

TenaControls Brings Models to Life

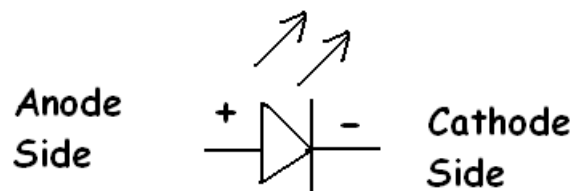
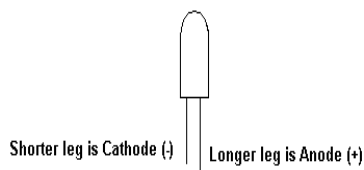
Instructions of Model# MRWM-AA, Martian War Machine Light and Sound Kit for the Pegasus Hobbies War of the Worlds 1:48th scale Saucer

This control board is completely assembled and tested. The only thing you need to do is connect up the led's, speakers, momentary switches, 9 volt battery clip and the resistors to the two wire mating connectors. Then just plug in a 9 volt battery or 12 volt dc power supply (**not included**) and throw the switch (**not included**). Hot glue around the printed circuit works well for locking into place. Or use the 4 mounting holes for a 4-40 diameter bolt.

Items you will need: Soldering Iron, solder, cutter and wire stripper.

****Note:** When using the shrink tubing, you need to only slide the shrink tubing over one leg of the led to keep it from shorting against the other leg. Then use heat gun or flame from lighter to heat the shrink tubing until it shrinks around the wire connected to one of the led legs.

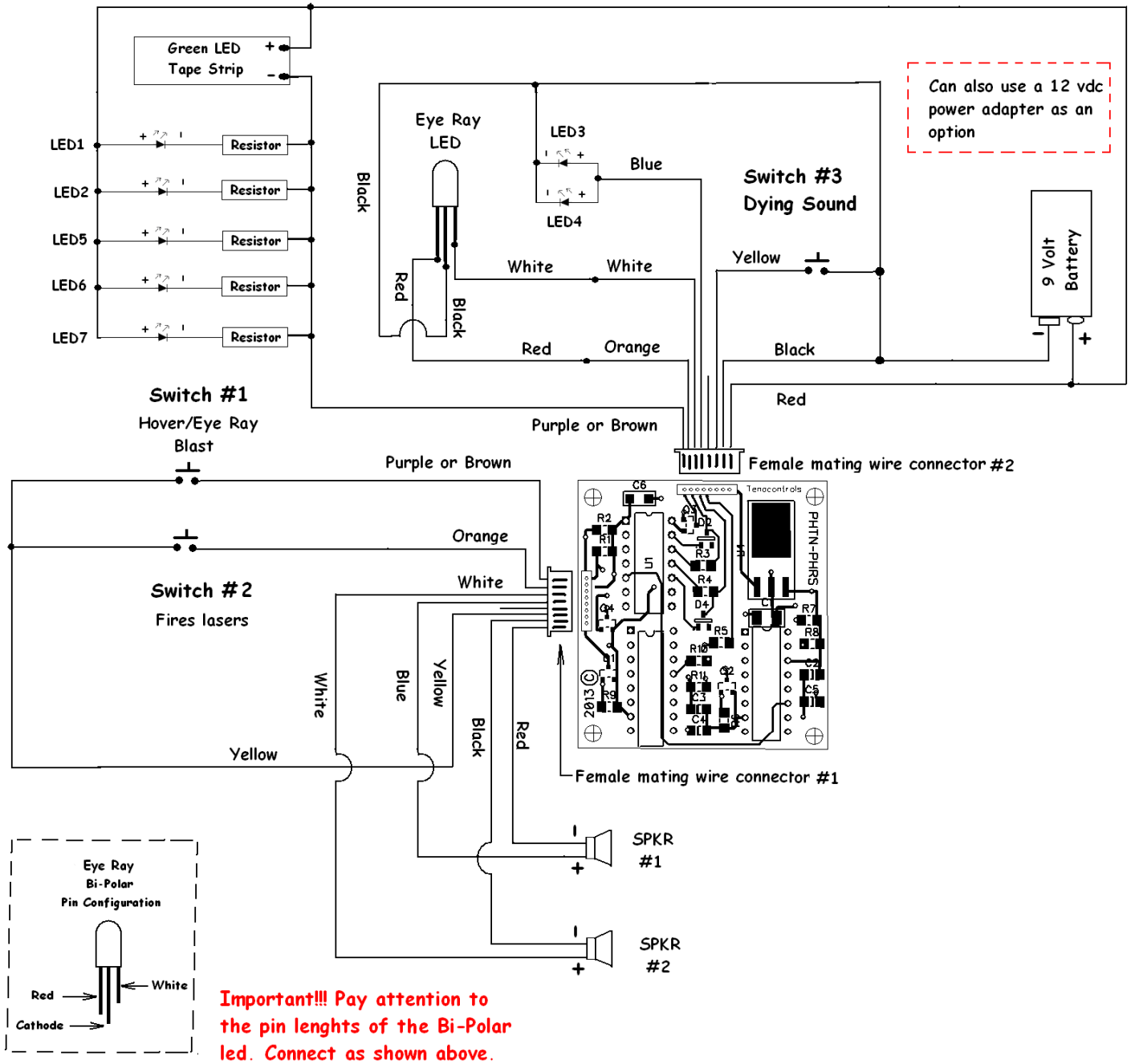
How to distinguish a led:



