



La Voix du Luthier

Give the sound of a luthier to your instrument



Onde Installation Notes



In the box

An **Onde** and a set of additional connection and mounting equipment

- 1 Power supply
- 2 Three wooden feet (for horizontal positions)
- 3 Two tripod feet (for vertical positions)
- 4 Audio cables, stereo 3,5 mm jack, 3,5 mm jack to 6,35 mm Mono jack cable (for mono instrument input), 3,5 mm jack to 2x6,35 mm Mono jack cable (for stereo instrument input),



Resonators from La Voix du Luthier

Like any **handmade acoustic instrument**
Each resonator is **signed and numbered**

The resonators from La Voix du Luthier are real **handmade instruments** built using the traditional **craftmanship of stringed instrument makers**, augmented with the expertise of **electronic instrument maker**.



Feel the acoustical vibrations while playing your electronic instrument due to direct acoustical coupling, bringing to electronic musician this **subtle yet significant playing experience** that naturally occurs in traditional acoustic instruments.

If you have a question not answered in this manual, please send a mail to contact@la-voix-du-luthier.com



Resonators from La Voix du Luthier

They generate a 3D auditory space, just like a traditional acoustic instrument (as opposed to traditional speakers being very directional). They are not sonically «neutral», but are not meant to be: they offer a colored sound carefully tuned by the luthier.

They offer a highly dynamic sound: transients, like the attack of sounds, mechanical noises, etc. are of incredible quality (prefer dynamic sounds to feed the resonators, rather than highly compressed ones, and it will shine)

They enhance any electronic signal, imparting a carefully balanced acoustical environment into the source, immersive like an acoustic instrument.

They have two fine wooden soundboards with oppositional placement that are complementary sounding, further enhancing the 3D experience. Each soundboard has a separate volume control allowing for fine-tuning of the tonal balance.

They offer a high number of possible mounting options including DIY. Like acoustic instruments, they are deeply interacting with their environment, allowing to fully take advantage of the specific tonal characteristics of a venue.

They perfectly integrate with an acoustic ensemble.

They offer a very elegant wooden design (different finishing are available).



Technical details – The Onde

72 cm high, 57 cm width, 8 cm depth, 2.6 kg weight.

2x30W Class D amplifier driving 2 carefully selected wideband transducers.

Built following the traditional stringed instrument maker's know-how, integrating two sonically complementary soundboards.

Separated volume control for each soundboard.

Line level stereo in (3.5 mm stereo jack).

Bluetooth Audio (and APTX). Line level and Bluetooth can be mixed together.

Battery-powered (3x18650 3.7 Volt Li-ion rechargeable batteries: not provided, see later in the document)

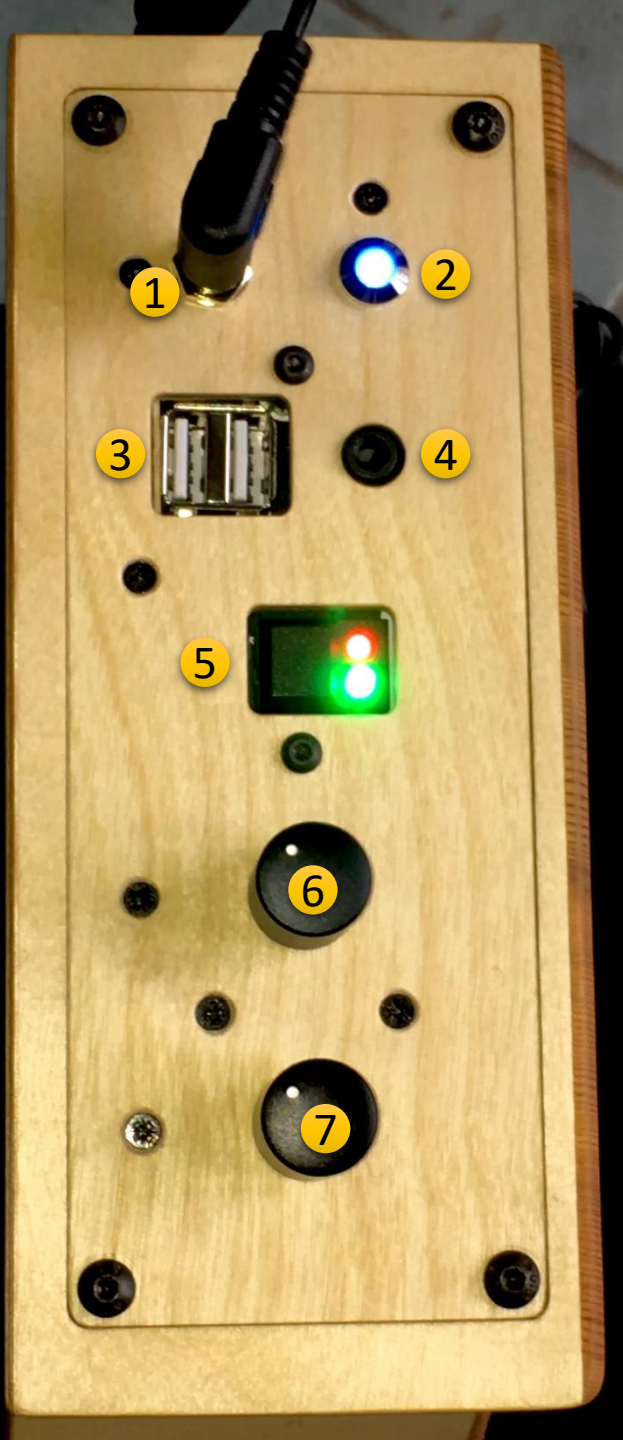
The Onde can supply power for two other USB devices during normal operation.

