

I2C 16 kanal PWM/Servo adapter for Arduino

Produktkode: 271aa

Tilgjengelighet: 6

Lager : K 17



Pris: kr. 56,00

Short Description

16-Channel 12-bit PWM/Servo Drive shield module I2C PCA9685 For Arduino

Beskrivelse

**16-Channel 12-bit PWM/Servo Drive shield module I2C PCA9685 For Arduino
NEW**

You want to make a cool robot, maybe a hexapod walker, or maybe just a piece of art with a lot of moving parts. Or maybe you want to drive a lot of LEDs with precise PWM output. Then you realize that your microcontroller has a limited number of PWM outputs! What now?

Using only two pins, control 16 free-running PWM outputs! You can even chain up 62 breakouts to control up to 992 PWM outputs

- It's an i2c-controlled PWM driver with a built in clock. That means that, unlike the TLC5940 family, you do not need to continuously send it signal tying up your microcontroller, its completely free running!
- It is 5V compliant, which means you can control it from a 3.3V microcontroller and still safely drive up to 6V outputs (this is good for when you want to control white or blue LEDs with 3.4+ forward voltages)
- 6 address select pins so you can wire up to 62 of these on a single i2c bus, a total of 992 outputs - that's a lot of servos or LEDs
- Adjustable frequency PWM up to about 1.6 KHz

- 12-bit resolution for each output - for servos, that means about 4us resolution at 60Hz update rate
- Configurable push-pull or open-drain output
- Output enable pin to quickly disable all the outputs

We wrapped up this lovely chip into a breakout board with a couple nice extras

- Terminal block for power input (or you can use the 0.1" breakouts on the side)
- Reverse polarity protection on the terminal block input
- Green power-good LED
- 3 pin connectors in groups of 4 so you can plug in 16 servos at once (Servo plugs are slightly wider than 0.1" so you can only stack 4 next to each other on 0.1" header)
- "Chain-able" design
- A spot to place a big capacitor on the V+ line (in case you need it)
- 330 ohm series resistors on all the output lines to protect them, and to make driving LEDs trivial
- Solder jumpers for the 6 address select pins

Package Included:

1 x 16-Channel 12-bit PWM/Servo Driver-I2C interface-PCA9685 For Arduino NEW

Lenker

<https://learn.adafruit.com/16-channel-pwm-servo-driver>

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