# Introduction

The LipSync is a mouth-operated sip-and-puff joystick that allows a user with limited or no arm mobility to control a computer, gaming console, smart phone, or tablet.

This Quickstart Guide is meant to briefly introduce the functions and use of the LipSync. For more detailed information, please consult the User Guide.

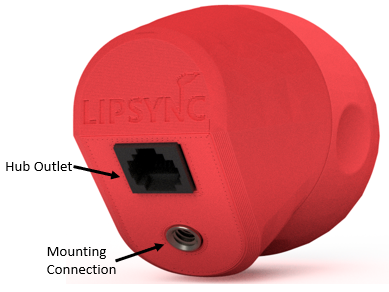
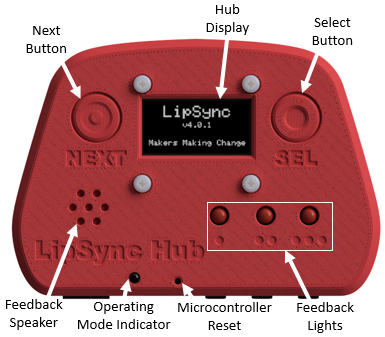
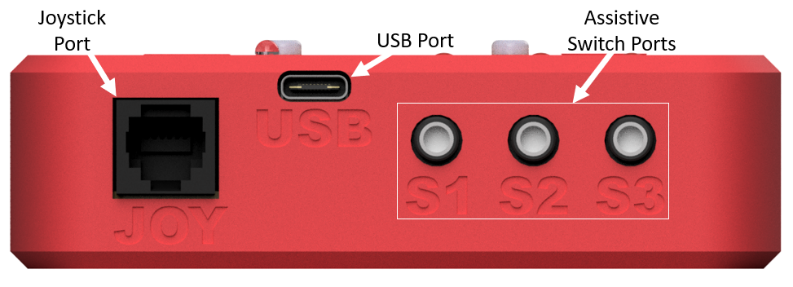
# Features

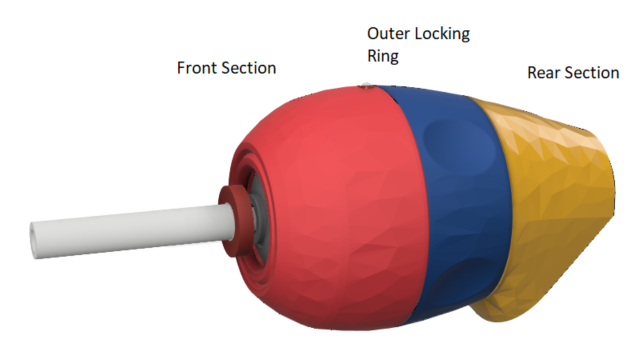
LipSync Interface Cable



USB-C to USB-A Cable







Filtered Mouthpiece

Power and Orientation LED

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Operating System | Compatibility per Mode | | |
| USB Mouse | Wireless Mouse | USB Gamepad3 |
| Phone/Tablet | Android | Checkmark with solid fill 1 | Checkmark with solid fill | Checkmark with solid fill1 |
| iOS2 | Checkmark with solid fill | Checkmark with solid fill |  |
| iPadOS | Checkmark with solid fill | Checkmark with solid fill |  |
| Windows | Checkmark with solid fill | Checkmark with solid fill | Checkmark with solid fill |
| Desktop | macOS | Checkmark with solid fill | Checkmark with solid fill |  |
| Linux | Checkmark with solid fill | Checkmark with solid fill |  |
| Windows | Checkmark with solid fill | Checkmark with solid fill | Checkmark with solid fill |
| 1 Only with devices with USB OTG HID (Universal Serial Bus On-The-Go Human Interfere Device)  2 Only for iOS13+ and iPadOS.  3The LipSync is also compatible with devices such as the Xbox Adaptive Controller in Gamepad mode. | | | | |

## Setting up the LipSync

The following are the general steps needed to setup your LipSync device:

1. Mount LipSync Joystick
2. Mount LipSync Hub
3. Connect LipSync Interface Cable
4. Optional: Connect assistive switches to LipSync Hub
5. Connect the LipSync Hub to the Host Device
6. Once powered, wait until device initializes before moving joystick.

