

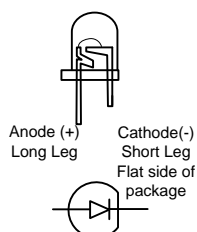
Long leg of LED goes to +5V Common Wire
Attach with UB or UG type Tap Splice or UR 3 port
Splice.

Short leg of LED goes to processor over multi-pair.
Attach with UY 2 port Splice.

See page 2 for details.

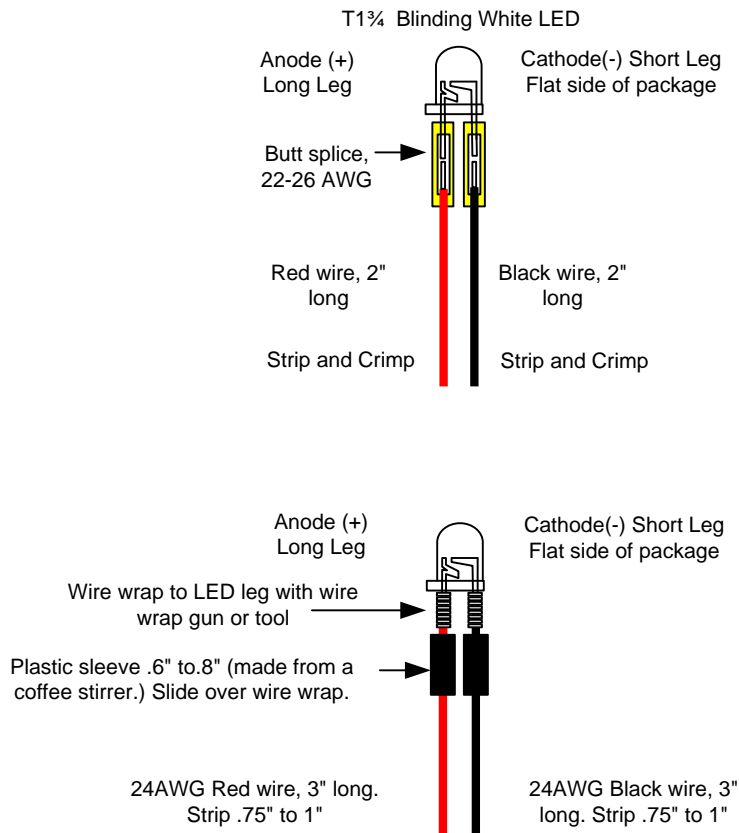
Ground Sync point to make a Master Circuit
To Sync to another circuit, take to pin you
desire to start the sequence on.
Sequence starts on a Low.

Date:	Revision/Addition/ Note	By:
Jan 02, 2007	Updated and redrawn from original 11/25/2001 drawing.	GSC
Jan 03, 2007	Use Software RunwaysI2.hex	GSC
Jan 03, 2007	KE5VDV (Son in law) had an idea for making multiple runs and syncing them together somehow. Reworked software to that end. Now using 16F76 processor and RunwaysI2.hex software	GSC
Nov 18, 2008	Added details on wiring and connecting LED's	GSC
Oct 27, 2016	The PIC16F76 is being phased out and getting very expensive (\$4.60). After looking at newer PIC chips, have ordered 10, 16F722 and is running about \$1.50 this date. Seems to be pin for pin compatible to the 16F76 and is in the list of available chips for my new programmer.	GSC
Dec 17, 2016	16F722 works with software change. RunwaysI5.hex.	GSC
Dec 2, 2017	Updated details on wiring and connecting LED's to cat 5 cables. Various splice details called out. Found the cause of my intermittent on the LED's, so added details on modifying wiring on LED's	GSC
Dec 2, 2017	DC and Sync now spaced for .2" terminal blocks. RJ45 Break out boards can be used to interface to CAT 5 cables.	GSC



