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Rotary Encoder Interfacing with PIC Mirocontroller

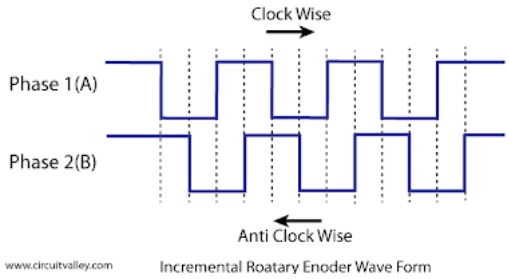
Posted By: Admin on: February 19, 2016 In: Interfacing(USB - RS232 - I2c -ISP) Projects No Comments

i am currently working with some power supply design and i can say using conventional pots(potentiometer) and rotary switch to adjust the voltage and other stuff is quite old school.
so i have decided to go for a bit high tech , actually bit digital.
so here is the solution

Incremental Rotary Encoder

first of all i would like to tell you , these type of rotary encoder is totally digital component so you can't directly replace these with you conventional pots. so lets start what are Incremental Rotary Encoder ,

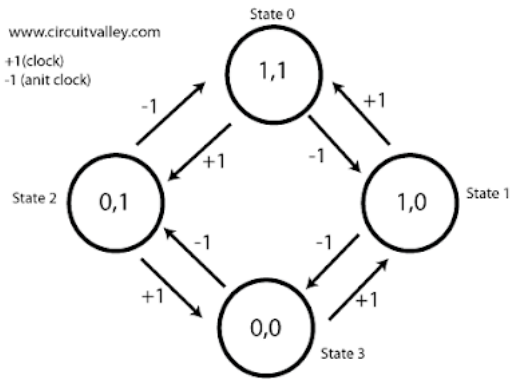
and hear the output wave form



Incremental Roatary Enoder Wave Form

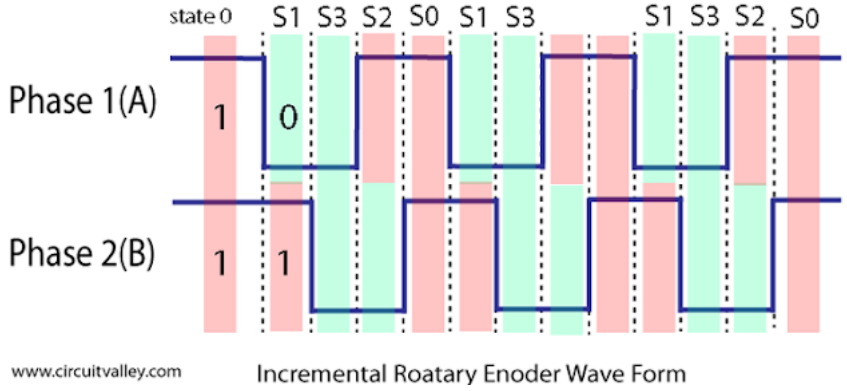
Decoding with Microcontroller

in this examples we will be decoding the rotary encoder with the help of sate machine.



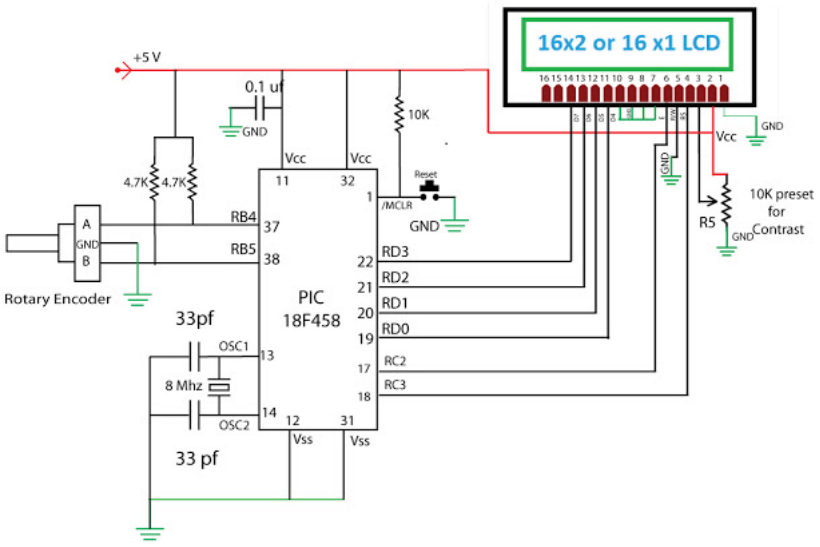
Incremental Roatary Enoder state machine

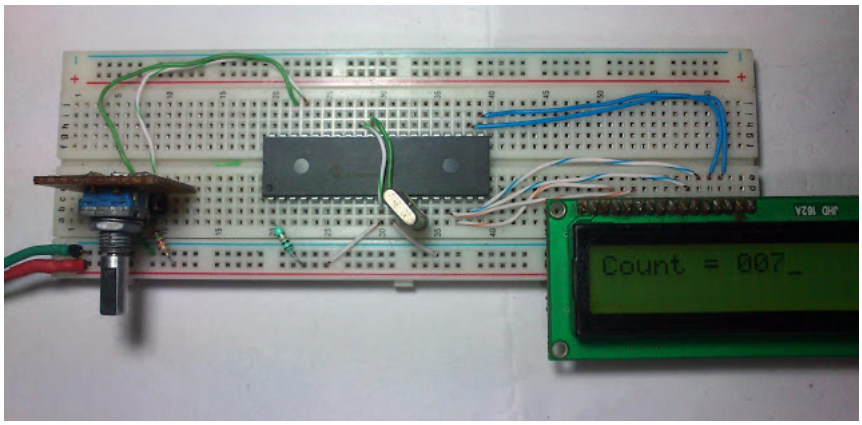
view of state machine in the wave form



Incremental Roatary Enoder Wave Form

Schematic with PIC18F458





Source code and firmware

CLIK Here To download Source Code and Firmware. if you have any problem please leave in the comment section.
Source : Rotary Encoder Interfacing with PIC Mirocontroller

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