TEDDY PWR

BUILD GUIDE

INTRODUCTION

Thank you for purchasing this TEDDY Modules kit. As with everything we release at TEDDY we try to keep it as simple as possible, yet useful in relation to music, sound or performance. Because the main philosophy of TEDDY Modules is that a module should be useful.

We don't want to hoard modules or create systems so complex that you need to take a second mortgage or 2 year study to understand and/or perform. It needs to be playable, functional and great sounding within its price range. So yeah. Thank you!

You will know there are much more suppliers for Synth DIY. One of our favourite places on the internet is from our friends from Leipzig based Exploding Shed. They have been selling kits and tools for soldering for many years now and parts of our own systems came from them.

So why are we writing all of this here? Because on their website there is a great introduction on what you all need and how you should do it. So we will not try to write something coherent and complete in these few pages Build Guide, but instead we will give you the link to their website:

Exploding Shed guides on Synth DIY
https://www.exploding-shed.com/synth-diy-guides

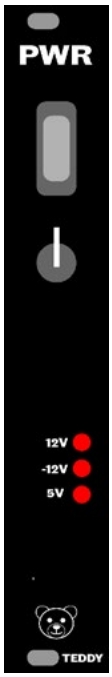
And as a thank you towards our Leipzig friends for letting us have this link in our Build Guides, we would again invite you to also visit their great shop with all kinds of kits, projects, tools and material in case you need some quality products for your (new) hobby.

Sure, you can go anywhere on the web to educate yourself, but hey, if you don't know where to start we've at least pointed you to a place where we ourselves are happy about sharing with you.

WHAT'S THIS MODULE ALL ABOUT?

The PWR module is exactly what it pretends to be. Based on a small SMD board that turns the 5 Volts of your USB charger or powerbank into the +12 and -12 Volt. Which is needed for Eurorack. It is enough to run the TEDDY Case with the TEDDY Modules, we've tried it and it works. Output current goes up to about 250 mA on each rail though some makers tell you it's 700 mA on +12 Volt and 150 mA on -12 Volt. So no, it's not something extremely heavy, but it's nice, cheap and always handy. For example to power that one new module before putting it in your rack. Experiment on the function before giving it its perfect spot.

The module has a16 pin boxed header, an on/off switch, some things to stabilize possible noise and LED's. And that's it, nothing more, nothing less.



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BUILDING THE TEDDY PWR MODULE

The general rule in soldering is you go from low to high. No, this doesn't reflect on the values of the components, but it is about the height of the components. Though there might be moments we will advise you to not follow this general rule because it sometimes gets tricky to solder specific parts if everything else is in its place.

And yet again: If this is all new to you, please take some time to read and explore the previously mentioned guide on Synth DIY. Or do some research yourself on another platform of your choice. TEDDY Modules do NOT come with a guarantee of a working module if you yourself screw things up.

On the next page there is a BOM a.k.a. the Bill of Materials. This is the guideline of all the things that have to be soldered. You start with the resistors and the ferrite bead. For all of these it doesn't matter which leg goes where.

After that it's best to do the little 5 pin header which will later support the power board. Make sure that it is perfectly perpendicular to the PCB. And then it's time for the plastic box for the power. The plastic box has a gap which should match the marking on the PCB.

Then it is time to do the capacitors. These capacitors actually DO have polarity, so beware you put the long leg into the hole marked positive and the shorter leg into the negative one. The line on the side of the capacitor will affirm the polarity (being negative).

Don't do the power board yet, even though it feels logical. I found out the hard way it's much easier to leave this to the very end.

On the faceplate squeeze the USB port into its place. It's easy to use small long nosed pliers here to squeeze (gotta love that word) the two thingies on the sides. It's a tight fit, but it will fit really perfectly. After that, put in the switch and tighten the nut. Put the three LED's into their spots and watch out. LED's do also have a polarity, so the long leg is the positive, the short leg is the negative. Fasten the bus with one of the screws to the PCB on the side where you soldered and put the faceplate and the PCB together. You will see the function of the bus is to stabilize the distance between faceplate and PCB.

Tighten the other screw through the faceplate into the bus and solder the switch, the legs of the LED's (make sure they are aligned to the front - use paper tape or something like that - or first do one leg, check position, and only then the other leg) and after shortening the red and black cable from the USB port, connect them to B (black) and R (red).

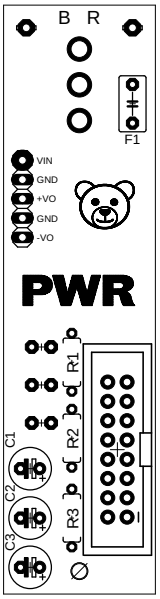
The last step is to put the power board in its place and solder those 5 final points. And that's it. The module is done!

Some final words: We can't (and won't) take responsibility for your own mistakes. Yes, there we have it, the final words that need to be said. Everything you do is your own responsibility. You are working with voltages, currents and high temperature molten metal. Be careful, be responsible, RTFM and if you are not sure, ask for help.

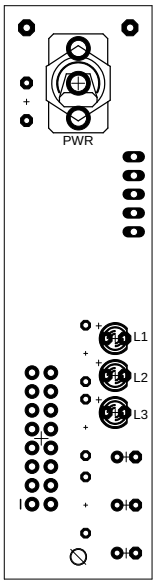
There is a FaceBook group called TEDDY Modules Support which is a community driven 'builders helping builders' and you can always send a mail to teddy@modules.nu

TEDDY PWR

BILL OF MATERIALS



RESISTORS		
4k7	3	R1, R2, R3
FERRITE	1	FI
CAPS		
47uF (elco)	3	C1, C2, C3
ICS		
POWER BOARD	1	
HARDWARE		
POWERHEADER	1	



HARDWARE		
LEDS	3	L1, L2, L3
SWITCH	1	PWR

TEDDY SYNTH DIY

website: teddy.modules.nu
mail: teddy@modules.nu
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