

SKU:DFR0848 (<https://www.dfrobot.com/product-2393.html>)



(<https://www.dfrobot.com/product-2393.html>)

Introduction

This Gravity Expansion Board, specifically designed for Raspberry Pi Pico, is compatible with a variety of Gravity sensors and modules. With all pins led out, you can directly use it without soldering. Additionally, the board offers various communication ports including, 2 x I2C, 2 x UART, 2 x SPI, 3 x analog IOs and 13 x digital IOs as well as a 3.3~5.5V power connector and GDI port, which provides you with an easier way to prototype.

Features

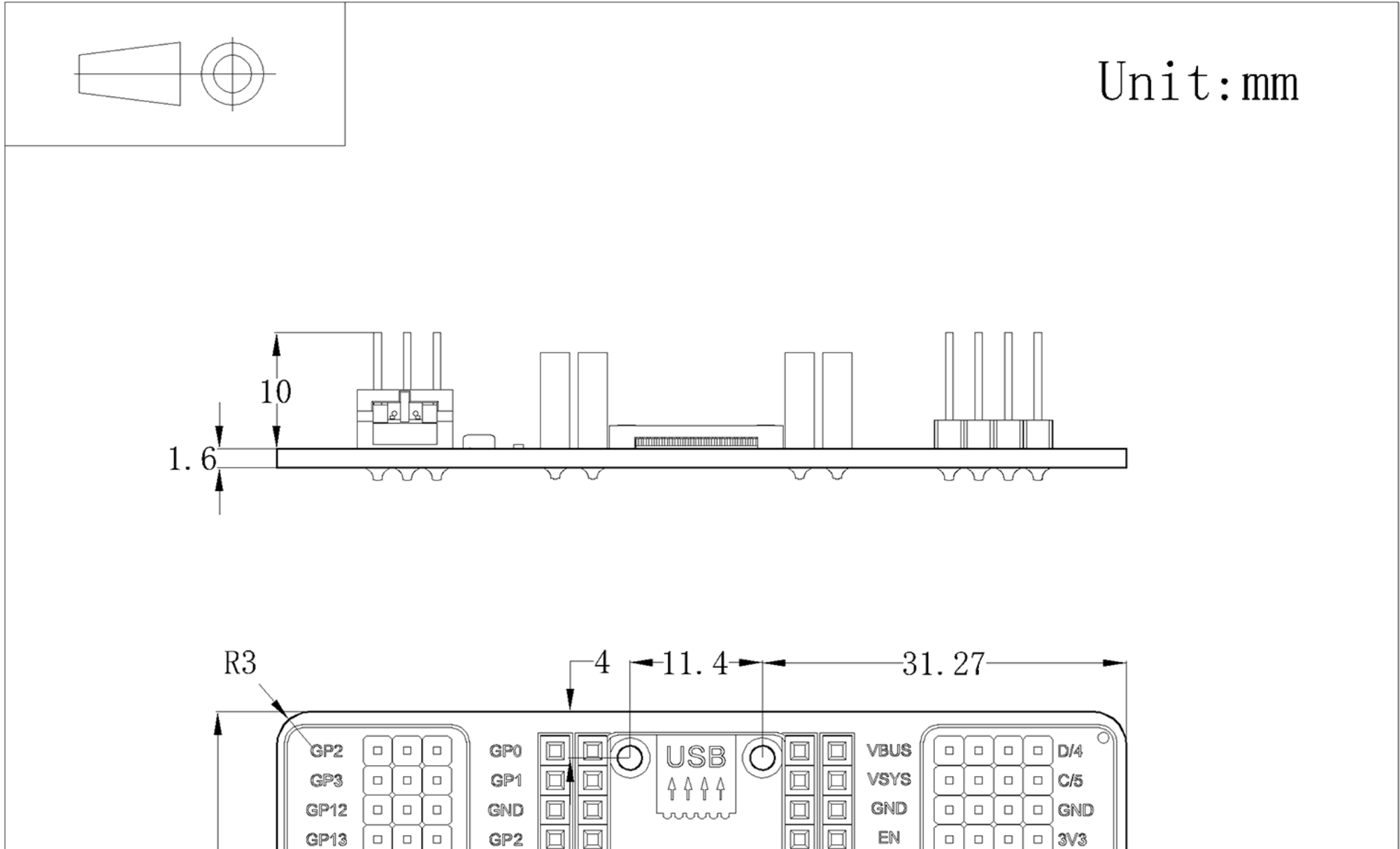
- No need to weld, plug and play.
- Support all kinds of Gravity sensor and modules
- Comes with 3.3~5.5 V PH2.0 power interface, applicable to mobile projects

