AODYO INSTRUMENTS

sylphyo
User guide

AODYO INSTRUMENTS

www.aodyo.com

Contents

Safety information

Please take note of the following important information before you begin to use your **Sylphyo**.

Repairing the Sylphyo

Do not open the Sylphyo and do not attempt to service it yourself. Notably, the blue ring below the mouthpiece might be glued to the body in order to protect internal circuits from moisture in normal playing conditions, thus it should not be removed. More generally, damage to you or your instrument could occur during teardown. Please contact Aodyo or an authorized service provider.

Using the battery

Your **Sylphyo** contains a lithium-ion battery that can only be replaced by Aodyo or an authorized service provider. Do not try to replace the battery yourself, as this could cause overheating and injuries. The battery must be disposed of separately from household waste.

Cleaning

To clean the **Sylphyo**, turn it off, then use a soft and dry cloth. As the **Sylphyo** contains electronic components, moisture must not get into openings.

Using the connectors and the switch

Avoid forcing a connector into a port, and do not use the switch with excessive force. If a connector does not fit into a port, first check that they match. The main screen of the **Sylphyo** turns on approximately five seconds after power-on. If you suspect that the **Sylphyo** does not turn on normally, make sure you have been waiting for at least ten seconds before trying to turn it off and on again.

Using the mouthpiece

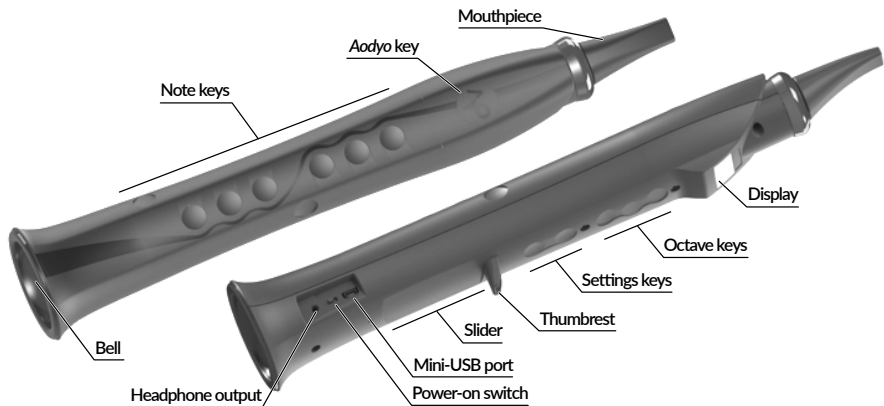Do not try to play your **Sylphyo** without a mouthpiece.

The mouthpiece of your **Sylphyo** can be easily removed and replaced. You can order new mouthpieces at our usual resellers. After replacing the mouthpiece, please make sure that it is tightly and securely attached to the rest of the instrument.

The Sylphyo at a glance

A warm thank you from the Aodyo team for believing in us and supporting our work! We hope you will love using your **Sylphyo** as much as we do.

It is is the first wireless MIDI controller that reproduces the feeling of an acoustic wind instrument. Like them, it is played by blowing into a mouthpiece and selecting notes using keys on the front of the instrument. However, unlike other wind instruments, the **Sylphyo** is also sensitive to your movements, as well as the way you touch it, offering novel expressive possibilities.

Overview

Mouthpiece

Aodyo key

Note keys

Display

Octave keys

Settings keys

Thumbrest

Slider

Bell

Mini-USB port

Headphone output

Power-on switch

Accessories

Three accessories are included along with your **Sylphyo**:
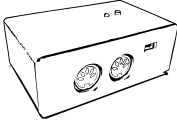
Receiver device
Connect this device to a computer (via USB) or to a synthesizer (via MIDI) in order to receive a signal from the Sylphyo.

5W charger
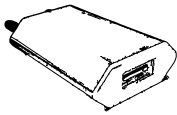Plug the 5W charger into a mains socket in order to charge the battery of the Sylphyo using the USB cable.

USB cable
Use the USB cable to connect the receiver device to your computer.

First steps

The **Sylphyo** allows you to control a hardware synthesizer or a virtual instrument on your computer. While it is wireless, you still have to connect the receiver device to your computer or synthesizer in order to allow the latter to receive MIDI messages sent by the Sylphyo.

Before using it for the first time, please charge your **Sylphyo** for up to 8 hours. Once it is fully charged, you can turn it on and off using the power-on switch located near the bell.

What is it, exactly?

Your Sylphyo is a **controller**: it processes input from its various sensors (breath, inertial, capacitive…), determines what you are doing, and sends orders (e.g., *start playing a soft C note*) to a software or hardware synthesizer that processes these orders and produces sounds. These orders are formatted as messages in the MIDI communication protocol, an industry standard for more than 30 years. Most synths understand MIDI, so you can really control almost anything that produces sound using the Sylphyo.

Your Sylphyo is also **wireless**: MIDI messages are transmitted from the Sylphyo to the receiver device through radio waves (typically in less than a millisecond), and the receiver device passes these messages on to your computer, smartphone, tablet, or hardware synth, which then produces sound. The whole process should take between 5 and 20 milliseconds, depending on the computer, device, or synth at the receiving end.

Finally, your Sylphyo is **future-proof**: it is designed so that you can benefit from further software and hardware improvements. Updates to the internal software are free, and you can download them on our website. In the future, you will also be able to buy an extension card that turns it into a standalone musical instrument (hence the headphone output), or an active mouthpiece with extra sensors for even more expressiveness.

What is there to see?

The display of your **Sylphyo** provides you with three main screens that provide you with all the relevant information to perform and configure it according to your needs.

Performance screen

This is where you will spend most of your time. You can see a quick recap of your performance parameters, such as the base key, the current MIDI channel, or the currently played note. You can also have a quick glance at important information about your **Sylphyo**, such as battery life or wireless status.

Quick settings

Holding the ⋏º key while in the performance screen moves you to **Quick settings**, which we designed to allow you to very quickly change your performance parameters (e.g., base key, and MIDI channel) during your performance, without even having to look at your screen. More parameters (MIDI volume CC, and breath intensity CC) can be selected by simply tapping on the slider with your right thumb.
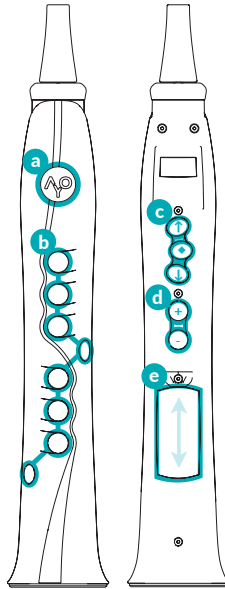
Settings menu

Holding the ⋏º key while swiping your thumb from the bottom to the top of the slider moves you to the **Settings menu**, where you can customize many aspects of your **Sylphyo**, from the MIDI mapping to the way it responds to your movements.

What is there to touch?

The following explains the different keys and touchable elements you can interact with.

a The **Aodyo key** (𝄞) allows you to enter *Quick settings*, which you enter as soon as the key is pressed, and leave as soon as it is released.

You can also access the *Settings menu* by holding 𝄞 while sliding your thumb over the slider from bottom to top.

