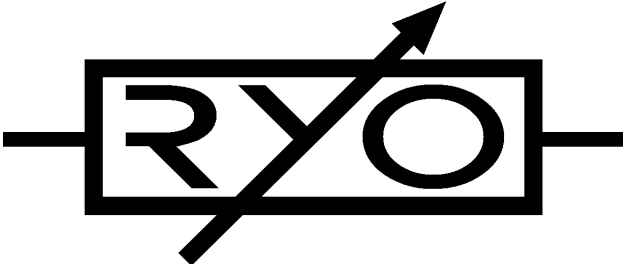


# Ljunggren Audio Roll Your Own Airtenuator I

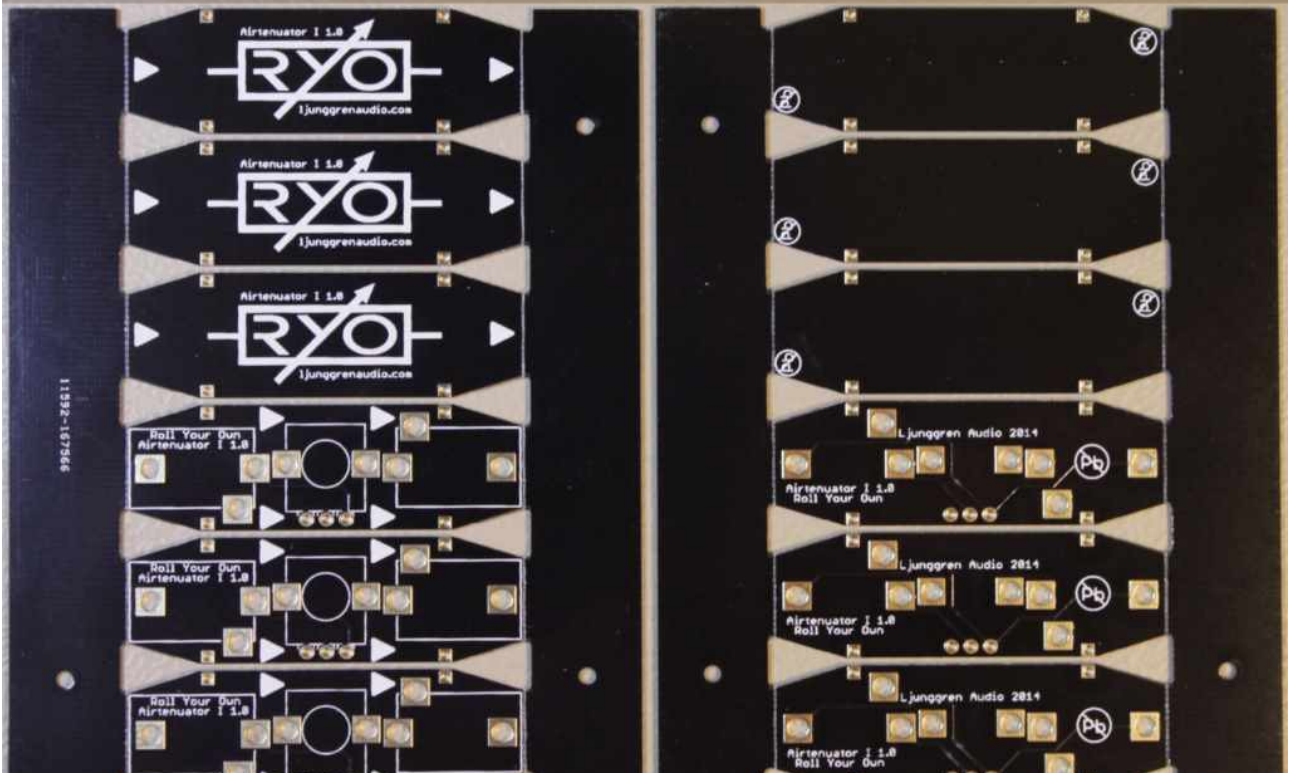
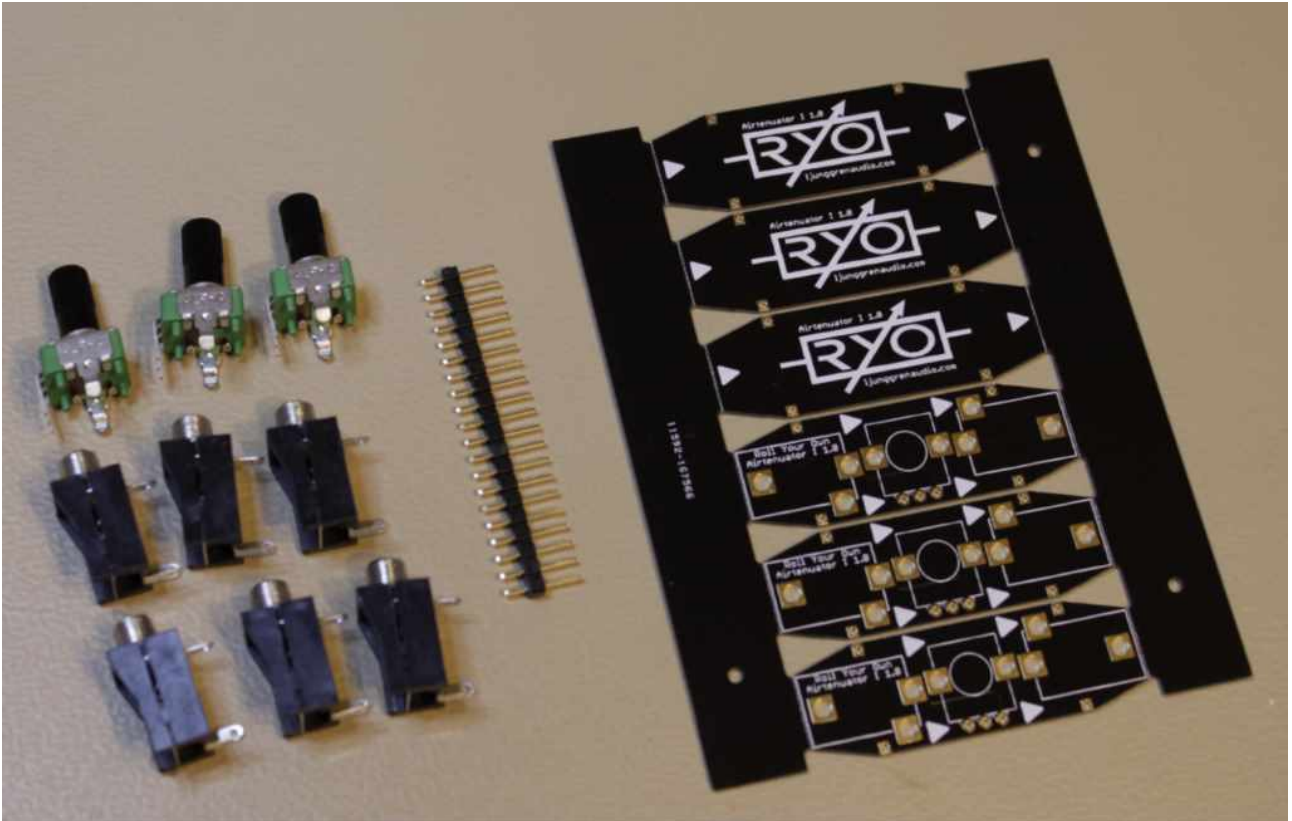