One permanent side opening, and one closable side opening allowing to tune the sound colour.

9 Kodak screw mounting points allowing a huge number of accessory mounting possibilities.

Provided with 2 tripod feet (for vertical placement), 3 wooden feet (for horizontal placement) and a power supply.

Numerous possible options (see option in shop but you can also Do It Yourself, specially thanks to the 9 Kodak screw mounting points where a lot of accessories initially designed for camera will fit, just as the tripods we are using !)



Control and connections

- 1 Power supply connection (19V DC, 2.1 A, center +)
- 2 Bluetooth audio, connection indication (*appears as La Voix du Luthier*)
- 3 USB power (*only power, no data, and only to supply power to another device NOT to power the Onde*)
- 4 Stereo Audio In (1/8 inch = 3,5 mm stereo)
- 5 On-Off button (*red means power available, either DC plugged, either from internal battery, green means ON*)
- 6 Soundboard 1 volume
- 7 Soundboard 2 volume

The front soundboard is tuned to be more effective for high frequencies, while the back soundboard is tuned for low frequencies. Therefore, adjusting the relative volumes is great way for defining your own sound color.

Also not that when the battery is installed and charged, the red led on 5 stays ON all the time until the battery is empty (see it as a charge indicator).



Common accessories

Cables:

Note: the Onde has a stereo 3,5 mm jack audio input

- 1 cable: Stereo 3,5 mm jack
for any 3,5 mm stereo device, from synth to smartphone: the left and right signal are separately distributed to the front and the back soundboards of the Onde
- 1 cable : 3,5 mm stereo jack to 6,35 mm mono jack cable
for mono instrument: the mono signal of the 6,35 jack is distributed to both sides of the Onde
- 1 cable : 3,5 mm stereo jack to 2x6,35 mm mono jack cable
for stereo any instrument with 2x6,35 mm mono output

Feet

- 2 tripod feet (see later for usage)
- 3 wooden feet with screw





Onde standing on tripods

The Onde can stand vertically on both of its flat sides.

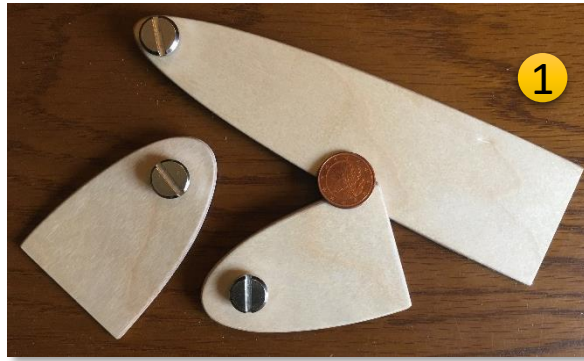
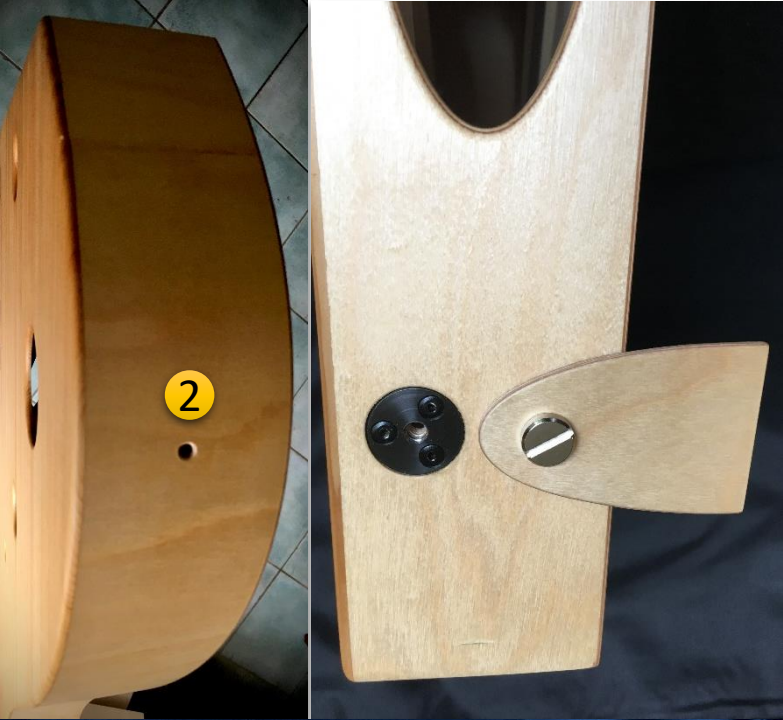
There are 4 screwing points on the long side and 2 on the short side. Note the threads are Kodak threads ($1/4''$ UNC - 20 tracks per inch)

Use 2 of these screwing point to screw the tripods provided with the Onde.