Inside the *Settings menu*, pressing 𝄞 always allows you to go back to the previous screen.

b **Note keys** allow you to select the played note. The default fingerings are similar to a modern recorder, however they can be changed in the *Settings menu*.

c Each **octave key** acts like a recorder thumb hole, but at different octaves (◆ is the base octave, ↑ goes up by 1 octave, and ↓ goes down by 1 octave).

In *Quick settings* (when you keep pressing the ⌃⊙ key), octave keys allow you to select a quick setting.

In the *Settings menu*, you can select a menu item using ↑ and ↓ , and confirm using ◆ .

d **Settings keys** allow you to increase (+) or decrease (−) some parameters in the *Quick settings* and the *Settings menu*.

During your performance, they act as supplementary octave keys, going down by two (+) or three (−) octaves.

e The **slider** allows you to nuance the played sound by sliding your thumb vertically.

It also allows you to access the *Settings menu* by sliding from the very bottom to the top while pressing the ⌃⊙ key.

In the *Settings menu*, you can also use the slider to select and confirm menu items (by sliding and tapping, resp.), and you can go to the previous screen by sliding your thumb from the very top to the bottom.

Getting started

In this section, you will learn how to quickly set up your **Sylphyo** to work with virtual instruments on your computer, with your iOS smartphone or tablet, or with your hardware synthesizer.

Charging and pairing

Your **Sylphyo** must be charged from time to time, and it has to be paired with its receiver device in order to work correctly.

Charging the Sylphyo

When your receive your **Sylphyo**, its battery might not be fully charged. Before turning it on for the first time, please recharge it to 100%. This might take up to 8 hours. You will need to recharge it every now and then, when the charge level indicator visible on the performance screen shows that your battery is low.

To charge your **Sylphyo**, please connect it to the mains as described in the following diagram:

USB cable

5W charger

mains socket

Sylphyo

13
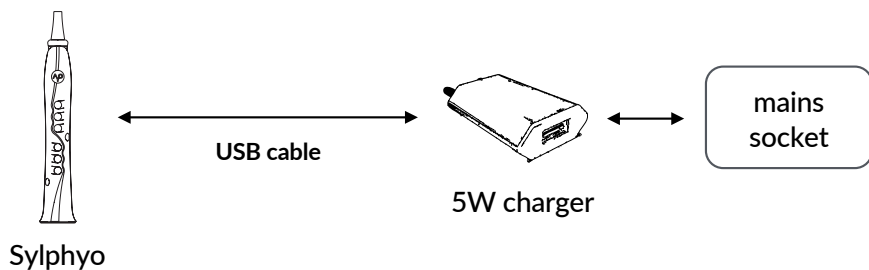
You can turn on the **Sylphyo** if you want to keep an eye on the charging process. If you have a spare mini-USB cable, you can connect it to the receiver device and play the **Sylphyo** while it is charging.

Pairing the Sylphyo with the receiver device

When the **Sylphyo** is turned on, it tries to establish a wireless connection with its *receiver device*. If the connection cannot be made, or if you'd like to pair your **Sylphyo** with another receiver device, you will have to start the pairing process over. Your **Sylphyo** has been carefully paired before shipping, but it is important that you know how to perform this operation again.
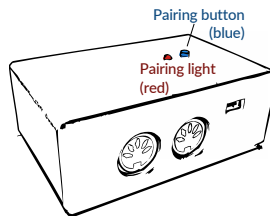
To begin the pairing process, press the blue button of the receiver device you want to pair to your **Sylphyo**. The red light next to it will continue blinking until the process completes.

Then, enter the *Settings menu*[1] on the Sylphyo, select **Receiver device**, and confirm. After a few seconds, the pairing status will change from ⟪**?**⟫ to ⟪**•**⟫, and the red light on the receiver device will stop blinking, indicating that pairing is complete.

---

[1]You can enter this menu anytime by swiping the slider from bottom to top while holding the ⋏ᵒ key.

Quick start with a Windows or macOS computer

The most common way to use the Sylphyo is to have it control a **virtual instrument** that generates sound on your computer. To do so, you will need the receiver device and the USB cable.

Please connect these elements as shown on the following diagram:
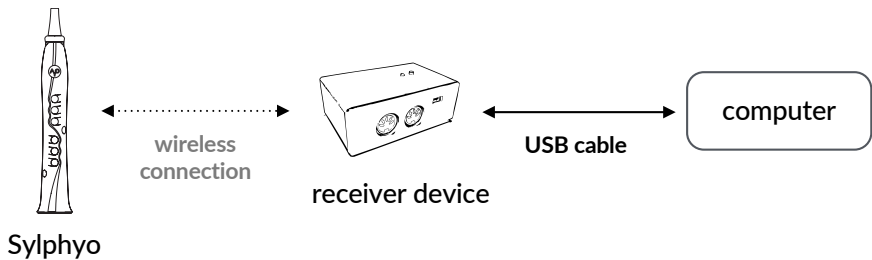
The receiver device is immediately recognized as a standard USB-MIDI peripheral, thus no drivers are required.

To allow you to get playing as quickly as possible, we designed **Sylphyo Bench**, a small application for Windows and macOS[2] with five different sounds that are setup to respond well with the Sylphyo. Even if you already own other virtual instruments, you may want to keep this application handy if you want to quickly test your computer configuration, identify potential problems, or simply show the Sylphyo to a friend.

Go to *www.aodyo.com/sylphyobench* and **click** the link corresponding to your operating system (Windows or macOS) to **download** an archive containing the *Sylphyo Bench* application. You may then have to **unzip**

---

[2]Sylphyo Bench supports Windows 7 and onwards, as well as macOS 10.8 and onwards.

the archive before you can **open** the application. Then, **follow** the numbered sections on the screen.

First, select **Panda-Audio midiBeam** as a **MIDI input**, assuming the receiver device is already plugged in. Else, plug it to a USB port on your computer, and hit the **Refresh** button before selecting the MIDI input again.

Then, select appropriate **audio output** settings. The **Driver** and **Output** should automatically match your default system settings, thus you do not need to change them. However, you may have to tweak **Buffer sizes**[3]: put the same number in both boxes, ideally **128**, **64**, or **32**

---

[3]There is always a tradeoff with audio buffer sizes: they should not be too high (or else there will be a delay between your breath and the sound), but they should not be too low either (or else you will hear cracking noises).

samples.

Finally, **click the blue speaker button** and start playing the Sylphyo. When playing, you should see a light blinking next to the speaker button. You can also adjust the volume control slider underneath if necessary.

Quick start with an iOS smartphone or tablet

You can also use the Sylphyo to control sounds generated from any iOS application on your iPhone, iPod, or iPad. To do so, you will need the receiver device, the USB cable, and an adapter to connect the USB cable to the port of your smartphone or tablet.

