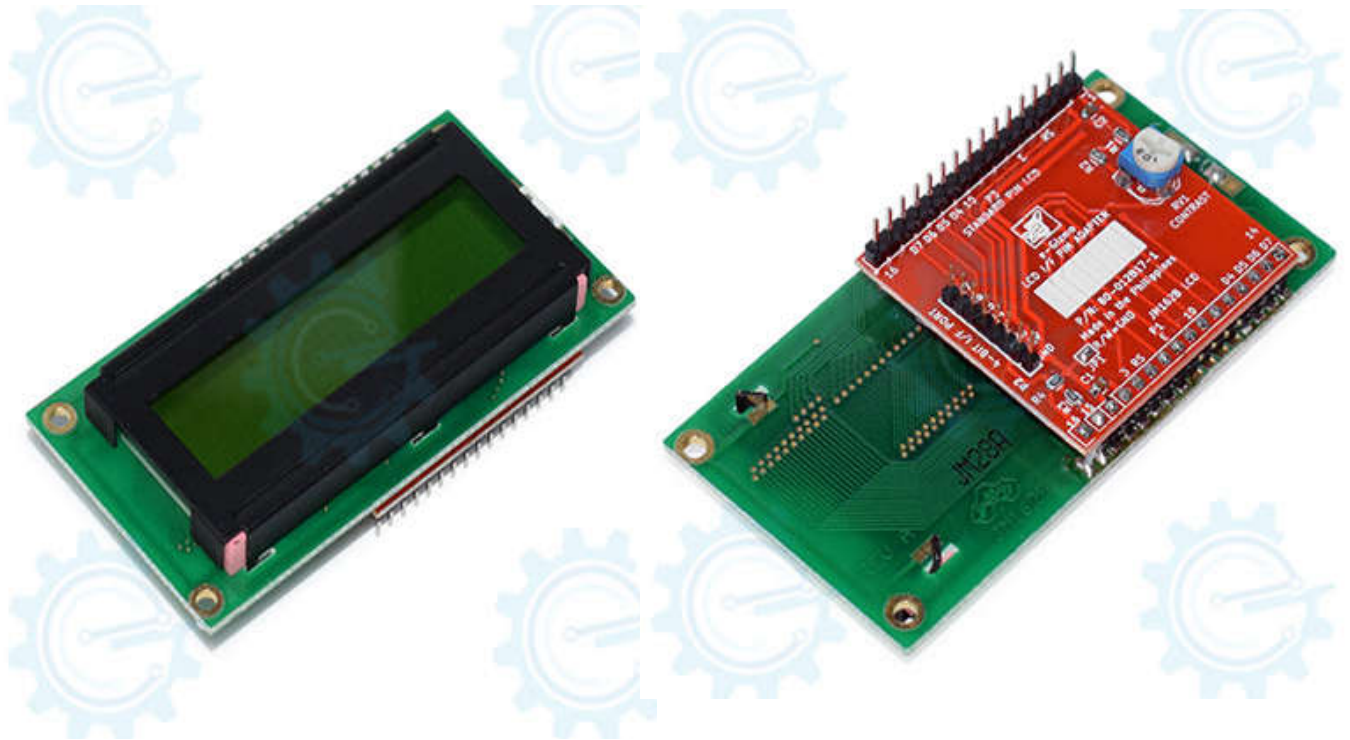


# JM162B LCD I/F pin adapter



Technical Manual Rev 1r0



The **JM162B LCD I/F pin adapter** is a parallel interface that the microcontroller has to manipulate several interface pins at once to control the display. This is for easy connections in gizduino to JM162B pin adapter board with built-in 10Kohms trimmer, 10 ohms, and capacitors. It requires 8 pins for the wiring connections on the 4-bit I/F port and standard pin LCD port. Compatible in all gizduino boards and MCUs.

