ソードアート・オンライン
SWORD ART ONLINE

ELUCIDATOR
High-Grade Electronic Toy

Online manual

GOOD**SMILE** COMPANY ✕ CEREVO

■Top page

Thank you for purchasing the High-Grade Electronic Toy Elucidator.
.
Please thoroughly read this manual in order to understand how to properly and safely use the product.
*Only available for purchase and eligible for customer support in Japan, China, Taiwan, and the USA.

If you encounter any issues when using the product, please refer to the page below.
Frequently asked questions

For the latest changelog, please refer to **this page.**

1.Before you begin

1-1.Notes and precautions

◆Disclaimers

- We waive all liability for damages sustained by you or a third party as a result of failure or malfunction of the product.
- Note that the product may be ineligible for repairs if specific components degrade over a significant period of time from when the product was originally manufactured.
- The warnings and precautions listed herein are not intended to exhaustively describe all possible scenarios.

◆Usage warnings and precautions

Before using the product for the first time, please thoroughly read the usage warnings and precautions section in order to understand how to use the product correctly. These warnings and precautions contain important information intended to protect the safety and assets of the user and third parties from harm. Exercise these precautions at all times.

⚠Warning

- This product is not a children's toy. It is an electronic device intended for people age 15 and up.
- Do not swing the product around people and objects.
- Check your surroundings before use and ensure that there is sufficient space between you and other people or objects.
- Do not strike the product against any hard surfaces or fragile objects including walls, ceilings, floors, windowpanes, furniture, or appliances.This can lead to breakage, malfunction, or ignition of the device.
- Do not use the product near open flames, or heat-producing or inflammable objects that may catch fire or cause burns if they are struck, tipped over, or dropped. This includes incense, candles, light fixtures, hot water receptacles, cooking implements, or heaters.
- When transporting the product, place it in a case or bag such that the entire product is enclosed and protected.
- Never use the product while under the influence of alcohol.
- Do not attempt to insert or unplug the USB cable or battery pack with wet hands. This can lead to electrocution or damage.
- Do not touch the USB cable while charging if there is lightning outside. This can lead to electrocution or damage.
- Do not expose the product to water, high humidity or dust. This can lead to electrocution, damage or fires.
- Do not touch the battery pack terminals. This can lead to electrocution or damage. In addition, corrosion of the terminals may cause contact failure or other malfunctions.
- Do not peer directly into the LED lights when they are illuminated. This can cause eye pain or damage.
- Do not use the product near inflammable items.This can cause explosions and fires.
- If the battery pack leaks, immediately stop using the product. In addition, do not touch battery acid with your bare hands. If battery acid gets into your eyes or comes in contact with your clothes or body, thoroughly rinse and consult with a doctor immediately.
- Only charge the battery by the methods indicated in this manual. Improper charging can lead to fires or fluid leakage.
- Do not attempt to disassemble the device, battery pack, or USB cable. This can lead to breakage, malfunction, or ignition of the device. Note that the product's warranty becomes void if it is disassembled.
- Do not place items on top of the USB cable, or apply unnecessary force to it while it is charging. This can cause a disconnection and lead to fires, electrocution, or other damage.
- Do not attempt to disassemble the battery pack or place it in a source of flame. This can lead to fires or fluid leakage.
- Only use the battery pack and USB cable included with the product. Use of other components may lead to failure, damage or ignition of the device.
- If the device emits smoke, foul odors, or irregular noises, suspend use and turn the power off, remove the battery pack, and unplug the USB cable, then contact customer support.

⚠Caution

- Do not use the product within reach of small children, pets, or animals.
- Store the product out of reach of small children.
- Do not place the product on unstable surfaces, even temporarily. This can cause it to topple over and cause accidents.
- The guaranteed operating temperature range is 5°C to 35°C. The product may fail if used at temperatures outside of this range.
- Do not forcibly attempt to operate the product or subject it to excess force or impact. This can cause malfunction or damage and lead to unintended accidents.