Please use the below Instructional You tube video as a guide should you need additional assistance.

www.youtube.com/watch?v=I5cCXQtIgMw&feature=youtu.be

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Side Glow LED

1. **Two Green 1.8mm LED's, LED1-LED2.** The Two Cathodes (-) of the Side Glow led's, LED1-LED2 to one end of their respective resistor and the other end of resistor will terminate to Purple or Brown wire on mating connector #2. Then connect the Anodes (+) of LED1-LED2, to Red wire on mating connector #2. **See above diagram.**

Bottom Saucer Glow LED

2. **Three Green 5mm LED's, LED5-LED7.** The Three Cathodes (-) of the Bottom Saucer Glow led's, LED5-LED7 to one end of their respective resistor and the other end of resistor will terminate to Purple or Brown wire on mating connector #2. Then connect the Anodes (+) of LED5-LED7, to Red wire on mating connector #2. **See above diagram.**

Top Saucer Glow LED Strip

3. **One Green Led Tape Strip,** The Cathode (-) of the Top Saucer Glow Led Strip connects to Purple or Brown wire on mating connector #2. Then connect the Anodes (+) of Top Saucer Glow Led Strip, to Red wire on mating connector #2. **See above diagram.**

Laser Side LED

4. **Two Green 1.8mm LED's, LED3-LED4.** The Two Cathodes (-) of the Side Laser led's, LED3-LED4 connect to Black wire on mating connector #2. Then connect the Anodes (+) of LED3-LED4, to Blue wire on mating connector #2. **See above diagram.**

Eye Ray LED

5. **One White/Red Bicolor 3mm LED.** The Cathode (-) of the Eye Ray Led with the Black wire, connects to Black wire on mating connector #2. The White part with White wire connects to the White wire on mating connector #2. The Red part with Red wire connects to the Orange wire on mating connector #2. **See above diagram.**

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6. For all other Power, Switch and Speaker connections. See above diagram.
7. Momentary Switch #1, activates the Hovering Sound and also starts the White Eye Ray Blast and sound.
8. Momentary Switch #2, activates the Side Lasers firing and Sound.
9. Momentary Switch #3, activates the Ship Dying Sequence and Sound.

How this control board functions.

When the board is powered up the ship will start glowing without any sound, basically in a Hovering mode, less the sound effects. Press Momentary Switch #1, this will activate the Hovering Sound and stay this way until any other momentary is pressed. Press Momentary Switch #1 again and the White Eye Ray Blast will initiate and play over and over until Switch #1 is pressed once again or Switch #3, which initiates the Ship Dying Mode, disabling any other previous function and proceeding with the ship dying sequence.