Please connect these elements as shown on the following diagram:

wireless connection

USB cable

iPhone or iPad

receiver device

adapter
Lightning-to-USB (Lightning port)
or
Camera Connection Kit (30-pin port)
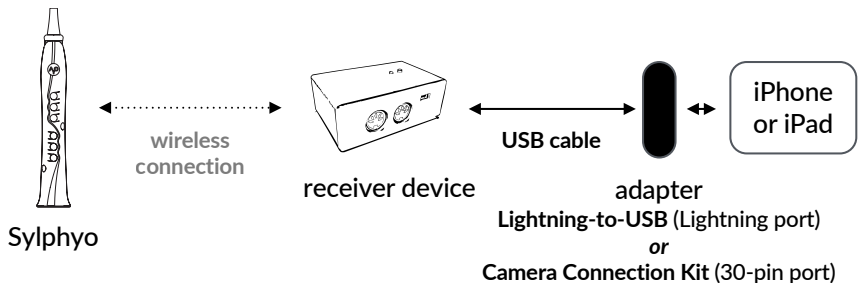
Sylphyo

The *Garageband* app is the simplest way to quickly start playing your Sylphyo on iOS. It is also free if your iOS device is newer than September 1, 2014.

If Garageband is not already installed, **download** it from the *App Store*. Once Garageband is **open**, **select** a *Keyboard* track. Then, tap the downwards arrow in the upper left corner of the screen, and select the second item of the menu (**Grand Piano** in the image below).
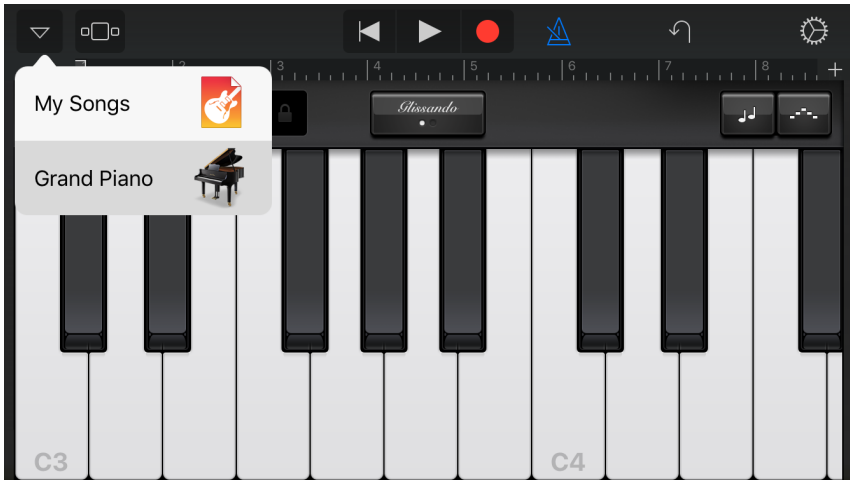
Then, go to **Leads** and select *Vintage Lead*. There are other interesting sounds in this section, as well as in the **Bass**, and **Others** section. The latter contains brass and woodwind sounds as well.

If the receiver device is connected to your iOS device, you can directly play the Sylphyo.

Besides Garageband, you can find other iOS apps that work *out of the box* with the Sylphyo, such as *Yamaha Synth Book* (free, select *AN2015* to access 128 synth sounds such as *07 Odyssolo*) and *bismark bs-16i* (paid). In addition, there are many more paid iOS apps that can be quickly setup to accept most MIDI messages sent by the Sylphyo (mainly

the one controlled by breath intensity, CC11): *Thumbjam*, *Propellerhead Thor*, *iProphet* and other Arturia synth apps, Korg apps such as *iM1*, *iWavestation*, and *ODYSSEi*, *iGear Instruments Laplace*… See below for details on how to configure them.

Setting up virtual instruments and apps to work with the Sylphyo

Through the receiver device, your **Sylphyo** is automatically recognized as a standard USB-MIDI device by your computer, smartphone, or tablet, hence you can directly use any virtual instrument (*VSTi*, *Audio Unit*, app…) that accepts MIDI.

> **NOTE**
>
> On a Mac, your Sylphyo will also work out of the box with most wind and synth sounds of Garageband.

However, many virtual instruments are not made for wind controllers and may not respond to breath intensity and other expressive controls. In this case, you might need to assign some of their parameters to the MIDI messages sent by the **Sylphyo**.

See the documentation of your virtual instrument or plugin host to learn how to control parameters through MIDI. Usually, a *MIDI Learn* function will allow you to visually select a parameter, and then to send the MIDI message (usually a MIDI CC) you'd like to assign to this parameter. To facilitate the mapping of a specific control of the **Sylphyo** through *MIDI Learn*, go to the *Settings menu* in the **MIDI Mappings** section, select the relevant control using ⬆ / ⬇ or the slider, and blow into your **Sylphyo** to send only the corresponding MIDI message.

Without *MIDI Learn*, you will have to enter the MIDI message manually. At the end of this section, you will find a summary table of the MIDI messages sent by your Sylphyo that you can map to parameters of your virtual instrument.

We have successfully used the following virtual instruments and audio workstations with the Sylphyo:

Audio Modeling / SWAM (*www.audiomodeling.com*, paid)
We highly recommend the Audio Modeling instruments based on their SWAM engine. They offer very realistic and tremendously expressive control of many classical instruments (saxophones, flutes, clarinets, double reeds, brass instruments, violin and other stringed instruments...). For the best effect with SWAM instruments, please follow *our recommendations*.

Garageband (*www.apple.com*, free, Mac only) and Logic Pro (paid)
Most included virtual instruments work out of the box.

Massive (*www.native-instruments.com*, paid, demo available)
Use MIDI Learn to assign breath intensity and other controls to sound parameters.

Live (*www.ableton.com*, paid, 30-day trial available)
Many Live instruments can be controlled using the Sylphyo if you use Aftertouch instead of MIDI CC 11 (see the **MIDI Mappings** section of the *Settings menu*). Some instruments, such as *Operator* or *Wavetable*, require that you manually map Aftertouch to volume and/or filter frequency, for example.

Reason (*www.propellerheads.se*, paid, 30-day trial available)
The *Subtractor* synth has a *Ext. Mod* section where you can directly assign breath intensity (select *Expr*) to variations of sound intensity (*Amp*) or timbre (*F.*

Freq). To control other synths, use a *RPG-8* arpeggiator and route the relevant CV outputs to another device's inputs (especially *Expression CV Out*). If needed, split outputs using one or more *Spider CV*.

Using the Sylphyo with a hardware synthesizer

You can also use any MIDI-compatible hardware synthesizer with the Sylphyo. In addition, you will need the receiver device, the USB cable, the 5W charger, as well as a MIDI cable (not included). Please connect these items according to the following diagram:
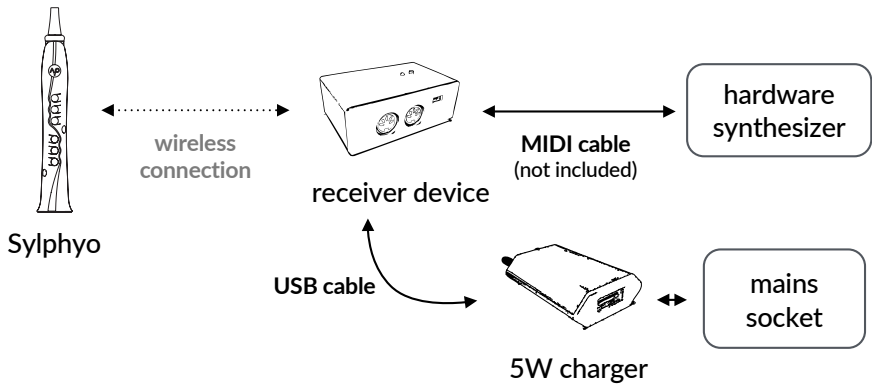
Once these items are connected and powered on, you can start to play.