Version: Airtenuator I 1.0



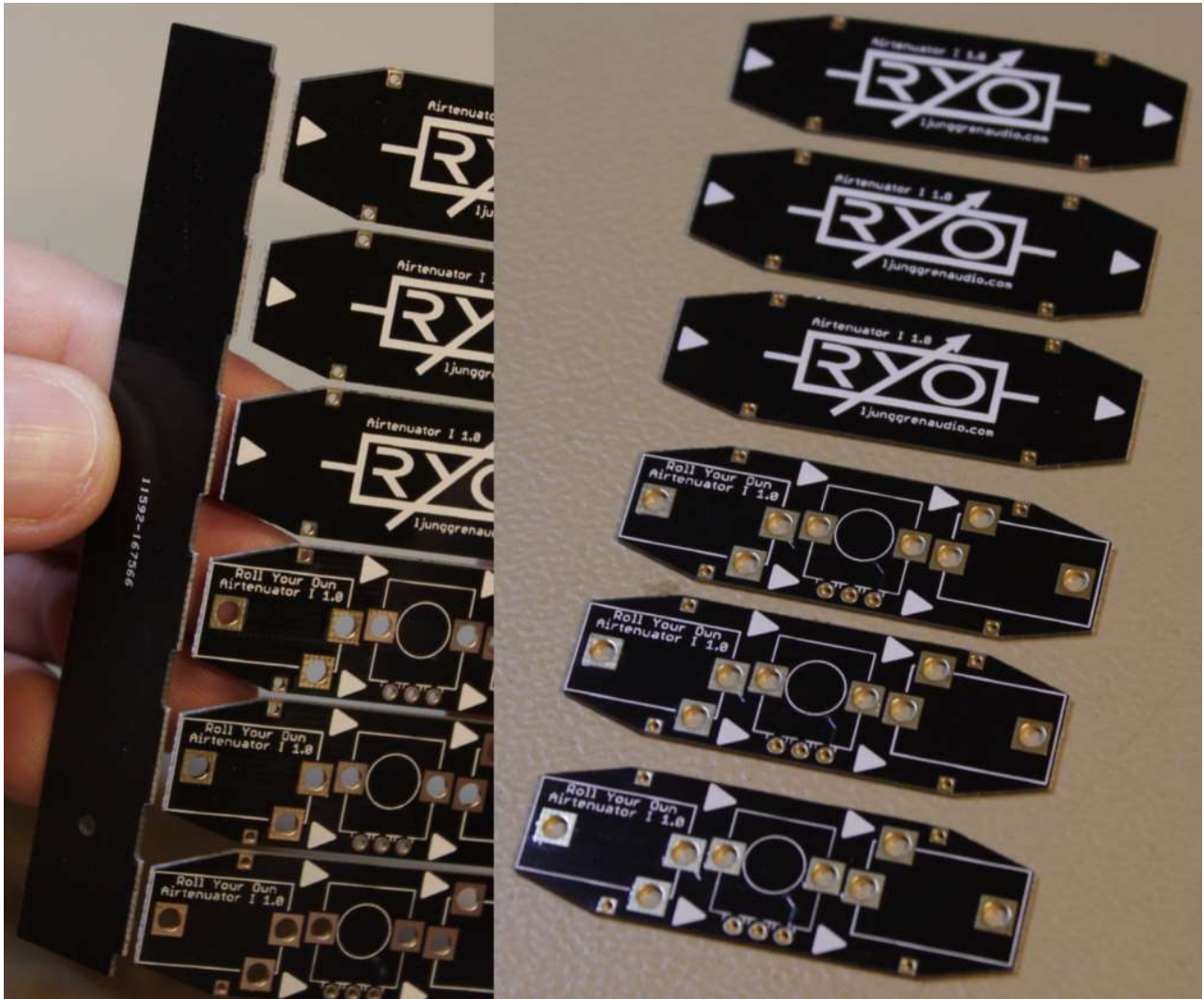
## Bills Of Material

- 1 PCB that breaks into 3 main and 3 cover PCBs.
- 6 minitele jacks MJ-3536 type.
- 3 rotary potentiometers 9mm snap in linear 50k.
- 1 pin strip 20 pins, 1 row.



## Assembly instructions

We start with breaking apart the PCB into smaller pieces. We will build one Airtenuator at a time in this guide. There are many great guides on Youtube and other places on how to solder so we will not make yet another one of those.