## Features:

- **Standard pin LCD**
- **For JM162B 2x16 LCD**
- **With 4-bit I/F port**
- **You need only 8 wires connection to use this.**
- **With built-in trimmer for Contrast Adjustment and backlight**
- **Liquid Crystal Library**
- **Arduino Compatible**

## General Specifications:

**Input supply:** +5VDC  
**Model LCD:** JM162B  
**Library:** LiquidCrystal.h  
**Backlight color:** Green  
**PCB Dimensions:** 41mm x 42 mm

#### 4-BIT I/F PORT

For easy connections from gizduino to JM162B pin adapter board. It requires 8 pins for the wiring connections.

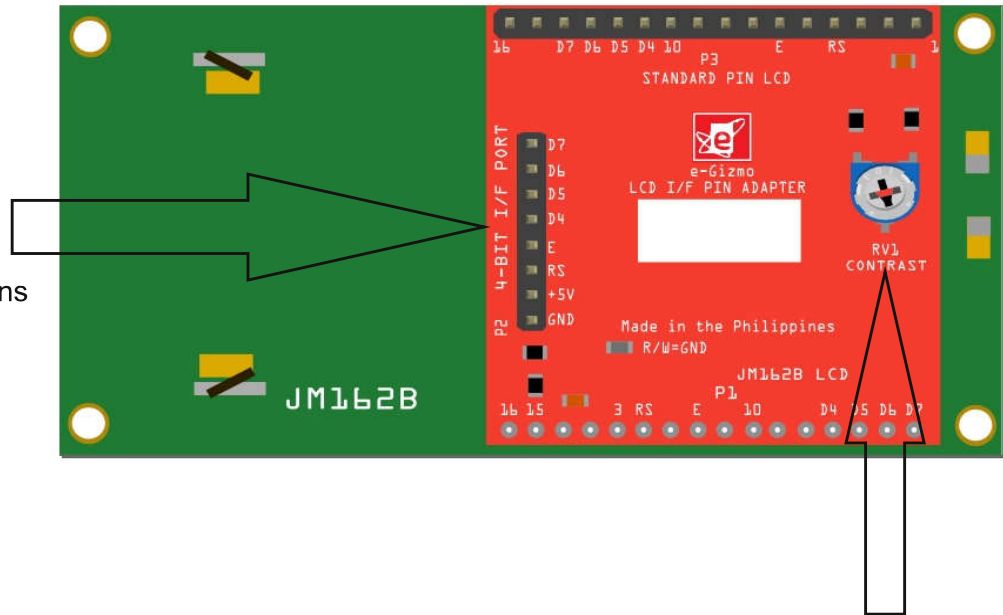


Figure 1. P2 connection with 4-bit I/F port

Contrast Adjustment