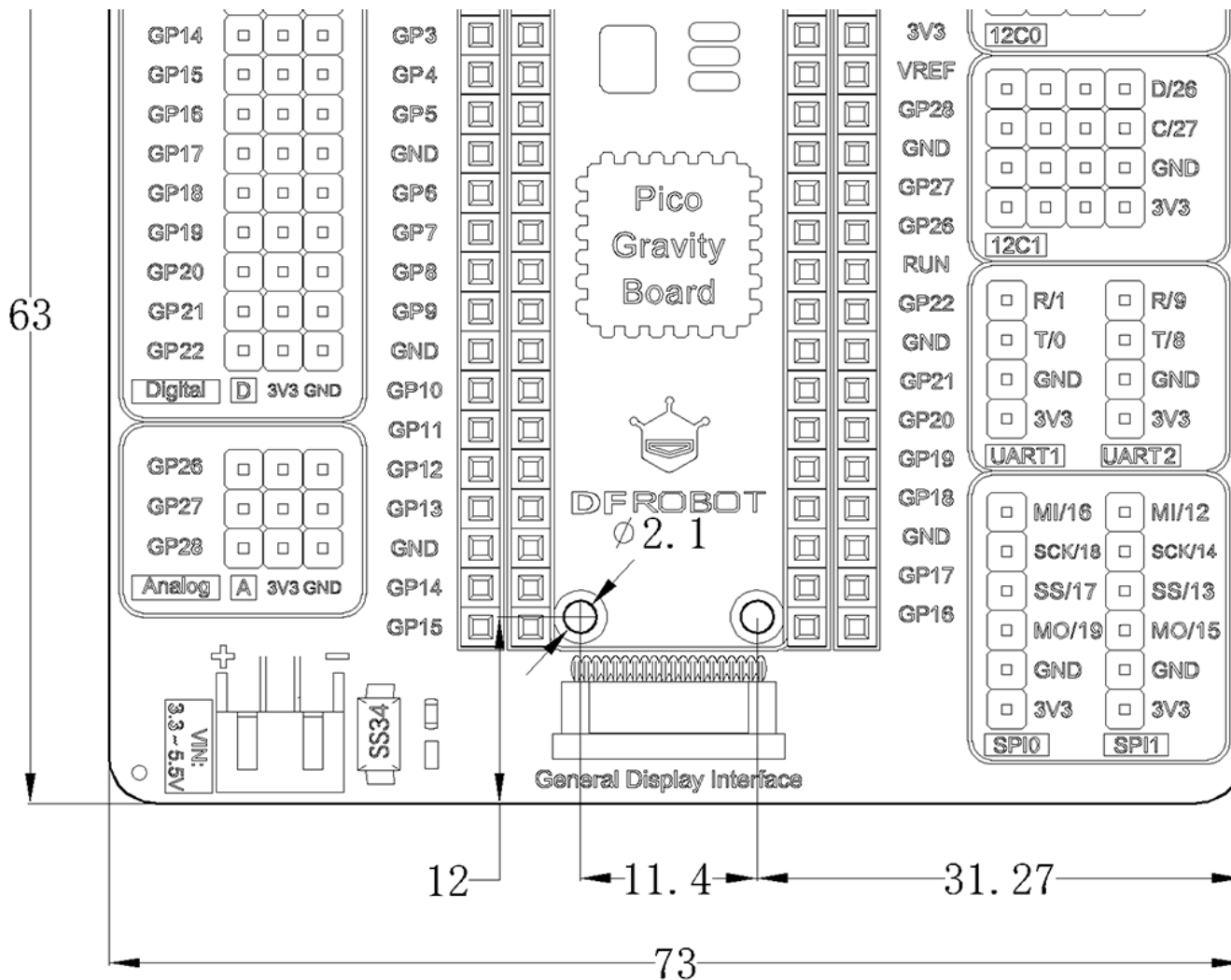
- Onboard GDI port, compatible with DFRobot - GDI series display