Note that synthesizers specialized in wind instruments simulations need to receive breath control data on MIDI CC2, in which case you will have to change the MIDI Mapping configuration of the Sylphyo in the **MIDI Mappings** section of the *Settings menu*.

We have successfully used the following synthesizers with the Sylphyo: *Dynasample XPression*, *Waldorf Blofeld*, *Korg Kronos*, *Arturia Origin*, *Mutable Instruments Elements and Shruthi1*. *Axoloti Core*, *Yamaha VL-70m*, and *Nord Modular G2*. See also the great patches at *www.patchmanmusic.com*.

Default MIDI mappings and general recommendations

Your Sylphyo assumes a default pitch-bend range of ±2 semitones.

The following table summarizes the MIDI messages sent by the Sylphyo for each of the parameters you control, with the default mapping (although you may have to enable some of these parameters first). You can always change these messages in the **MIDI Mappings** section of the *Settings menu*.

Parameter	Default MIDI message to map
Breath intensity	CC 11 *(Expression)*
Slider control	CC 1 *(Modulation)*
Slider control (from top edge)	CC 12 *(Effect Controller 1)*
Slider control (from bottom edge)	CC 13 *(Effect Controller 2)*
Elevation angle	CC 75 *(Sound Controller 6)*
Roll angle	CC 76 *(Sound Controller 7)*
Compass direction	CC 77 *(Sound Controller 8)*

If you cannot use these mappings (e.g., with a simple Soundfont expander or sample-based synthesizer), you can at least configure the Sylphyo to use *dynamic velocity*: the velocity of the MIDI notes you play will be commensurate to the intensity of your breath at the beginning of the note. To do so, go to the **MIDI Mappings** section of the *Settings menu*, and set the **Velocity** parameter to *Dynamic*.

Playing the Sylphyo

Assuming your computer, iOS device, or hardware synthesizer is setup correctly, you can start to play the **Sylphyo**. In this section, you will learn to control the various aspects of the instrument, as well as several expression techniques you can start practicing right away.

Breath control, nuances, and articulation

Blow gently into the *mouthpiece* of your **Sylphyo**. You should hear a sound whose intensity is controlled by the intensity of your breath.

Feel how your breath flows through the instrument, from the mouthpiece right to the bell, just like an acoustic instrument. This is what makes the **Sylphyo** unique.

> **NOTE**
>
> When you play a note, your Sylphyo sends two kinds of MIDI messages: *note-on/note-off* messages that say that you have begun or ended a specific note, and many *control change* (CC) messages (by default, CC11 *Expression*) that describe the evolving intensity of your breath. For an optimal experience, check that your synthesizer handles both kinds of MIDI messages.

Now, try making notes in a few different ways and listen to your synthesizer's response to how you shape notes using your breath:

- try short and long ones, loud and soft ones,
- try increasing (*crescendi*) or decreasing (*diminuendi*) in loudness,

- – try pronouncing syllables like *tu*, *ku*, or *du*, and make quick successions of them (*tukutukutuku*, *tukudu tukudu*),
- – try rolling your tongue (*flutter-tonguing*),
- – try alternating soft and loud phases in a single note (*tremolo*).

These are some nuance and articulation techniques you can use to control your musical phrasing.

> **WITH *SYLPHYO BENCH***
>
> With the default preset, *1•Filtered Square*, you might want to change the timbre a bit so as to better perceive the shorter attacks of your breath. To do so, place your right thumb near the bottom part of the slider while you play.

Fingerings

Now that you can shape notes and create rhythm, let's focus on how you can apply melody.

The default fingering of the Sylphyo is similar to a modern recorder (see the *Fingerings* section for more details), so most notes require that you touch an *octave key* in addition to one or more *note keys* at the same time. To get a feel of the different notes, you will learn a **major scale**.

First, **touch** all the note keys except the one under your left little finger, simultaneously with the middle *octave key* on the back of your Sylphyo. When blowing into the mouthpiece, you will play a *C* note on the third octave[1] (*C3*).

Then, raise your right little finger and blow into the mouthpiece: you play a *D3*.

Continue to raise your fingers one by one from bottom to top, blowing into the mouthpiece each time to hear the note you play, until the only keys left touching the Sylphyo are the middle octave key and the top-most note key, which should be under your left index finger. You are now playing a *B3*.

Finally, stop touching the topmost note key, touch the key under your left middle finger, and blow into the mouthpiece: you just ended the C major scale with a *C4* (*C* note on the fourth octave).

---

[1]You might play another note if your base key setting is different from *C3*.

> **NOTE**
>
> The Sylphyo has many more fingerings, some of which are adapted from wind instruments, such as the clarinet, the trumpet, or the saxophone. If you are used to another wind instrument, you might want to try them out.
>
> To change the current fingering, check out the **Keys** section of the *Settings menu*.

With the default fingering, adding the little finger of the left hand usually raises the current note by a semitone: for instance, *C3* will become *Db3*. There are other ways to play notes with accidentals (sharps or flats), some of which are inspired from recorder fingerings, but with any of these you can now play any pitch in the chromatic scale.

> **BETA FEATURE: *KEY-BENDS***
>
> You can also play outside the scale using *key-bends*. The idea is to cover some part of the bottommost key you are touching, instead of covering it fully like the other keys. Depending on the amount of area you cover, you will slightly increase the pitch in a continuous fashion (*pitch-bend*), in a way similar to recorders.
>
> To activate key-bends, go to the **Keys** section of the *Settings menu*.

Shake vibrato

To emphasize specific notes in your melody, you might want to apply *vibrato* while playing. Vibrato is a common performance technique where the played pitch slightly varies in a periodic fashion, introducing a feeling of movement and expression.

Repeatedly **shake** your Sylphyo away from and towards your mouth while playing a note to make a vibrato.

Usually, electronic instruments only allow you to control vibrato at a fixed rate or intensity, but with *shake vibrato* you can control all aspects of your vibrato. Just vary the speed at which you shake the instrument.

<div>

NOTE

Shake vibrato is a feature introduced in version 1.1.0.
If your Sylphyo is not up-to-date, please update it to the latest version first.

</div>

Inertial control

Getting a bit winded? You can also make music just by moving your Sylphyo around.

<div>

NOTE

Seriously, though, if you *do* feel winded after playing for some time, you might want to limit the air flow by covering part of the hole in the bell using adhesive tape. You will probably have to reconfigure the breath sensing minimum and range in the **Breath** section of the *Settings menu*.
We will soon offer plugs with several sizes of exhaust to adapt air flow.

</div>

Activate the *inertial mode* by gently, but firmly shaking your Sylphyo from top to bottom (*shake-to-move*), while maintaining contact with the slider using your thumb. You should see a white line with the caption *INERTIAL MODE* on the bottom edge of the performance screen.

