

## How to Modify a Flood Light or IR LED Array for the Direct and LANC PixController Boards

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This document covers in detail how to modify a either a Flood Light or an IR LED Array for the Direct and LANC PixControllers. Please note that if you make this modification to your Flood Light or IR LED Array unit will void your warranty.

Applications for the Flood Light can be used for taking MPEG Movies with an Olympus D-370 or D-380 digital camera, or for added light for filming at night with your video camcorder. Applications for the IR LED Array include taking IR photos with an Olympus D-370 or D-380 with the IR filter removed from the lens assembly, or to add extra recording distance at night to your Sony NightShot camcorder.

### Tools Needed

1. PixController External Light cable
2. Flood or IR LED Array light source
3. Soldering Iron
4. Solder
5. Wire Cutters
6. Wire Strippers
7. Shrink Tubing



### Step 1. Getting Started

This example will cover how to modify an IR LED Array, but this same example can be applied to a standard 12V DC Flood Light. In this example we use the "Waterproof 67 LED Infrared Illuminator with CDS Sensor" sold by spyoutlet.com. Here is the web address for this product:

<http://spyoutlet.com/products/index.cgi?ID=99218954&PID=IT149&code=13>

To wire the Flood Light or IR LED Array to the PixController board we first need to locate the ground wire that runs from the light to the light's battery supply. This is the wire we will cut and connect to your PixController External Light cable that was supplied with your PixController board. Note the wiring diagrams for the Direct and LANC PixController boards in Figure 1 and Figure 2.

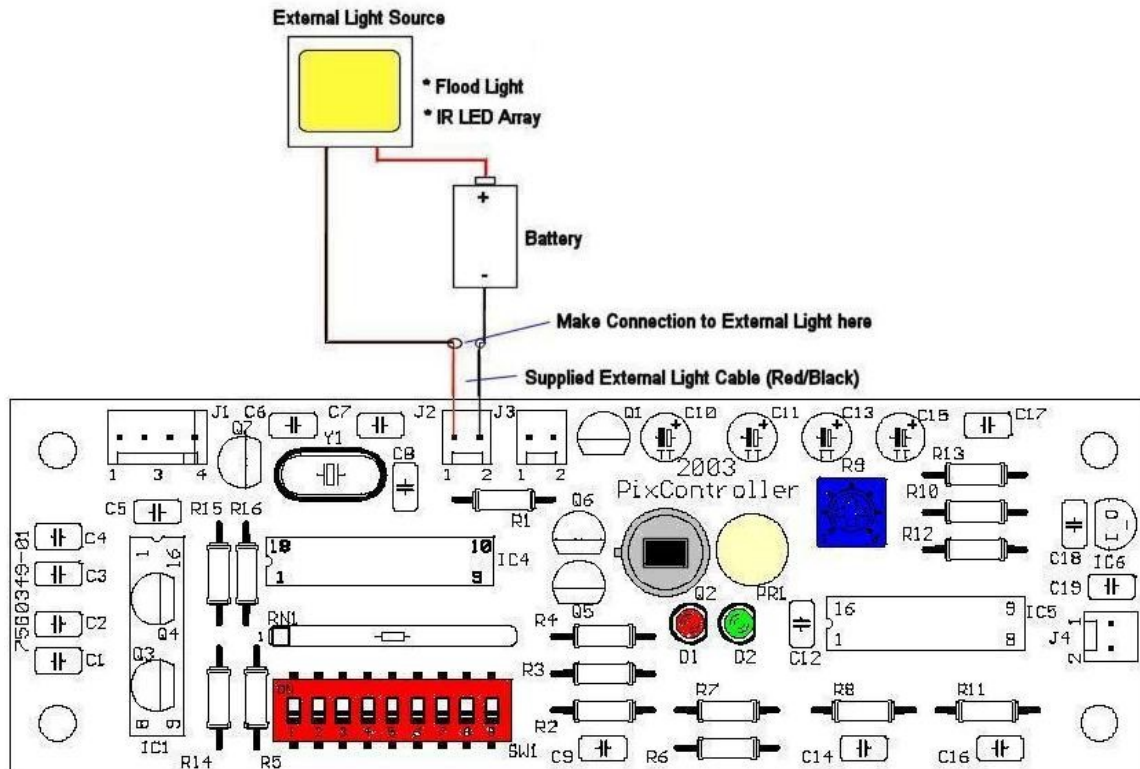


Figure 1: External Light wiring diagram for the **Direct PixController** board.