Also note that the use of Kodak threads allows you to use most of the stands and mounting equipment that you can use with a camera.



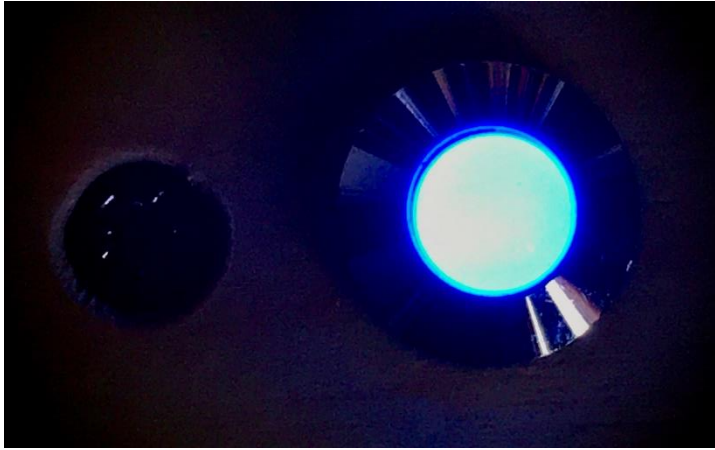


Horizontal Onde

The Onde can also stand horizontally using 3 wooden feet **1** that you can screw on the sides, two on the longer side and one on the top (screwing point on the top or round side of the Onde **2**)

Don't tighten too much on the wood...



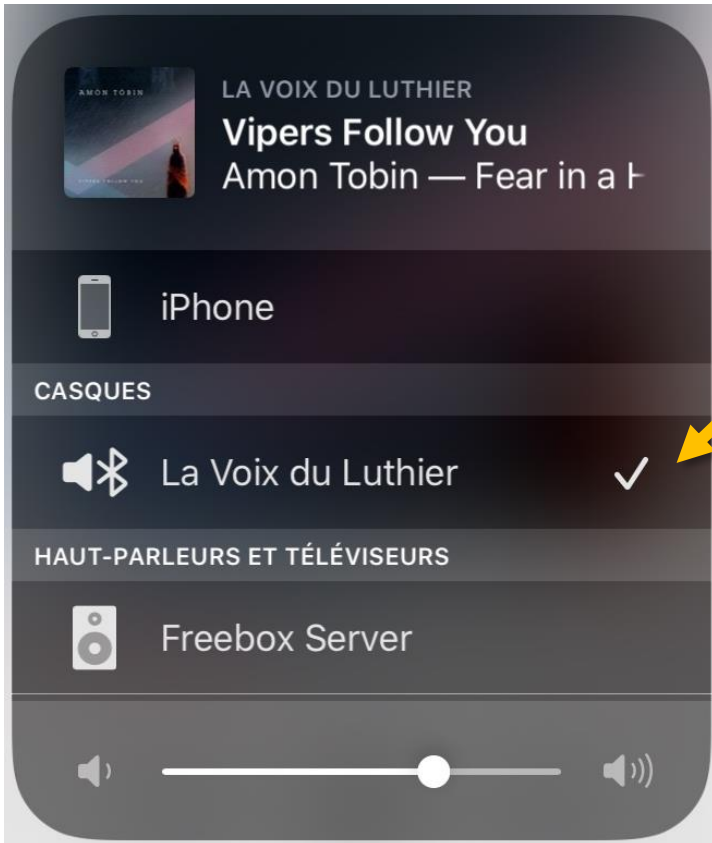


Bluetooth Connection

The Onde is Bluetooth V4.0 APT-X + EDR, A2DP compliant

The Bluetooth connection to the Onde is just like the connection to any Bluetooth device:

1. The Onde will show up as “*La Voix du Lutier*”, connect to it, from you smartphone, tablet or computer, as to any Bluetooth device
2. Select “*La Voix du Lutier*”, as output device
3. The output level will depend on your device volume and the Onde volume knobs: we recommend to have the highest possible volume on the device and to adjust it on the Onde itself.



Note that the 3,5 mm stereo jack audio input is still available while playing Bluetooth, meaning that you can play backtracks via Bluetooth.

Note: in some rare situation, on Android devices, you may have to reconnect 2 or 3 times for the very first connection (there will be no issue with further connections). It may be more efficient to turn the Onde Off and back On between 2 different connections.

Some recommendations and Q&A

The typical usage environment of an Onde shall be the same as any acoustic instrument: avoid too dry or too wet environment the most dangerous being too dry, which may result in cracks on the soundboard. Also be aware that different humidity environment will result in different sonic behavior, that's normal. If you feel comfortable your Onde will feel comfortable,

Don't let your Onde under the direct light of the sun (in the back of a car for example or near to a window), or close a to very hot object (wood-burner, radiator, etc.)

As for any acoustic instrument the sound of your Onde will evolve over the time, usually in a good direction, and the more you play it, the better it will become !