Cursor Setup on iOS Devices

Open your device’s ***Settings*** > ***Accessibility*** > ***Touch*** > ***AssistiveTouch*** >Turn it on.

### LipSync Joystick Rotatable Mounting

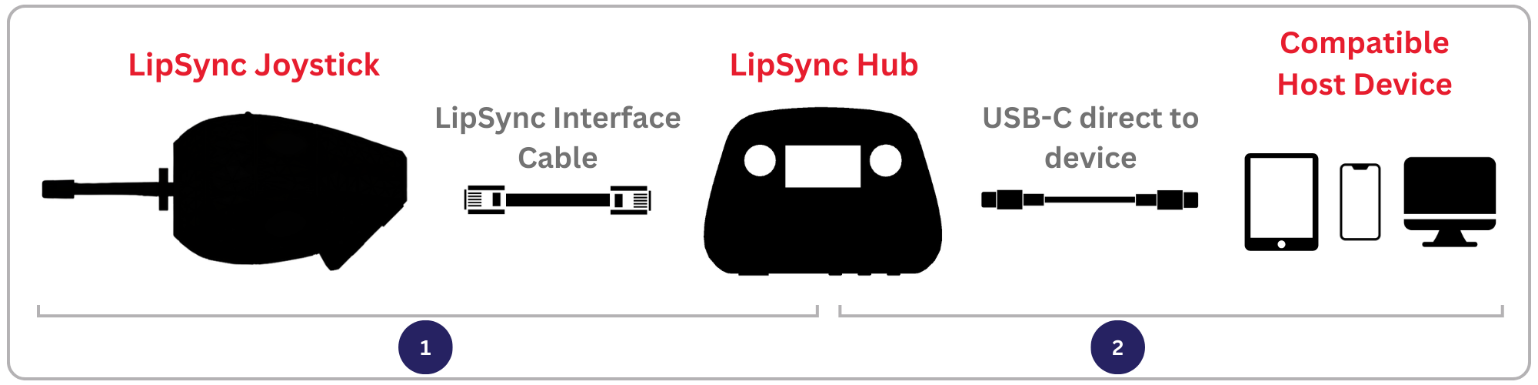
|  |  |  |
| --- | --- | --- |
| Once mounted, the orientation of the LipSync Joystick can be adjusted by loosening the Outer Locking Ring, rotating the Front Section such that the LED points upward, and retightening the Outer Locking Ring. | A photo of the LipSync joystick mounted on a magic arm mounting arm with the LED facing to the side. The locking ring is being loosened. | A photo of the LipSync joystick mounted on a magic arm mounting arm with the LED facing to the top |

