

Tinylev Stand Modified for Makerfabs Kit



FishGee

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Summary

I saw a demo online of the Tinylev (<https://www.instructables.com/id/Acoustic-Levigator/>) and wanted to build one....

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I saw a demo online of the Tinylev (<https://www.instructables.com/id/Acoustic-Levigator/>) and wanted to build one. Instead of sourcing all the parts individually, I purchased a kit from Makerfabs. https://www.makerfabs.com/index.php?route=product/product&product_id=508

When the kit arrived, I saw the need for a stand.jeffbearer uploaded a nice one incorporating all the electronics, so I printed that. The DC jack and switch from the kit were different than he used, so I modified the stand to accept them the old fashioned way; with an X-acto knife. See picture.

For better visibility I drilled some holes in the top and added 3 white LEDs, (1) 5mm top dead center, and (2) 3mm LEDs, one on each side. Each LED was connected to the 9 volt power supply thru a 360 ohm resistor. This required 4 more wires going up the back so I designed a simple conduit that snaps on the center upright and hides the wires. I glued a length of 3/32 aluminum tube in front to keep the top and bottom arrays parallel. Without it, the top section would sag a bit and the levitated balls would start to wander.

The power amp got pretty hot if left on for a few minutes, so I hot glued a 25mm 5V fan I had in the drawer to the power amp heat sink. Now it runs cool as can be for hours. The Nano that comes in the kit has the header pins sticking out the bottom, and the stand is designed for them to be sticking out the top. So I glued some headers to the stand and inserted the Nano into them to hold it upright. I just soldered the required wires to the top of the header pins.

The 9V 1A DC supply that came with the kit struggled to put out 8 V when everything was running so I used a 9V supply that I already had. It can put out 2A without breaking a sweat. This project works great and is a fun project to show off.

Print Settings

Printer Brand:

Printrbot

Printer:

Printrbot Plus

Rafts:

No

Supports:

No

Resolution:

.3

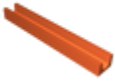
Infill:

35%

Filament: ExcelFil EVO PLA PLA Snow White

Category: Physics & Astronomy

Model files



conduit_143x100.stl

Other files



sources.txt

[Find source .stl files on Thingiverse.com](#)

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