- Do not apply excess weight or load to the blade or grip, or hold it with excess force. This can cause malfunction or damage and lead to injury.
- Do not use the product on inclined or uneven floors, slippery or wet floors, locations with uneven elevation, or other areas where you would have an unstable footing. This can cause you to fall and be injured or cause malfunction or damage to the product.
- Note that the product may become hot after long periods of use. If it feels abnormally hot, immediately suspend use and remove the battery from the product.
- If you do not plan to use the product for prolonged periods of time, remove the battery pack from the product and store it separately.
- Do not use the product if it is broken or damaged.
- Use a soft, dry cloth to clean the product. Do not use thinner, benzine or alcohol on the product.
- Follow the rules applicable to your municipality or region when disposing of the product.
- The touch sensor in the grip of the product utilizes microscopic signals, so it may erroneously detect changes in the surrounding environment or temperature. Since it is designed to detect objects other than the hands, the product may react to its surroundings when placed down and not in use. If this happens, turn off the power and turn it on again.
- When used outdoors, sand, dirt, rain, and other debris may cause damage or malfunction of the product.
- The exterior box and carrying case are not covered by any warranty and are intended for transport and storage of the product only.
- The Display Mode allows for illuminating the LEDs at fixed intervals, or permanently. Note that use of the LEDs at fixed or constant intervals can degrade performance of the hardware and shorten the product's lifespan. This mode should only be used after having read and fully understood the above.
- Note that the LED lights degrade over time when in use, causing loss of brightness and changes in color. Only use the product in Display Mode when necessary
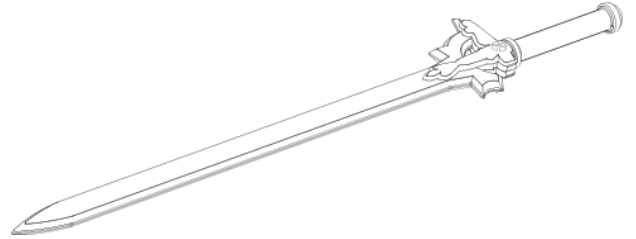
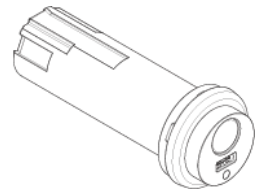# 1-2.Contents/app pairing prerequisites

Contents

The following items are included with the product.
After purchase, confirm that all of the items listed below are included. If any are missing, please contact customer support.
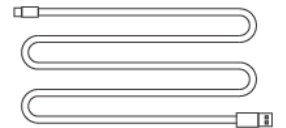
・Elucidator

・Rechargeable Battery Pack
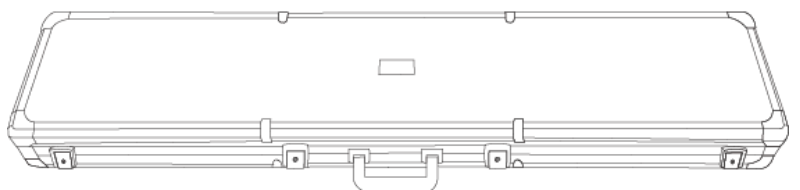
・USB Cable for Recharging Battery (USB Type-C to USB-A)]

・Quick Setup Guide / Warranty Certificate

・Carrying Case with Metal Plate Decoration **(only included with Special Edition)**

・Key for carrying case **(only included with Special Edition)**

App pairing prerequisites

The product can be used in more complex ways by pairing it with the companion app.
To do so you will need, in addition to the items above, the following:

