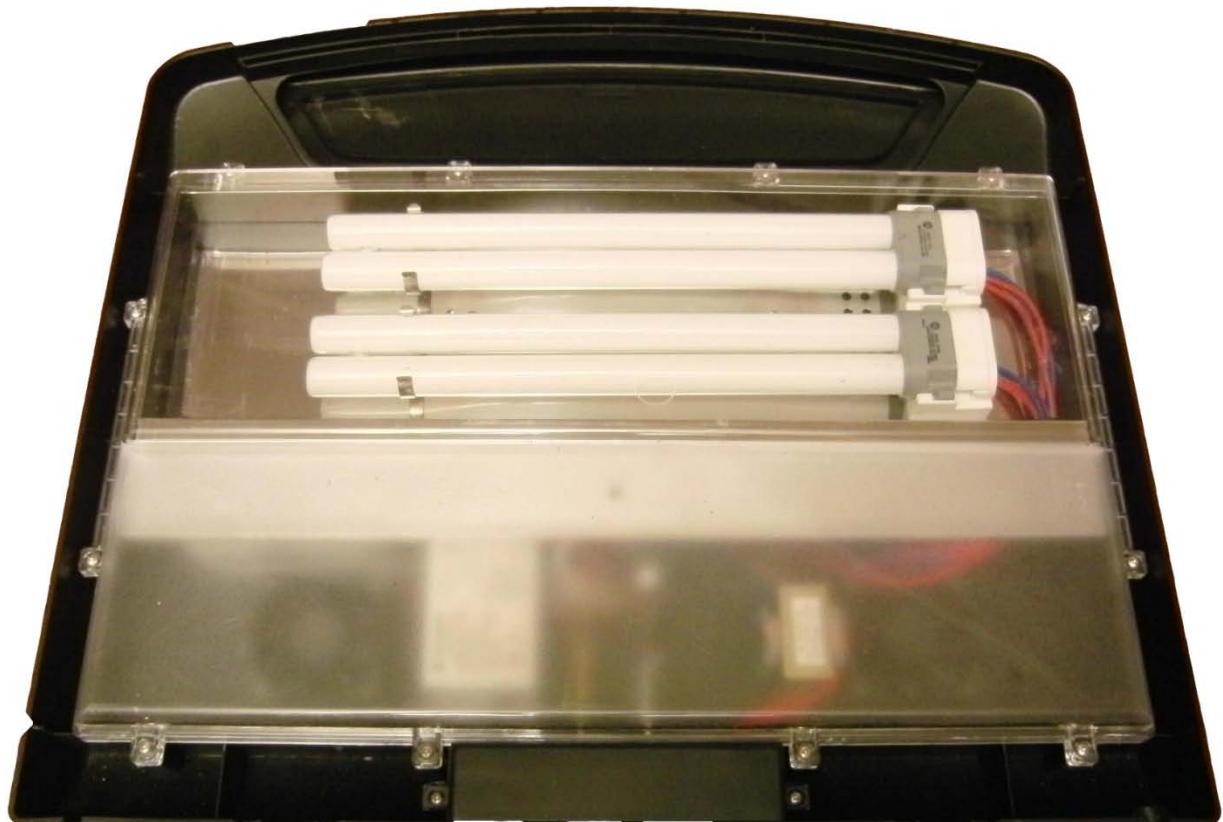


## Nano Retrofit Installation Instructions

### Preparation

The goal in preparation is to remove all electronics from your hood until it is empty. Simply take everything out.

Start:



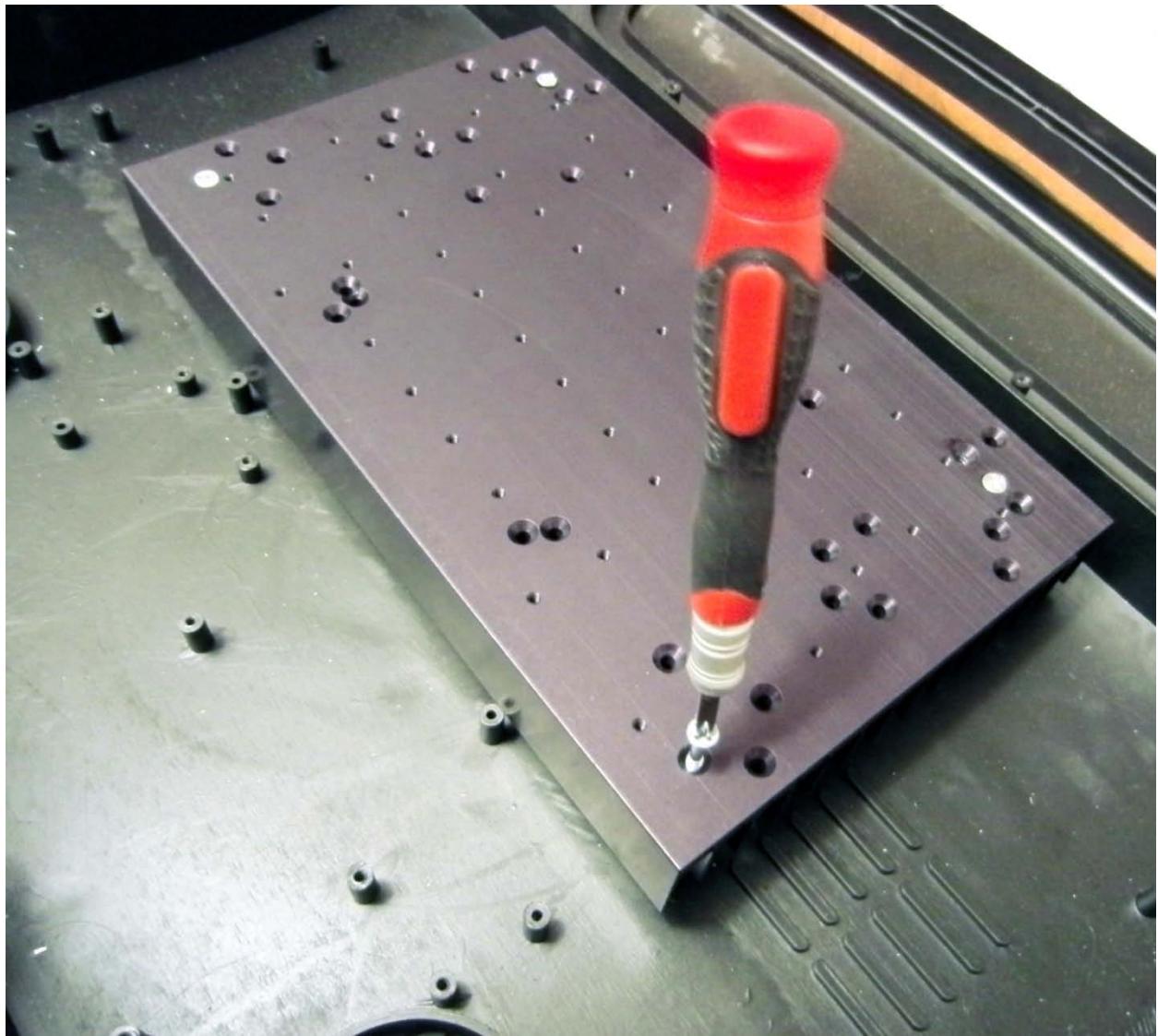
Finish:



If you can save the wiring, your may be able to splice the drivers in. Not all wiring can be salvaged. In this photo, the AquaPod 24, we were able to tuck the drivers and wiring into the hood. For a BioCube 29, you'll have to cut out all wires entirely.

## Heatsink Installation

The heatsink attaches to the plastic posts already in the hood via 4 screws. The screws are the large screws included with the kit. Tighten gently until heatsink is snug. Over tightening may snap them from the hood, in which case, you will have to attempt repair with super glue.



