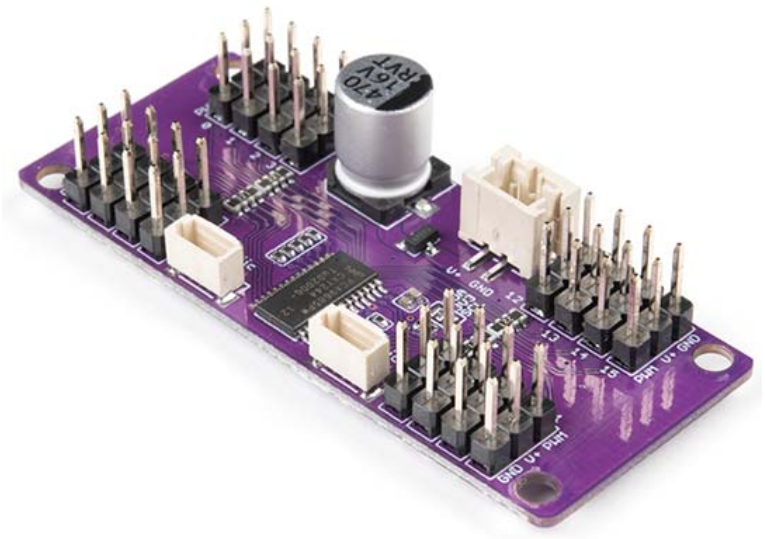
Zio 16 Servo Controller (Qwiic)

ROB-16773



With the Zio 16-Channel 12 bit PWM controller, using the PCA9685 from NXP Semiconductors, you can control up to 16 servos or other PWM-controllable components using I²C.

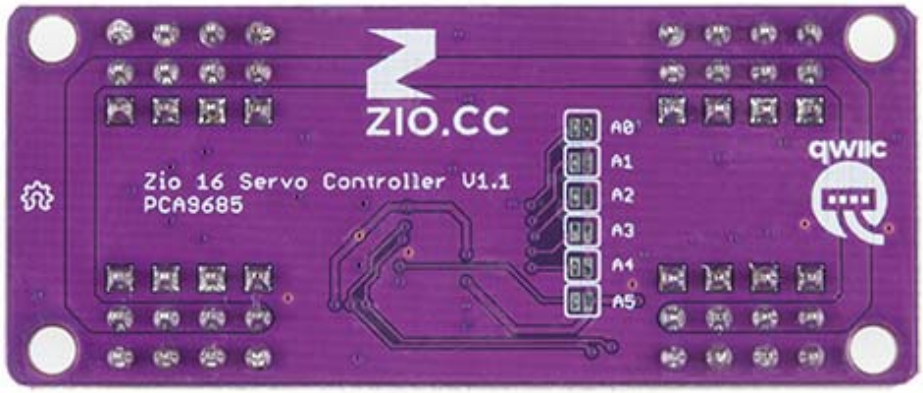
Each output can be off or on (no PWM control), or set any channel to its own PWM frequency and duty cycle. The PCA9685 operates with a supply voltage range of 2.3v to 5.5v and both the inputs and outputs are 5.5v tolerant. Servos can be connected directly to output pins (up to 25 mA, 5.5v) or controlled with external drivers for more power-hungry applications.

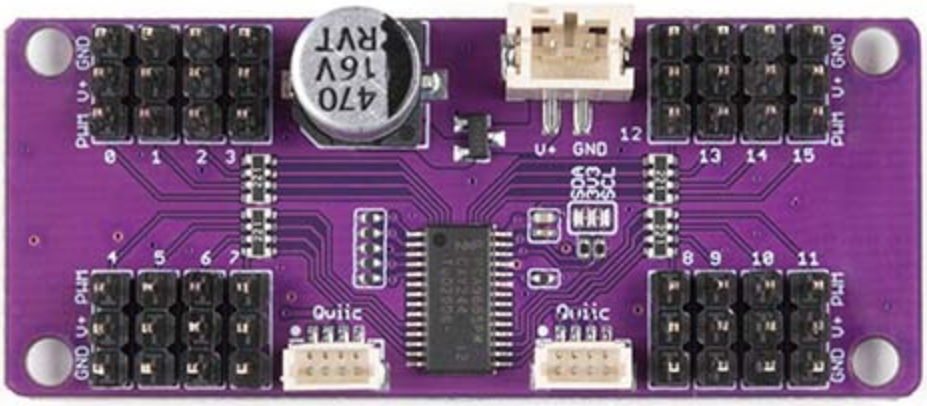
The board comes equipped with two Qwiic connectors to enable easy daisy-chaining. Need even more channels to control something like a hexapod robot? Quickly and easily connect another servo controller with the additional Qwiic connector and 6 solder-jumper configurable address bits. That means you can have up to 62 of these boards operating on the same I²C bus. You can also configure the boards to recognize group addresses, so that multiple boards can be controlled in parallel with a single command.

The SparkFun Qwiic Connect System is an ecosystem of I²C sensors, actuators, shields and cables that make prototyping faster and less prone to error. All Qwiic-enabled boards use a common 1mm pitch, 4-pin JST connector. This reduces the amount of required PCB space, and polarized connections mean you can't hook it up wrong.

FEATURES

- 62 possible I²C addresses
- IC: PCA9685
- I²C address: 0x40-0x7F (default 0x40)
- Dimensions: 59.5 x 25.2mm
- Weight: 8g





https://www.sparkfun.com/products/16773/6-11-20