Specification

- All pins brought out onto female pin headers
- Digital IO x 16: GP2, GP3, GP12-22
- Analog IO x 3: GP26-GP28
- UART x 2
- I2C x 2
- SPI x 2
- PH2.0 Power Connector: 3.3 V - 5.5 V
- Display Screen Interface: GDI
- Dimension: 29.00 mm×58.00 mm/1.14×2.28 inch

Product Dimension





Official Tutorials

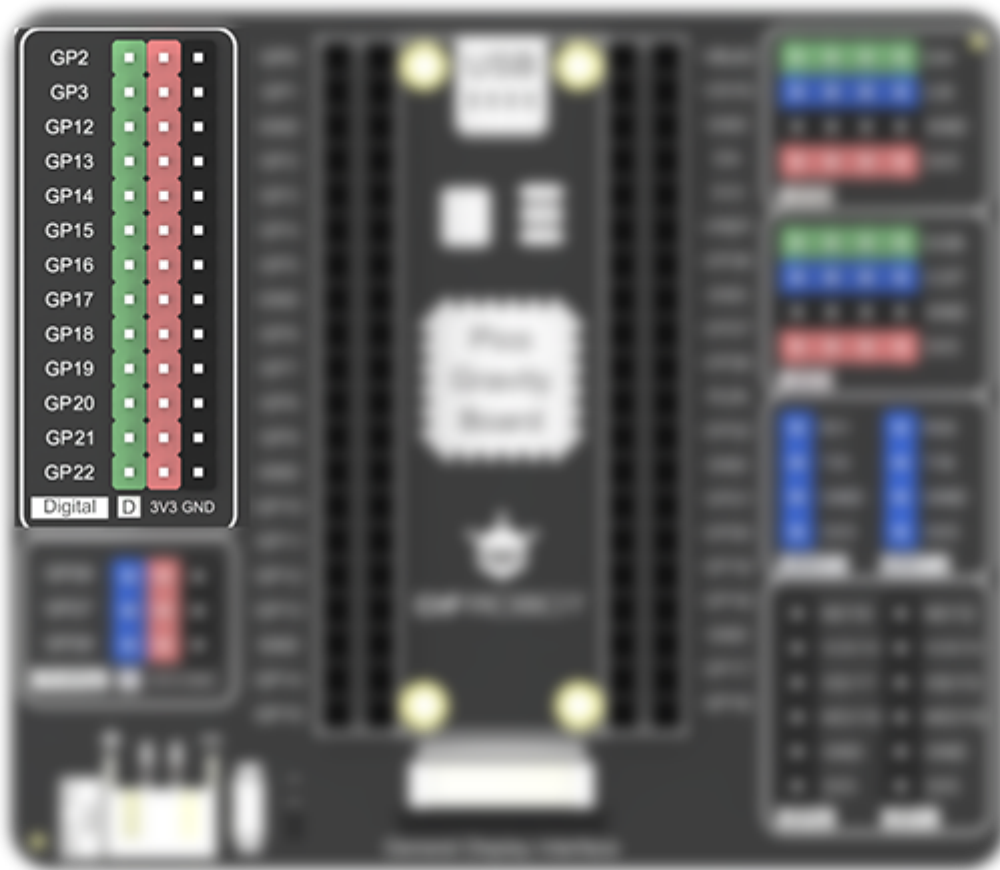
- Get Started with MicroPython on Raspberry Pi Pico (<https://hackspace.raspberrypi.org/books/micropython-pico>)