Shake to move (starts *inertial mode*)   Elevation angle   Roll angle   Compass direction
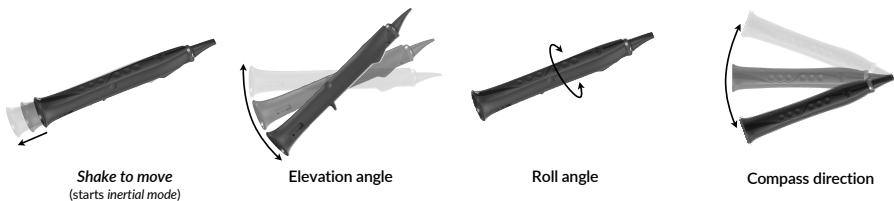
Now, slowly **tilt** your Sylphyo from the vertical to the horizontal position. You should start hearing sound at a 45° angle, and it should reach its maximum intensity when the Sylphyo is horizontal. In inertial mode, the *elevation angle* of your Sylphyo always replaces the intensity of your breath in the control of sounds.

Changing the elevation angle is fine for slow variations, but you can also produce fast attacks using the same gesture that activates inertial mode: shaking the Sylphyo from top to bottom. The intensity of the attack will be proportional to the velocity of your movement.

INERTIAL MODE AND SHAKE VIBRATO

While in *inertial mode*, the *shake vibrato* behaves a little bit differently: you must shake the Sylphyo laterally.

To **stop** *inertial mode*, just blow into the Sylphyo.

Aside from inertial mode, you can use the *elevation* and *roll* angles of your Sylphyo to modulate any sound parameter. *Elevation* control works just like in *inertial mode*, but it modulates a sound parameter instead of replacing your breath. *Roll* control only works when you already play a note, and the roll angle is relative to the position of the Sylphyo when starting to play the note. There is also another way to modulate sound parameters that you can enable later: *compass control*, which behaves like *roll*, but takes the direction you're heading to (when the Sylphyo is horizontal) instead of the roll angle.

The slider

Inertial control is spectacular, and body movements are very nice to add visual expression to your performance, but sometimes you want more intimate ways to control and shape your sound. This is what the *slider* is for. Usually, your right thumb is placed just below the thumbrest and presses against the top of the slider.

While playing, **move** your thumb along the surface underneath the thumbrest, and **listen** how it affects the sound. The effect should be different depending on where you started touching the slider.

Top edge
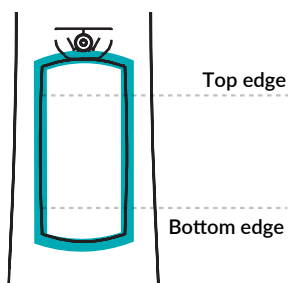
Bottom edge

If you **touch** the slider between the *top* and the *bottom edges* and then **move** the thumb along the entire surface, the Sylphyo modulates your

sound in a way defined by the virtual instrument or synthesizer. When you **stop touching** the slider, the modulation persists.

If you **touch** the *top edge* (just below the thumbrest) and slightly **roll** the thumb downwards, the Sylphyo bends the current note downwards.

Finally, if you **touch** the *bottom edge* and **move** your thumb upwards along the surface, you can modulate your sound in a different way (if understood by your virtual instrument or synthesizer), but the effect immediately ceases when you **stop touching** the slider.

NOTE

When you move your thumb on the middle part of the slider, your Sylphyo sends *control change* messages (by default, CC1 *Modulation Wheel*) that describe your movements and can be turned into modifications of the sound by your synthesizer. This is also the case (with other CC numbers) when you move the Sylphyo around, if any of the inertial control options is active (you can see and change the messages in the **MIDI Mapping** section of the *Settings menu*).

You can customize how the different parts of the slider react to your touch in the **Slider** section of the *Settings menu*.

For instance, if you select *Pitch-bend ±*, you can use the slider like a pitch-bend wheel: start pressing anywhere on the slider, roll your thumb upwards or downwards to continuously change the pitch, and stop pressing the slider to remove the pitch-bend variation.

WITH *SYLPHYO BENCH*

Select preset *5•Club Chords* by switching to MIDI channel 5.

With this preset, controlling the slider starting from the *bottom edge* will transition between a chord to a solo instrument.

Controlling the slider starting from anywhere but the edges allows you to transition between a major 7th chord (top), a dominant 7th chord (middle), and a minor 7th chord (bottom).

Settings

In this section, you will discover how to setup your **Sylphyo** in the way that best fits your needs.

We designed the Sylphyo so that settings can be quickly accessed using the *Aodyo key* (︿ᵧᵒ), which you can find in the upper part of the front of the instrument.

From the playing position, you can easily reach the ︿ᵧᵒ key with your left index finger. Position your left thumb near the *octave keys*, and position your right thumb near the *slider* or the *settings keys*.

There are two places from which you can setup the Sylphyo in various ways:

- – **Quick settings** allow you to quickly change the base key, the MIDI channel, and other parameters.
- – the **Settings menu** offers other, more specific but less often used parameters.

Quick settings

We designed **Quick settings** so that once you have learned how to operate them, you can quickly change a setting in the middle of your performance, without even having to look at the display.

Each *octave key* allows you to access a different Quick setting. In addition, there are two additional settings that are accessed differently.

To enter *Quick settings*, hold the ⋏º key, as well as the *octave key* corresponding to the quick setting you'd like to change (see below). To get out of *Quick settings*, simply stop touching the ⋏º key. When inside a Quick setting, you can adjust the value either by pressing *settings keys* **+** or **-** , or by sliding upwards or downwards on the *slider*.

Octave key	Icon	Quick setting and meaning
↑	⛎	**Base key**
		Change the base pitch of the Sylphyo (*C3* by default).
◆	⚊	**MIDI Program Change**
		Set the MIDI program (or *preset*) for the current MIDI channel.
↓	🕐	**MIDI Channel**
		Change the MIDI channel the Sylphyo sends its messages to (*Channel 1* by default).

To access the additional parameters (*MIDI Volume* and *Breath intensity CC*), just hold the ⋏º key and tap the slider. Perform more taps to access the other additional parameters, and adjust their value just like other quick settings.

Settings menu

The **Settings menu** allows you to change many parameters that are less often tuned.

To enter the *Settings menu*, hold the ⋏º key and swipe your thumb all

the way from the very bottom to the top of the slider[1].

Once in the menu, to select a menu item, tap the ↑ and ↓ octave keys, or slide upwards or downwards on the slider. To confirm the menu item, execute its action, or start modifying its value, press the ◆ octave key, or tap the slider.

To go back a page, tap the ʌº key, or swipe the slider from top to bottom. To exit the *Settings menu*, repeatedly tap the ʌº key, or swipe the slider from top to bottom while holding the ʌº key.

The following will recapitulate the different sections of the *Settings menu*.

MIDI Mappings

This is where you review or select which MIDI messages (e.g., MIDI CC) are sent by the **Sylphyo** for every gesture you can make while playing.

Breath
Set the MIDI message (*CC* or *Aftertouch*) sent in response to the intensity of your breath.

