



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

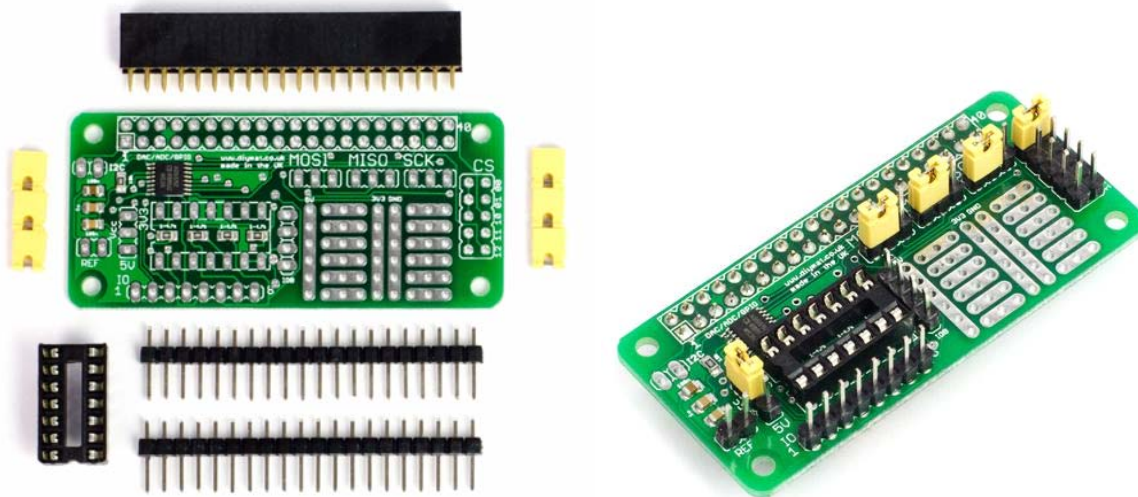
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Universal Zero DIYMAT001



Universal Zero is an 8 port DAC / ADC / GPIO expansion board. Fits any 40 pin Raspberry Pi

- read up to **8 analog 12 bit inputs (ADC)**
- write up to **8 analog 12 bit outputs (DAC)**
- read or write up to **8 digital channels (GPIO)**
- internal **thermometer**
- fast **25MHz SPI, 400kSPS ADC**
- internal 2.5V (or 2x 2.5V) or external 3.3V ADC & DAC Voltage reference

It is fully **software configurable** (find the libraries here) <https://github.com/diyamat/UniversalZero> Any of the 8 pins can act as ADC (analog input), DAC (analog output) or GPIOs . Possibly projects include

- **weather station**
- **voltmeter**
- **parts tester**
- **digital thermometer**
- **robot**
- almost any **embedded** device

You can:

- control **engines**
- read **potentiometers**
- read **joysticks** and **dials**
- read **analog and digital** sensors
- **provide signals** for analog circuits
- act as a **digital potentiometer**
- read and write **any signal** (analog or digital)

Board Layout

<https://cdn.shopify.com/s/files/1/0174/1800/files/mnl.pdf?15815831175326407072>



The board's ADC/DAC/GPIO IC can be supplied from 5V (jumper 8). It gives a potential possibility to measure directly voltages up to 5V (up to Vcc actually). This is an experimental feature, and it is very probable to damage your PI if the 5V option is used. Please always use 3.3V option.