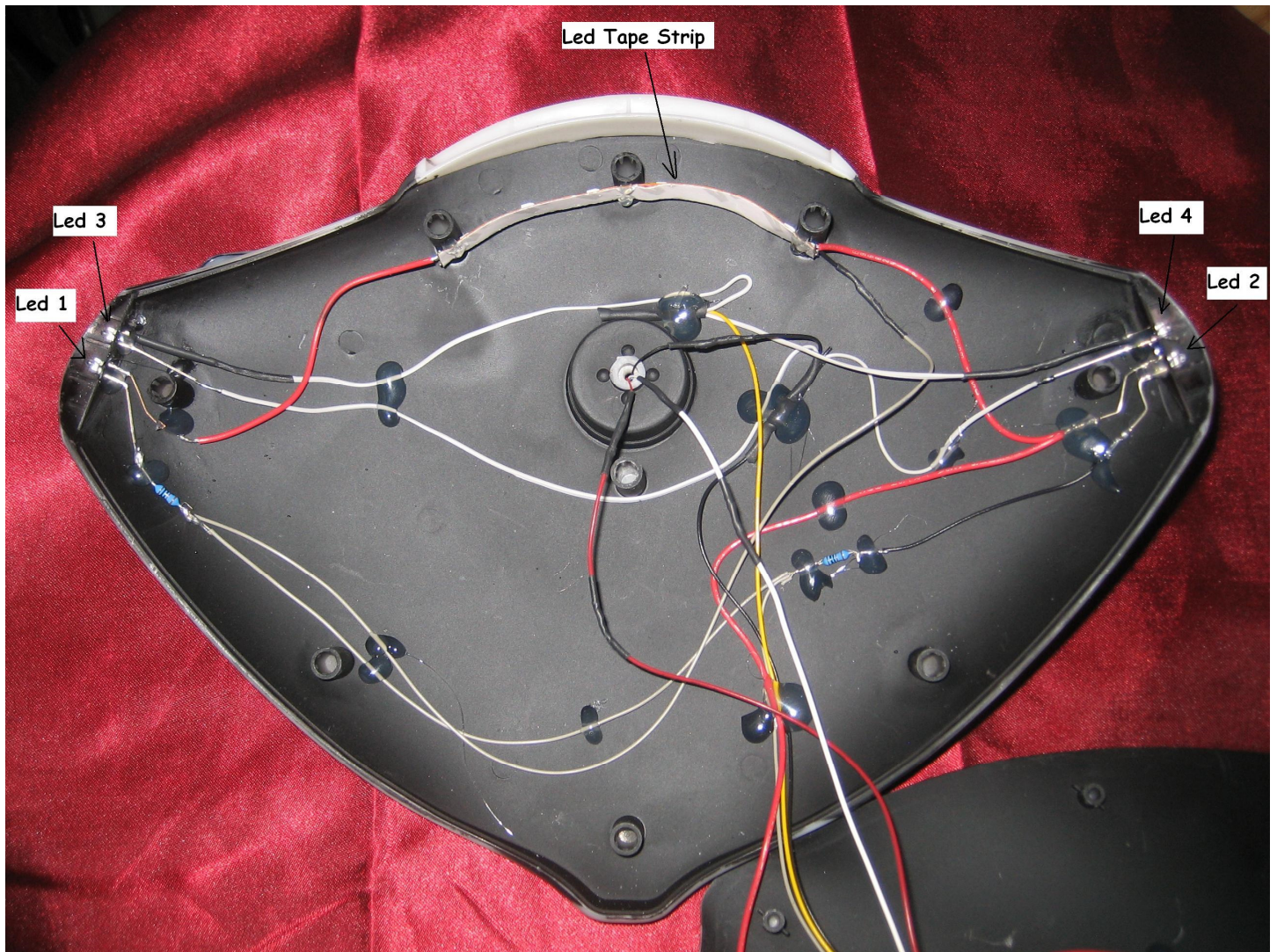
Momentary Switch #2 when pressed will initiate the laser firing sequence. This sequence will play repeatedly until Switch #2 is pressed once more or Switch #3 is pressed. If the hovering sound has been activated, pressing this button will initiate the laser firing as well as White Eye Ray Blast.

To play the White Eye Ray Blast and the Lasers independently of each other, **YOU MUST INITIATE THE WHITE EYE RAY BLAST FIRST THEN THE LASERS.**

This needs to be done like this due to fact there are four different sounds and only two sound chips. Feel free to play around with the three switches, familiarizing yourself with the various interactions you can perform with them.