#### STANDARD PIN LCD

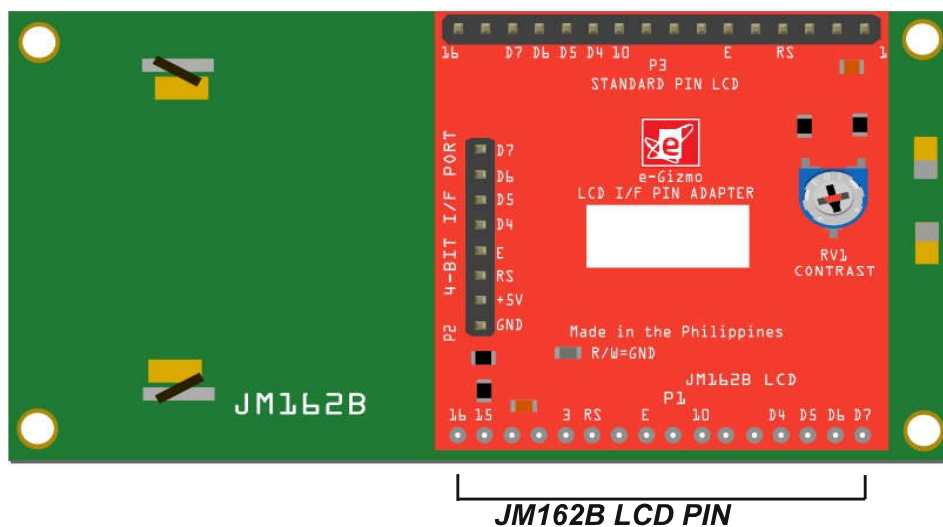


Figure 2. P3 Connection for Standard 2x16 LCD pin port

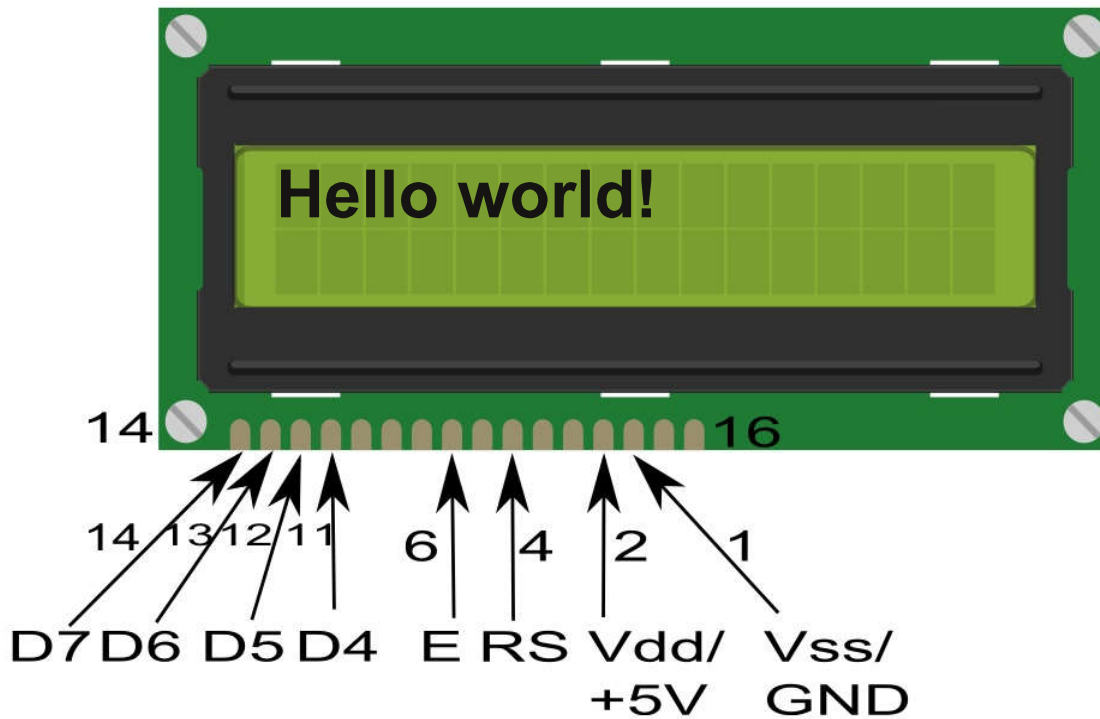


Figure 3. JM162B 2x16 LCD pins

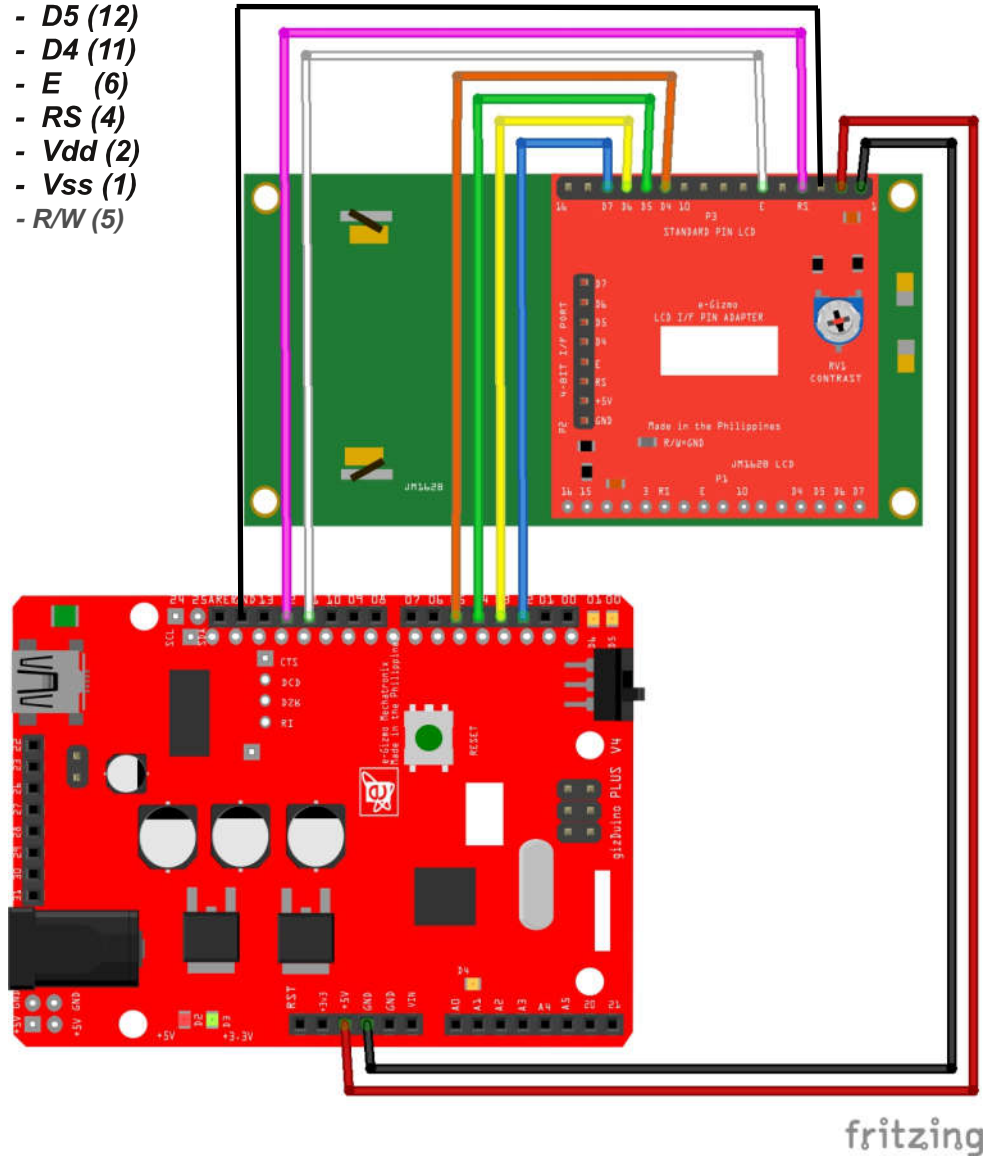
Table 1. 2x16 LCD pinouts

| PIN NO. | NAME | FUNCTION      | DESCRIPTION     |
|---------|------|---------------|-----------------|
| 1       | VSS  | Power         | Ground          |
| 2       | Vdd  | Power         | +5V DC          |
| 3       | Vee  | Contrast Adj. | (-2) 0 - 5V     |
| 4       | RS   | Command       | Register Select |
| 5       | R/W  | Command       | Read/Write      |
| 6       | E    | Command       | Enable (Strobe) |
| 7       | D0   | I/O           | Data LSB        |
| 8       | D1   | I/O           | Data            |
| 9       | D2   | I/O           | Data            |
| 10      | D3   | I/O           | Data            |
| 11      | D4   | I/O           | Data            |
| 12      | D5   | I/O           | Data            |
| 13      | D6   | I/O           | Data            |
| 14      | D7   | I/O           | Data MSB        |

**Wire connections:**

**gizDuinoPLUS to LCD board (P3 port)**

|     |           |
|-----|-----------|
| D2  | - D7 (14) |
| D3  | - D6 (13) |
| D4  | - D5 (12) |
| D5  | - D4 (11) |
| D11 | - E (6)   |
| D12 | - RS (4)  |
| +5V | - Vdd (2) |
| GND | - Vss (1) |
| GND | - R/W (5) |