- A smartphone **(Android 7.0 or later, iOS 10.0 or later(iPhone6 or later))**

1-3.Component names

Front, side, and bottom

Blade

Grip (touch sensor) **Grip end**

Mic

Function button

Power switch

Speaker

USB Type-C for power supply **Indicator LED**
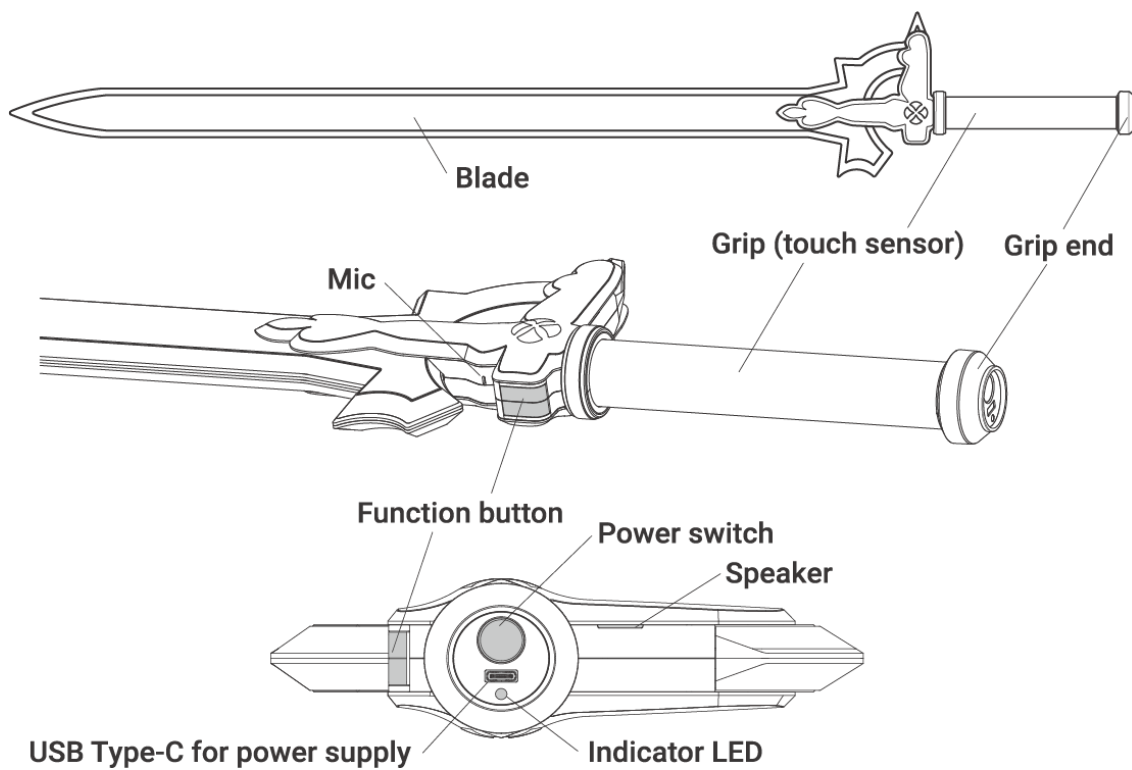
1-4.Specifications

Product Specifications

・Sword specifications

	Standard Edition	Special Edition
Size	Approx. 1125mm	
Weight	Approx. 1.1kg (With Battery Pack)	
Materials	ABS,PC-ABS, Synthetic Leather	ABS,PC-ABS, Sheepskin Leather, Aluminum
Sensor	6 Axis Gyro Sensor (Acceleration, Angular Velocity)	
Wireless Connection	Wireless LAN (IEEE 802.11 a/b/g/n/ac)	
Smartphone Application OS	iOS/Android	
Battery	Lithium Ion Battery (Rechargeable Battery Pack)	

・Battery pack specifications

Size	Approx. Φ44mm×93mm
Weight	Approx.85g
Capacity	3100mAh/11.47Wh
INPUT	DC5V 1A
OUTPUT	DC3.6V 3.6A
Hours of Operation	Fully Illuminated: 1 Hour / Using Sword Skills: 2-3 Hours

▪ **Carrying Case specifications**
   ※Only included with Special Edition

Size	Approx. W1300×D300×H150mm
Weight	Approx. 5kg

2.Using the product for the first time
# 2-1.Preparations

Charging the battery pack

Before using the device, use the included USB cable to charge the battery pack.
If the battery has no remaining charge (if the product does not turn on even when holding the grip), remove the battery pack from the device and use the included USB cable to charge it.

