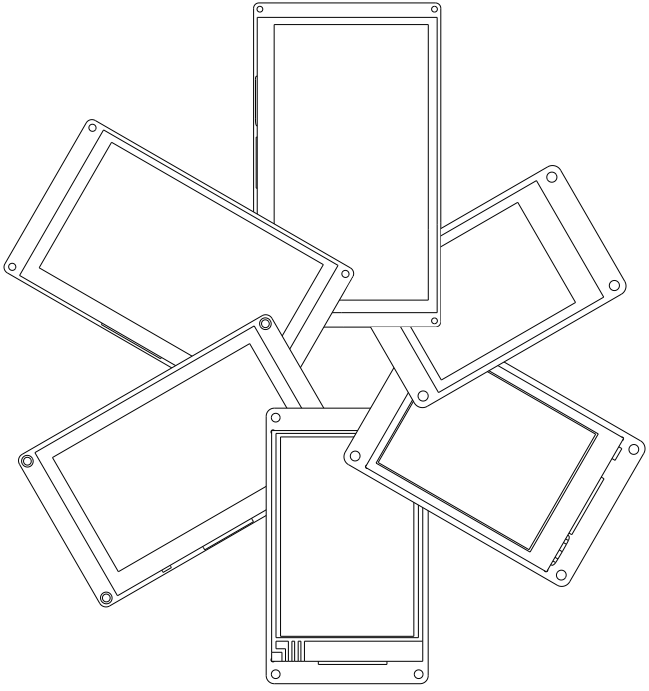
# User Manual

## ESP32 Display

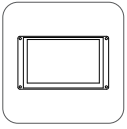
FCC ID: 2BDNA-AP08



*Thank you for purchasing our product.*
*Please read this user manual carefully before use and keep it properly for future reference.*

# Package List

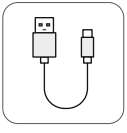
The following list diagram is for reference only.
Please refer to the actual product inside the package for details.



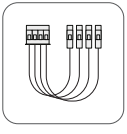
1x ESP32 Display




1x User Manual



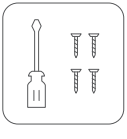
1x USB-A to USB-C Cable



1x Crowtail/Grove to 4pin DuPont Cable



1x Resistive Touch Pen
(5-inch and 7-inch display do not come with a resistive touch pen.)

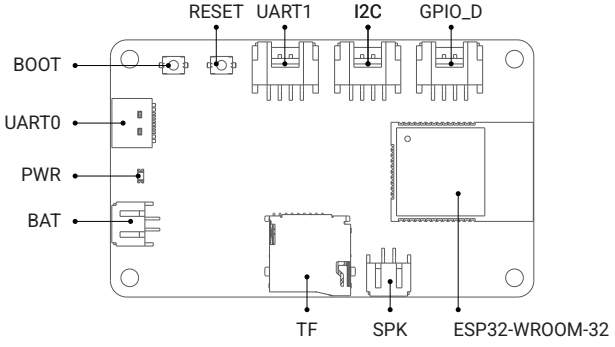


1x Screwdriver
4x Screw
(Only the shelled version includes it.)

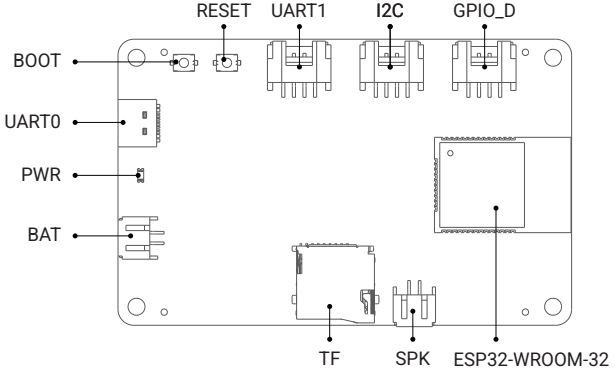
# Screen Buttons and Interfaces

Screen appearance varies by model, and diagrams are for reference only. Interfaces and buttons are silk screen labeled, use actual product as reference.

