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IO Expansion HAT for Raspberry Pi 4B/3B+

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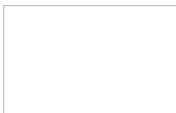
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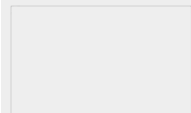
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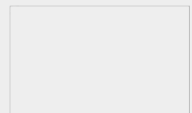
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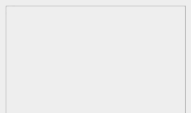
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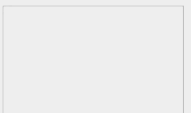
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INTRODUCTION

This IO Expansion HAT from DFRobot is the perfect companion for your [Raspberry Pi 4B](#) and [Raspberry Pi 3B+](#)! It leads out all of the IO ports on [Raspberry Pi](#) including digital port, analog port, PWM, I2C, UART, SPI, and IIS. Besides that, the HAT is totally compatible with [DFRobot Gravity Series](#), which frees users from complicated connection work and enables them to just concentrate on their projects building.

[Raspberry Pi](#) GPIO pins work with a maximum logic level of 3.3V. Besides the [sensor](#) and [module](#) of 3.3V power supply, the product also supports:

- Sensor and module with 5V power supply and 3.3V level
- PWM external power supply (6~12V)
- Controlling multiple servos

Dimension Diagram

SPECIFICATION

- Operating Voltage: 5V
- PWM Port External Power: 6-12V
- Sensor Interface External Power: 3.3V
- Dimension: 65*56 mm/2.56*2.20"

DOCUMENTS

- [Product wiki](#)

Downloaded from [Arrow.com](#)


- IO Expansion HAT for Raspberry Pi 4B/3B+ x1


REVIEW

FAQ

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n the discussion...


Eric Pascual • a year ago

Hi,

Very interesting board, well suited for experiments with kids. I plan to buy a couple for the association I manage.

The description is a bit unclear about how 5V sensors and modules are supported, especially WRT the signal level. What about 5V sensors which output signal spans over the whole range of their VCC (0-5V in this case) or have an open collector output tied to their VCC ?


Is there some circuitry on the board which handles the level shifting ? Based on the pictures, it seems not, but nowadays chips being smaller and smaller, maybe they are not clearly visible.

BTW, is the board schematic available somewhere ? I've visited the Wiki page but didn't find it there.

Thanks in advance for any feedback.


Best regards.

2
^
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DFRobot Support Mod → Eric Pascual • a year ago • edited


Sorry.
The product manager does not intend to provide a schematic of this expansion board.
Im already ask if our product manager can reply your question.

^
v
• Reply • Share


DFRobot Support Mod → DFRobot Support • a year ago


Hi Eric
Our product replied to me.
Just needing to make sure that your sensor's output voltage is 3.3V.

^
v
• Reply • Share


Sourabh Maheshwary • 2 months ago

Hi, I tried everything as mentioned on the wiki page but unfortunately it keeps saying board not detected. The red line 'ON' is shining red (on) and I can also read data off the digital pin. Can you please help me what's going on? I want to read on analog pin.

^
v
• Reply • Share


Wyatt Sunkel • 7 months ago

Could i use the Digital Ports as PWM?

^
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