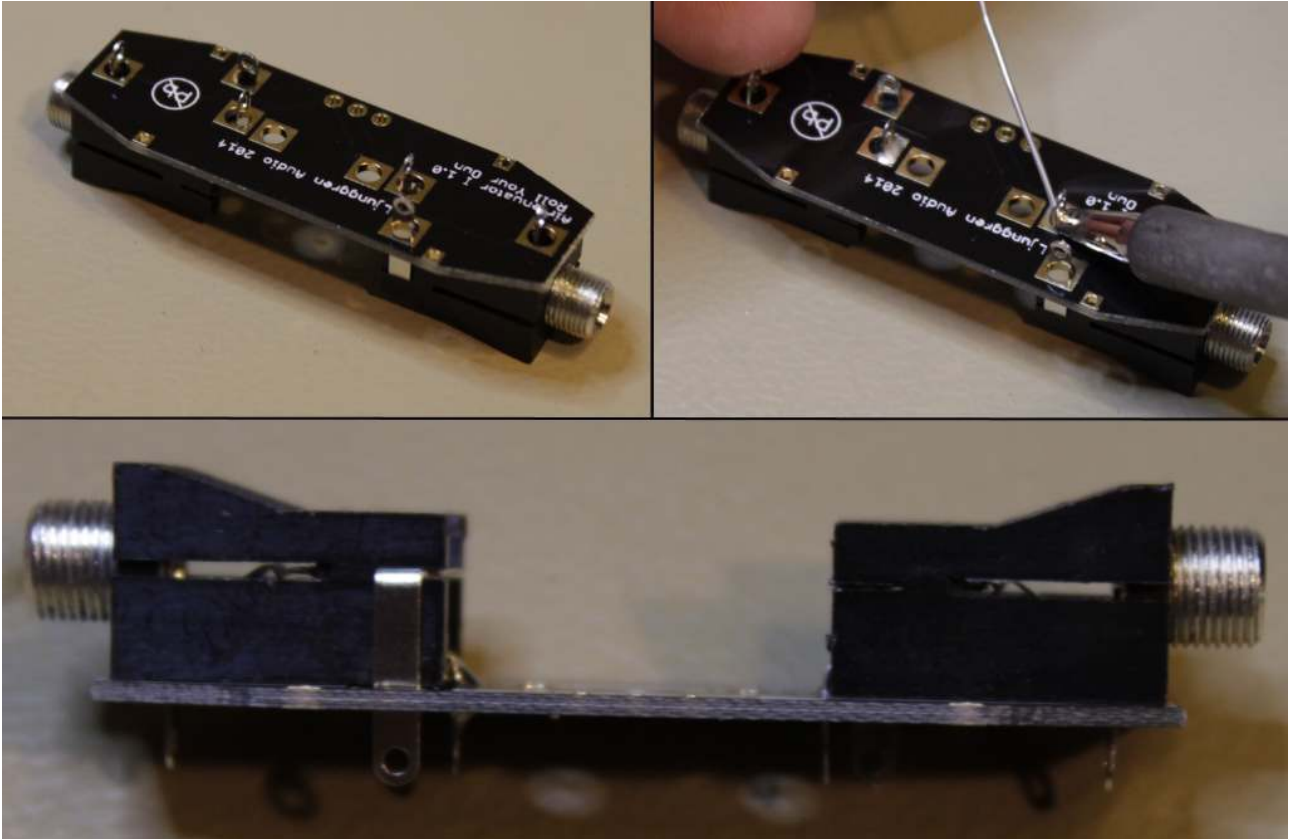




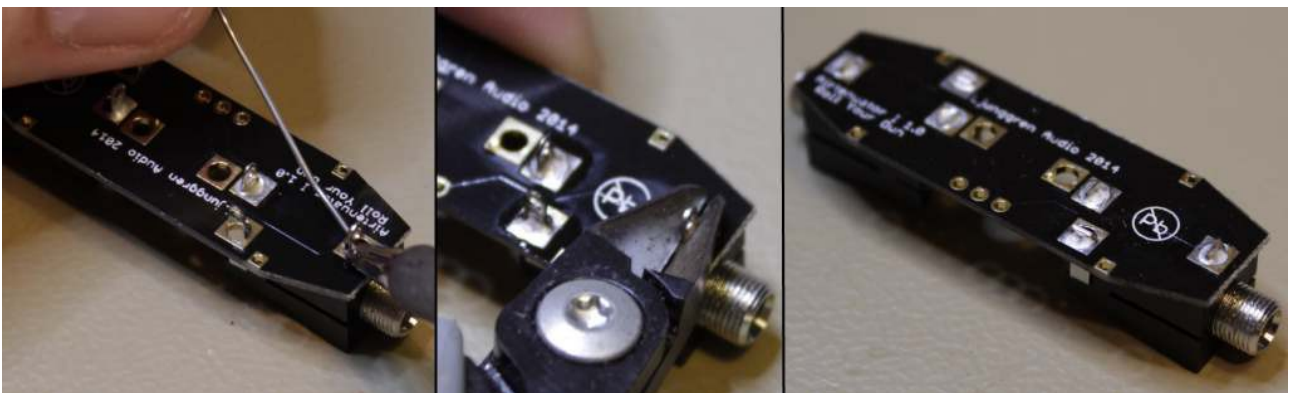
### Step 1

Solder one lead on each jack and make sure that the jacks are flat against the PCB. If they need correction it will be much easier if you have only soldered one lead.

Since the PCB is only 1mm thick you need to take a little extra care about not running the solder iron too hot or too long. Don't use too small solder tip.

