

# Raspberry Pi Pico Pinout

I haven't specified connection to GND and VCC for individual modules/devices. Just connect all pinouts labeled VCC to 3V3\_OUT if not instructed otherwise. Same applies to GND.

Power

Ground

UART / UART (default)

GPIO, PIO, and PWM

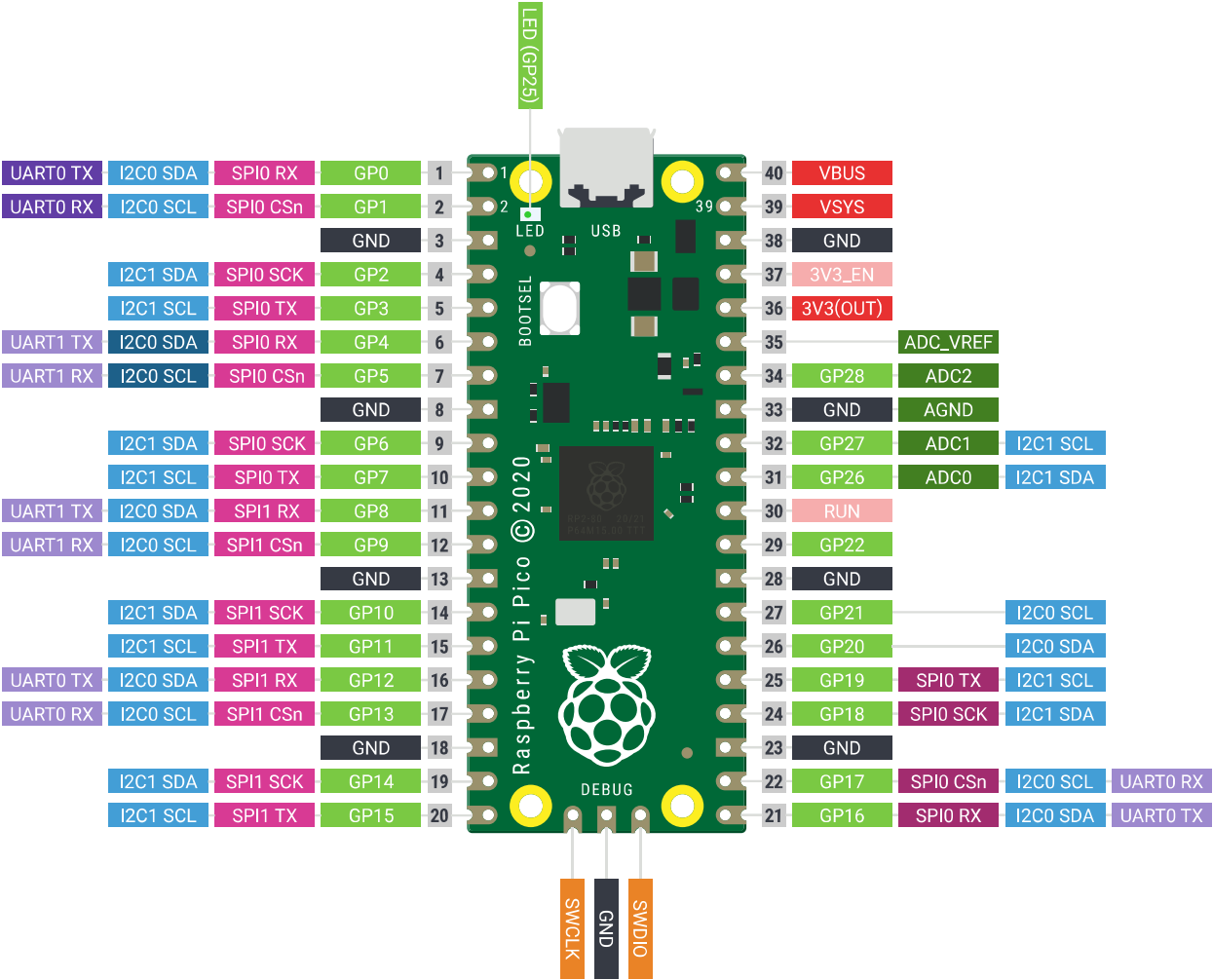
ADC

SPI / SPI (default)

I2C / I2C (default)

System Control

Debugging



## 1.51inch OLED Transparent Driver Board Waveshare (1)

### Pin Function

DIN - GP3  
CLK - GP2  
CS - GP13  
DC - GP15  
RST - GP14

Pin Function	Description
VCC	5V/3.3V Power Input
GND	Ground
DIN	Data Input
CLK	Clock Input
CS	Chip selection, low active
DC	Data/Command selection (high for data, low for command)
RST	Reset, low active