## 2.4 Inch HMI Display

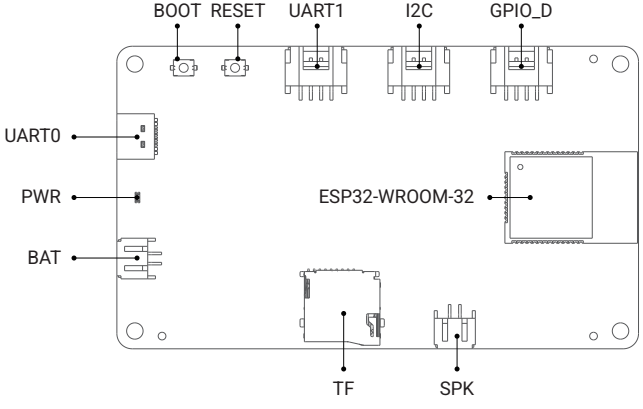



## 2.8 Inch HMI Display

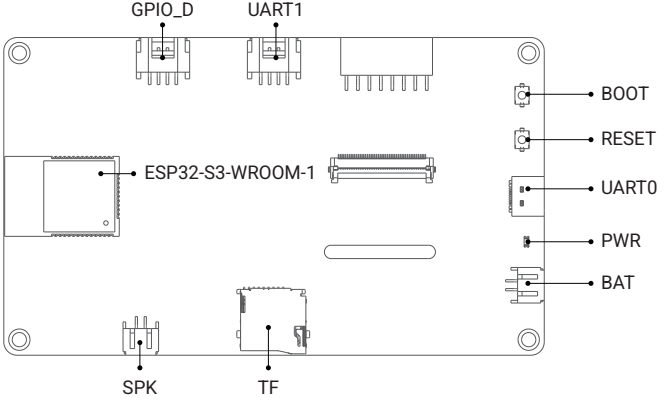


# Screen Buttons and Interfaces

### 3.5 Inch HMI Display

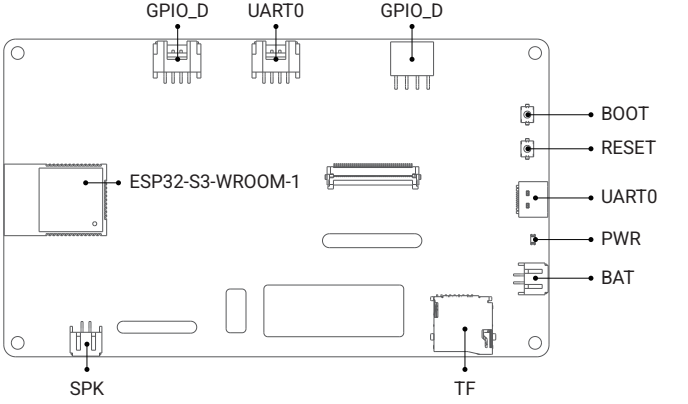



### 4.3 Inch HMI Display

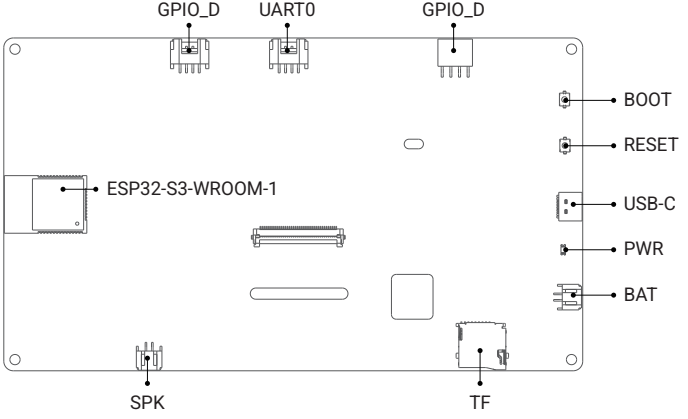


# Screen Buttons and Interfaces

### 5.0 Inch HMI Display




### 7.0 Inch HMI Display



# Parameters

| Size | 2.4" | 2.8" | 3.5" |
|---|---|---|---|
| Resolution | 240*320 | 240*320 | 320*480 |
| Touch Type | Resistive Touch | Resistive Touch | Resistive Touch |
| Main Processor | ESP32-WROOM-32-N4 | ESP32-WROOM-32-N4 | ESP32-WROOM-32-N4 |
| Frequency | 240 MHz | 240 MHz | 240 MHz |
| Flash | 4MB | 4MB | 4MB |
| SRAM | 520KB | 520KB | 520KB |
| ROM | 448KB | 448KB | 448KB |
| PSRAM | / | / | / |
| Display Driver | ILI9341V | ILI9341V | ILI9488 |
| Screen Type | TFT | TFT | TFT |
| Interface | 1*UART0, 1*UART1, 1*I2C, 1*GPIO, 1*Battery | 1*UART0, 1*UART1, 1*I2C, 1*GPIO, 1*Battery | 1*UART0, 1*UART1, 1*I2C, 1*GPIO, 1*Battery |
| Speaker Jack | YES | YES | YES |
| TF Card Slot | YES | YES | YES |
| Color Depth | 262K | 262K | 262K |
| Active Area | 36.72*48.96mm(W*H) | 43.2*57.6mm(W*H) | 48.96*73.44mm(W*H) |

# Parameters

| Size | 4.3" | 5.0" | 7.0" |
|---|---|---|---|
| Resolution | 480*272 | 800*480 | 800*480 |
| Touch Type | Resistive Touch | Capacitive Touch | Capacitive Touch |
| Main Processor | ESP32-S3-WROOM-1-N4R2 | ESP32-S3-WROOM-1-N4R8 | ESP32-S3-WROOM-1-N4R8 |
| Frequency | 240 MHz | 240 MHz | 240 MHz |
| Flash | 4MB | 4MB | 4MB |
| SRAM | 512KB | 512KB | 512KB |
| ROM | 384KB | 384KB | 384KB |
| PSRAM | 2MB | 8MB | 8MB |
| Display Driver | ST7282 | ILI6122 or ILI5960 | EK9716BD3 or EK73002ACGB |
| Screen Type | TFT | TFT | TFT |