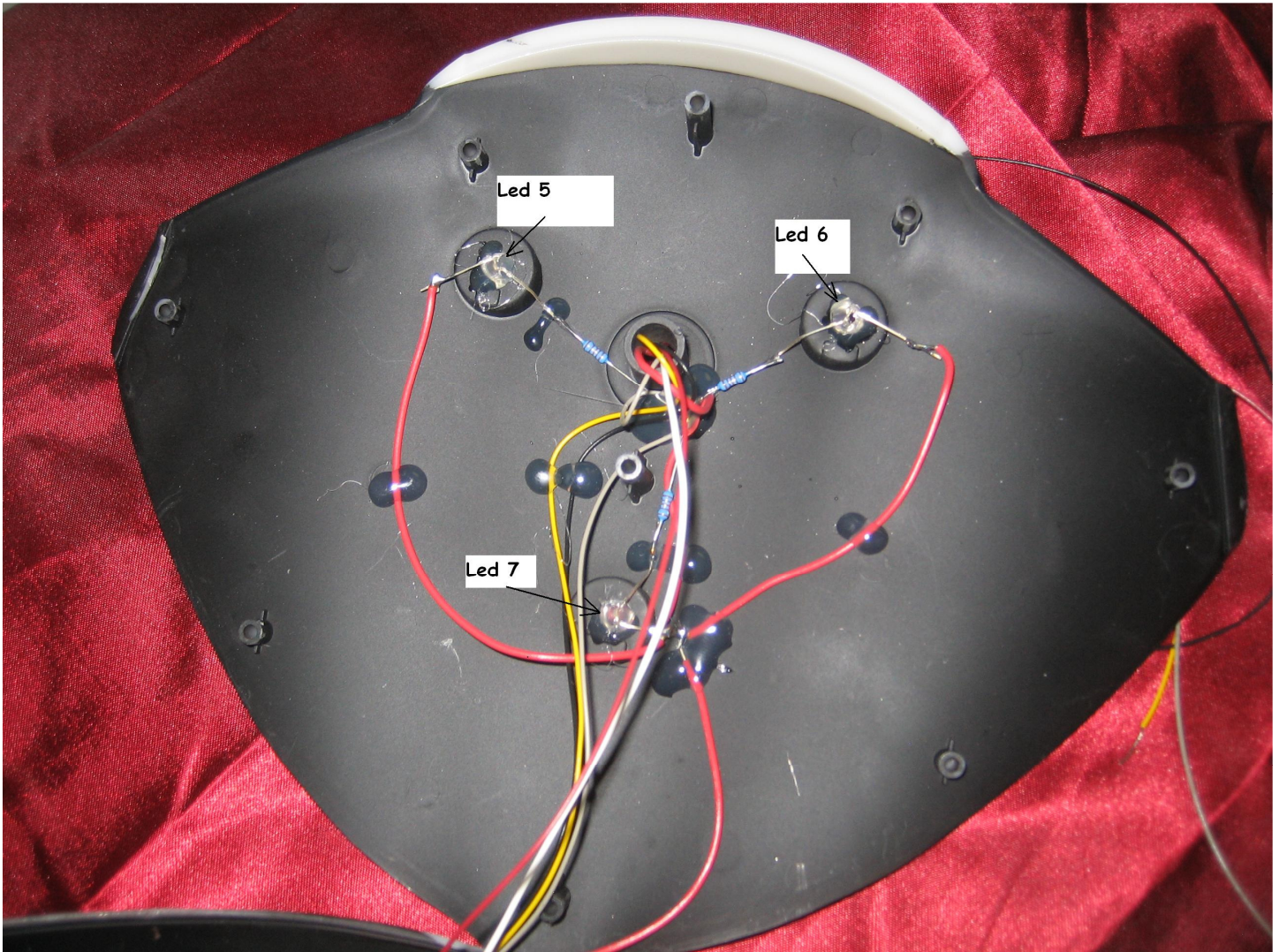
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Top Saucer View of led locations



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Bottom Saucer View of led locations



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Warranty

TenaControls LLC warrants that the control boards sold meet TenaControls LLC specifications and are adequately contained, packaged and labeled and conform to the promises and affirmations of fact made on the container and label. THE FOREGOING WARRANTIES ARE EXCLUSIVE, AND ARE IN LIEU OF ALL OTHER WARRANTIES (WHETHER WRITTEN, ORAL OR IMPLIED) INCLUDING WARRANTY OR MERCHANTABILITY IN OTHER RESPECTS THAN EXPRESSLY SET FORTH ABOVE AND WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.

In the event that there is a breach of express warranty by the manufacturer made in connection with the purchase of this product, if any, the sole remedy of any buyer shall be to return the product along with original sales receipt, at **buyer's expense** for repair (or replacement of the product if repair is impossible) to the manufacturer's facility in the Commonwealth of Massachusetts, located at 22 Hancock Street, Milford, MA 01757. Some states do not allow the exclusion or limitation of any incidental or consequential damages, so the above limitation may not apply to you. Nothing herein contained shall be construed to be a waiver by the manufacturer of any of the obligations imposed upon said buyer under the laws of the Commonwealth of Massachusetts except as herein specifically stated.

This warranty is enforceable only by the buyer of the product or a person in the buyer's immediate family. This warranty is enforceable for a period of **FIVE YEARS** from the date of purchase. Some states do not allow limitations on how long an implied warranty lasts, so the above warranty may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.

Warranty Void if:

- A) Product is altered in any way.
- B) Used for other than its intended use.
- C) Buyer mishandling.