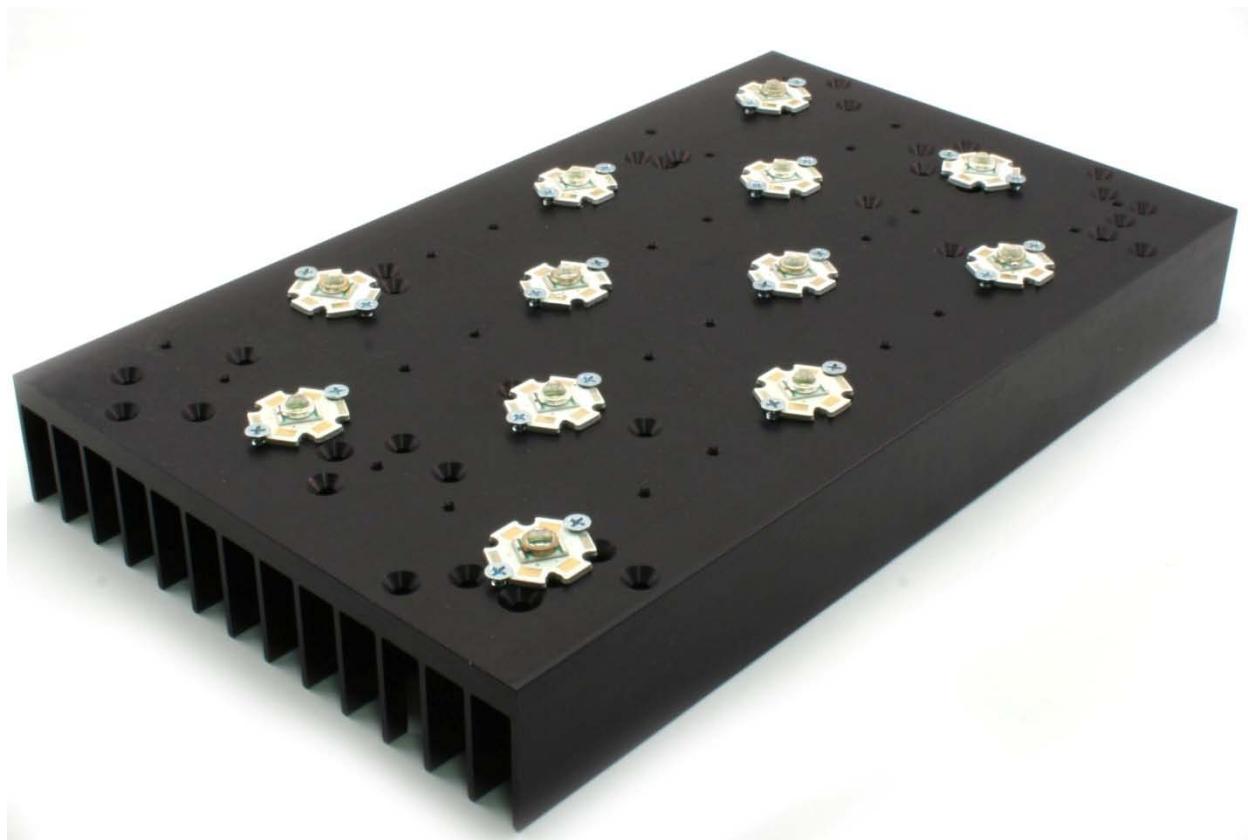
## Attaching LEDs to Heatsink

The heatsink has many little holes in it. Two little holes are used to secure 1 LED to the heatsink – one at each end of each LED. The heatsink has more holes than you will use, find an arrangement that pleases you, and arrange the LEDs out in that order. We like to stagger white, blue, white, blue, etc...

Next, we apply thermal grease to the back of each LED and screw it to the heatsink. The thermal grease ensures proper thermal conductivity of heat away from the LED. A very small dab of grease on the back of each LED is all that is necessary. More is NOT better. Too little will lower conductivity and too much will create a mess. A thin layer works best. The photo below is about how much you should use.