You can carry your Onde like you would carry a guitar (it's easy to grab it from the openings on the sides). The most fragile area is the front soundboard: don't put any weight or pressure on it, don't put water, café, soda or anything on it, it's not a cooking surface (furthermore: any object, even very light, touching one of the soundboards, will invariably be the source of unpleasant and noisy vibrations).

Please, only use your Onde as a resonator and in secured conditions (securely attached, sufficiently away from any fireplace and any source of water, etc.) any other use will be under your own responsibility.

It's not really fragile (not more than a guitar), but it's an acoustic musical instrument: please take care of it !



Onde: some recommendations and Q&A

How to take care of it ? Clean it with a dry cloth, avoid any household product. The finish of the Onde is a clean finish based on oil: if really necessary you can apply a care emulsion (we recommend Auro care emulsion No. 431, but other similar product may be suitable)

About vibrations: as any acoustic instrument, the Onde has a set of resonance frequencies (that's part of what makes its own color). Playing these resonance frequencies at high level may result in some annoying vibration noises. If this happens, lower the volume or try to put less input power on these frequencies. In a general way, don't play it too loud: that does not make the sound better.

Input levels: the 3,5 mm audio in is expecting to receive a Line-In input, but most input will work. However, some synthesizers may provide a very high level on their output: therefore we advise, when connecting a new instrument, to start with the 2 volume knobs at the minimum and then raise them progressively to a reasonable level.

3,5 mm audio input can be used simultaneously to the Bluetooth input. Also note that you will manage to get higher volume level with the 3,5 mm jack input (so be careful). Also note that, as all Bluetooth audio, wireless transmission result in an additional playback latency: therefore the 3,5 mm jack input is much more suitable to connect live instruments.

The audio input IS STEREO, and left/right will be distributed to the front and back soundboard, resulting in a very nice spatialized sound (but different from traditional left/right). To use the Onde with a monophonic instrument, use the provided mono to stereo adaptor cable.



Onde: some recommendations and Q&A

In some rare circumstances, you may get some buzz noise. If this happens try to:

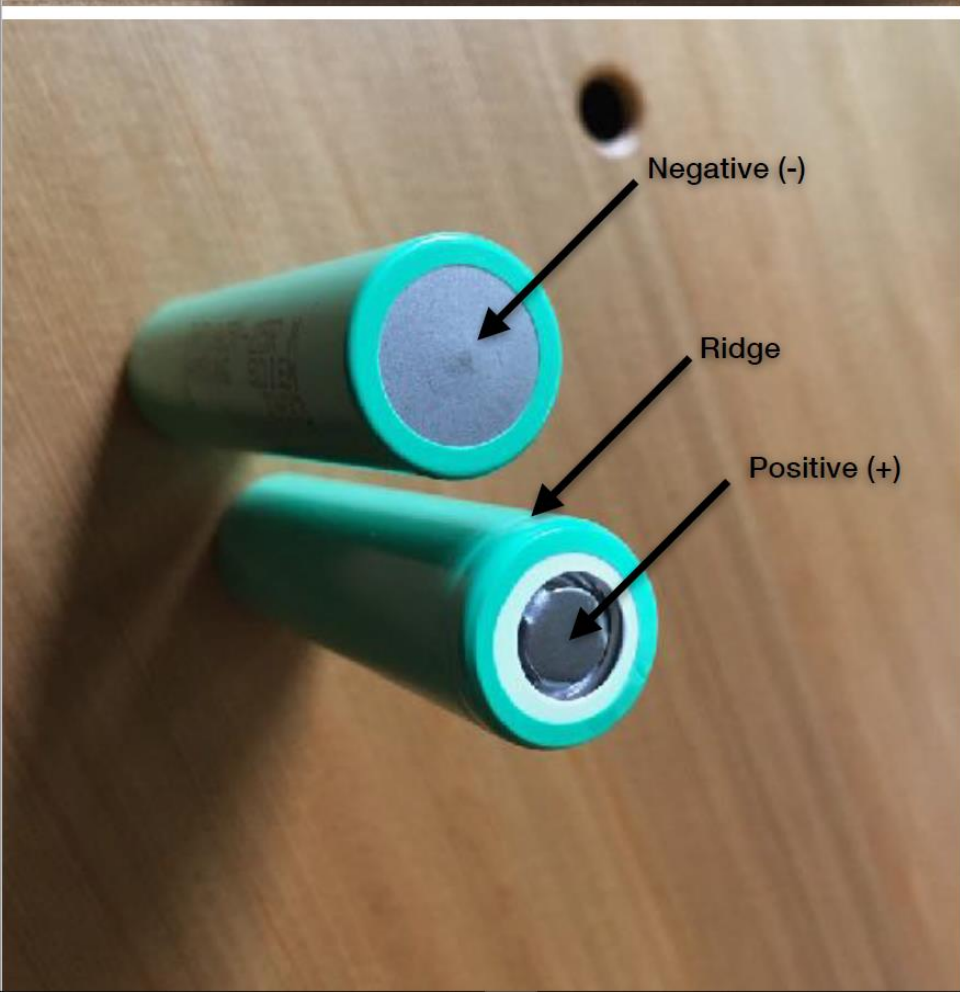
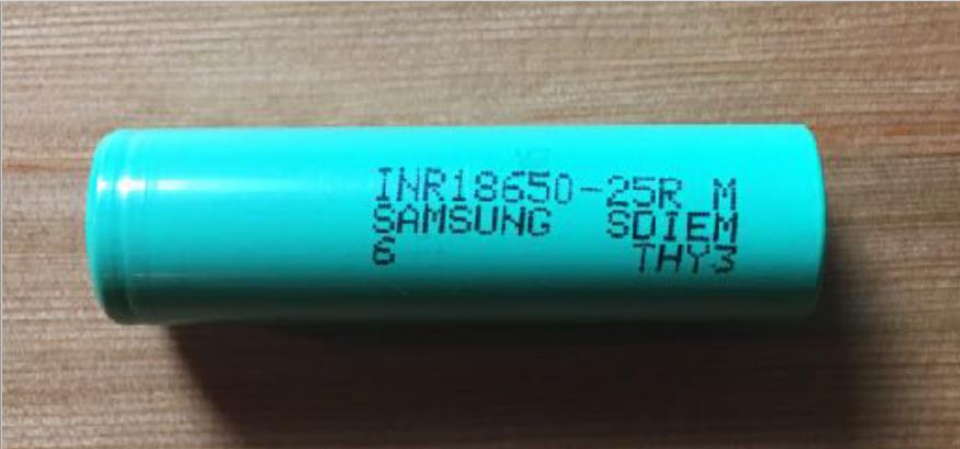
- If you are using a 3,5 mm jack input, first check your cable !
- Insert a ground loop isolator on the 3,5 mm jack input (it's cheap and easy to find)
- Lower the volume on the Onde
- Unplug the DC adaptor (only if you are using batteries of course)
- If you are using batteries: turn off the Onde and connect it to the DC adaptor (when the battery is low, you will progressively get distortion when requesting more output level)
- Move the Onde away from any electro magnetic radiation source
- Connect a Bluetooth device (if not already done)
- If none of the above works, fire a mail at contact@la-voix-du-luthier.com



