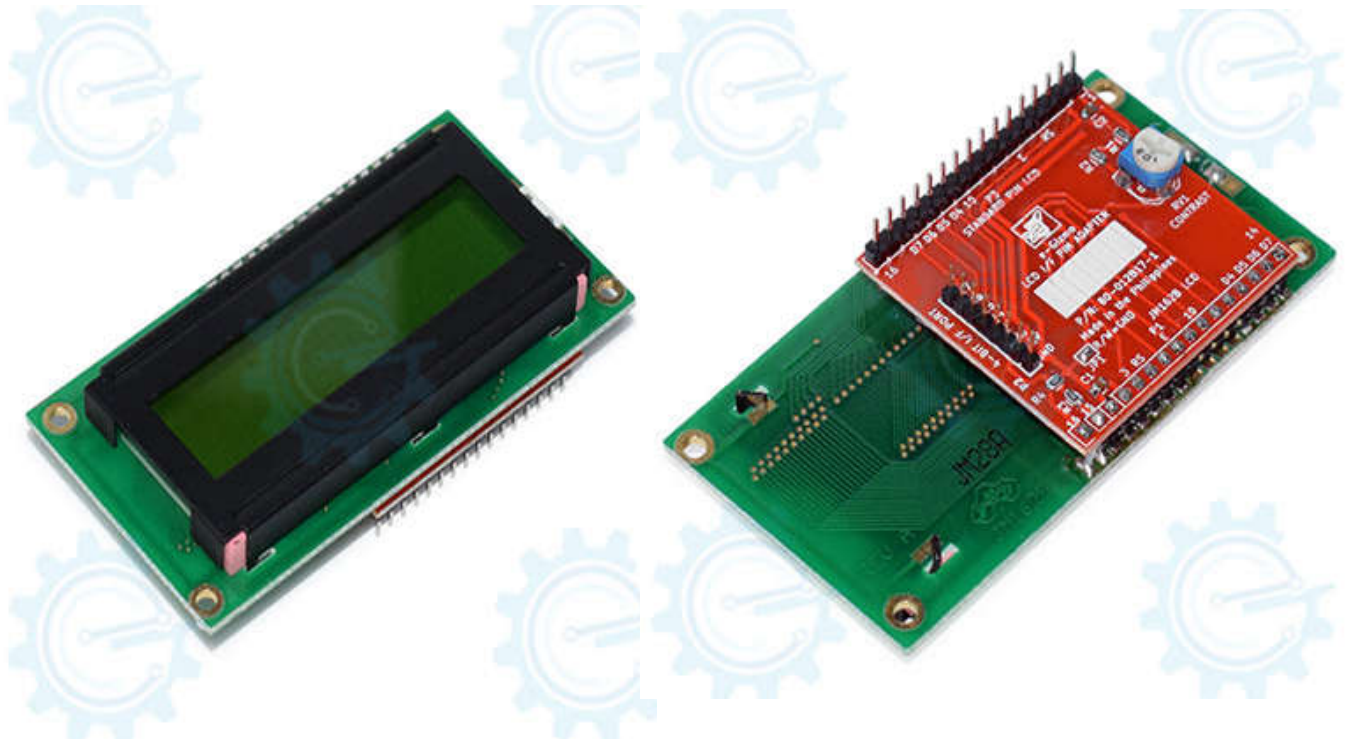


JM162B LCD I/F pin adapter



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.

