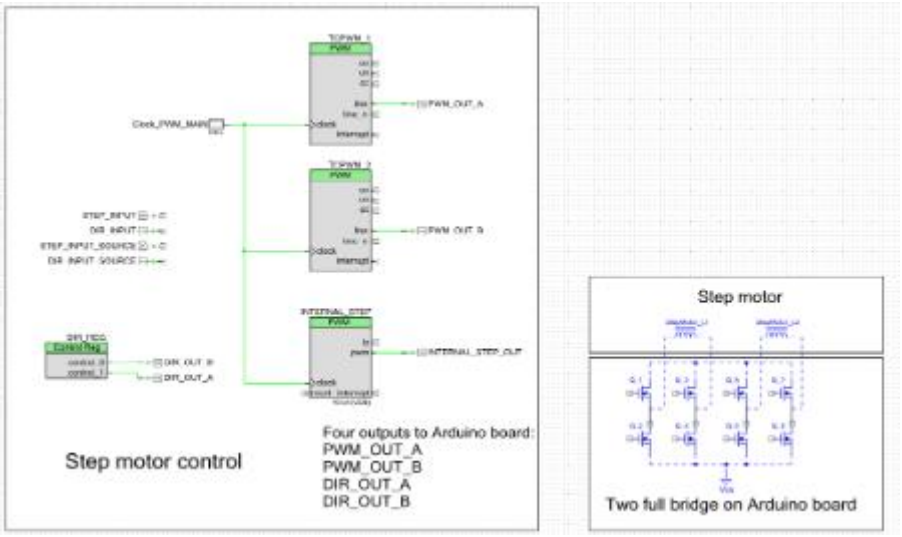
PSoC 4 Pioneer Kit Community Project#045 – Stepper Motor Example

In today's example we will be showcasing a very simple stepper motor example project. In this example we show you how to spin a stepper motor using the PSoC 4 Pioneer kit and the Arduino Motor Shield.



Forum Post Attachments:

At the bottom of this post we are including the following items:

- Example Project Zip File
- Zip File of Images
  - Project Schematic
  - Component Configurations

Components Used:

The user can download the example project at the bottom of this post. The project uses the following list of Creator Components:

- PWM
- Control Register
- CyClock
- CyPin

The components are configured by right clicking on the component in your Top Design schematic view and selecting ***Configure***. Please enable the following selections in the Configuration windows for the listed components above.

Firmware Description:

The main.c firmware is included in the example project. Please review the commented sections for more details.

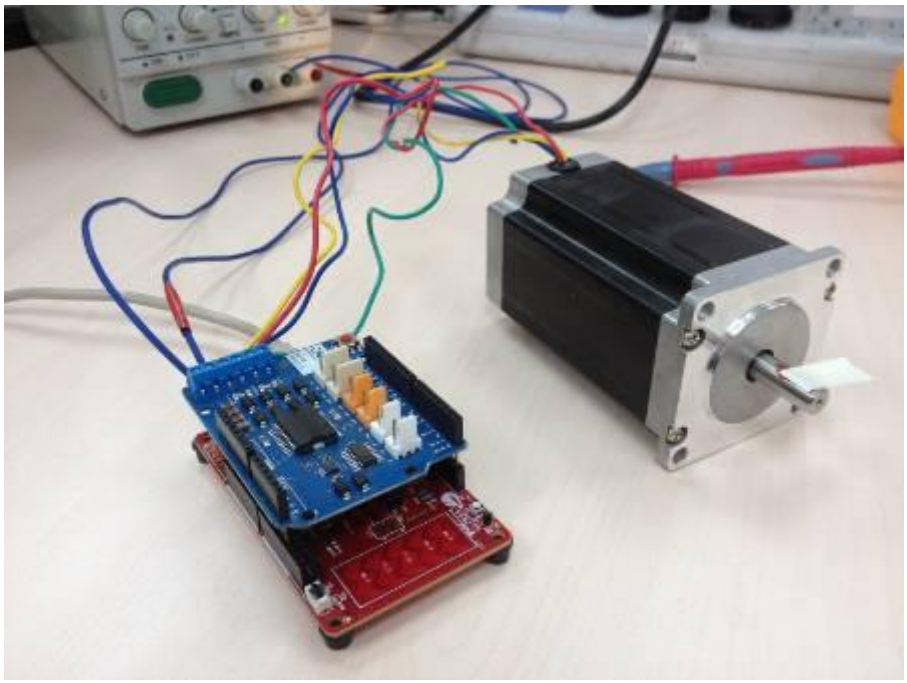
In this example we are giving users an example on how to control a Stepper Motor. In this example we have included a number of motor control source files that will provide you simple APIs to control the motor. These files are:

- genSine.c/h
- inputScan.c/h
- Move.c/h
- PhaseControl.c/h
- systemInit.c/h

The firmware is designed to drive the stepper motor is various directions and different speeds and different lengths of time. There are a number of if/else statements that progress through the demonstration. Please take a few moments to review the included source files to get a feel for the firmware controls for the motor.

Hardware Connections:

Connect the Arduino Motor Shield to the PSoC 4 Pioneer Board. Then connect wires from the stepper motor to the Arduino Motor Shield and power the motor.



Test Your Project:

Program your project and power up the Motor Shield using an external power supply.

I hope this example can help you in your design.

http://www.element14.com/community/message/81998