

Schematic, Silk View & Parts List: PIC16F88 Water Tank Pump Controller

Rev 1212

A Simple PIC16F88 LCD Water Tank Pump Controller



Handling water tank level everyday is a painful act being observed by my dad for years (and a compulsion too) This controller became important when aging process of our parents, who look after house management is picking-up!!

Keeping in mind that this work that they do today is to be transferred to me sooner or later, I decided for a new project: **"Water Tank Pump Controller"**.

There are many Pump Controllers out there but we decided to make one with minimum components and with a PIC processor.

This Water Tank Pump controller uses PIC16F88 and look after your overhead tank level at all the time!! It even goes to sleep while we are asleep and wakes up when someone in the house flush a toilet! I am happy that with this controller in place, I will not have to run at late night to fill-up overhead tank anymore, specially when we have guests in house!!

PIC Program and PCB/Kits are with great support of [Fox Delta Team](#).

Here are few important points that this controller will do for you:

1. Its DC12V Powered
2. Simple Project with PIC16F88 Micro
3. 4 Sensors to monitor Tank Level and 1 for Sump
4. 2 x 16 LCD Display.
5. Water Level Indication as a Bar Graph
6. Auto Sleep Mode: PIC goes to sleep when nothing to do!!
7. Use Hi-Z probe Sensors or Mechanical Float switches.
8. 10A Rated Relay for your Motor or Contactor.
9. Free PIC Firmware by [Tony/I2TZK](http://www.foxdelta.net)

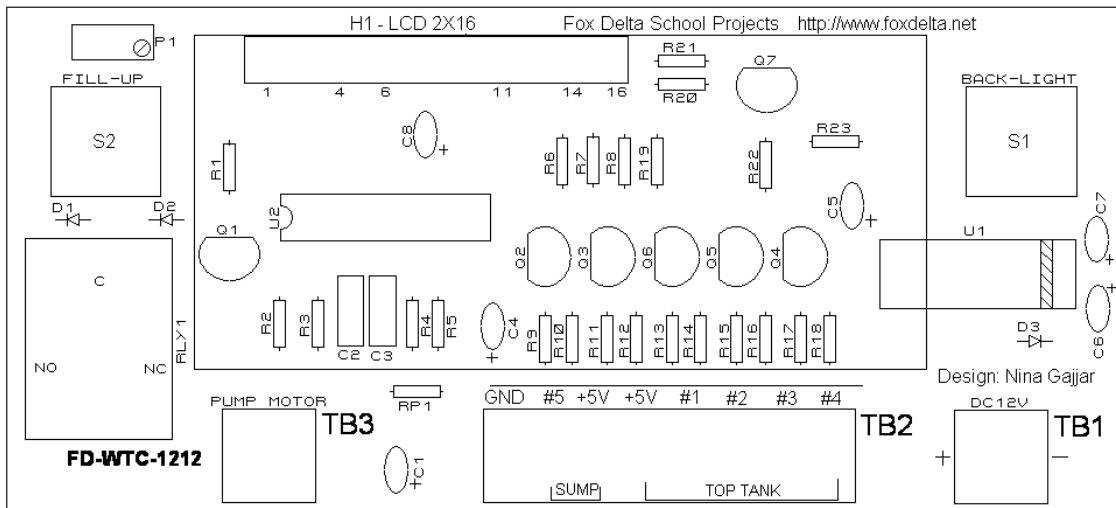
WTC-1212 Without LCD:



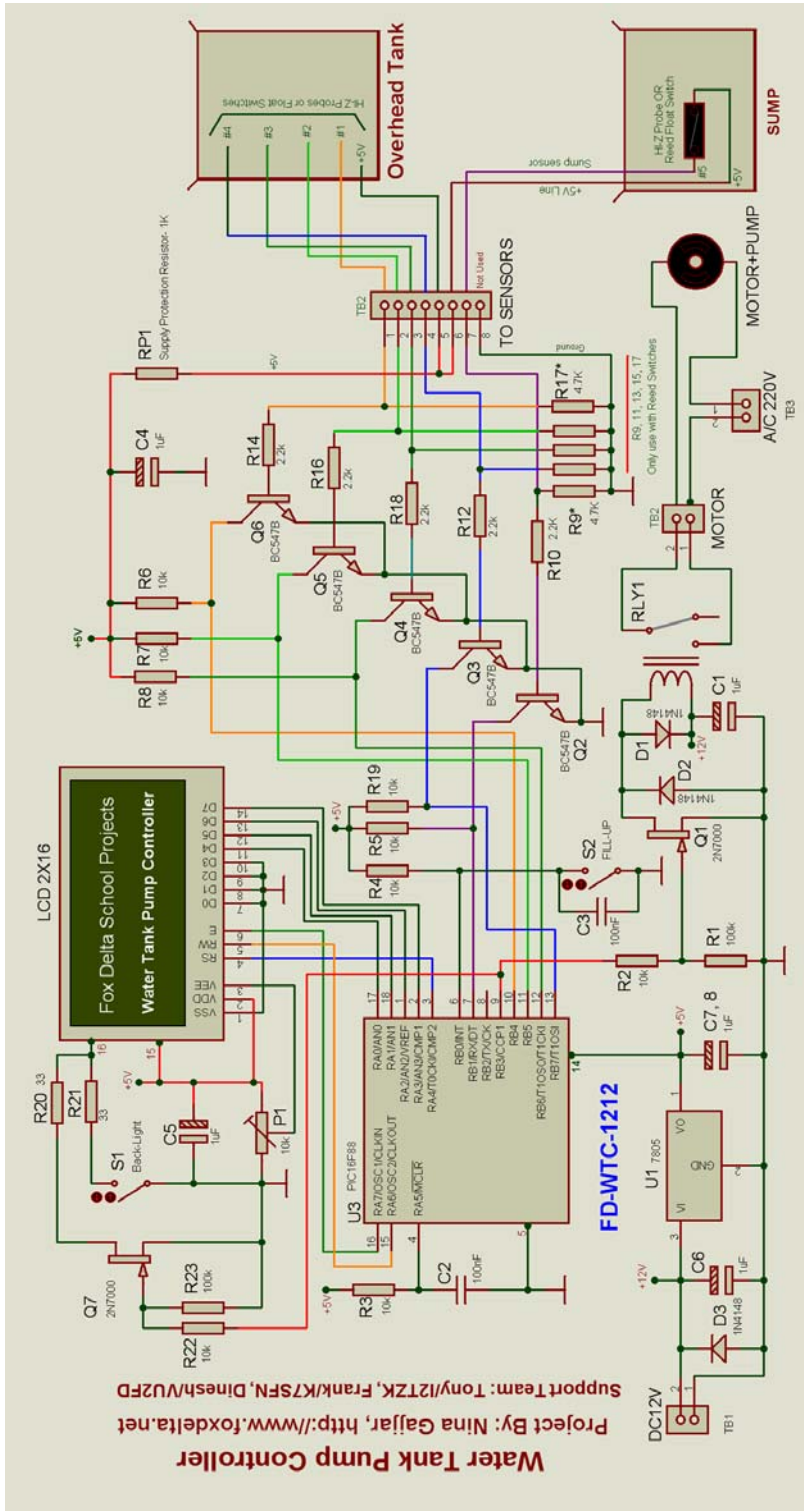
Water Tank Pump Controller Kit Parts List:

Qty	Check	ID	Part Detail
1		U2	PIC16F88 18DIP (Pre-Programmed)
5		Q2 to Q6	BC547B
1		LCD	2x16 LCD with BL
1		U1	7805
2		Q1, 7	2N7000 FET TO92
1		IC Socket	18 DIP
1		TB1	2PIN SIL Terminal: DC 12V Input
1		TB2	8PIN SIL Terminals: Sensors
1		TB3	2PIN SIL Terminal: Motor
3		D1, 2, 3	1N4148
1		RLY1	OEN61-12V DC Coil
2		S1, S2	12MM Push Buttons Long Shaft
1 Set		LCD Hardware	4xspacers, 8xbolts
1 Set		LCD Connector	16PIN SIL Male + Female
Capacitors			
6		C1, 4, 5, 6, 7, 8,	1uf / 35V Tantalum
2		C2, 3	0.1uF Poly
Resistors			
2		R1, 23	100K
5		R9, 11, 13, 15, 17	4.7K
2		R21, RP1	1K
5		R10, 12, 14, 16, 18	2.2K
2		R20, 21	33 Ohms
9		R2, 3, 4, 5, 6, 7, 8, 19, 22	10K

Water Tank Pump Controller – WTC-1212 Silk:



Water Tank Pump Controller – 1212 Schematic:



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For more information, please visit: <http://www.foxdelta.net>