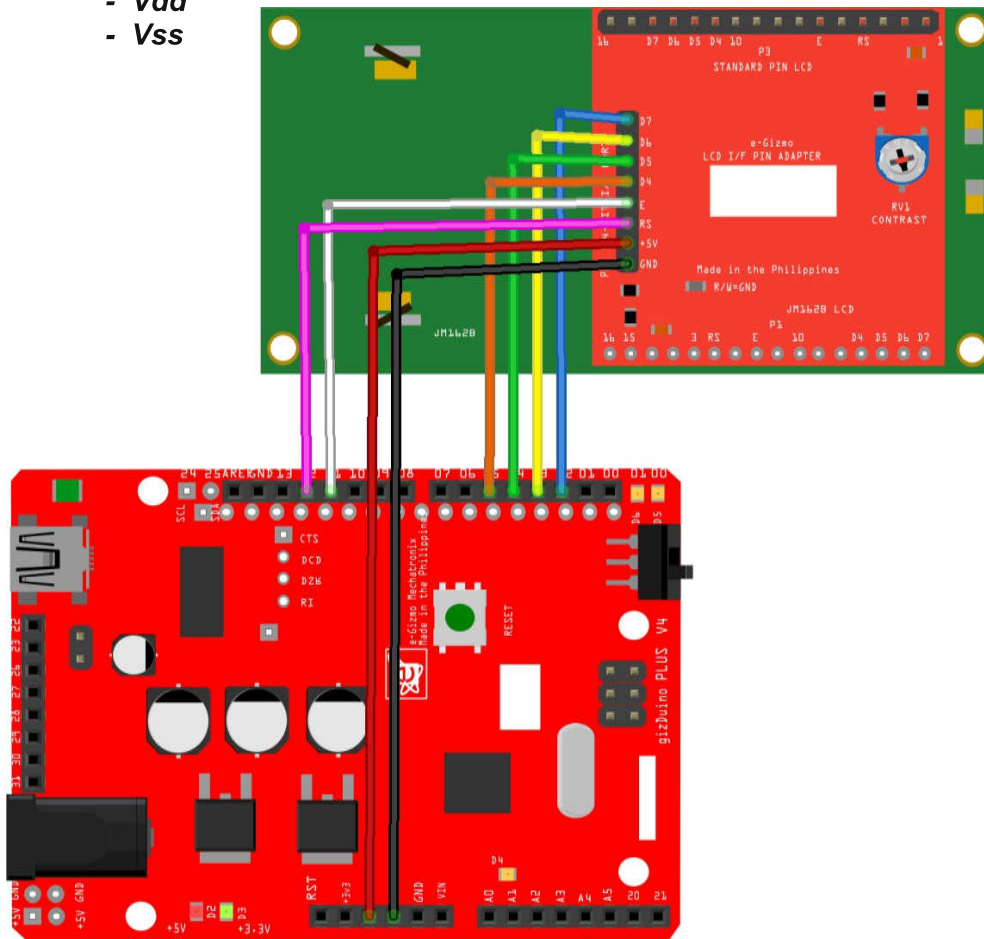


**Figure 4:** Sample application using Standard pin LCD with gizDuino PLUS.

**Wire connections:**

**gizDuinoPLUS to LCD board (P2 port)**

D2 - D7  
D3 - D6  
D4 - D5  
D5 - D4  
D11 - E  
D12 - RS  
+5V - Vdd  
GND - Vss



fritzing

**Figure 5:** Sample application using 4-bit I/F port with gizDuino PLUS

```
// include the library code:
#include <LiquidCrystal.h>

// initialize the library with the numbers of the interface pins
LiquidCrystal lcd(12, 11, 5, 4, 3, 2);

void setup() {
  // set up the LCD's number of columns and rows:
  lcd.begin(16, 2);
  // Print a message to the LCD.
  lcd.print("hello, world!");
}

void loop() {
  // set the cursor to column 0, line 1
  // (note: line 1 is the second row, since counting begins with 0):
  lcd.setCursor(0, 1);
  // print the number of seconds since reset:
  lcd.print(millis()/1000);
}
```