- Download books related to Raspberry Pi (<https://magpi.raspberrypi.org/books>)
- Raspberry Pi Pico Schematics (<https://datasheets.raspberrypi.org/pico/Pico-R3-Fritzing.fzpz>)
- Pico Pinout (<https://datasheets.raspberrypi.org/pico/Pico-R3-A4-Pinout.pdf>)
- Pico Getting Started Manual (<https://datasheets.raspberrypi.org/pico/getting-started-with-pico.pdf>)
- Pico C SDK Manual (<https://datasheets.raspberrypi.org/pico/raspberrypi-pico-c-sdk.pdf>)
- Pico Python SDK Manual (<https://datasheets.raspberrypi.org/pico/raspberrypi-pico-python-sdk.pdf>)
- Pico Data Manual (<https://datasheets.raspberrypi.org/pico/pico-datasheet.pdf>)
- RP2040 Data Manual (<https://datasheets.raspberrypi.org/rp2040/rp2040-datasheet.pdf>)
- RP2040 Hardware Design Reference Manual (<https://datasheets.raspberrypi.org/rp2040/hardware-design-with-rp2040.pdf>)

Function Description

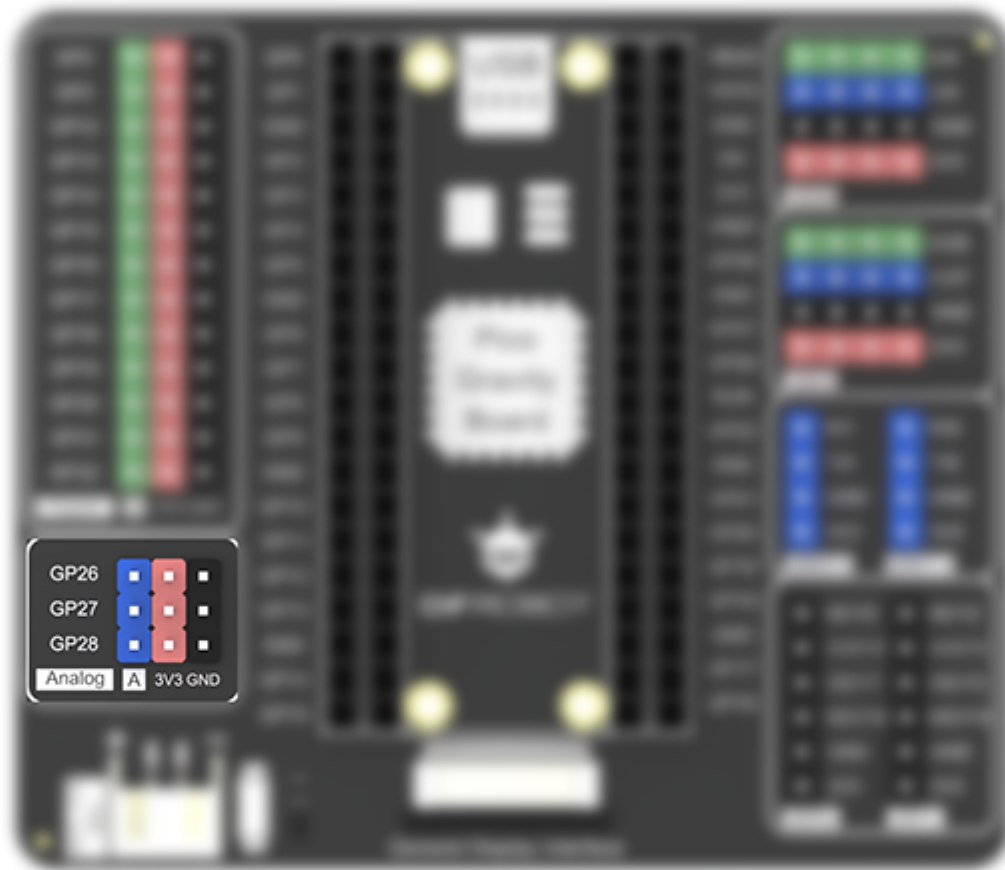
Digital Port

The IO expansion shield provides 13 groups of digital ports including GP2, GP3, and GP12~22.