Charging the battery pack
- Turn off the power to the device and remove the battery pack.
- Connect the USB Type-C connector on the battery pack to a USB cable plugged into an AC adapter.
- The indicator LED will turn red, indicating that charging has begun.
- Once the device is fully charged, the indicator LED will turn off.

Charging time: approx. 3.5 hours
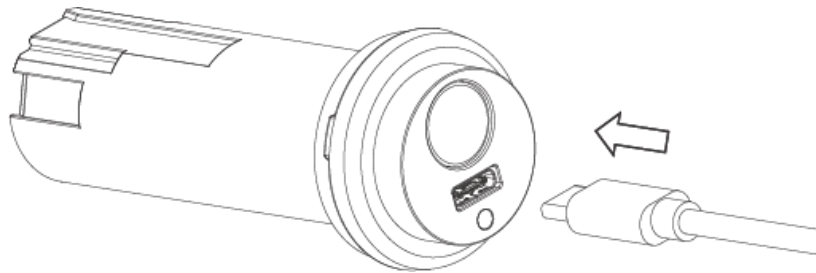
*The battery pack will only begin charging if it is removed from the device and charged on a standalone basis.
*The battery will not charge if the device is powered on (indicated by a green LED indicator light).
*You will need to separately obtain a USB cable compatible AC adapter (rated at 2.1A or higher).

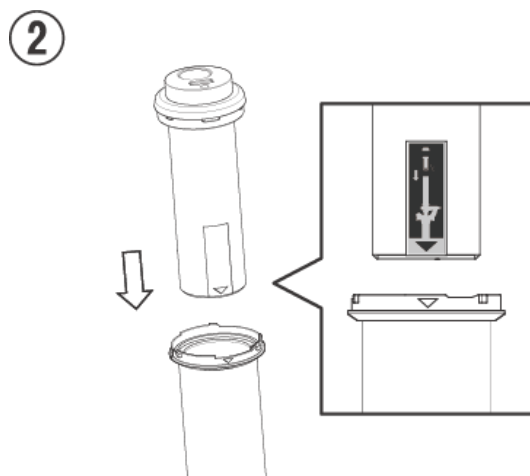## Inserting the battery pack

1. Remove the grip end
- Hold the device in the orientation shown in the image and twist the grip end to the counterclockwise to remove it.
- Ensure that the downward-facing arrow(▽) on the battery compartment opening is facing you.
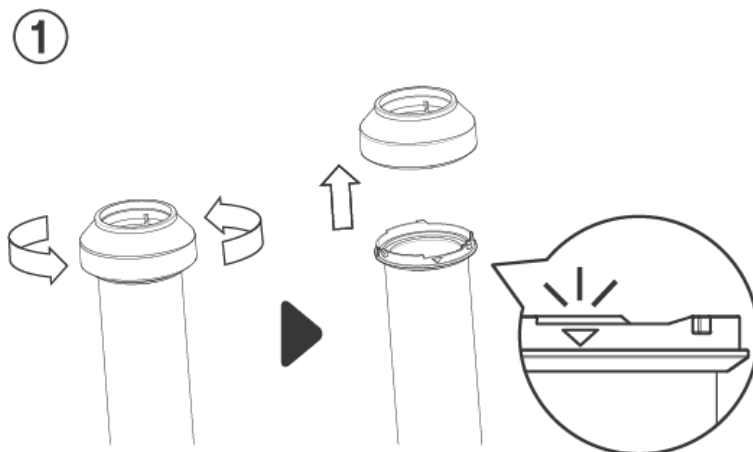
2. Insert the battery pack
- Align the downward-facing arrow(▽) on the battery pack and on the device opening and insert the battery pack all the way to the bottom.
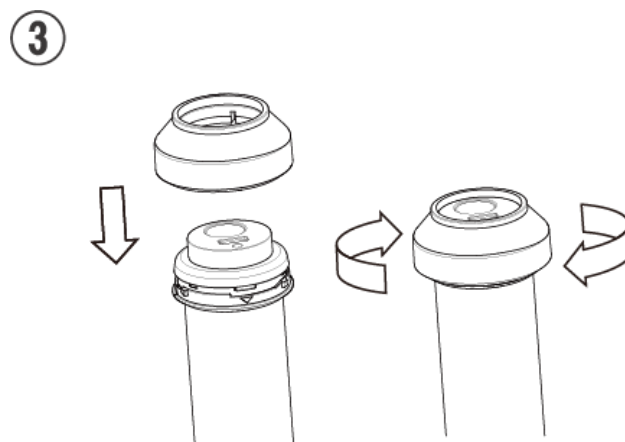
3. Attach the battery pack
- Align the grip end you unscrewed in step 1 above with the prongs on the device.
- Next, firmly click the grip end into place by twisting it to the clockwise.

