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Digital Potentiometer - 10K

COM-10613 ROHS

★★★★½ 3

DESCRIPTION | DOCUMENTS

Potentiometers are incredibly useful, whether you're controlling the volume on your stereo or the 'mood lighting' in your room. The problem with traditional potentiometers is the fact that your microcontroller doesn't have an easy way to interface with them. Digital Potentiometers solve that problem by allowing you to control a voltage splitter with digital signals.

Wire it up just like a potentiometer and use serial signals to 'turn the knob.' Another handy feature of digital potentiometers is that because they aren't controlled mechanically, they don't have a pre-determined sweep profile.In other words, depending on the way you write your code the potentiometer can 'sweep' in a linear fashion, a logarithmic fashion, or according to any other profile you like. Digital potentiometers can also be used in conjunction with rotary encoders to consolidate large banks of potentiometers into one 'smart' rotary control.

Digital Potentiometer - 10K Product Help and Resources

SKILLS NEEDED

Core Skill: Soldering

This skill defines how difficult the soldering is on a particular product. It might be a couple simple solder joints, or require special reflow tools.

Skill Level: Rookie - The number of pins increases, and you will have to determine polarity of components and some of the components might be a bit trickier or close together. You might need solder wick or flux.
See all skill levels

Core Skill: Programming

If a board needs code or communicates somehow, you're going to need to know how to program or interface with it. The programming skill is all about communication and code.

Skill Level: Rookie - You will need a better fundamental understand of what code is, and how it works. You will be using beginner-level software and development tools like Arduino. You will be dealing directly with code, but numerous examples and libraries are available. Sensors or shields will communicate with serial or TTL.
See all skill levels

Core Skill: Electrical Prototyping

If it requires power, you need to know how much, what all the pins do, and how to hook it up. You may need to reference datasheets, schematics, and know the ins and outs of electronics.

Skill Level: Rookie - You may be required to know a bit more about the component, such as orientation, or how to hook it up, in addition to power requirements. You will need to understand polarized components.
See all skill levels

COMMENTS 41 | REVIEWS ★★★★½ 3

Customer Reviews

★★★★½ 4.3 out of 5

Based on 3 ratings:

5 star	1
4 star	2
3 star	0
2 star	0
1 star	0

Currently viewing all customer reviews.

3 of 4 found this helpful:

★★★★☆ Working great!

about 3 years ago by Bobby Leighton verified purchaser

Once I understood how a 'SPI' device works with micro-controllers, Arduino in particular everything was great. It was a pain to get going, not having a starting point, so i was thinking about making a small getting started tutorial just to link here...but I am hoping someone at 'Sparkfun' beats me to it! :O)

1 of 3 found this helpful:

★★★★☆ Digital volume control!

about 3 years ago by Chiel verified purchaser

ok these are pretty great. especially for their price.

If you need to controll voltage splitters like volume controll befor a audio circuit this is pretty much a great and easy to use device. just connect a simple SPI connection to it and your ready to go! also works great as a slow DAC.

Only downside is that if you are planning to use these to controll a stereo signal you will need to hunt down the dual-channel version. there is slight variation between individial Digital-pots making it less ideal to use 2 of these single-channel rather then 1 dual-channel. Sparkfun should start carrying those.

★★★★★ Works great

about a year ago by Member #399240 verified purchaser

Works great, I found a super helpful tutorial for this chip with the arduino here: http://www.learningaboutelectronics.com/Articles/MCP4131-digital-potentiometer-circuit.php As well as a more in depth library here: https://github.com/jmalloc/arduino-mcp4xxx/blob/master/mcp4xxx.h