Default: CC 11 (*Expression*)

MORE OPTIONS

> **Send to, ...and, ...and**
> Set up to three MIDI messages (*CC* or *Aftertouch*) sent in response to the intensity of your breath.
>
> **Default**: only CC 11 (*Expression*)

---

[1]Old timers will appreciate that the *settings menu* can also be accessed by pressing the ʌº, the ↑ and the ↓ keys simultaneously, just like the first versions.

Breath rate

Set the rate at which breath MIDI messages are sent. This does not affect the response time of the **Sylphyo**, but it does affect the effectiveness of advanced breathing techniques. You usually want the highest frequency possible, but some virtual instruments, apps, or synthesizers may not be able to handle higher rates.

Default: Medium (250 Hz)

...per CC

Tell if the rate of the breath MIDI messages must be *per CC* (all breath CCs are sent as a bunch, N times per second, as per the selected rate) or *global* (each breath CC is sent in order, one at a time, such that the total of breath MIDI messages is not more that N per second, no matter the CC).

Default: ● Enabled

Delay notes if needed

The Sylphyo normally waits until the last breath MIDI message (of the *Send to*, *...and*, *...and* list) has been sent before sending note on/off messages. But if you feel that the delay is too long, or that techniques like flutter-tongue suffer too much, disable this to send note on/off messages as early as possible.

Default: ● Enabled

Velocity

Set the velocity value sent with every note. You can select any fixed velocity value from 1 to 127, or select *Dynamic* if you want the **Sylphyo** to set velocity based on the intensity of your breath.

Default: Dynamic

MORE OPTIONS

Capture delay

The time the Sylphyo takes to determine the velocity of a note beginning from your breath. With a smaller delay, you might have to use more breath attack to have a high velocity.

Default: 20ms

Max. velocity

The maximum velocity value that can be reached (from 1 to 127). It can be useful to set it to 100 as some virtual instruments (like in Garageband) use velocities 101 to 127 for special effects (e.g., bass slaps).

Default: 100

Slider ctrl.

Set the MIDI CC sent when moving the thumb across the slider.

Default: CC 1

Top slider ctrl.

Set the MIDI CC sent when moving the thumb across the slider, if the slide has begun on the top edge of the slider and a *Top edge* slider function is set in the **Slider** section.

Default: CC 12

Btm. slider ctrl.

Set the MIDI CC sent when moving the thumb across the slider, if the slide has begun on the bottom edge of the slider and a *Bottom edge* slider function is set in the **Slider** section.

Default: CC 13

Elevation ctrl.

Set the MIDI CC sent when varying the elevation angle of the Sylphyo if the *Elevation control* option is set in the **Movement** section.

Default: CC 75

Roll ctrl.

Set the MIDI CC sent when varying the elevation angle of the Sylphyo if the *Roll control* option is set in the **Movement** section.

Default: CC 76

Compass ctrl.

Set the MIDI CC sent when varying the compass direction of the Sylphyo if the *Compass control* option is set in the **Movement** section.

Default: CC 77

PROGRAM CHANGE

> **Send bank**
>
> By enabling this option, the Sylphyo will send *Bank Select* MIDI messages before a *Program Change* message is sent. It can be useful for some synths where the sound cannot be changed if the bank is not systematically selected right before. See the manual of your synth for help on how these options should be configured.
>
> **Default**: ○ Disabled
>
> **Bank (MSB)**
>
> The most significant byte of the bank to select (sent as MIDI CC 0).
>
> **Default**: 0

> **Bank (LSB)**
>
> The least significant byte of the bank to select (sent as MIDI CC 32).
>
> **Default**: 0

Breath

This section allows you to setup the breath sensor of the **Sylphyo**.

Minimum

Set the minimum amount of breath intensity (in arbitrary units, between 0 and 2000) that will trigger a note start. Usually, you might want to decrease the minimum to get the fastest response, or to increase it to avoid spurious notes.

Default: 20

Range

Set the dynamic range of breath intensity (in arbitrary units, between 0 and 3000). A lower value allows you to reach the maximum note intensity with less air, while a higher value allows you more precise control of the breath response.

Default: 800

Curve

Set the curve of the breath response, between *Linear* (more realistic), *Logarithmic* (faster response with less breath), and *Lin-log* (intermediate curve).

Default: Logarithmic

Keys

This section allows you to change the fingerings of the **Sylphyo**, as well as several parameters and functions pertaining to the note keys.

Fingering

If you are used to a particular wind instrument, you can select the corresponding fingering in this list. For details on the fingerings, please see the corresponding section at the end of this guide.

Default: Recorder

MORE OPTIONS

> **Invert octaves**
> When enabled, the direction of octave keys is turned upside down.
>
> **Default**: ○ Disabled

> **Left pinky: -1st**
> When enabled, the left little finger key acts as a *flat* key instead of a *sharp* key (in fingerings where this makes sense).
>
> **Default**: ○ Disabled

> **Right pinky: +1st**
> When enabled, the right little finger key acts as a *sharp* key instead of a *flat* key (in fingerings where this makes sense).
>
> **Default**: ○ Disabled

> **Replay same note**
> Whether to play the same note twice when performing two consecutive fingerings that lead to the same note.
>
> **Default**: ○ Disabled

Reaction time

Set the time taken to react to changes in fingering (in milliseconds, between 0ms and 79ms). Increase reaction time if you hear unintended notes when playing *legato*: if so, the Sylphyo reacts too fast to your finger movements. Conversely, decrease reaction time if you'd like to make faster trills and other effects.

Default: 30ms

More sensitive

Increase the sensitivity of the octave and note keys. Activate this option if you feel that the Sylphyo seems to "forget" that some fingers are touching the keys (typically, on the octave keys). Some users need this option for the capacitive technology of the Sylphyo to perform reliably with their body.

Default: ● Enabled

Key-bend *(BETA)*

Allow note keys to behave like recorder tone holes with respect to pitch-bend: the amount of skin in contact with the bottommost key determines whether the note is bend upwards, and by which amount (to do so, you can either slide your finger on the key, or raise it slightly).

Default: ○ Disabled

Key noise *(BETA)*

Generate MIDI note-on/note-off messages even without breathing into the Sylphyo. This is used to hear key noise with the *Audio Modeling / SWAM* virtual instruments.

Default: ○ Disabled

Slider

In this section, you will be able to configure the various functions of the *slider*.

Function
Select the main function of the slider, between *None*, *Control* (issue the control CC defined in the **MIDI Mappings** section during contact, and return to 0 as soon as there is no contact), *Control (latch)* (same, but do not return to 0), *Breath* (play notes using the slider instead of your breath), *Pitch-bend ±* (use the slider like a pitch-bend wheel), *Pitch-bend +* (only bend upwards), or *Pitch-bend -* (only bend downwards).

Default: Control (latch)

Top edge
Select the function of the slider if you start sliding by touching its top edge (just below the thumbrest).

You can choose between *Nothing*, *Ignore slides*, *Control* (issue the control CC defined in the **MIDI Mappings** section during contact, and return to 0 as soon as there is no contact), *Breath* (play notes using the slider instead of your breath), *Pitch-bend +* (bend upwards, and return to 0 as soon as there is no contact), or *Pitch-bend -* (same, but bend downwards).