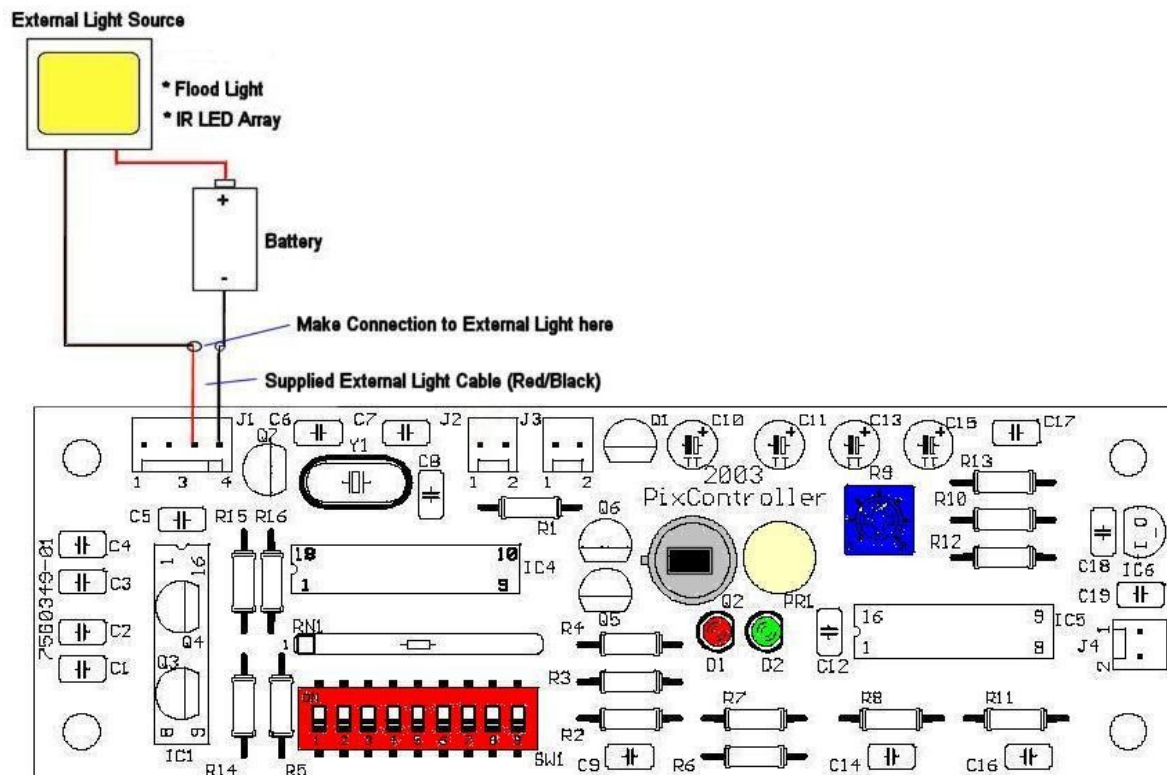
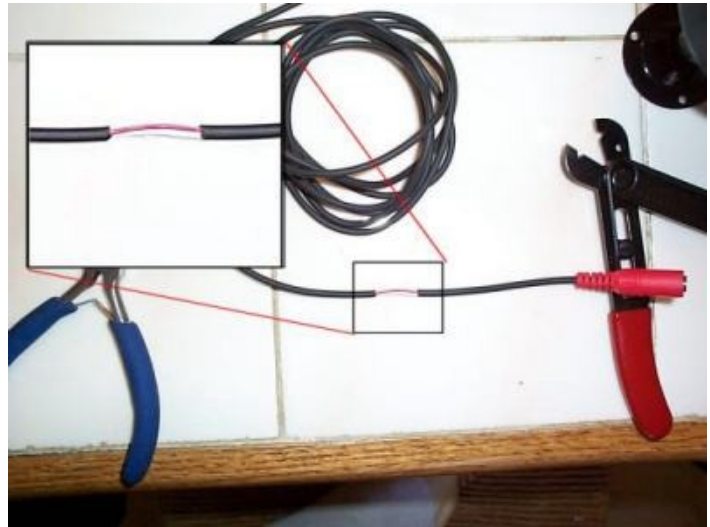


Figure 2: External Light wiring diagram for the **LANC PixController** board.

