Micro-CMoy Pocket Amp
Assembly Information

Based on a thread at HeadWize

Notes:

- This board was designed for a specialty brand of mints found at Walgreens (a nation-wide drug store (chemists) chain for those outside the US). There is no brand on the box. However, it will also fit nicely into a standard Penguin or Altoids type mint box along the short dimension, leaving lots of room for batteries and large panel components.

- I bought the 4/2 pad protoboard at a local electronics supply shop. I have no idea where you could find this yourself. If you really want to do this project and don’t want to modify the layout to fit a more easily-sourced type of protoboard, email me (tangent@mail.com) and I’ll pick some up and snail-mail it to you for my cost plus shipping.

- For audio input and output, I haven't found anything really satisfactory for this tiny enclosure, since there’s no room on the inside to mount anything and it’s difficult to add removable relief so you that can modify the amp if needed. Thus, you end up with jacks and plugs flopping about on the ends of their wires on the outside of the case, which is ugly and means the wires are subject to being snapped under strain. If you use a larger enclosure, you have many options, such as panel-mount mini stereo jacks, or the ends of a headphone extension cable.

- There is no provision for an LED, but it looks easy to add it. You could put it and its 10K resistor where the power switch is now, and put the switch inline with the negative power lead from the battery clip. If you solder the op-amp directly to the protoboard, you could even use a small toggle switch, mounted sideways directly above the op-amp. The power caps are 12mm high, and the op-amp’s chip carrier is about 4mm high, so any switch under 8mm wide would work here.

- R1 and R5 from the original CMoy design were left out.

- Others have posted information to Headwize.com about adding tiny volume pots to small designs like this; such pots are designed for compact electronics devices (portable audio devices, CD-ROM drives, etc.) from which you can scavenge them, or simply buy them from a supplier that has this type of pot.