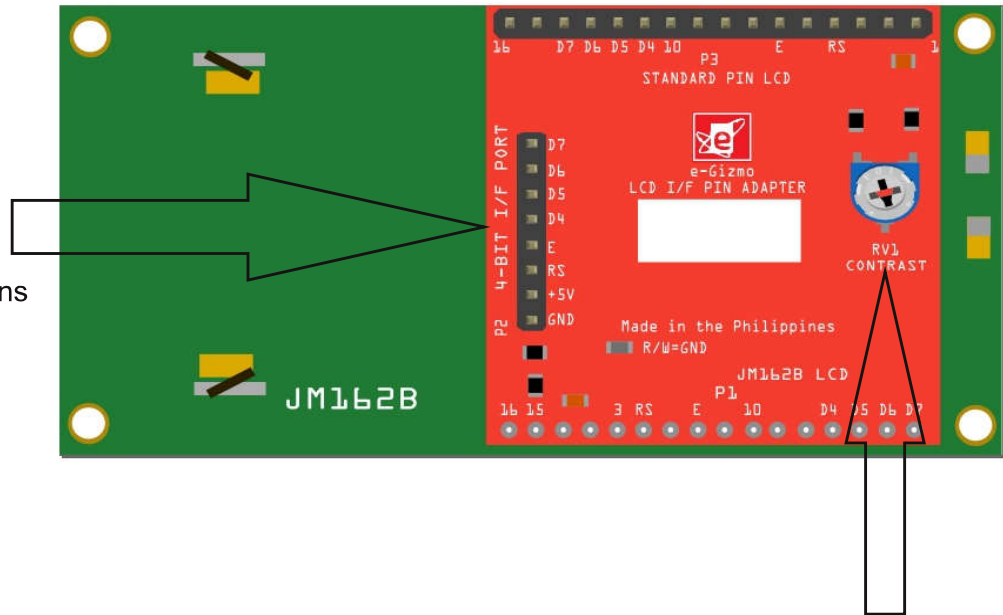


Figure 1. P2 connection with 4-bit I/F port

Contrast Adjustment

STANDARD PIN LCD

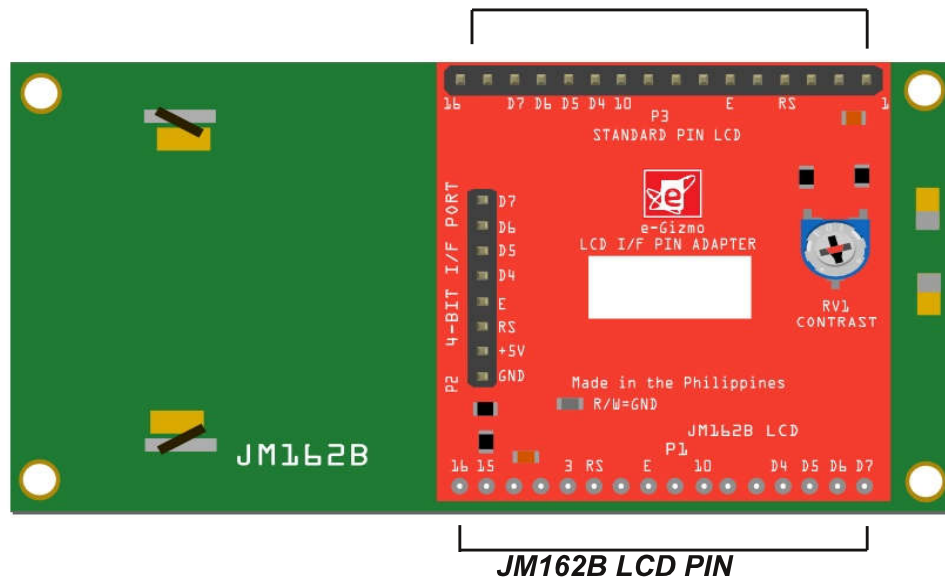


Figure 2. P3 Connection for Standard 2x16 LCD pin port

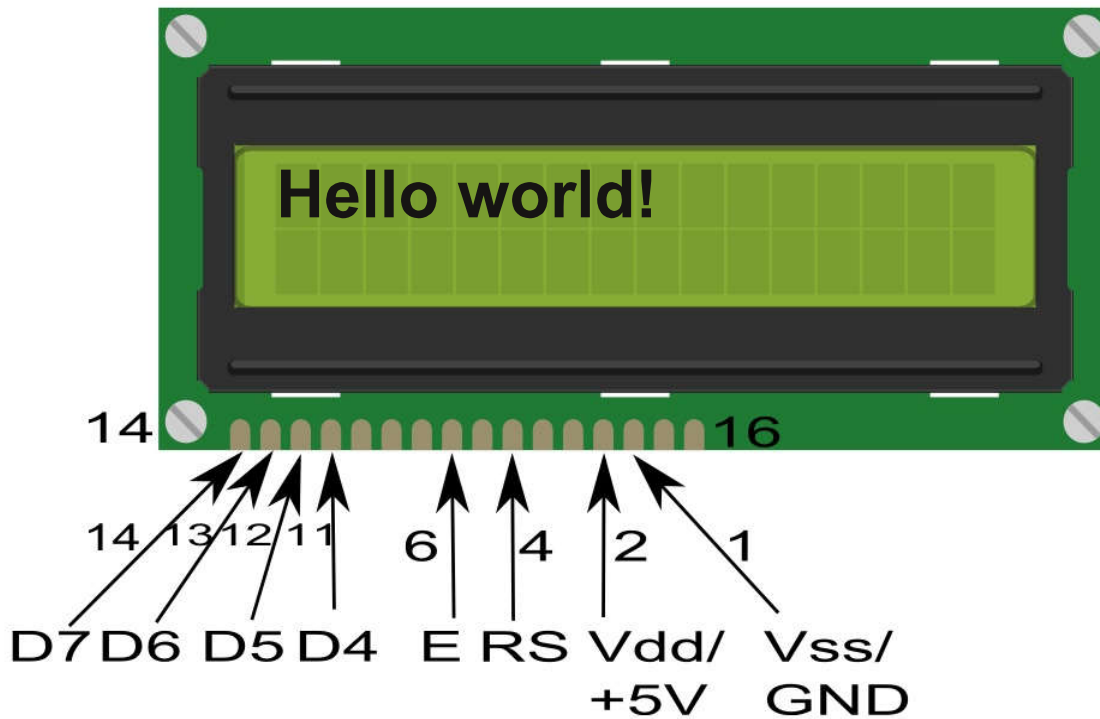


Figure 3. JM162B 2x16 LCD pins

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)