Default: Nothing

Bottom edge
Select the function of the slider if you start sliding by touching its bottom edge (at the end of the sliding surface). See above for a list of functions.

Default: Nothing

Edge size

Adjust the size of the top and bottom slider edges (in millimeters, between 2mm and 20mm).

Default: 8mm

Movement

In this menu, you can activate different features of the **Sylphyo** related to movement and inertial control.

Shake to move

Allow the activation of the *inertial mode* by shaking the **Sylphyo** once in a downwards movement, while touching the slider surface using the thumb. To exit inertial mode, just blow into the mouthpiece.

Default: ● Enabled

Shake vibrato

Allow the **Sylphyo** to interpret slight repeated shakes away from and towards your mouth as *vibrato*.

Default: ● Enabled

MORE OPTIONS

> **Range**
> The maximum amount of pitch-bend you can reach using the vibrato.
>
> **Default**: 50%
>
> **Sensitivity**
> How much sensitive the vibrato is to your movements.
>
> **Default**: 43%

> **Threshold**
>
> A higher threshold makes it difficult to accidentally trigger the vibrato.
>
> **Default**: 9%

Elevation control

Allow the Sylphyo to send MIDI CC messages (defined in the **MIDI Mappings** section) corresponding to the *elevation angle* of the Sylphyo (altitude of the bell) when not in *inertial mode*.

Default: ● Enabled

MORE OPTIONS

> **Bidirectional**
>
> When active, the value is bidirectional; i.e., it is different depending on whether the bell is higher than the mouthpiece.
>
> **Default**: ○ Disabled

> **Absolute**
>
> When active, the elevation angle is directly derived from raw sensor values, instead of being relative to the horizontal position.
>
> **Default**: ○ Disabled

> **Range**
>
> The relative angle (compared to the horizontal position) that will yield a value of zero. This only makes sense when *Absolute* is disabled.
>
> **Default**: ±35°

Roll control

Allow the Sylphyo to send MIDI CC messages (defined in the **MIDI Mappings** section) corresponding to the *roll angle* of the Sylphyo (around its axis, when it is almost horizontal).

Default: ● Enabled

> **Bidirectional**
>
> When active, the value is bidirectional; i.e., it is different depending on whether the Sylphyo is rolled to the left or to the right. In this case, the central MIDI CC value is 64.
>
> **Default**: ○ Disabled
>
> **Absolute**
>
> When active, the roll angle is directly derived from raw sensor values, instead of being relative to the angle of the Sylphyo when the current note started.
>
> **Default**: ○ Disabled
>
> **Range**
>
> The relative angle (compared to the angle of the Sylphyo when the current note started) that will yield the maximum value. This only makes sense when *Absolute* is disabled.
>
> **Default**: ±5°

Compass control *(BETA)*

Allow the Sylphyo to send MIDI CC messages (defined in the **MIDI Mappings** section) corresponding to the *compass direction* of the Sylphyo (where it is heading when it is almost horizontal).

Default: ○ Disabled

MORE OPTIONS

Bidirectional

When active, the value is bidirectional; i.e., it is different depending on whether the **Sylphyo** heads towards your left or your right. In this case, the central MIDI CC value is 64.

Default: ○ Disabled

Absolute

When active, the compass direction is directly derived from raw sensor values, instead of being relative to the direction of the **Sylphyo** when the current note started.

Default: ○ Disabled

Range

The relative direction (compared to the direction of the **Sylphyo** when the current note started) that will yield the maximum value. This only makes sense when *Absolute* is disabled.

Default: ±15°

Always on

When active, there is no need to be physically touching the **Sylphyo** for the inertial controls (*shake vibrato*, as well as *elevation*, *roll*, and *compass control*) to be active.

Default: ○ Disabled

Other main menu items

Base key

Change the reference note of the **Sylphyo**.

Default: C3

Output

Select the MIDI channel to which the Sylphyo sends its MIDI messages.

Default: MIDI Channel 1

Invert display

Select this item to switch between a white-on-black and a black-on-white display.

En français

Select this item to switch the Sylphyo to the French language.

Receiver device

Select this item to pair the Sylphyo with a wireless receiver device.

Diagnostics

Display some information (such as the version of the internal software and various sensor values) that our technical support might want to get in order to troubleshoot your Sylphyo.

Reset

Perform a factory reset. This changes all the settings of your Sylphyo to the default ones.

Online support

These pages provide you with the main pointers to help you update your **Sylphyo**, troubleshoot potential problems, and contact other users or our technical support.

Updates

Chances are that while you are reading this, a new version of the internal program of the **Sylphyo** is available. Thanks to updates, your **Sylphyo** will keep evolving for years.

We list all the available updates for the Sylphyo at *www.aodyo.com/updates*. Regularly check this page, or subscribe to its RSS feed, to stay informed of new updates.
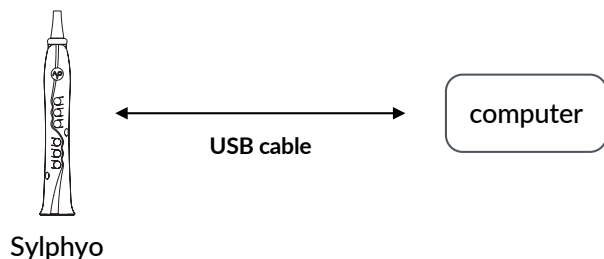
Once in this page, click the link corresponding to your operating system, and follow the instructions specific to your system. Do not forget to connect your **Sylphyo** to your computer using the USB cable.

Troubleshooting and technical support

If an unexpected issue occurs with your **Sylphyo**, please read the *frequently asked questions* (FAQ) at *www.aodyo.com/support*. If this doesn't help to solve the issue, shoot us a mail at *support@aodyo.com* and precisely describe your problem[1]. We'll try to answer you as soon as possible.

User community

You might also want to exchange with other **Sylphyo** users. Feel free to join our forums at *community.aodyo.com*.

---

[1]Don't hesitate to include pictures, videos, or audio clips, if you feel they can allow us to diagnose the problem faster.

Fingerings

This section shortly describe the fingerings of the **Sylphyo**, together with print-ready fingering charts to get started.

Recorder

This is the default fingering of the **Sylphyo**. It is designed for close compatibility with soprano recorders, and includes most Baroque *and* German fingerings and trills up to C at the third octave, as well as some flute-compatible fingerings.

All half-open holes in soprano recorder fingerings must be played as fully open keys on the **Sylphyo**. In addition, the left pinky key on the **Sylphyo** acts as a universal # (*sharp*) key, adding a semitone to any fingering.

A chart is available below for this fingering.

Clarinet

This fingering has been designed for close compatibility with Bb soprano Boehm-System clarinets, mainly in the Clarion register, with adaptations to the keys of the **Sylphyo**.

A chart is available below for this fingering.

Flute

This fingering has been designed for close compatibility with C concert (transverse) flutes, with adaptations to the keys of the **Sylphyo**. It includes most usual fingerings from the first octave. In addition, it extends fingerings of the beginning of the second octave (without the left index finger) up to the high A, which needs to be performed without the thumb.