## **Step 2. Strip the cable insulation**

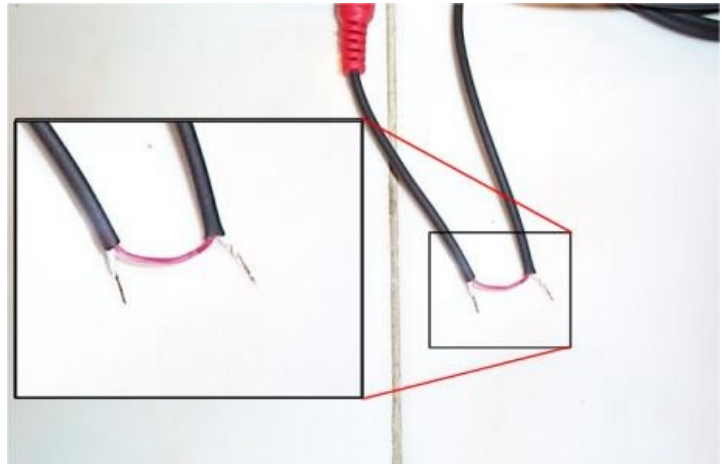
The first step in to modify the IR LED Array is to strip back the rubber shielding over the power cable. All you want to remove is just the black insulation, and not the insulation from the wires this covers. Pick some place in the cable that will give you enough length left to mount your IR LED Array in the case comfortably.

Carefully strip back about 1" in insulation and cut it off.



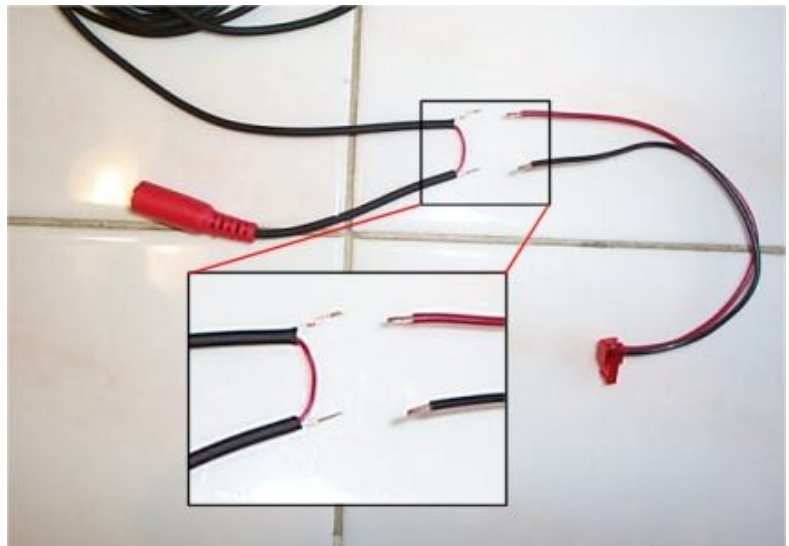
## **Step 3. Cut the ground wire**

Next you want to cut the ground wire. In the case of the IR LED Array we are using this is the white wire. After you cut it strip about 1/4" from both ends.



## **Step 4. Add the PixController Cable**

The next step is to add the PixController External Light cable. This will either be a red-black cable or a white-black cable. You want to make the connection from the cable's black wire to the IR LED's white wire that goes back to the IR LED's power supply. Next add the red or white wire from the PixControllers External Light Cable to the remaining white wire from the IR LED Array. Note the photo graph.



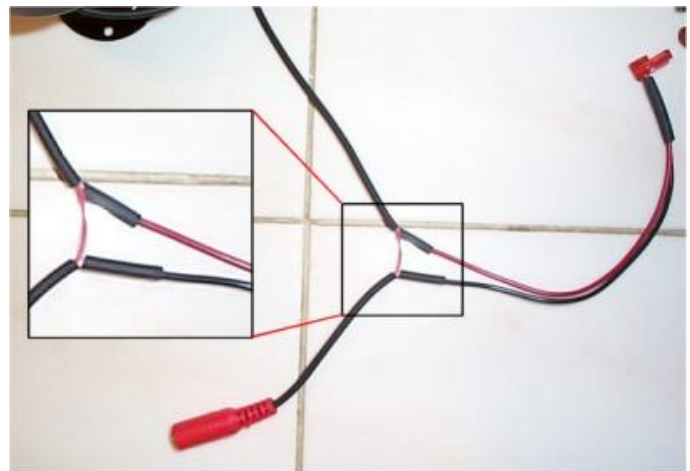
### **Step 5. Solder your connections**

Next you want to solder your connections, but before you do you'll need to put on your heat shrink tubing. Cut 2 pieces of shrink tubing (small size) , about 1" in length, and put one on each of the PixController External Light cable wires. Next you want to solder the wires. It's best to tin each side before making this connection



### **Step 6. Shrink Tubing**

Next you want to put your shrink tubing into place. First move each piece from the PixController cable to the solder joints and shrink them in place. This is either done with a heat gun on low setting, or by moving the tip of the soldering iron close to the tubing.



### **Step 7. Complete!**

Your IR LED Array external lighting supply is now complete and ready to connect to your PixController board.

