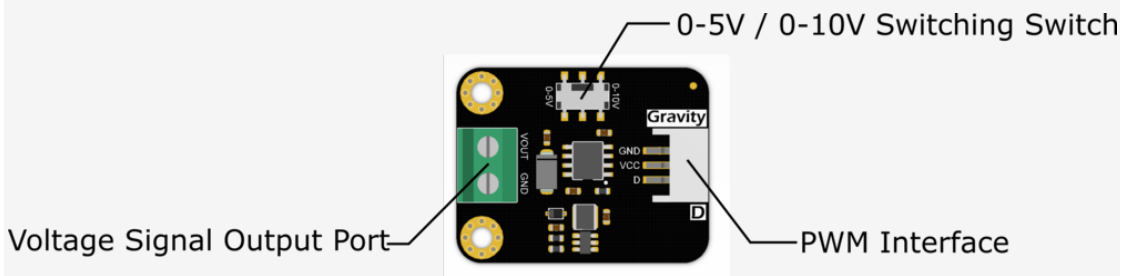


INTRODUCTION

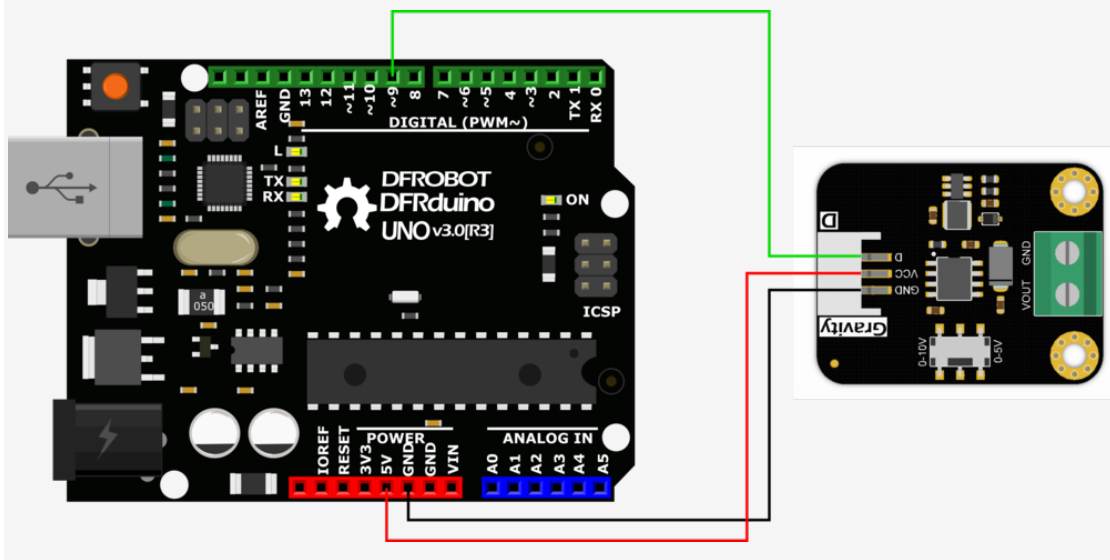
This is a 1-channel DAC module with PWM communication, a resolution of 8-bit, and an accuracy of 0.2%, capable of generating analog voltage outputs of 0-10V or 0-5V. The 0-10V or 0-5V voltage output is a standard driving method. It can be widely used in automation control scenarios such as lighting adjustment, frequency converters, valve regulation, and pump control, etc. This product can drive a variety of 0-10V or 0-5V controlled devices available in the market through Arduino programming.

PWM signal drive allows the module to be controlled by MCU digital ports, providing a simple and convenient usage.

DAC series modules are a range of products that can be controlled through I2C or PWM signals to generate voltage or current output signals. This series of DAC products not only offers a variety of output signal ranges, but also provides three selectable resolutions: 8-bit, 12-bit, and 15-bit. It allows for the choice of either single-channel or dual-channel configurations, and multiple modules can be cascaded to form a multi-channel output.



Functional Diagram of Gravity: GP8101S 1-Channel PWM to 0-5V/10V DAC Module



Wiring Diagram of Gravity: GP8101S 1-Channel PWM to 0-5V/10V DAC Module and Arduino UNO

We provide various models of DAC modules. If you need a different model, please check the selection guide:

[Click here to get Selection Guide of DAC Modules](#)

FEATURES

- Support 3.3V-5V power supply.
- Output voltage error is less than 0.2%.
- Output voltage linearity error is 0.1%.
- Two channels of voltage output, either 0-5V or 0-10V, enabling connection and control of standard analog voltage devices.
- Gravity interface, PWM communication, Arduino control, suitable for program automation control.
- PWM signals can be utilized to drive the module, enabling it to be controlled simply by the digital port of the MCU.

APPLICATIONS

- Automatic light adjustment
- Variable frequency drive (VFD)
- Automatic valve regulation
- Automatic water pump control

SPECIFICATION

- Operating voltage: 3.3V to 5V
- Communication Method: PWM
- Chip Type: GP8101S
- Resolution: 8-bit
- Output Voltage: 0-5V or 0-10V
- Number of channels: 1 channel
- Value Range: 0 - 255 corresponding to 0-5V or 0-10V
- Output voltage: 0.2%
- Output voltage linearity error: 0.1%

DOCUMENTS

- [Product wiki](#)

SHIPPING LIST

- GP8101S: 1-Channel PWM to 0-5V/10V DAC Module ×1

- Gravity-3Pin Analog Sensor Cable ×1