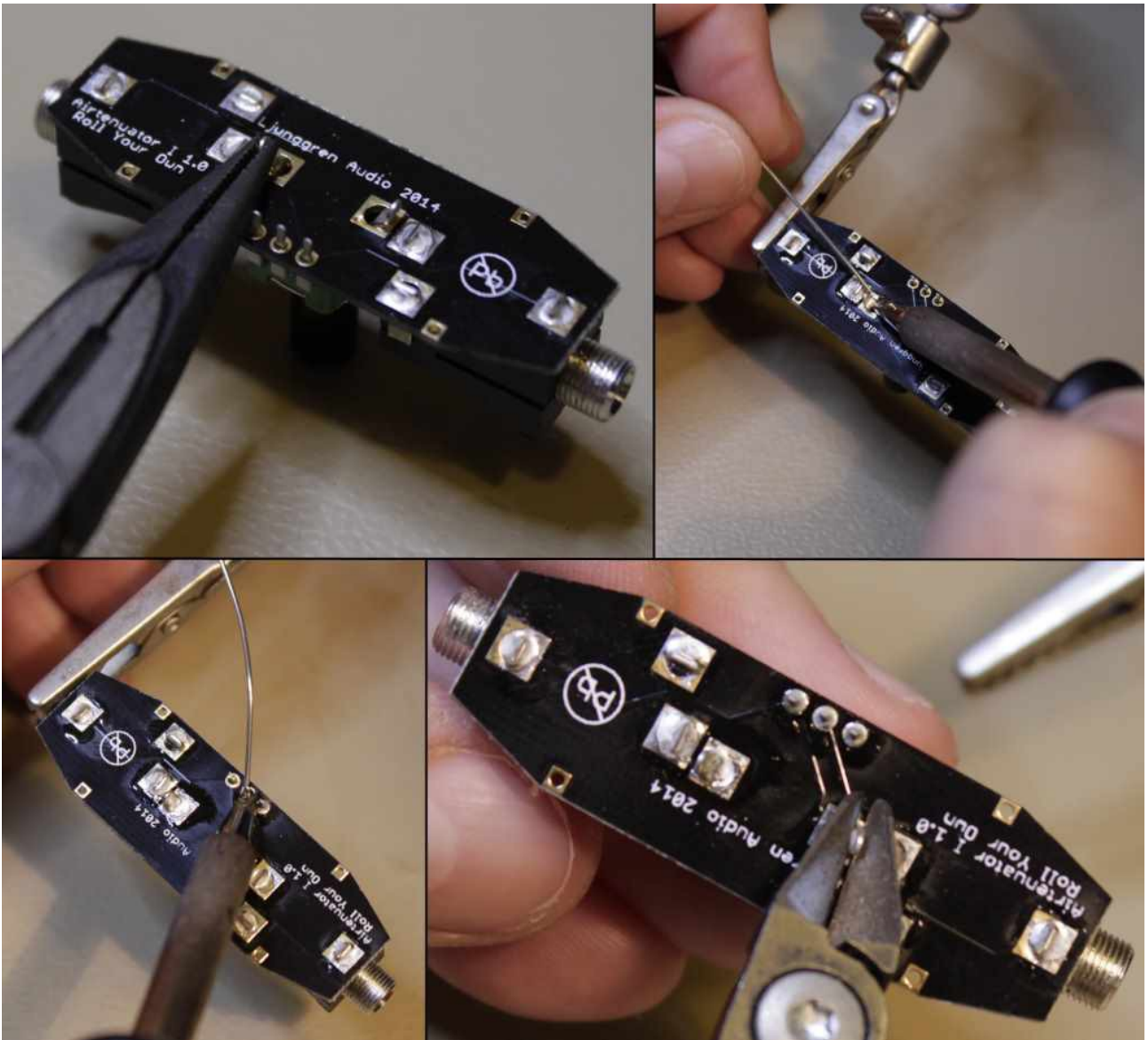


Solder the rest of the leads after you checked that the jacks are flat against the PCB. Cut off the leads after soldering.



## Step 2

Solder the potentiometer. It can help to bend the wide leads a little to fixate the potentiometer