*Ensure that the this grip end is firmly connected so that it does not slip off while in use.
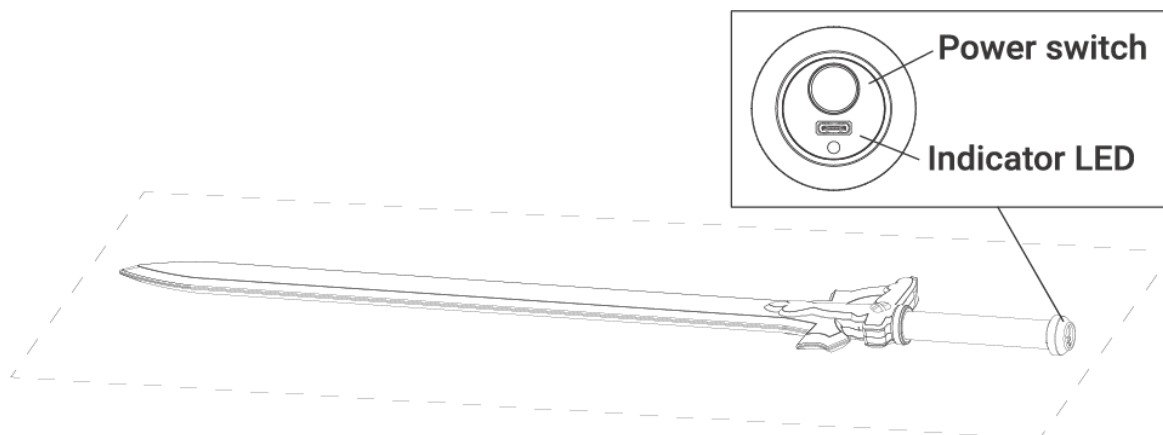***When not in use, remove the battery pack from the product and store it separately.**

3.Basic operation

3.1Powering on the device

1. Turning on the device
- Place the device on a flat, level surface such as a table or the floor and turn on the power switch located on the grip end.
- When the power is turned on, the indicator LED will turn green.

2. Calibrate the gyroscope sensor
- When turned on, a blue band of light will emanate from the grip of the blade to the tip.
- Leave the device on the level surface from step 1 above and, without touching it, wait a few moments for it to continue booting.
- Once the blue band of light disappears, this indicates that calibration is complete.

*The device uses a gyroscope sensor to control the effects, so it must be calibrated when turning on the power.
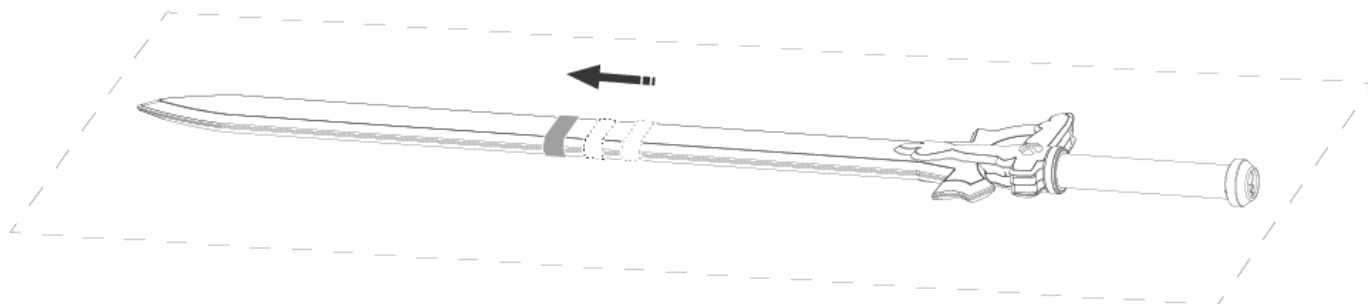
3. Grasp the grip (touch sensor)
- After calibration is complete, grasp the grip as shown in the image to trigger the touch sensor.
- If a sound effect is produced when you grasp the grip, this means that set up is complete.

