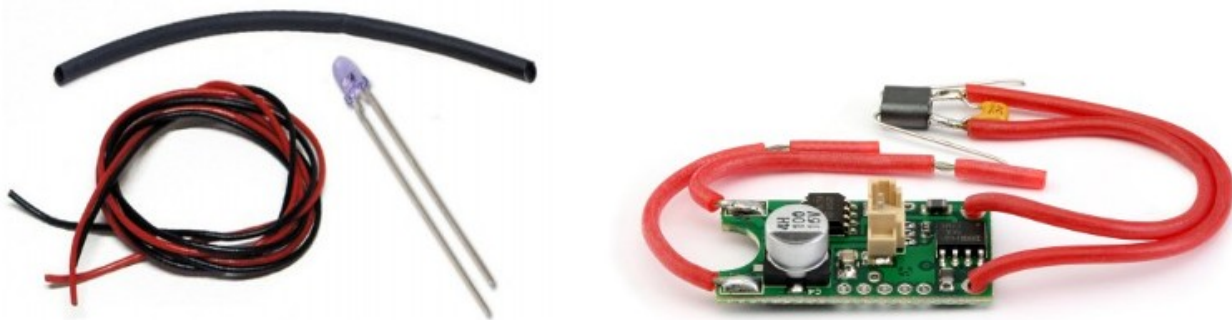




Installing a LED on wire SP32 on SP15b or oXigen chip

The oXigen and SSD compatible chips come with a separate couple of pads that have been designed to be connected to a separate infrared LED, if necessary. The purpose of this extra LED connection is to make it possible to use a wired LED, in case the main board cannot be positioned where it should with its built in LED facing downwards in the center of the chassis.



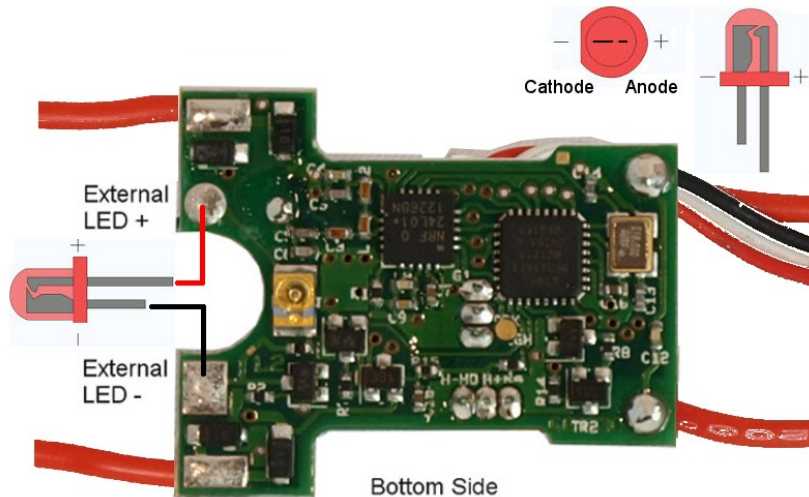
You need a good soldering tool and some soldering skill. A good soldering station (one with a separate base, and adjustable temperature) is probably one of the best investment you can make for your slot racing toolbox. Cheap soldering irons lead to cheap results.



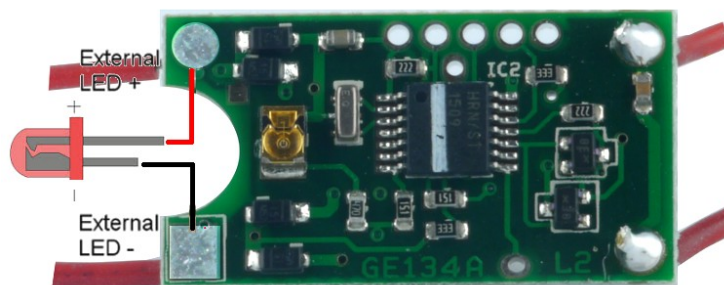
Please do not attempt to do this soldering with a big soldering gun, or a big tip soldering iron, as you're dealing with fine electronics and not power mains. Horses for courses.

If you have any doubts, there is a very well made [tutorial on soldering](#) at [howtogeek](#). Check it out.

This said, let's take a look at what's typically under a Slot.it in-car chip:



Typical oXigen type B chip.