### Optional: Connecting Assistive Switches

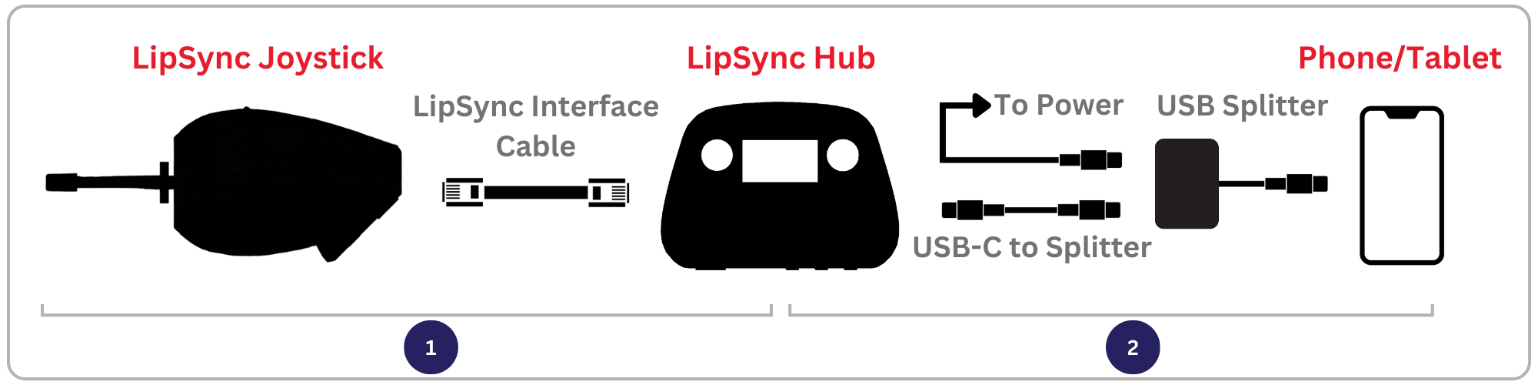
|  |  |
| --- | --- |
| The outline of the LipSync Hub with three assistive switches connected | Up to 3 assistive switches can be connected to the LipSync Hub to be used in place of Sip and Puff inputs.  The ports on the Hub for assistive switches are labeled S1, S2, and S3 and are standard 3.5 mm switch ports. |

### USB Connections

**For direct USB connection** **to the host device,** connect the appropriate USB cable from the LipSync Hub into the host device. Use an adapter if necessary.

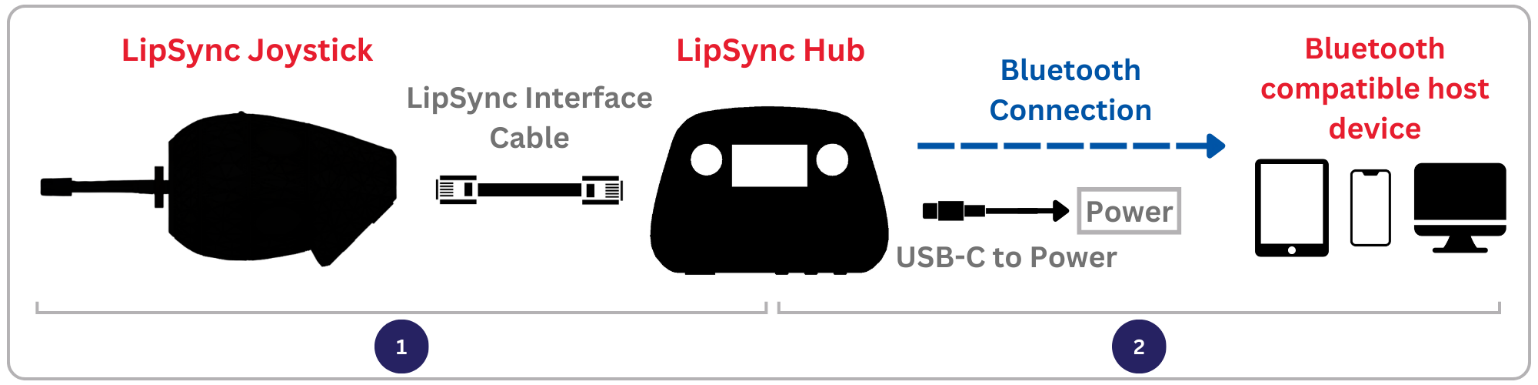


**For connection to the host device with an external power source,** plug a power splitting adapter into the host device and connect the LipSync Hub and external power source to the splitter. Use an Adapter if necessary. **Required for iOS USB connection.**



### Wireless Connections

For wireless connection to the host device, plug the LipSync Hub directly into any power source using the appropriate adapter as required. Change the operating mode to BT Mouse through the Hub Menu (See Input Mapping and Settings Menu Options). Find “LipSync” in the host device Bluetooth menu to pair and connect.