Connect the VCC directly to the VCC of the other OLED Driver board, not to the RPi

### Hardware Configuration

There are two driver interfaces on the OLED module: 4-wire SPI and I2C interfaces respectively. Two resistors can be soldered on the back of the module. The corresponding communication mode can be selected through the selection of resistors, as shown in the figure:

The module uses a 4-wire SPI communication mode by default, that is, the resistor is connected to the SPI position by default. The specific hardware configuration is as follows:

- Using 4-wire SPI:

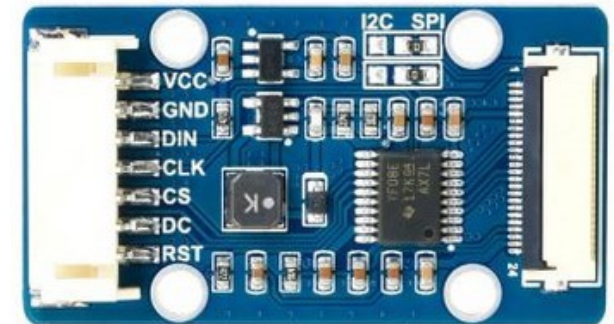
That is, the factory program setting: two 0R resistors are connected to the SPI;

- Using I2C:

Two 0R resistors are connected to the I2C;

**PS: The program defaults to SPI mode. If you need to switch the mode, please modify**

**DEV\_Config.h. For details, please refer to the program description - bottom hardware interface - interface selection.**



Hardware Configuration

## 1.51inch OLED Transparent Driver Board Waveshare (2)

### Pin Function

DIN - GP3  
CLK - GP2  
CS - GP5  
DC - GP7  
RST - GP6

Pin Function	Description
VCC	5V/3.3V Power Input
GND	Ground
DIN	Data Input
CLK	Clock Input
CS	Chip selection, low active
DC	Data/Command selection (high for data, low for command)
RST	Reset, low active

Connect the VCC directly to the VCC of the other OLED Driver board, not to

### Hardware Configuration

There are two driver interfaces on the OLED module: 4-wire SPI and I2C interfaces respectively. Two resistors can be soldered on the back of the module. The corresponding communication mode can be selected through the selection of resistors, as shown in the figure:

The module uses a 4-wire SPI communication mode by default, that is, the resistor is connected to the SPI position by default. The specific hardware configuration is as follows:

- Using 4-wire SPI:

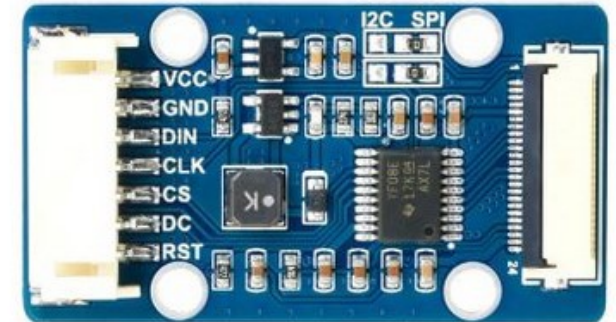
That is, the factory program setting: two 0R resistors are connected to the SPI;

- Using I2C:

Two 0R resistors are connected to the I2C;

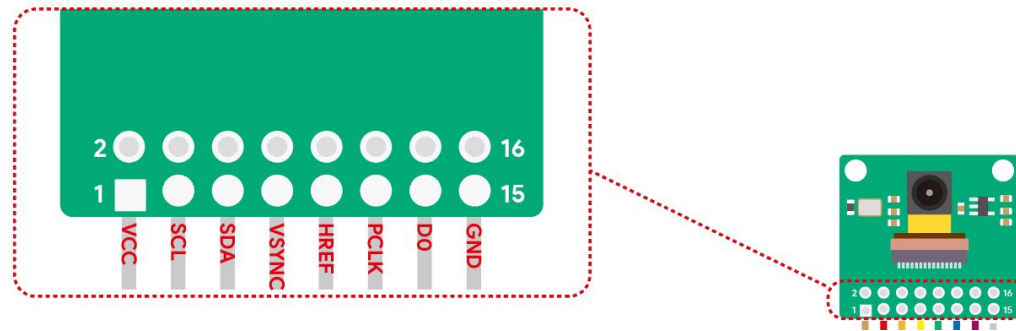
**PS: The program defaults to SPI mode. If you need to switch the mode, please modify**

**DEV\_Config.h. For details, please refer to the program description - bottom hardware interface - interface selection.**



Hardware Configuration

## HM01B0 Arducam Camera Module



SCL - GP21  
SDA - GP20  
VSYNC - GP16  
HREF - GP19  
PCLK - GP18  
DO - GP10