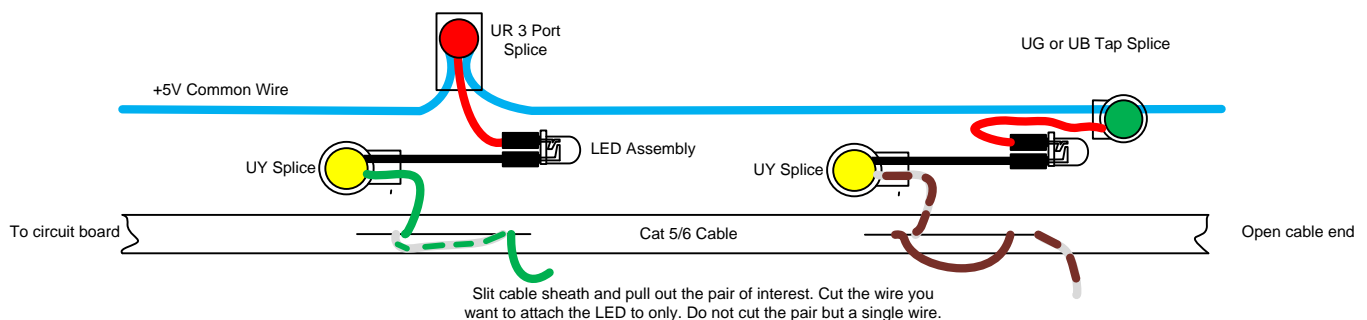
Print
Check
.5"x.5"

Drawn By: Gerald Crenshaw WD4BIS	Date: Jan. 2, 2007	From the bench of: Amateur Radio Station WD4BIS	Page of 1 4
Designed By: Gerald Crenshaw WD4BIS	Date: Jan 2, 2007	Title: Runway Lights	Scale:
Checked By: Janet Crenshaw WB9ZPH	Date: Jan.2, 2007		

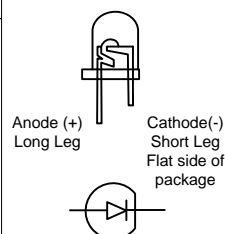


The square legs of the LED's do not connect well into an Insulation Displacement Connector (IDC) style splice. The IDC splices are meant for a round wire. Leaves you with an intermittent connection in time. This assembly removes that problem and color codes the legs. Round wires wrapped on to the square post of the LED make a solid connection as the square leg corners cuts into the wire 4 times per wrap.

Examples of how to connect LEDS to multi-pair cables.



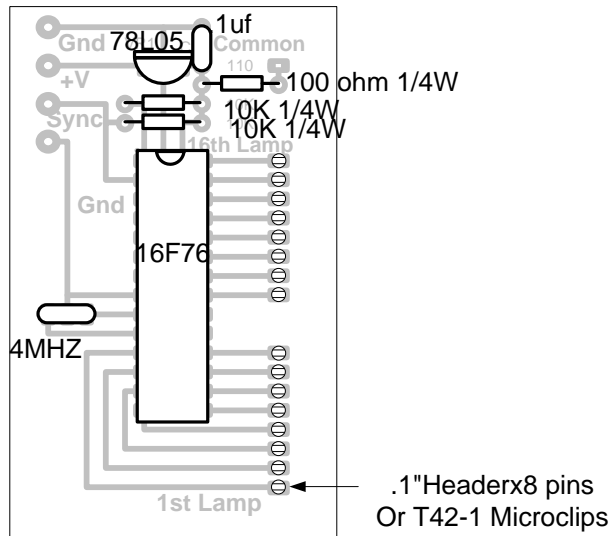
Date:	Revision/Addition/ Note	By:
Dec.4, 2016	Initial Drawing	GSC
Dec.12, 2016	Added wire wrap version and reason for the assembly.	GSC
Dec.2, 2017	Added detail on how to attach the LED to common wire and wire from Cat5 with common IDC splices.	GSC
Dec.2, 2017	UY and UR splices are available at Home Depot (\$4.50 for 25 splices). UB and UG Tap splices have to be purchased elsewhere.	GSC



