AHKLK-1

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SWITCH DIAGRAM 1-A

+ POWER −

Switch

+ SOURCE −

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+ −
ANODE   CATHODE

Main Search light area X-2
Use 3.0mm white
Use 470-Ohm resistor on circuit board
Fit in clear dome part
Wire length cut to fit

Main Circuit Board

Right tail fin area X-2
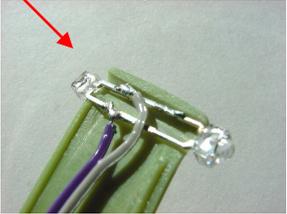Use 1.8mm blue
Use 1.5 K resistor on circuit board
Wire length cut to fit
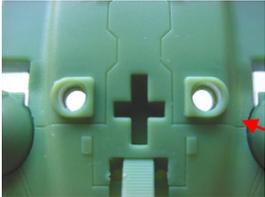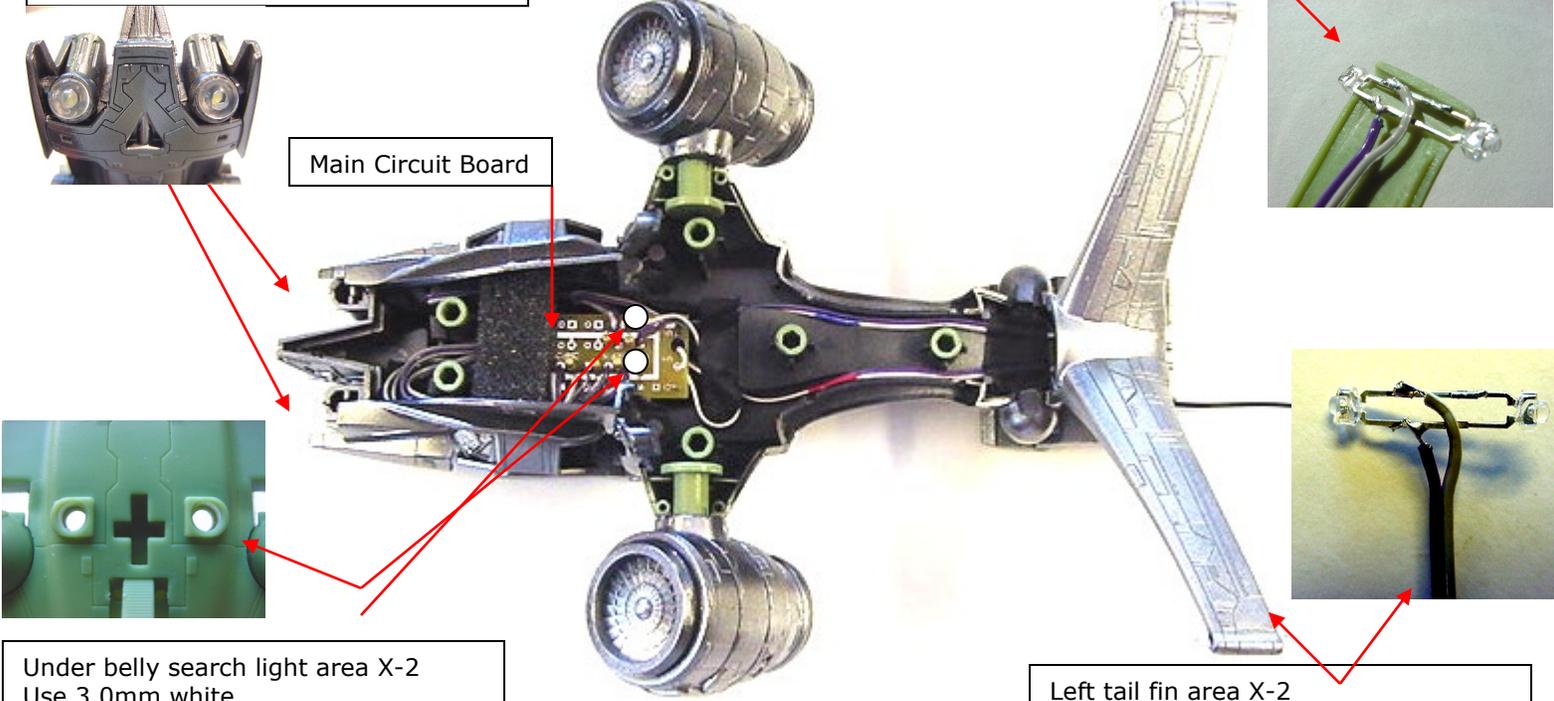
Under belly search light area X-2
Use 3.0mm white
Use 470-Ohm resistor on circuit board
Wire length cut to fit

Left tail fin area X-2
Use 1.8 mm red
Use 1.5 K resistor on circuit board
Wire length cut to fit

(Install Instructions Ver1)