in place before soldering. A PCB holder with crocodile clips holding around one jacks bushing is helpful. Cut off the leads after soldering.



### Step 3

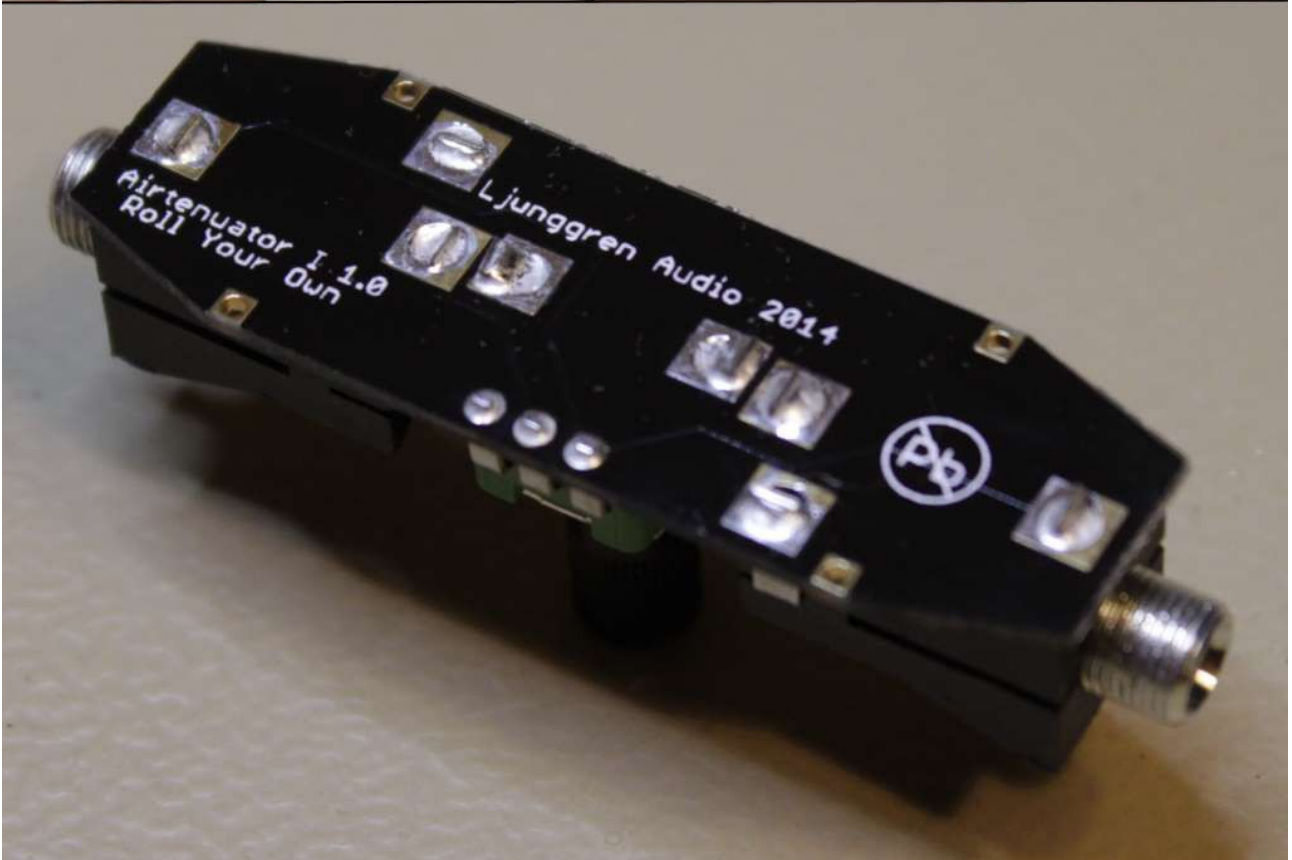
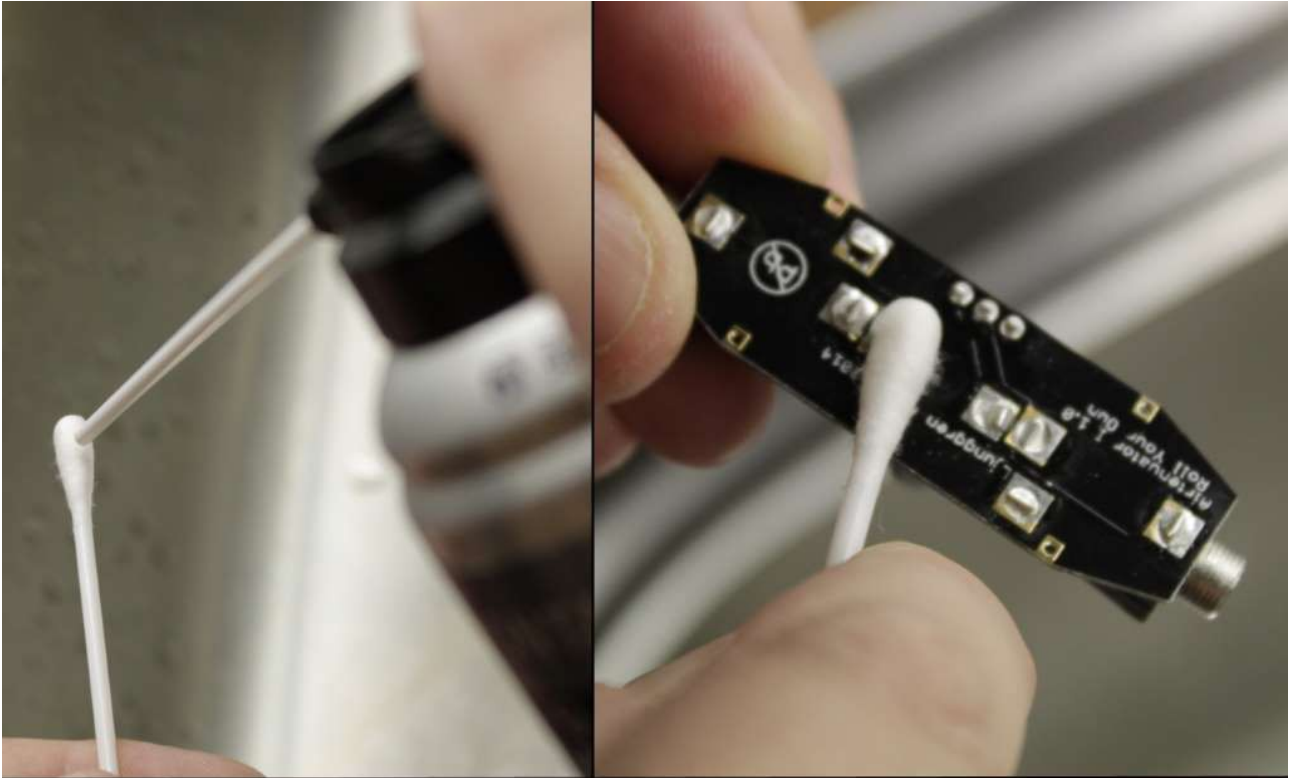
Optional step if you use no-clean flux.