Check <https://www.la-voix-du-luthier.com/faq> for additional Frequently asked questions. The site also provides a lot of demonstration videos,

Make sure to check our terms and conditions on <http://www.la-voix-du-luthier.com/cgv>

Batteries



The Onde Batteries

Three 18650 3.7 Volt Li-ion flat head rechargeable batteries required *(very common since they are also used for electronic cigarettes).*

Due to shipping restrictions the Onde does not come supplied with internal batteries. They will need to be purchased separately. The 3 batteries that the Onde requires are easily available online and are quite common.

We have had success using the Samsung version of these batteries, INR18650-25R (2500 mAh) and Panasonic NCR18650B (3400 mAh) which are more expensive but last longer.

18650 mean 18 mm large an 65 mm long. Be aware that some batteries are said to be 18650 but are longer than 65 mm: don't use them, they won't fit in the holder

When looking at the batteries it is important to identify the positive and negative ends, as it is not always marked on the outside case. It is quite easy to distinguish the two. The positive end has a smaller exposed contact, while the negative end is much larger. The positive end also has a ridge around it's perimeter.



Inserting the Onde Batteries

Tool required: Allen hexagonal 2,5 mm screwdriver

Step 1

Place the Onde on a flat surface (like the floor), with the back braced against something that will prevent it from falling sideways (such as a couch, pictured). The control panel should be facing up, with all connections removed.

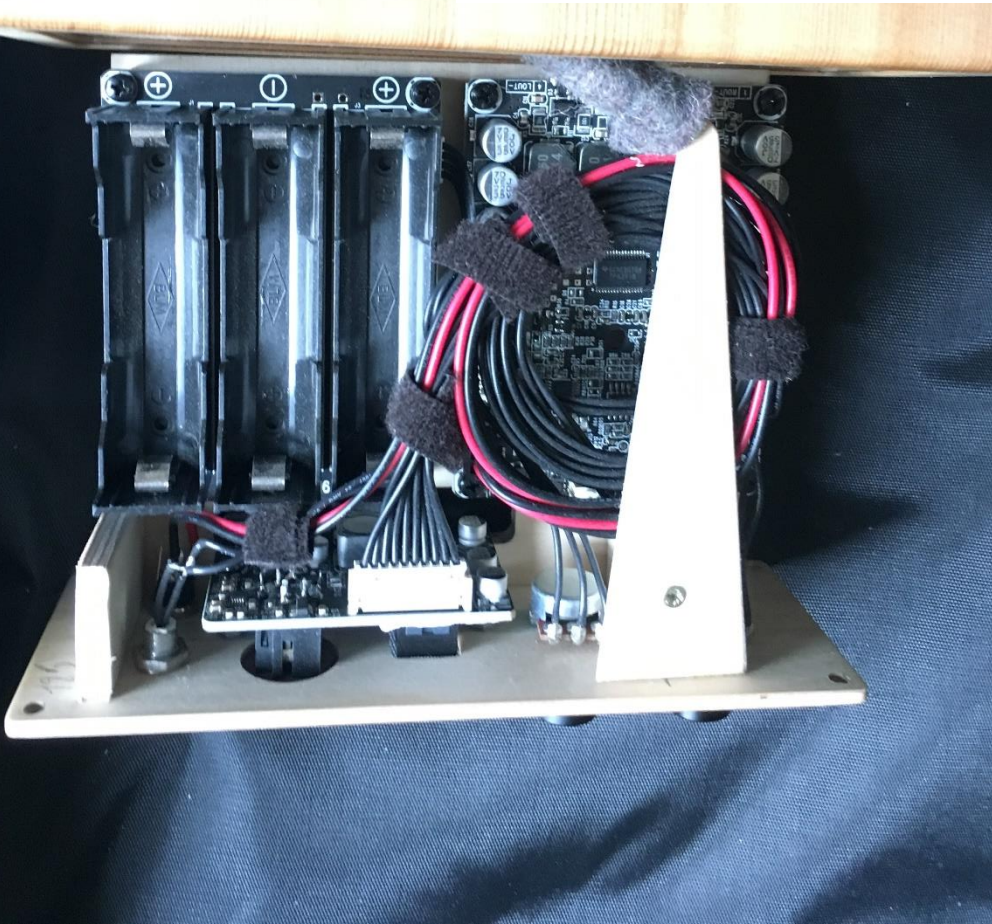
Be careful not to scratch any of the Onde's surfaces.