Start by formularizing yourself with the model kit parts and how they go together. The two main areas you will need to drill out for are the main front search lights & belly search lights, the tail fin lights will be built as a separate prebuilt subassembly. The main front search light housing and main body part will need to drilled out and opened enough to fit the 3mm led freely through the two opening. The belly lights are a simple drill out and the leds will rest on the inside rim, a small amount of hot glue will hold them forever. Now on to the hardest part if this project the tail fins, each tail fin will require a substantial amount of material removed from the inner center piling. Also note that you will need to prefabricate 2 1.8mm led loop lights together, that must be exact in length and special attention to positive to positive & negative to negative, if not set up in the is fashion it will not work. Please refer to the photos bellow and study circuit board and all diagrams.
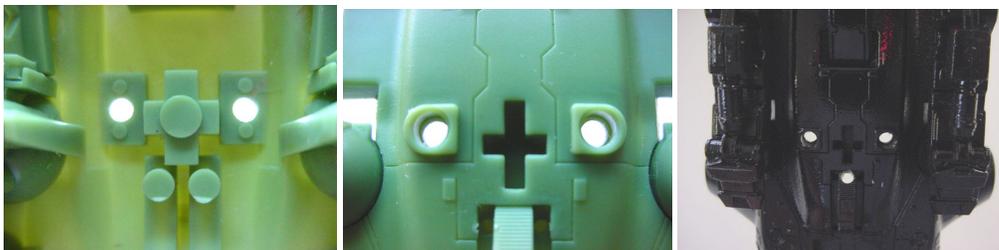
(Tail Fin Solder & Wire Diagram)
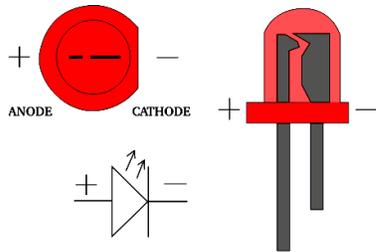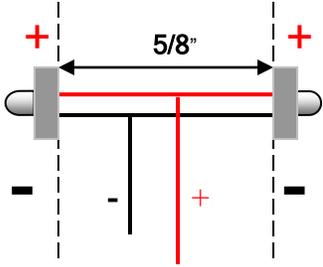
(Front Search Lights)
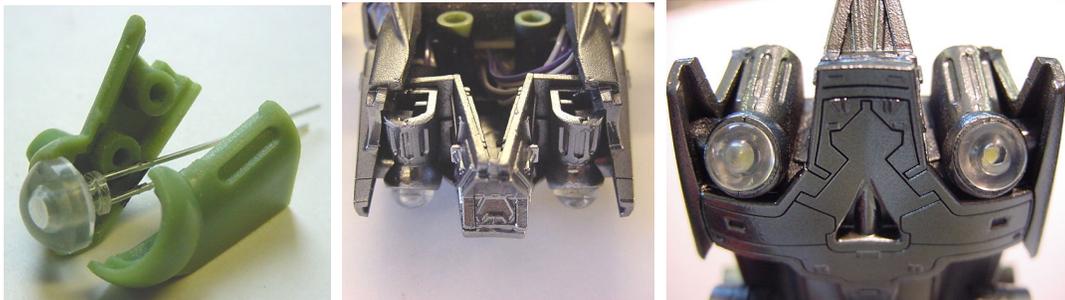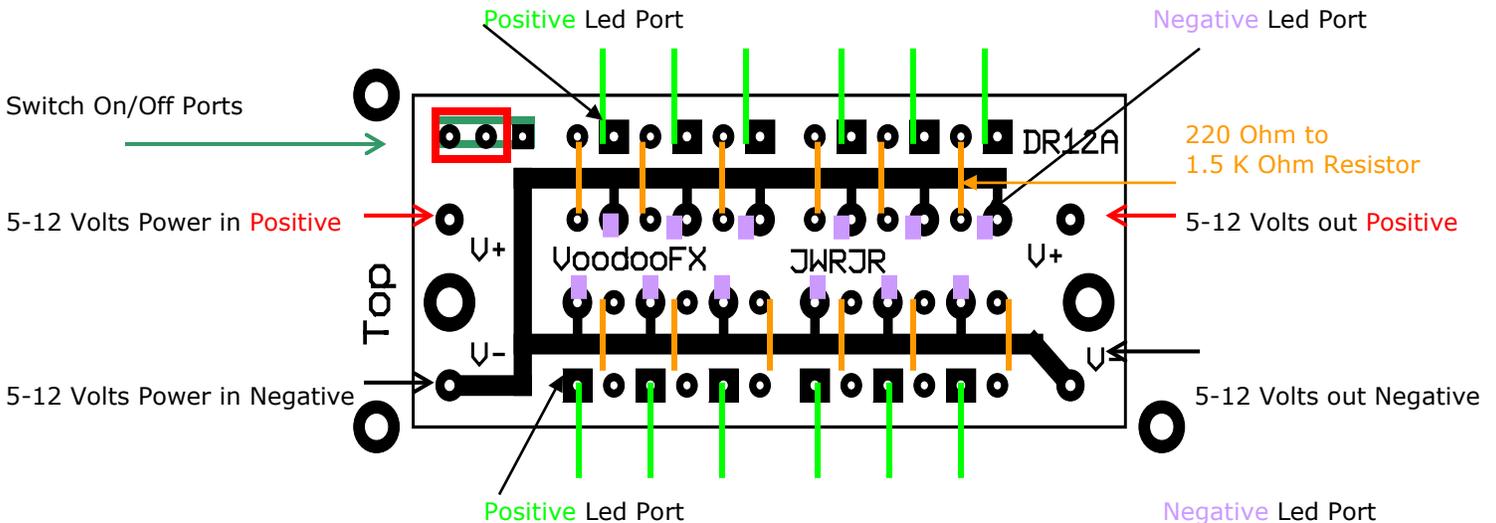