## Input Mapping

| Interchangeable LipSync Inputs | | | Duration | Hub Menu | Mouse | Gamepad |
| --- | --- | --- | --- | --- | --- | --- |
| Sip and Puff | **Assistive Switches** | **Hub Buttons** |
| Puff | **S1** | **Select** | < 1 sec | Select | Left click | Button 1 |
| 1-3 sec | - | Start Drag Mode | Button 3 |
| > 3 sec | Exit Hub Menu | Enter Hub Menu | Enter Hub Menu |
| - | **S2** | **-** | < 1 sec | - | Middle Click | Button 5 |
| 1-3 sec | - | N/A | Button 6 |
| > 3 sec | - | Perform Center Reset | Perform Center Reset |
| Sip | **S3** | **Next** | < 1 sec | Next | Right click | Button 2 |
| 1-3 sec | - | Start Scroll Mode | Button 4 |
| > 3 sec | - | Middle Click | Button 5 |
| - | **S1 + S3** | **Next + Select** | < 1 sec | Exit Hub Menu | Enter Hub Menu | Enter Hub Menu |
| Joystick | | | - | - | Cursor movement | Joystick movement |

## Settings Menu Options

The Hub Display grants access to a menu for calibrating, changing operating modes, adjusting settings, and resetting the LipSync device. See Input Mapping for how to access and navigate the menu.

|  |  |  |  |
| --- | --- | --- | --- |
| Menu Option | Submenu | Function | Notes |
| Exit Menu | Confirm exit menu | Exits settings menu |  |
| Calibration | Center Reset | Performs center reset | Do if experiencing drift |
| Full Calibration | Performs joystick calibration | Do if experiencing cursor issues |
| Mode | Operating mode options | Changes Operating Mode | Options are USB Mouse, BT Mouse, Gamepad |
| Cursor Speed | Increase/Decrease | Changes the cursor speed | Levels from 0 to 10, default 5  - Test speed on host device while in menu by moving joystick |
| More | Sound | Turns sound on or off | Default on |
| Sip & Puff | Adjusts sip and puff thresholds | Levels from 1 to 100 hPa, default 3 |
| Restart Device | Restarts the LipSync |  |
| Factory Reset | Resets to default settings |  |

## Replacing the Mouthpiece

The mouthpiece should be replaced every 30-90 days with daily use, or if the filter becomes clogged.

|  |  |
| --- | --- |
| 1. **Remove the old mouthpiece and discard.** Hold the mouthpiece by the filter (red piece) and twist counterclockwise until it comes out. Dispose of the used mouthpiece. | The LipSync Joystick with a hand removing |
| 1. **Install a new mouthpiece assembly.**   Insert the new mouthpiece into the LipSync and twist clockwise to make a connection. Twist until finger tight. | The LipSync Joystick with a hand screwing in the mouthpiece |

## Cleaning the LipSync

|  |  |
| --- | --- |
| **Cleaning the LipSync Joystick**   * Wipe with a damp cloth * Don’t use abrasive cleaning materials * Don’t soak the LipSync Joystick in any cleaning solutions * Don’t immerse the LipSync Joystick | **Cleaning the LipSync Hub**   * Wipe plastic enclosure with a damp cloth * Don’t scrub or press down on the Hub Display * Don’t use abrasive cleaning materials * Don’t soak the LipSync Hub in any cleaning solutions * Don’t immerse the LipSync Hub |

## Troubleshooting Cursor Issues

If you are experiencing cursor drift (cursor is moving on device when joystick is not being moved), perform a center reset in one of the following ways:

|  |  |
| --- | --- |
| Option A: Trigger Center Reset  Either by:   * Navigating through the Hub menu to: **Calibrate > Center Reset** * Using a very long press of assistive switch 2 | Option B: Turn it off and then on again.  Do not touch the joystick until “Ready to use” is displayed on the Hub Display.   * Disconnect/Reconnect LipSync to power. * Restart the device through the Hub Menu. * Use a paperclip to push the reset pin on the Hub. |

If the issue persists, contact the maker of your device or Makers Making Change at [info@makersmakingchange.com](mailto:info@makersmakingchange.com)