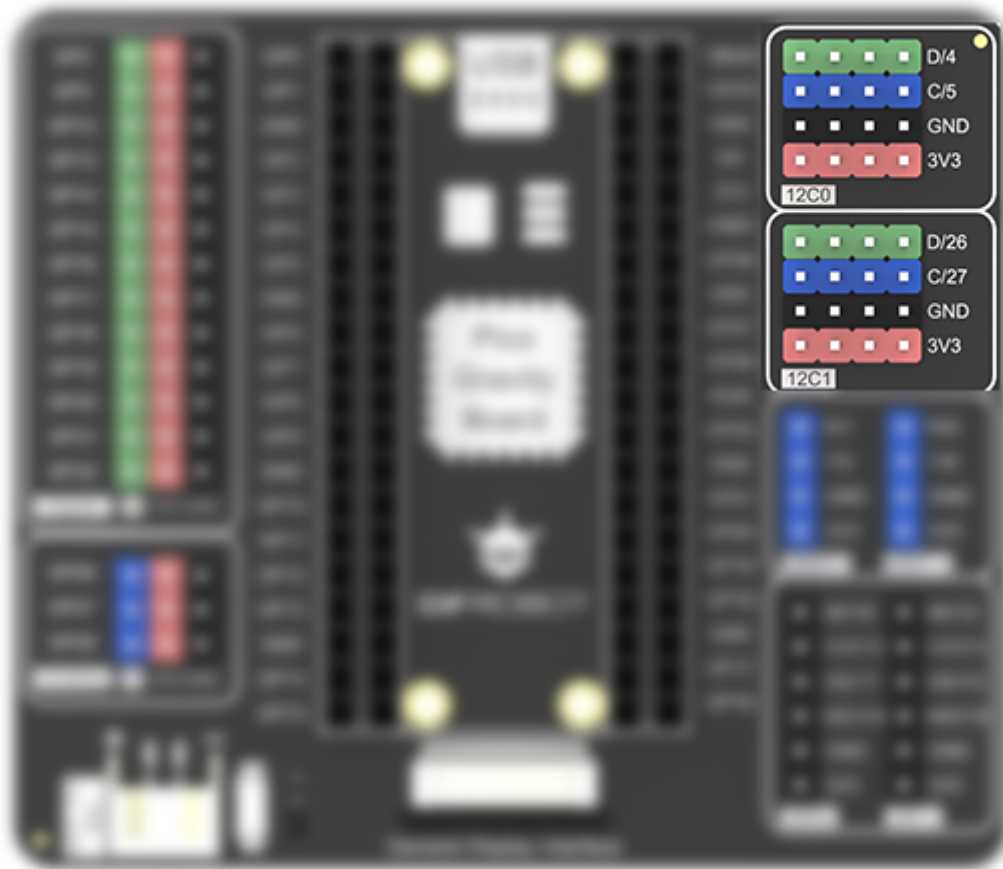
Analog Port

The IO expansion shield provides 3 groups of analog ports including GP26~28



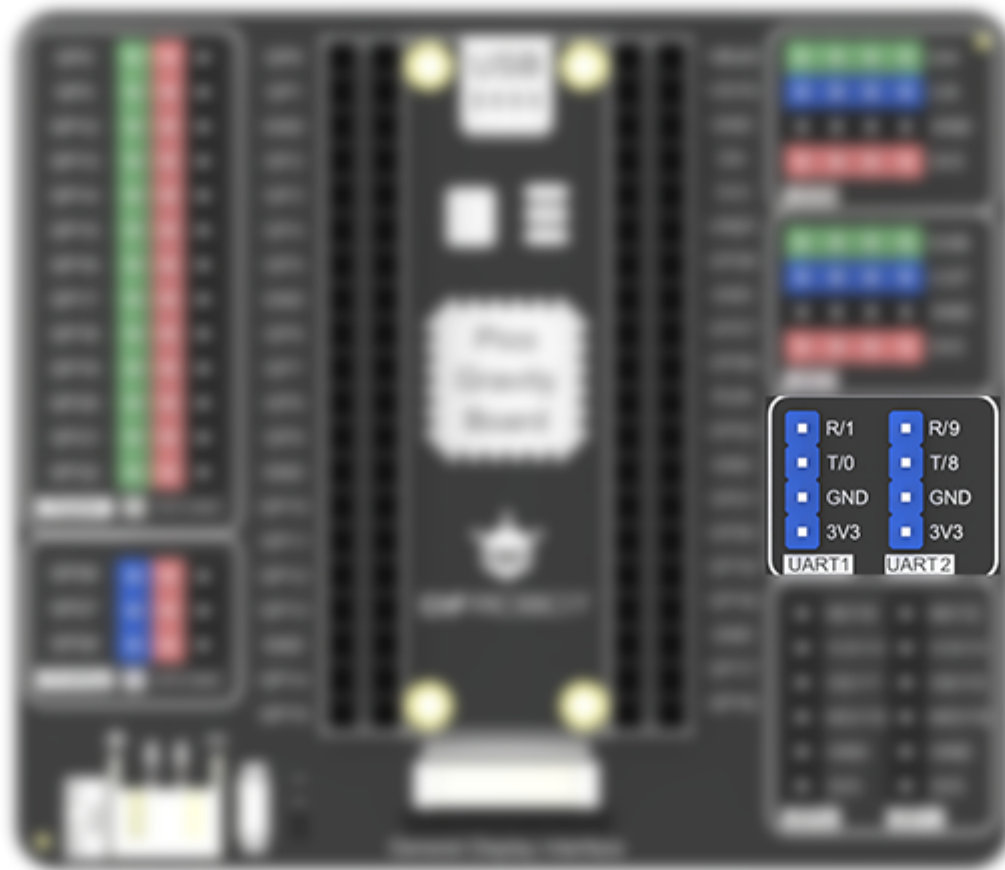
I2C Port

