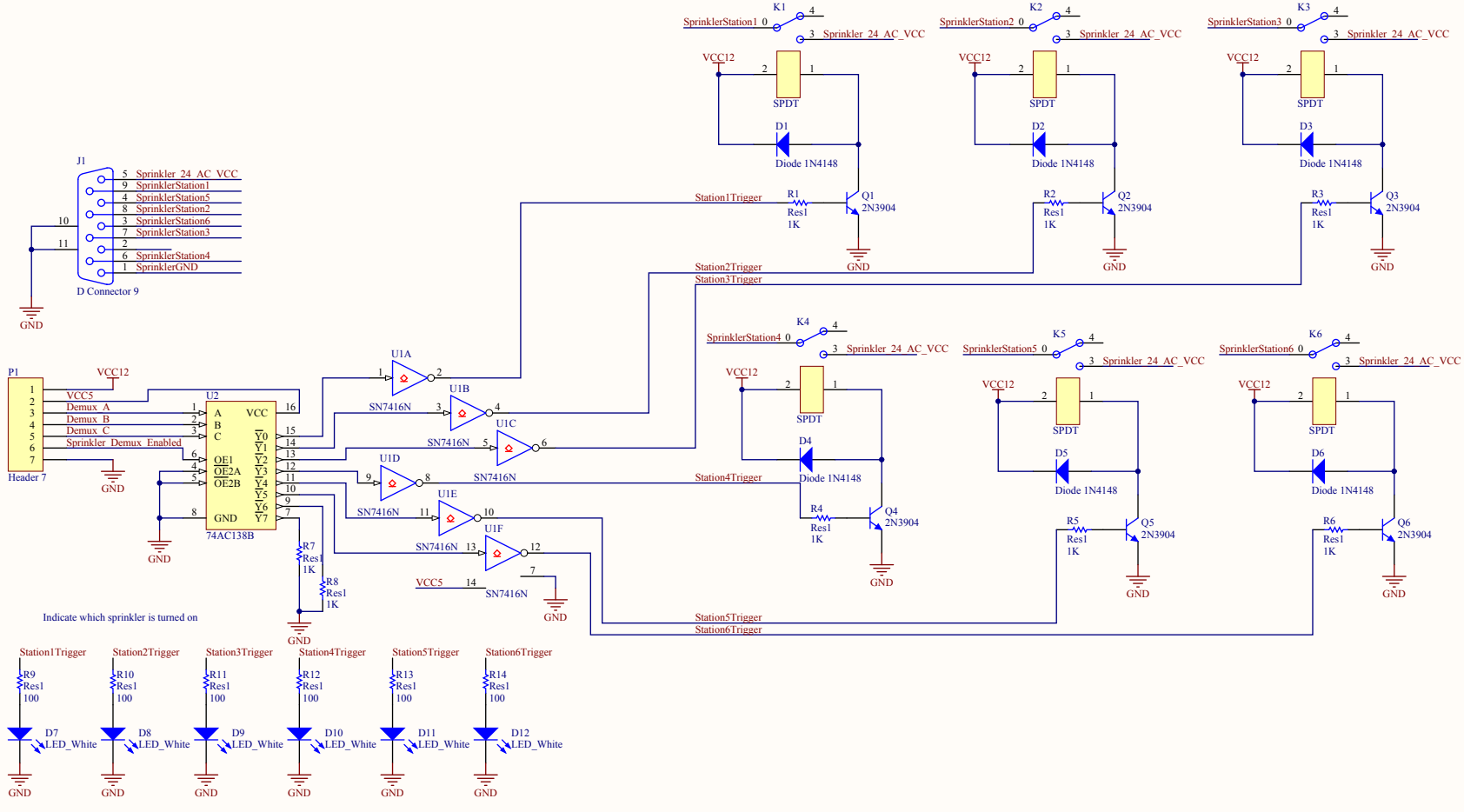
Sprinkler Board

Since sprinkler valves run on 24V AC one end is always connected to power, and in order to turn it on you need to just connect the other end of the to the power. NOTE: double check with DMM This setup is dependant on what you connect to the terminal

This board will control which sprinklers will turn on and off. It will be supplied by a 12V power supply.



Engineer: Levi Balling	Title: Sprinkler Controller		U of U Computer Engineering
Drawn By: Levi Balling			50 S. Central Campus Dr.
Checked By: *	Size: B	Number: 1	Revision: 1	Project: Smart Home	Rm. 3280 MEB
Date: 8/17/2012			Salt Lake City, UT
Time: 11:40:03 PM	File: SprinklerBoard.SchDoc		Smart Home
Sheet 9 of 13	Website: www.eng.utah.edu/~lballing/SmartHome		

Bill of Materials

Sprinkler Controller

Source Data From: SprinklerBoard.PrjPCB

Project: SprinklerBoard.PrjPCB

Variant: None

Creation Date: 8/17/2012 11:40:07 PM

Print Date: 17-Aug-12 11:40:10 PM

Footprint	Comment	LibRef	Designator	Description	Quantity
DO-35	Diode 1N4148	Diode 1N4148	D1, D2, D3, D4, D5, D6	High Conductance Fast Diode	6
LED-0	LED_White	LED0	D7, D8, D9, D10, D11, D12	Typical INFRARED GaAs LED	6
DSUB1.385-2H9	D Connector 9	D Connector 9	J1	Receptacle Assembly, 9 Position, Right Angle	1
Relay SPDT	SPDT	SPDT	K1, K2, K3, K4, K5, K6		6
HDR1X7	Header 7	Header 7	P1	Header, 7-Pin	1
2N3904	2N3904	2N3904	Q1, Q2, Q3, Q4, Q5, Q6	NPN General Purpose Amplifier	6
AXIAL-0.3	Res1	Res1	R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R11, R12, R13, R14	Resistor	14
N014	SN7416N	SN7416N	U1	Hex Inverter Buffer / Driver with High-Voltage Outputs	1
DIP16	74AC138B	74AC138B	U2	3-to-8 Line Decoder Inverting	1
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Approved	Notes	