

Xmas Ornament Construction Notes:

This board requires 12Vdc.

The chip is programmed ready for use and set to random.

Assemble the board as per the picture and parts list.

Max load is about 80ma and you can use 22AWG minimum and daisy chain from one board to the other using the pins at the top for in/out, not exceed the max current for the wire.

The long pin of the LED goes into the square pad. See LED position below for the color and location.

Pin 1 on the IC goes towards the top of the board where the power connectors are.

The gray ring (cathode) around D1 goes toward the bottom of the board.

If using for outdoors:

I would solder the chip onto the board and not use the 18 pin socket.

When you have figured out the length of wire between boards if daisy chaining them, It's better to solder the power wires to the board and not use the power connectors

Test the board to make sure it's working, I would dip the completed board twice, (let dry 1 day before dipping again) into Dupli-Color Lacquer clear coat, it is available at Canadian Tire (Dupli-Color Paint Shop Finish System, Clear, 946-mL #047-6130-4)

This will protect the board from shorting and corroding in the extreme outdoor weather. Leave it dry for a few days before you power up.

Xmas Led Board Parts list		
Qty	Type	Designator
8	330 ohn resistor	R1-R8
2	10K ohm resistor	R9, R10
1	.1uf capacitor	C1
1	47uf Radial capacitor	C2
1	PIC 16F628A	U1
1	78L05 Regulator	REG1
2	5mm Led Green	Led1, Led5
2	5mm Led Blue	Led2, Led6
2	5mm Led Red	Led3, Led7
8	5mm Led Yellow	Led4, Led8
1	18 Pin Socket	
1	2 pin connector	Mode