Step 2

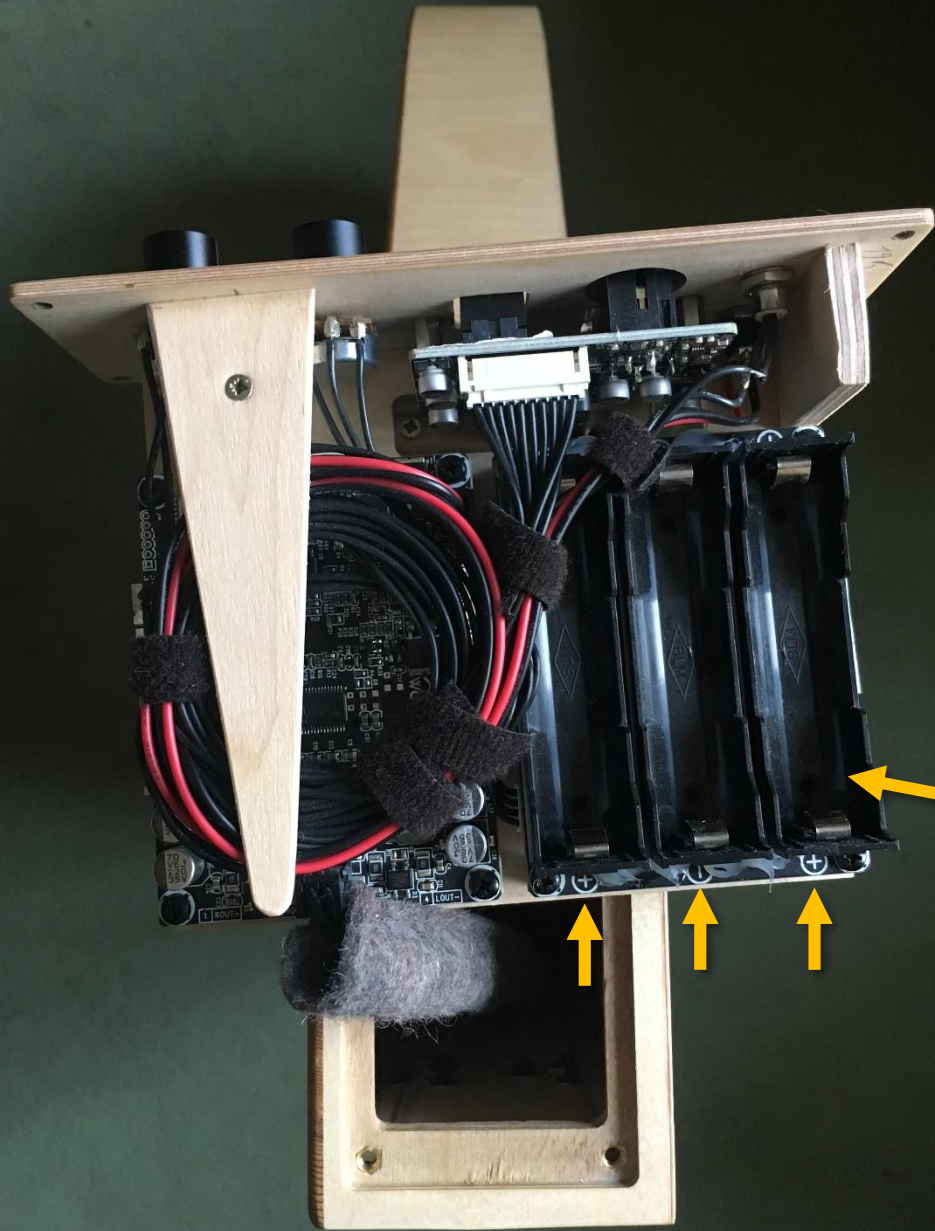
Remove the four corner screws that attach the Control Panel to the rest of the Onde, using a Torx T10 screwdriver.