The IO expansion shield provides 2 groups of independent I2C ports.



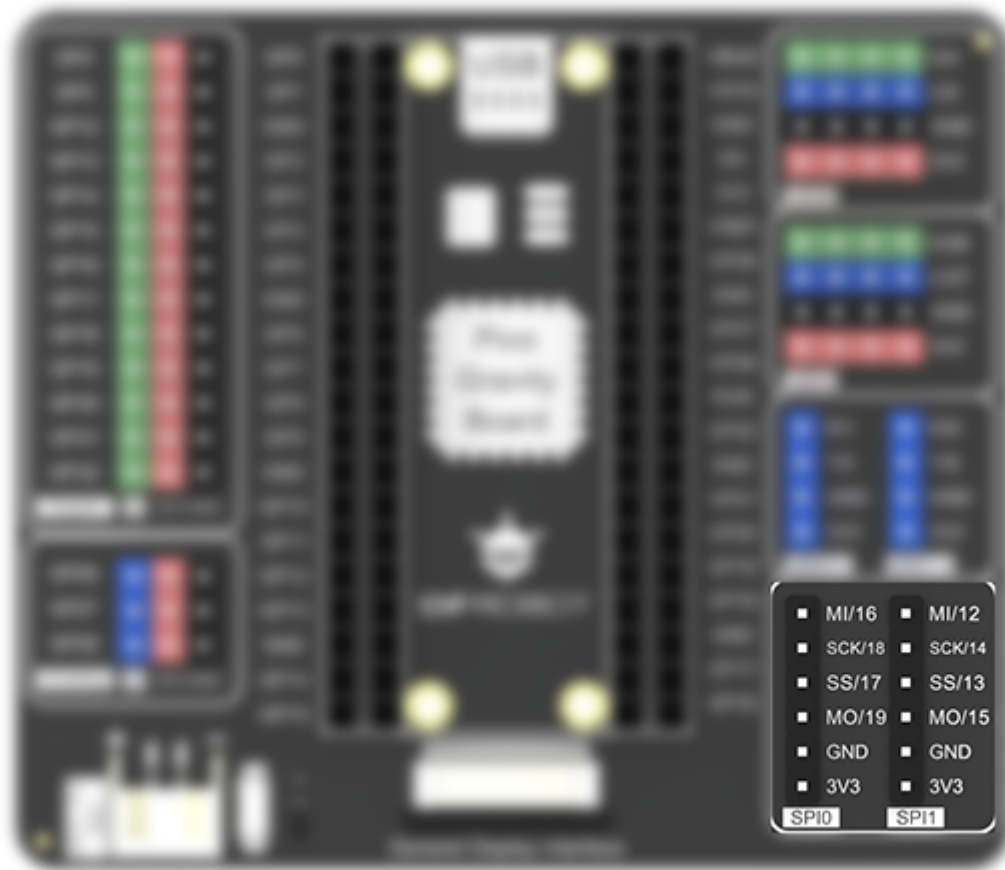
UART Port

The IO expansion shield provides 2 groups of independent UART ports.