Clean off the flux carefully without getting flux cleaner in the potentiometer.

Apply the flux cleaner to a cotton tip or similar and then use the cotton tip for rubbing the flux. Wipe clean after with some dry low lint paper or cloth.

A video showing the final cleaning step can be found here:

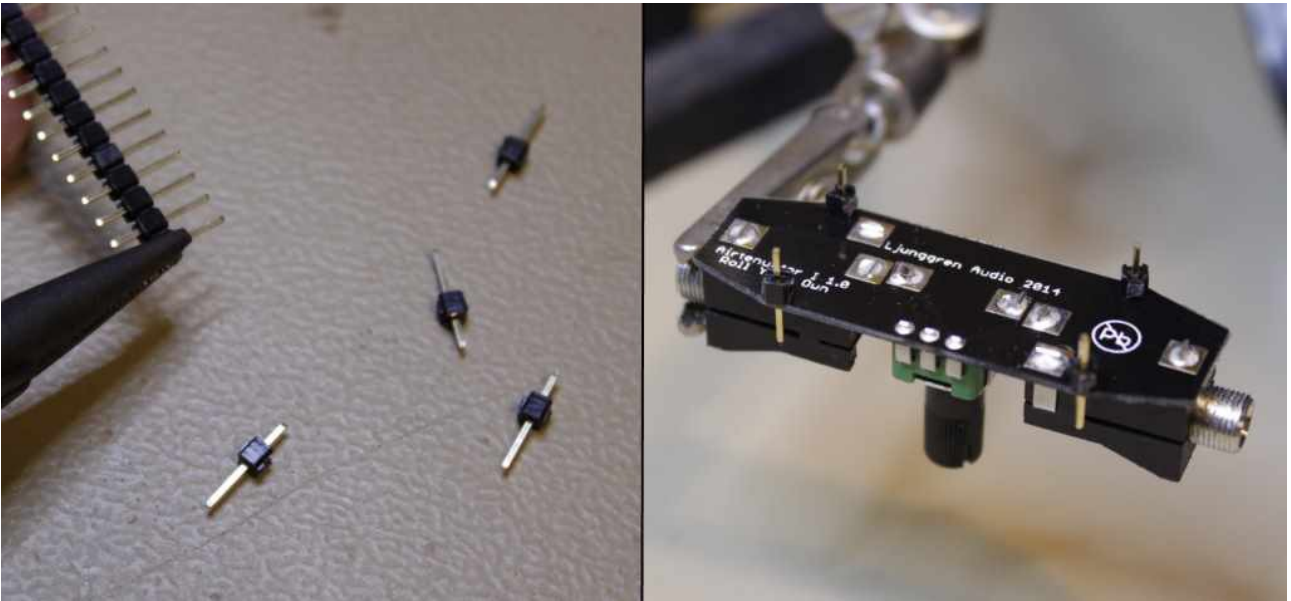