A chart is available below for this fingering.

Saxophone

This fingering has been designed for close compatiblity with saxophones, with adaptations to the keys of the **Sylphyo**. In addition, the left pinky key on the **Sylphyo** acts as a universal # (*sharp*) key, adding a semitone to any fingering.

A chart is available below for this fingering.

Oboe

This fingering has been designed for close compatibility with oboes, with adaptations to the keys of the **Sylphyo**. It includes most usual fingerings from the first octave.

A chart is available below for this fingering.

Trumpet (EVI)

This fingering is an adaptation of the fingering system of one of the first electronic wind instruments, and it has been designed to allow brass players to quickly adapt their playing style and fingerings to the Sylphyo.
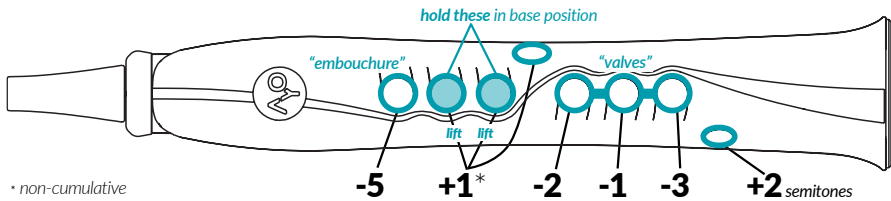
The right index, middle, and ring finger behave exactly like in a trumpet, here controlling what would be the *valves*. To compensate for the lack of a brass embouchure, the left index finger key can be pressed to go down by 5 semitones. The left middle and ring finger keys are almost always held to allow for a stable posture.

To sum up, from the base position (press only the left middle and finger keys), pressing or releasing other keys will add or subtract a given amount of semitones from the base C pitch:

- **Left hand**
    - pressing the *left index finger key*: **-5** *(embouchure)*
    - lifting either the *left middle* or *ring finger key*, or pressing the *left pinky key*: **+1** (non-cumulative)
- **Right hand**

- pressing the *right index finger key*: **-2** *(valve 1)*
- pressing the *right middle finger key*: **-1** *(valve 2)*
- pressing the *right ring finger key*: **-3** *(valve 3)*
- pressing the *right pinky finger key*: **+2**

The *EVI lefty* (*beta*) fingering works exactly like the *EVI* fingering, but it inverts the roles of the hands, so that valves are played on the left hand.

EWI

This fingering has been designed to allow players of other electronic wind instruments to quickly adapt their playing style and fingerings to the **Sylphyo**.
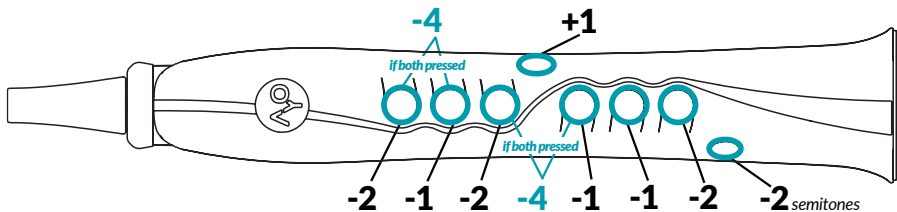
While it is based on familiar traditional woodwind fingerings, it allows for additional *flexibility* in the choice of alternate fingerings, which might ease the execution of some musical phrases.

Hulusi

This fingering has been designed for close compatibility with the hulusi. In addition, the left pinky key on the **Sylphyo** acts as a universal # (*sharp*) key, adding a semitone to any fingering, and the right pinky key acts as a universal *b* (*flat*) key, removing a semitone from any fingering.

Celtic

This fingering has been designed to allow bagpipe players to quickly adapt their playing style and fingerings to the **Sylphyo**. In addition to the base fingerings, removing the left index finger or the octave key adds an octave to any fingering (in a non-cumulative fashion).

A chart is available below for this fingering.

Oriental clarinet

This fingering has been designed for close compatibility with modified-Albert-System oriental clarinets, with adaptations to the keys of the **Sylphyo**. It can be used to play middle-eastern music, and more generally world music repertoires.

Whistle

This fingering has been designed for close compatibility with the Irish tin whistle in C. In addition, the left pinky key on the **Sylphyo** acts as a universal # (*sharp*) key, adding a semitone to any fingering, and the right pinky key acts as a universal b (*flat*) key, removing a semitone from any fingering.

A chart is available below for this fingering.

Ionian, Dorian, and other modes

The remaining fingerings adapt the *Whistle* fingering to the following modes and scales: ionian, dorian, phrygian, lydian, mixolydian, aeolian, locrian, melodic minor, dorian b9, lydian augmented, lydian dominant, major minor, locrian 2, super locrian, minor harmonic, locrian 6, ionian

#5, dorian #4, phrygian dominant, lydian #2, ultra locrian, major harmonic, dorian b5, phrygian b4, lydian diminished, harmonic minor, lydian augmented #9, locrian b13, harmonic major, double harmonic, hungarian minor, oriental, napolitan major, uniton sens., napolitan minor, and gypsy. In addition, the left pinky key on the **Sylphyo** acts as a universal # (*sharp*) key, adding a semitone to any fingering, and the right pinky key acts as a universal *b* (*flat*) key, removing a semitone from any fingering.

sylphyo

(*) The sharp key adds 1 semitone to any fingering

Clarinet

sylphyo

sylphyo

Flute

Saxophone

sylphyo

(*) The sharp key adds 1 semitone to any fingering

	C3	C3#	D3	D3#	E3	F3	F3#	G3	G3#	A3	A3#	B3	C4	C4#	D4
	do3	do#3	ré3	ré#3	mi3	fa3	fa#3	sol3	sol#3	la3	la#3	si3	do4	do#4	ré4

sylphyo

Oboe

Celtic

Grayed keys have no effect on the fingerings.

sylphyo

sylphyo

Whistle

| | C3 do3 | C3# do#3 | D3 ré3 | D3# ré#3 | E3 mi3 | F3 fa3 | F3# fa#3 | G3 sol3 | G3# sol#3 | A3 la3 | A3# la#3 | B3 si3 | C4 do4 | C4# do#4 | D4 ré4 |

(*) The sharp key adds 1 semitone to any fingering
(**) The flat key removes 1 semitone to any fingering

Complementary information

Disposal and recycling

Your Sylphyo must be disposed of properly according to local laws and regulations. Because it contains electronic components and a battery, it must be disposed of separately from household waste.

Trademarks

All the trademarks cited in this documentation are only used here for descriptive purposes. They remain subject to legal regulations and are owned by their respective property holders.

Disclaimer

This documentation represents the current state of the product, however it may evolve. We do everything we can to provide our users with high-quality products and documentation. However, Aodyo does not guarantee that this documentation exactly reflects the state of the product. Aodyo is not liable for data loss or damage resulting from the use of this product and/or its documentation.

sylphyo

Aodyo SAS
11B avenue de l'Harmonie
59650 Villeneuve d'Ascq
France

contact@aodyo.com
www.aodyo.com

AODYO INSTRUMENTS