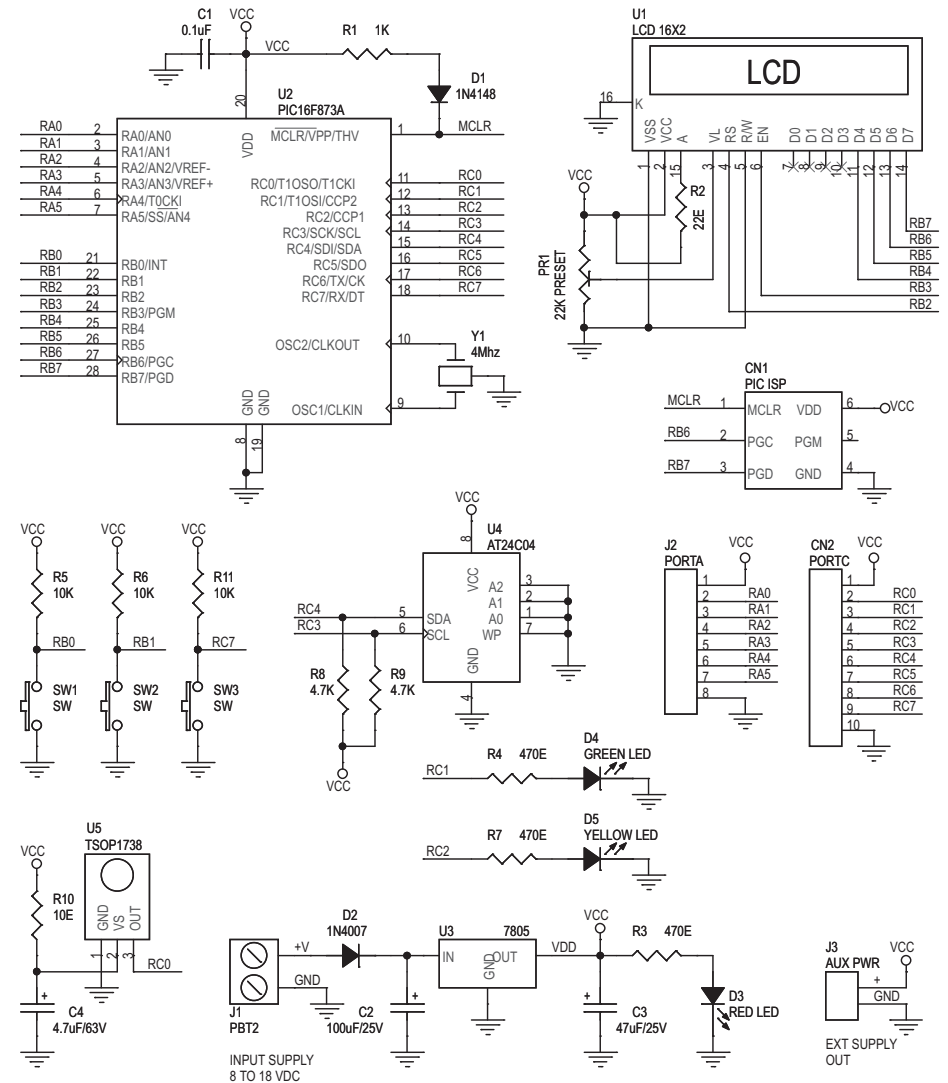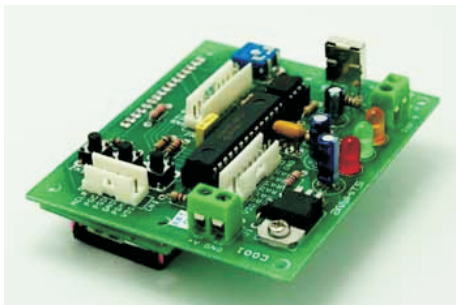# PIC16F 28-PIN DEVELOPMENT BOARD

PIC16F 28-Pin Development Board will help you with your prototyping requirement with any of Microchip's 28pin PIC microcontrollers.

This development board offers various important add-ons which we considered are important to a developer of Microcontroller based project from Microchip.

Some features of this Board are:

1. This board can be used with any of the 16F/28-Pin PIC IC's compatible with 16F873A MCU. This kit is supplied with a PIC 16F873A MCU for development purposes.
2. The Clock frequency to the MCU is a 4 MHz Crystal Resonator.
3. This Development Board offers a ICSP connector for easy download of your code onto the MCU. Resistor R1 and Diode D1 Offer protection of Programming voltage interfering with the Supply voltage.
4. A 16X2 Backlight LCD helps as a displays of data in your project. PR1 controls the Contrast of the LCD.
5. D2 diode offers reverse polarity connection protection to the Board.
6. A 24C04 EEPROM can help store valuable data of your project on it.
7. J3 offers Aux/Ext Supply to other cards that might require 5 VDC for operation. Please calculate the current requirement of the external card which could use this supply before connecting it.
8. On board Voltage regulator with PWR on indication via LED D3.
9. 3 Tact switch inputs with their individual pull-up resistor.
10. 2 LED output, one of which is connected to the hardware PWM port on the MCU.
11. Infra Red (IR) sensor with associated components for IR related projects.
12. All IO pins available for external connection with the help of Relimate/Berg Connectors.
13. Four mounting holes of 3.2 mm each
14. PCB dimensions 71 mm x 87 mm

Please refer to the schematic diagram for the configuration of this board.

The kit includes all components required for the project accept power supply and cabinet. Please check the components supplied to you as per the BOM "Bill of Material" listed in this document. Component legends and In/Out port pins are clearly printed.

SR.	QTY.	REF.	DESCRIPTION
1	1	CN1	6 PIN RELIMATE/BERG CONNECTOR
2	1	CN2	10 PIN RELIMATE/BERG CONNECTOR
3	1	C1	0.1uF
4	1	C2	100uF/25V
5	1	C3	47uF/25V
6	1	C4	4.7uF/63V
7	1	D1	1N4148
8	1	D2	1N4007
9	3	D3,D4,D5	RED LED
10	2	J1,J3	2 PIN PBT CONNECTOR
11	1	J2	8 PIN RELIMATE/BERG CONNECTOR
12	1	PR1	22K PRESET
13	1	R1	1K
14	1	R2	22E
15	3	R3,R4,R7	470E
16	3	R5,R6,R11	10K
17	2	R8,R9	4.7K
18	1	R10	10E
19	3	SW1,SW2, SW3	TACT SWITCH
20	1	U1	LCD 16X2 WITH BACKLITE
21	1	U2	PIC16F873A
22	1	U3	7805
23	1	U4	AT24C04
24	1	U5	TSOP 1738
25	1	Y1	4MHz RESONATOR
26	1	SOCKET	28 PIN DIP IC SOCKET
27	1	SOCKET	8 PIN DIP IC SOCKET
28	1	CONNECTOR	16 PIN BERG CONNECTOR
29	1	SCREW	SC02905
30	1	NUT	NT02900

86.36

70.49

BOTTOM

TOP

C001

Silkscreen labels: SW2, R6, R2, ADJ, MCLR, PGC, PGD, GND, PGM, VDD, SW1, SW3, R5, R11, GND RC7 RC6 RC5 RC4 RC3 RC2 RC1 RC0 VDD, CN2, C1, R8, PR1, CN1, twovolt, R1, U2, U4, J2, +V, GND, D1, VDD RA0 RA1 RA2 RA3 RA4 RA5 GND, Y1, R9, U5 IR SENSOR, C4, R10, J1, D2, R3, C3, D3 D4 D5, J3, EXT PWR, GND +, U3, C2

07005