<http://youtu.be/dysoSpufuGU>



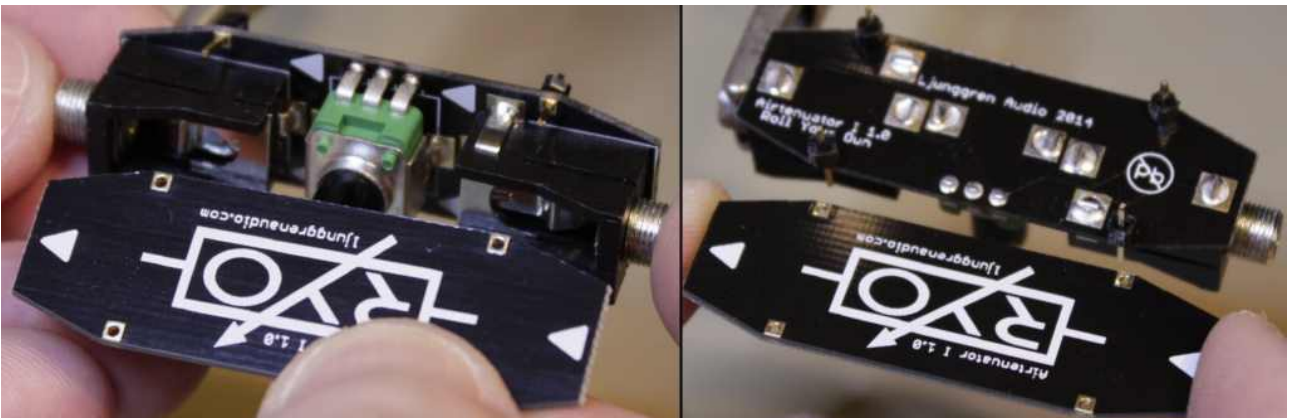


#### Step 4

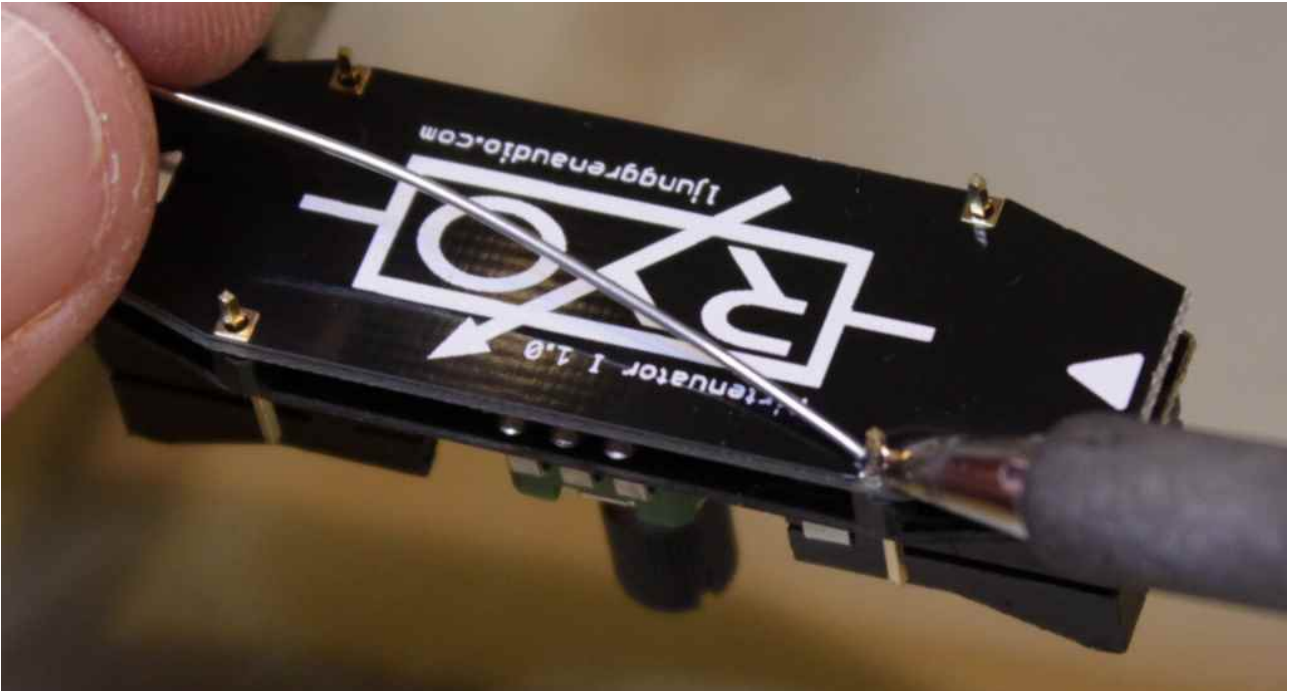
Break off 4 single pins from the pin strip. Mount them with the short end pointing up like in the picture below. It will be easier to align the pins to the mounting holes on the Cover PCB that way.