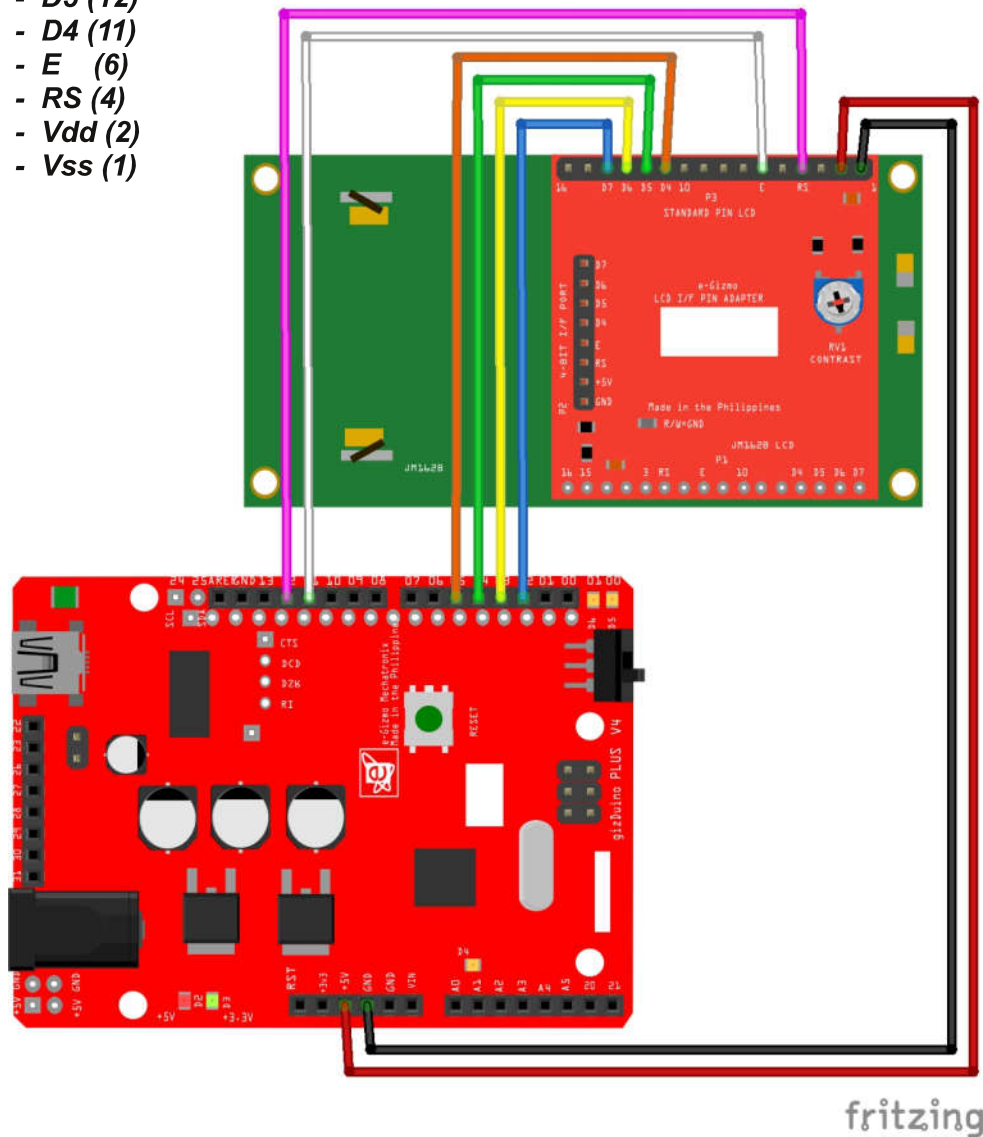
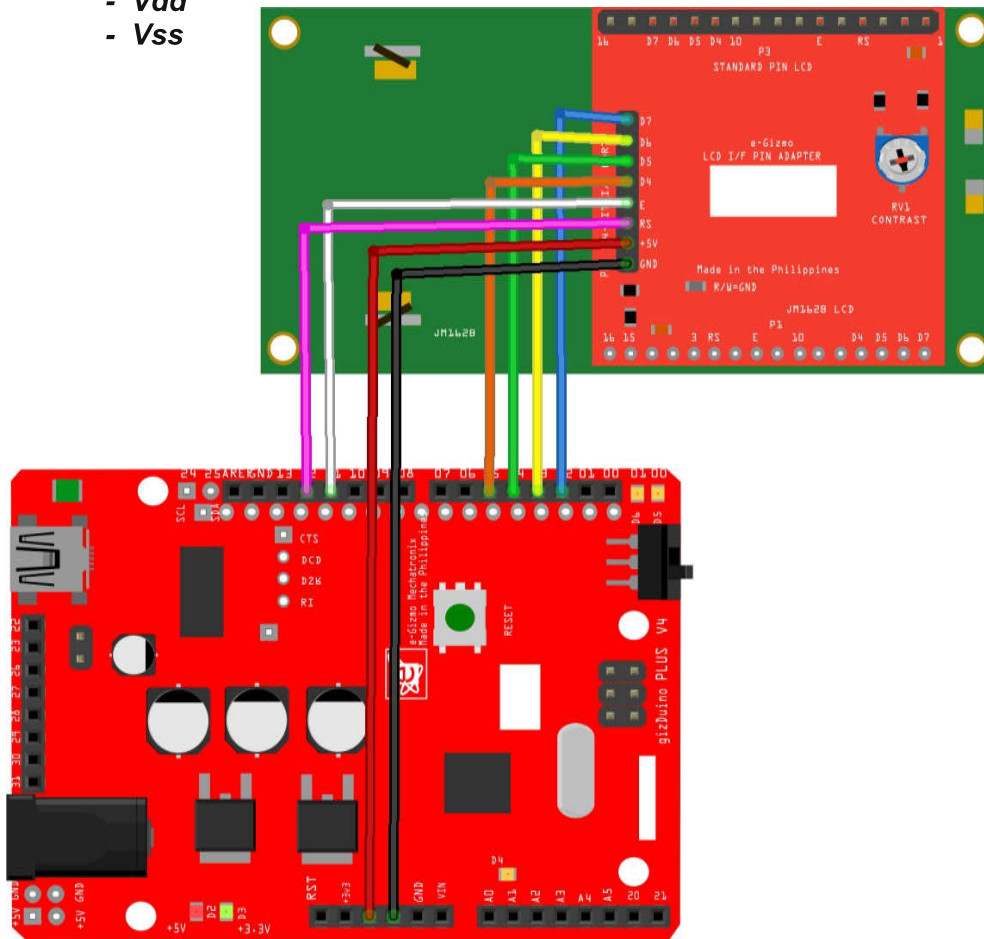


Figure 4: Sample application using Standard pin LCD with gizDuino PLUS.

Wire connections:

gizDuinoPLUS to LCD board (P2 port)

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



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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);
}
```