| Interface | 1*UART0, 1*UART1, 1*GPIO, 1*Battery | 2*UART0, 1*GPIO, 1*Battery | 2*UART0, 1*GPIO, 1*Battery |
| Speaker Jack | YES | YES | YES |
| TF Card Slot | YES | YES | YES |
| Color Depth | 16M | 16M | 16M |
| Active Area | 95.04*53.86mm(W*H) | 108*64.8mm(W*H) | 153.84*85.63mm(W*H) |

## Expansion Resources

- Schematic Diagram
- Source Code
- ESP32- S3-WROOM-1N4R8 Datasheet
- Arduino Libraries
- 16 learning Lessons for LVGL
- LVGL Reference

For More Details
Please Scan the QR Code.

## Safety Instructions

To ensure safe use and avoid injury or property damage to yourself and others, please follow the safety instructions below.

- Avoid exposing the screen to sunlight or strong light sources to prevent affecting its viewing effect and lifespan.
- Avoid pressing or shaking the screen hard during use to prevent loosening of internal connections and components.
- For screen malfunctions, such as flickering, color distortion, or unclear display, stop use and seek professional repair.
- Before repairing or replacing any equipment components, make sure to turn off the power and disconnect from the device.

Company Name: Elecrow Technology Development Co., Ltd.

Company website: https://www.elecrow.com

# FCC WARNING

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception,

which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-- Reorient or relocate the receiving antenna.

-- Increase the separation between the equipment and receiver.

-- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-- Consult the dealer or an experienced radio/TV technician for help.

To maintain compliance with FCC's RF Exposure guidelines, This equipment should be installed and operated with minimum 20cm distance between the radiator and your body: Use only the supplied antenna.

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