Make sure that the triangle-arrows on both PCBs point the same way.



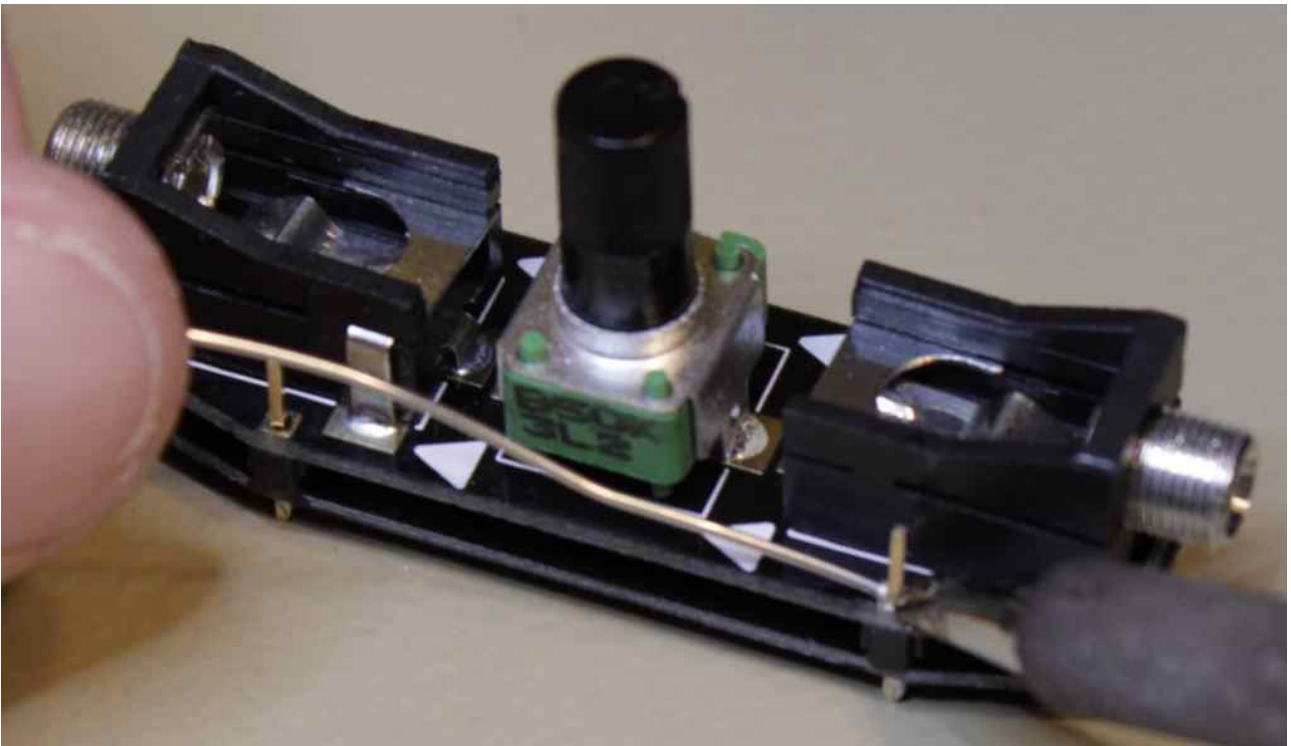
Solder the pins to the Cover PCB.



Before you solder the pins on the Main PCB.

**Make sure one last time that the triangle-arrows are pointing the same way on both sides.**

Now solder.





Cut the pins.



Now you should have ended up with this.



## Step 5

This cleaning step is recommended even if you use no-clean flux. These solder pad will be touchable and you want to avoid getting it on your fingers and then touching your food, licking your fingers or something similar. Always wash your hands thoroughly after soldering.

Clean off the flux carefully without getting flux cleaner in the potentiometer. Apply the flux cleaner to a cotton tip or similar and then use the cotton tip for rubbing the flux. Wipe clean after with some dry low lint paper or cloth.

A video showing the cleaning in this step can be found here:

<http://youtu.be/dysoSpufuGU>



**Now you are finished with your first Airtenuator,  
the other two are waiting!**