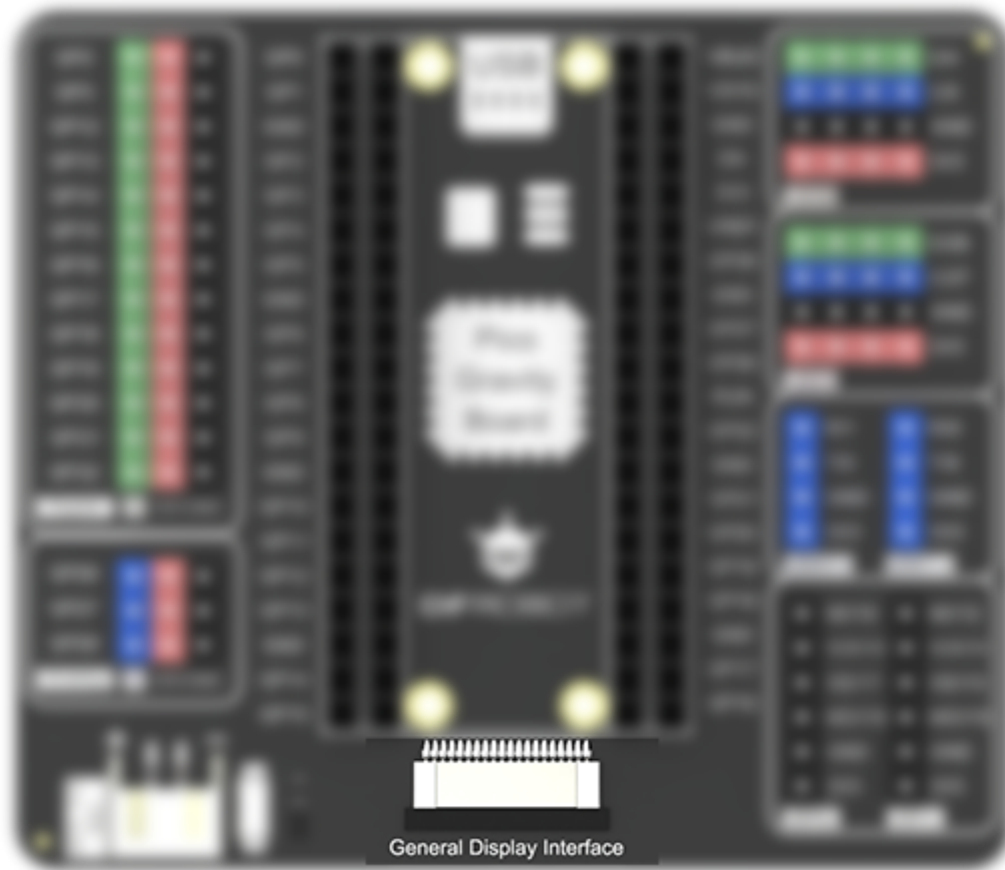
SPI Port

IO expansion shield provides 2 groups of SPI ports.



GDI Port

The IO expansion board contains an GDI port(connecting with 18pin-FPC cable) for DFRobot-dedicated displays, providing you with an easy way to use screens.



FPC PINS	Pico	Description
VCC	3V3	3.3V
BLK(PWM)	GP2	Backlit
GND	GND	GND

SCLK	GP18	SPI clock
MOSI	GP19	Master output, slave input

FPC PINS	Pico	Description
MISO	GP16	Master input, slave output
DC	GP3	Data/Command
RES	GP17	Reset
CS	GP7	TFT chip-select
SDCS	GP10	SD card chip-select
FCS	GP11	Font library
TCS	GP5	Touch
SCL	GP4	I2C clock
SDA	GP20	I2C data
INT	GP21	INT
BUSY-TE	GP22	Tear-proof pin
X1	GP0	User-defined pin 1
X2	GP1	User-defined pin 2

FAQ

For any questions, advice or cool ideas to share, please visit the **DFRobot Forum** (<https://www.dfrobot.com/forum/>).

More Documents

Get **PICO Gravity Expansion Shield** (<https://www.dfrobot.com/product-2393.html>) from DFRobot Store or **DFRobot Distributor**.
(<https://www.dfrobot.com/distributor>)

Turn to the Top