Typical SP15b chip

Locate the two pads that are closer to the semi circular cut off in the circuit. One is square, the other one is round. The square one is the LED ground and must be connected to the LED cathode, that is, the short leg of the two LED. The round one is the LED positive and must be connected to the LED anode, that is, the long leg of the LED. In general, the round LED casing is shaped to look like the one described in the oXigen chip picture above.



The sure way to break the LED is to attach it to the pads that bring power from the track. Make sure you're using the right pads (they are the ones closer to the circular cutout).

If you're using the right pads, in any case, the LED won't get damaged by a wrong polarity. If it doesn't work, reverse your soldering.

Now that you have located all your pads, and knowing what must be connected to what, you can start the soldering. You will likely have to cut the LED legs short: unless you are an expert and can tell the LED polarity by its external or internal shape (you can always refer to the above picture), leave the long leg (anode) red wire. Now cut two short pieces of the heat shrinking sleeve and slide them on the wires until they cover the soldering joint that you've just made. Use the tip of the soldering iron on the heat shrink sleeve to make it shrink on your joints. This is important as it prevents short circuits and makes them much more reliable.

Now cut your wires to measure, and solder the short leg (cathode) to the black wire, and the long leg (anode) red wire. Now cut two short pieces of the heat shrinking sleeve and slide them on the wires until they cover the soldering joint that you've just made. Use the tip of the soldering iron on the heat shrink sleeve to make it shrink on your joints. This is important as it prevents short circuits and makes them much more reliable.

Solder now the black wire to the square pad, and the red wire to the round pad. Job done!

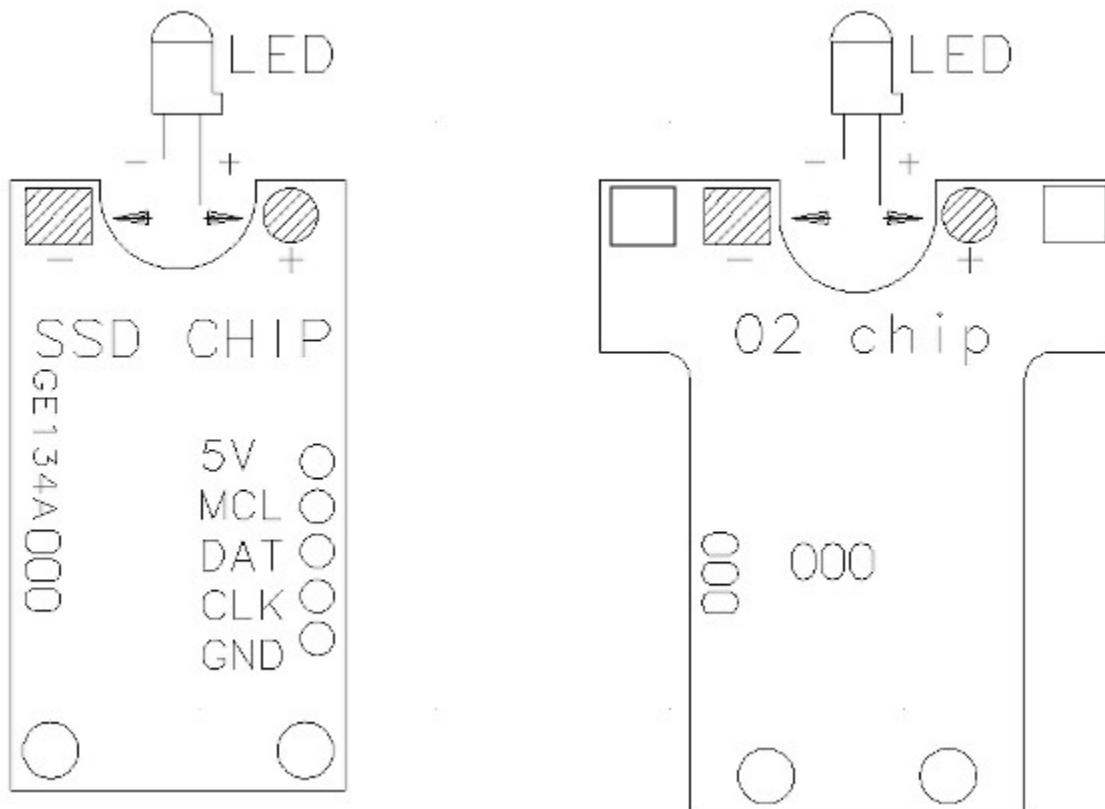


Illustration 1: Bottom side of common Slot.it ICs. LED pads are near the circular cutout