Place the screws aside.



Step 3

Holding the Control Panel against the Onde so that it doesn't accidentally slide out, place the Onde on a flat and soft horizontal surface, such that the side with the resonating holes is facing up, and the solid side is down.



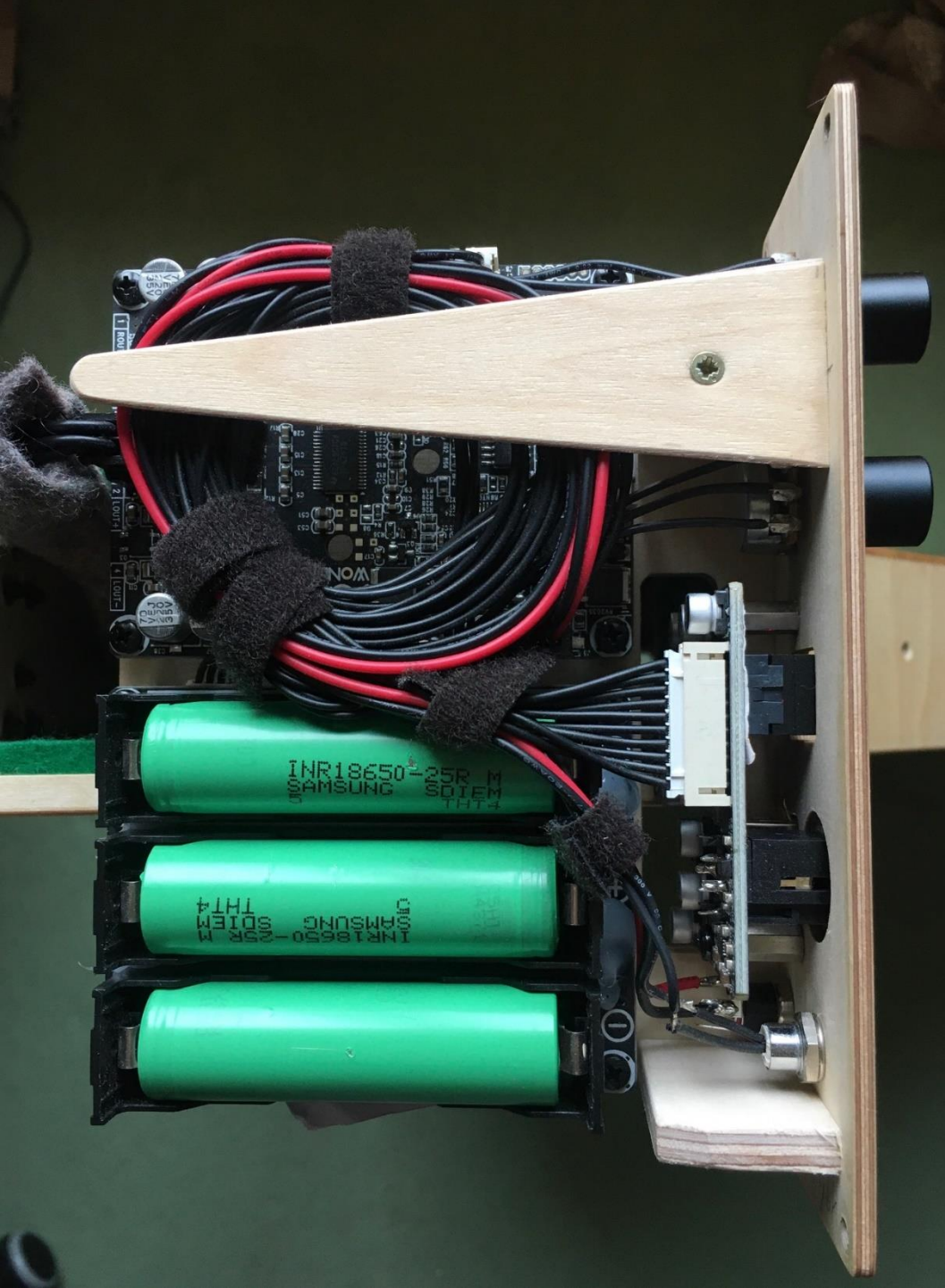
Step 4

Grasping the Control Panel (you can use the 2 knobs), slide it out, just far enough to expose the whole battery compartment. Do not slide past that as it may stress the attached interior cables.

Only open as far as will be needed to insert the batteries.

Step 5

Identify the battery compartment and the polarity of the batteries. The left and right ones (on the picture) have the positive on the bottom, while the middle one has the positive on the top. This polarity is also marked on the PCB under the battery compartment.



Step 6

Place the batteries inside the battery compartment, being careful to observe proper polarity.

Step 7

When the batteries are correctly in place slide the control panel back inside the Onde, being careful not to pinch any cables against the case.