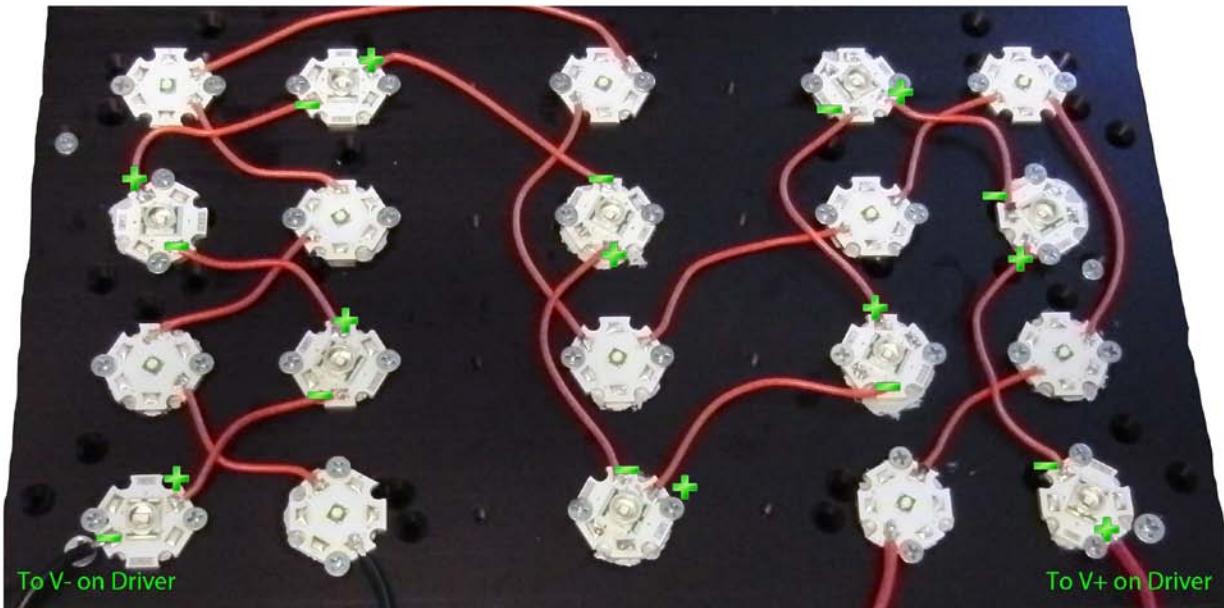


After the thermal grease has been applied to the star, screw it into the heatsink with two little screws, adjusting the height of the two fastening screws to center the LED between them. Once again, do not over tighten.



## Wiring the LEDs with the Driver

Wiring the LEDs is done by strings in series. Each string is a series circuit wired + to - (or - to +, depending on where you start) starting from one wire on the driver, from LED to LED, to the other wire on the driver. Below there is a string of 10 Blue wired to one driver, + to - all the way around. Do NOT power the driver until the wiring is complete. You risk burning out your LEDs, a very expensive mistake.

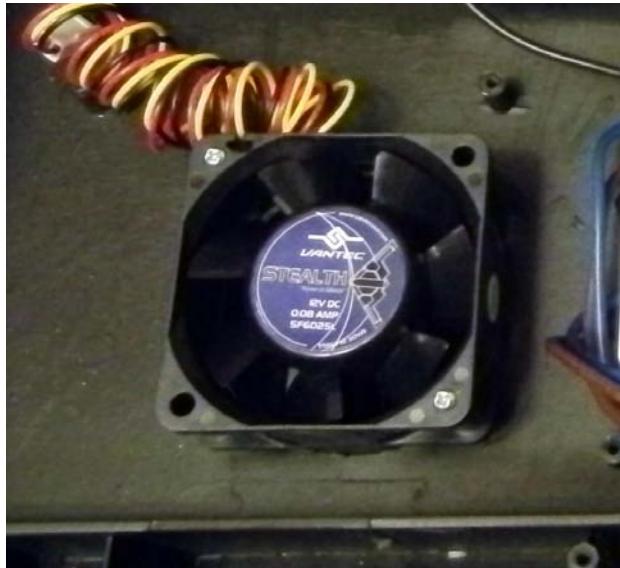


## Wiring the AC Wires on the Driver

The AC Line, or ACL wires, which are blue and brown, connect to the included power cord. Strip the white and black wires of the power cord (green is ground and unused) and attach them to the blue and brown wires on the driver with the included wire nuts. Order is not important because AC current alternates.

## Installing the Fans

The fans simply screw into the existing spots of the old fans. It is best to have them both blowing in or sucking out. The fans use the narrow long screws. The fan kit has an AC adapter, which plugs into the AC adapter tail, which plugs into the speed controller, which plugs into the 3-Pin Y tail, and one tail plugs into each fan. The speed controller has double sided tape to affix it to the hood.



## Completion

After the fan kit and wiring is complete, put the hood back together. In the pictures below, we managed to fit the drivers into the hood. This is not necessarily true for all nano hoods. The drivers will fit in the AP24, but not the BC29.

