ArduCam

1602 16x2 LCD Display Module with IIC/I2C Adapter Module

1 Introduction

This standard LCD 16x2 display is useful for creating standalone projects. 16 characters wide, 2 rows White text on blue background, connection port is 0.1" pitch, single row for easy breadboarding and wiring. Pins are documented on the front of the LCD to assist in wiring it up. Single LED backlight included can be dimmed easily with a resistor or PWM and uses much less power than LCD with EL (electroluminescent) backlights.

Commonly-used HD44780 controller is built in this 1602 LCD module, the HD44780U dot-matrix liquid crystal display controller and driver LSI displays alphanumerics, Japanese kana characters, and symbols.

2 Features

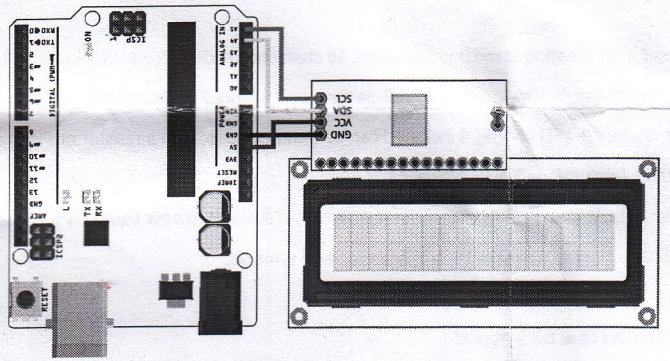
1. 16 characters wide, 2 rows, white text on blue background
2. Connection port is 0.1" pitch, single row for easy breadboarding and wiring
3. Pins are documented on the front of the LCD to assist in wiring it up
4. Single LED backlight included can be dimmed easily with a resistor or PWM and uses much less power than LCD with EL (electroluminescent) backlights
5. Built in character set supports English/Japanese text, see the HD44780 datasheet for the full character set
6. Comes with IIC/I2C serial interface adapter module
7. Interface: 4-bit\8-bit parallel interface
8. Power supply voltage: 5.0 V
9. VLCD adjustable for best contrast: 5.0 V (V OP.)
10. Operation temperature: -10 °C to +60°C
11. Storage temperature: -20 °C to +70°C

3 Interface pin functions

Pin No.	Symbol	Level	Description
1	VSS	0V	Ground.
2	VDD	+5.0V	Power supply for logic operating.
3	V0	--	Adjusting supply voltage for LCD driving.
4	RS	H/L	A signal for selecting registers: 1: Data Register (for read and write) 0: Instruction Register (for write), Busy flag-Address Counter (for read).
5	R/W	H/L	R/W = "H": Read mode. R/W = "L": Write mode.

6	E	H/L	An enable signal for writing or reading data.
7-14	DB0-DB7	H/L	This is an 8-bit bi-directional data bus.
15	A	+5.0V	Power supply for backlight.
16	K	0V	The backlight ground.

4 Connection

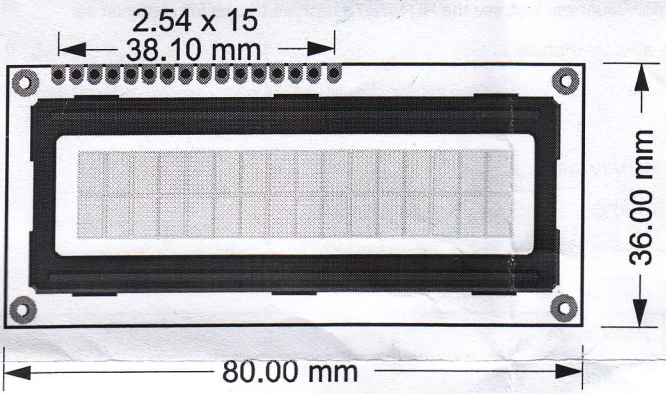


5 Fimware library

All library and example sketch can be found from:

http://www.arducam.com/downloads/Amazon/C0048_1602.zip

6 Mechanical dimension



7 Arducam Team:

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5. Built in character set supports English/Japanese text, see the HD44780 datasheet for the full character set
6. Comes with necessary contrast potentiometer and strip of header
7. Interface: 4-bit\8-bit parallel interface
8. Power supply voltage: 5.0 V
9. VLCD adjustable for best contrast: 5.0 V (V OP.)
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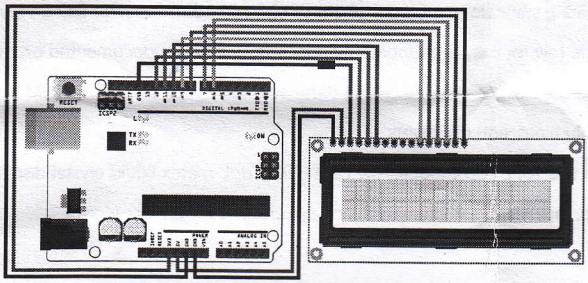
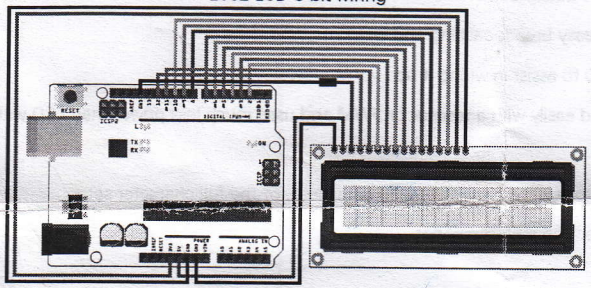


1602 LCD 8 bit wiring



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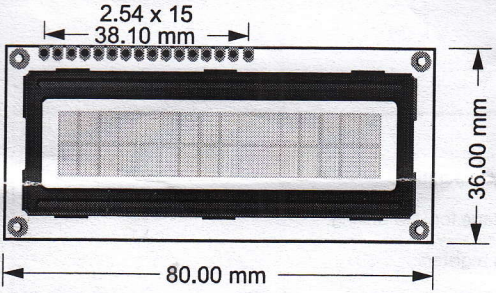

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