Step 8

Holding the control panel with one hand and the Onde case in the other place the Onde upright again and replace the four screws. Do not overtighten.



Note

Due to legislation, you will have to remove the batteries before traveling with the Onde in the hold of a plane (or shipping by air).

Also note that an impact on the Onde may move the batteries a bit out of their compartment: therefore after an impact on the Onde (due to travel of whatever other reason), if the batteries are not working anymore, just reopen the amplifier drawer to check and to be put them back in place.

Mounting possibilities

Mounting possibilities

And there are hundreds of mounting possibilities like these claws to easily attach to an X stand for example (available from our web site)

You also have suckers, magnetic ball stands, vises, tons of different screwing possibilities, etc.





Other Mounting possibilities

There are plenty of other mounting possibilities

For example using suckers like on this picture below, or attach it with a guitar strap (like on the picture on the left, where the instrument shelf is also used and where the synthesizer is powered by the Onde)!

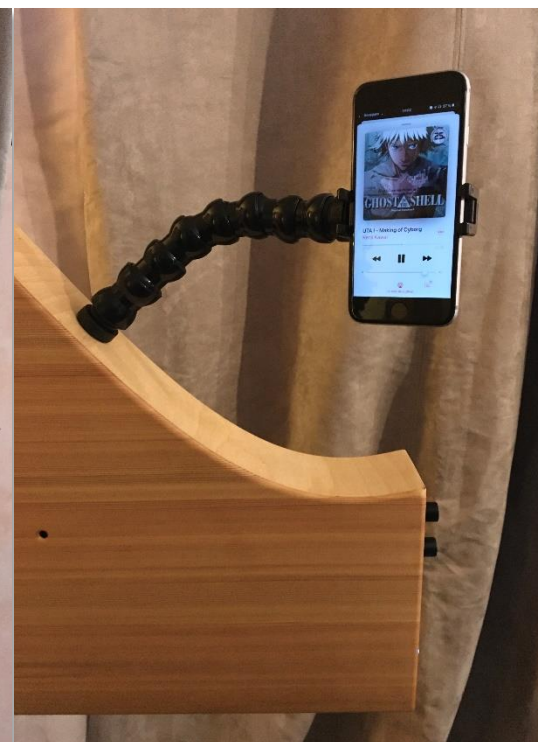
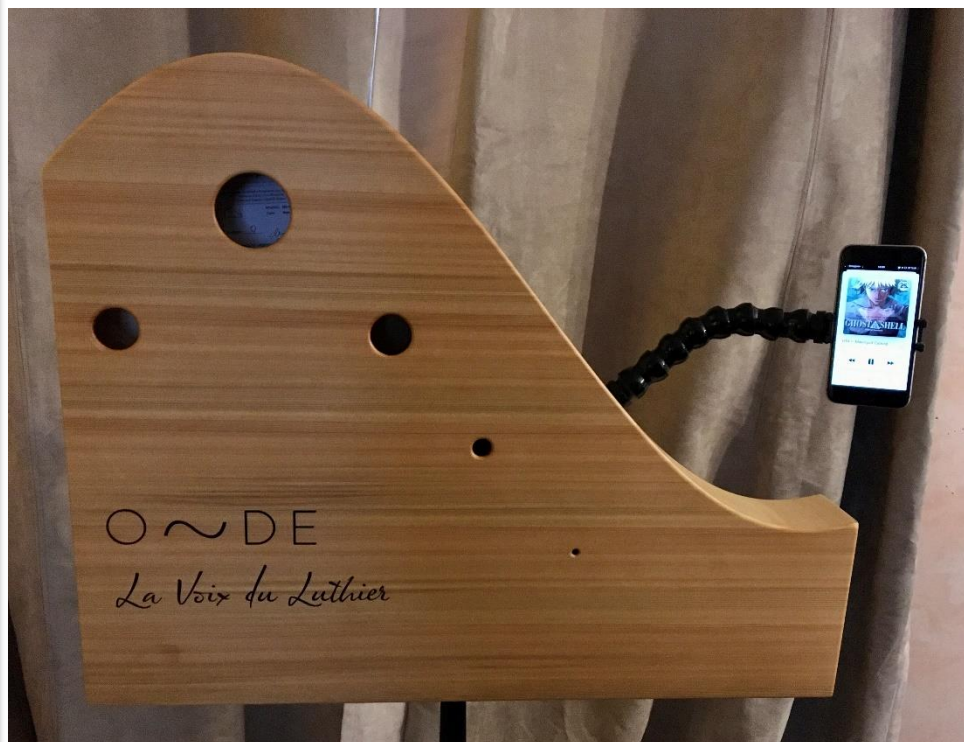
They are not all provided with the Onde, some are available from our web site, you can also built your own (feel free to share your DIY with us), but you can also just call us if you need some advices !





DIY Mounting

Thanks to the 9 Kodak screws, any feet or holder that can be used for a camera can be used with the Ondes: so if you want to put it on a microphone stand or attach your smartphone to it, that's easy !



Have fun with your Onde !



Please note that none of the pictures in the document are contractual: the Onde is hand made and we are always improving our production process ! Therefore there may be slight differences from one Onde to another