UY (Yellow) 2 port splice
 UR (Red) 3 port splice
 UG (Green) 2 port tap splice
 UB (Blue) 2 port tap splice

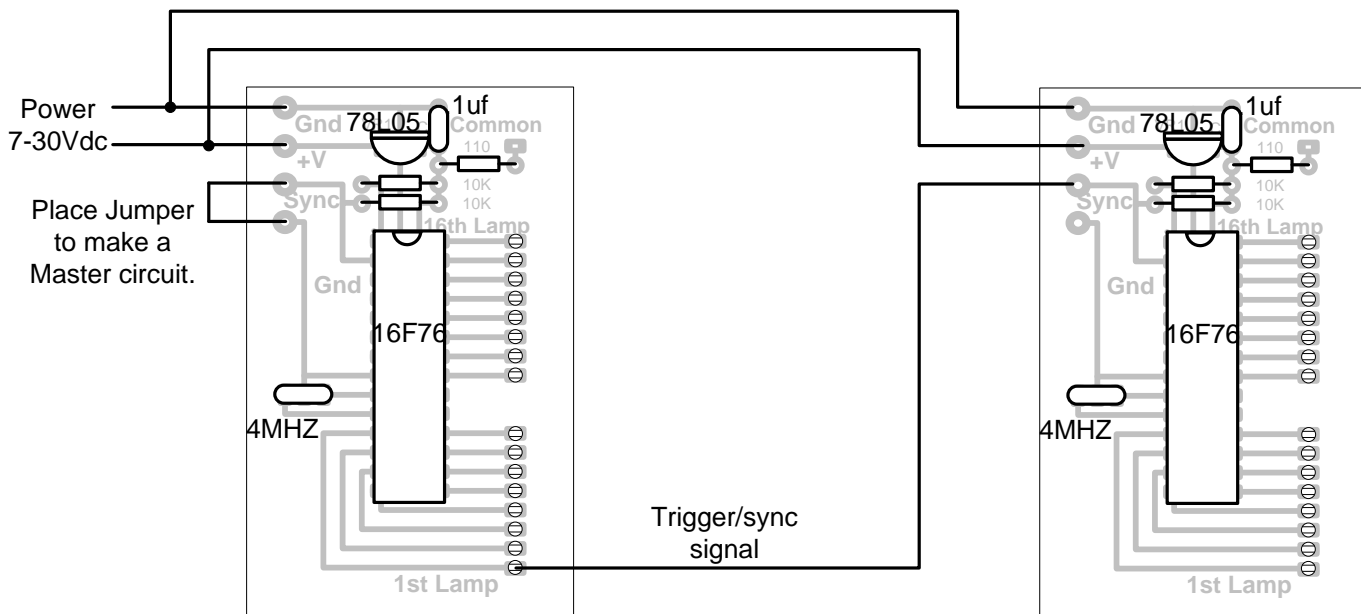
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Drawn By: Gerald Crenshaw WD4BIS	Date: Dec 4, 2016	From the bench of: Amateur Radio Station WD4BIS	Page of 2 4
Designed By: Gerald Crenshaw WD4BIS	Date: Dec 4, 2016		
Checked By: Janet Crenshaw WB9ZPH	Date: Dec 4, 2016	Title: LED Assy for Runway Lights	Scale: None



Master

Slave



As shown, slave unit will trigger off of the 1st LED fired. Slave unit may take up to a minute to catch and see the trigger pulse. Patience!

Drawn By: Gerald Crenshaw WD4BIS	Date: Jan. 2, 2007	From the bench of: Amateur Radio Station WD4BIS	Page 3
Designed By: Gerald Crenshaw WD4BIS	Date: Jan 2, 2007	Title: Runway Lights. PWB Component Placement	of 4
Checked By: Janet Crenshaw WB9ZPH	Date: Jan.2, 2007	Scale:	