(Under Belly Search Lights)

(General Information)

First start by figuring out what areas you would like to light and study the circuit board diagrams. Since there are many different ways to place the lighting you will need to pick and choose the areas that work the best for you. In any area that you are trying to light, you should be aware of a few basic guidelines to follow. 1-Pick Placement Area 2- Pre Test Lighting Effect 3- Light Block Where Needed. You will need a few tools to hook up the electronics, low watt 25-30 watt soldering iron with a pin needle tip, .032 rosin core solder, small wire stripers, small side cutters, lighter, hot glue, metal tape, wire ties. If using this for a model or prop pick the location for the power source and on/off switch, figure out what area or zones you will be lighting, pre build 1 led and pick the effects port you want, test the light effect in the zone. You might need to use diffusion material to flatten the affect; this helps take away any hot spots from the leds. If you want to add more on lighting you can go direct to the power source and use in line resistor technique, look at the diagram. After finding that perfect spot for the led you will need to mount it in place, Hot Glue in small amounts makes a great bond to most surfaces, a small hand made type bracket or holder is also another sound mounting system. After all the leds are in their locations test the circuit for operation, make any adjustment at this time, mount circuit board and power source in a accessible area that can be serviced. In all areas where you place electronic parts it is a good practice to not close off areas permanently. Clean up any loose wiring and run the electronics, if the model or prop is not being used for extended periods of time, remove batteries or unplug power source.

(Circuit Board Diagram)   (12 Port Driver Board)

Positive Led Port   Negative Led Port

Switch On/Off Ports

220 Ohm to 1.5 K Ohm Resistor

5-12 Volts Power in Positive   5-12 Volts out Positive

V+   VoodooFX   JWRJR   V+

Top

V-   V-

5-12 Volts Power in Negative   5-12 Volts out Negative

Positive Led Port   Negative Led Port
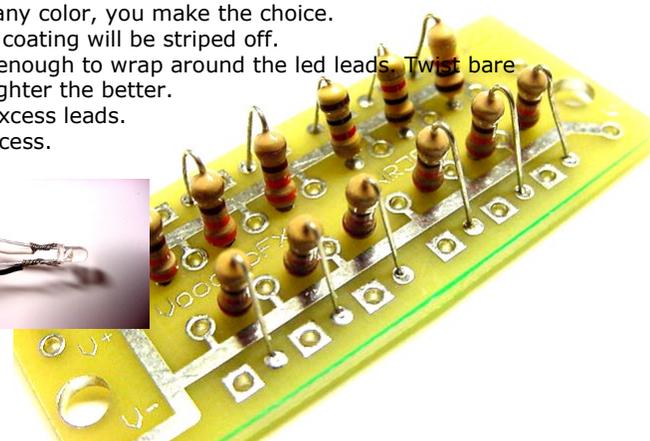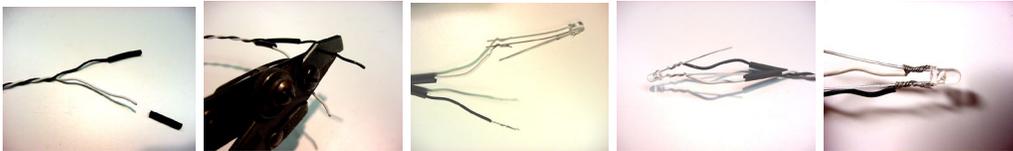
(General Circuit Board Information)

Studying Circuit Board Diagram-1, the main 9-volt power pads are marked as V- V+. The box high lighted indicates led posts 1-12 for the led lighting effects. Pay attention to the positive and negative sides of the pads, (SQUARE PAD IS +) (CIRCLE PAD IS-) The area marked SW stands for switch or remote on /off switch, pre wire the switch and mount in desired area when project is completed.
(For bright led effects use : 220 Ohm Resistor)   (For Dimmer led effects use : 1.5K Ohm Resistor)

(How to Make a Wired Led)

1- Separate the two wires. Pick what color will be positive+ and what color will be negative-.
(Example) Lighter color is positive+, darker color is negative-. This will apply to any color, you make the choice.
2- Slide on two pieces of shrink tubing 1/8 - ¼ "long, Slide past area where wire coating will be striped off.
3- Strip back the protected coating and expose the bare wire, 1/8 – ¼" is about enough to wrap around the led leads. Twist bare wire together until it is a tight, stray wire or fray will get in your way later, the tighter the better.
4- Wrap wire around led leads and slide forward to led base. Solder and cut off excess leads.
5- Slide shrink tubing over soldered wire and led, heat shrink tubing to finish process.