3-2.Using the device

Note that dropping or striking the device can cause malfunction or damage. It can also cause unintended accidents. Please exercise the utmost caution when handling this product.
Aggressively or rapidly waving the sword or suddenly stopping in place can cause it to malfunction. Follow the below instructions to properly use the device.
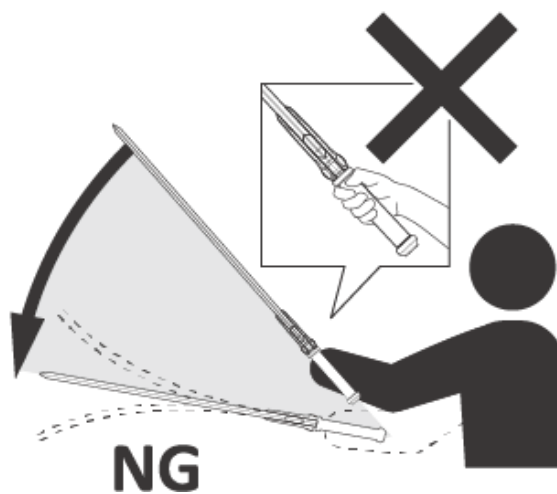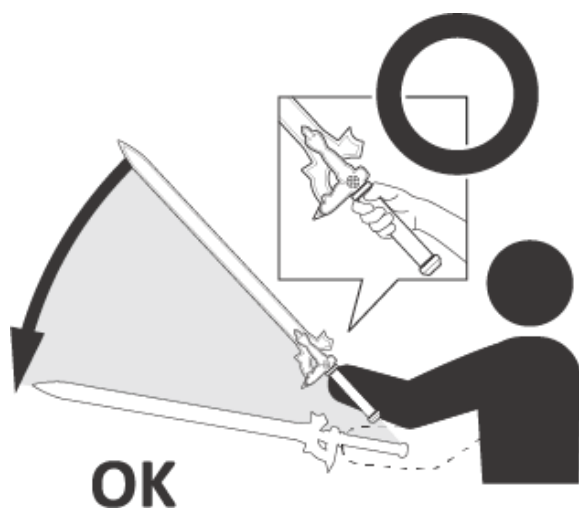

⚠**CAUTION**
> *** When grasping the grip, do not hold the grip end side but always hold the blade side.**
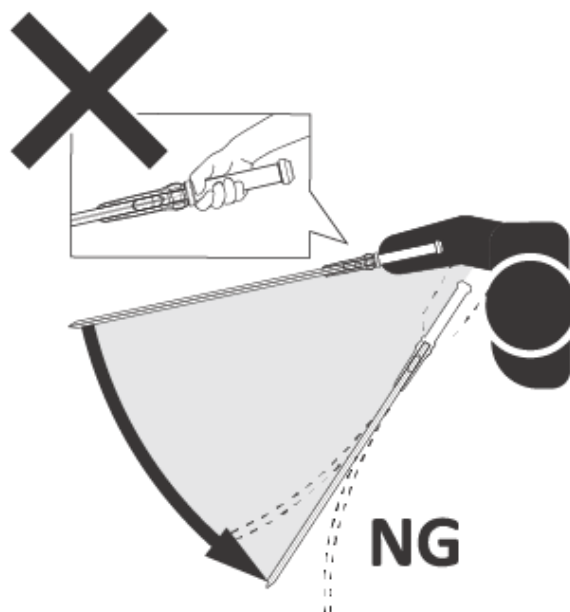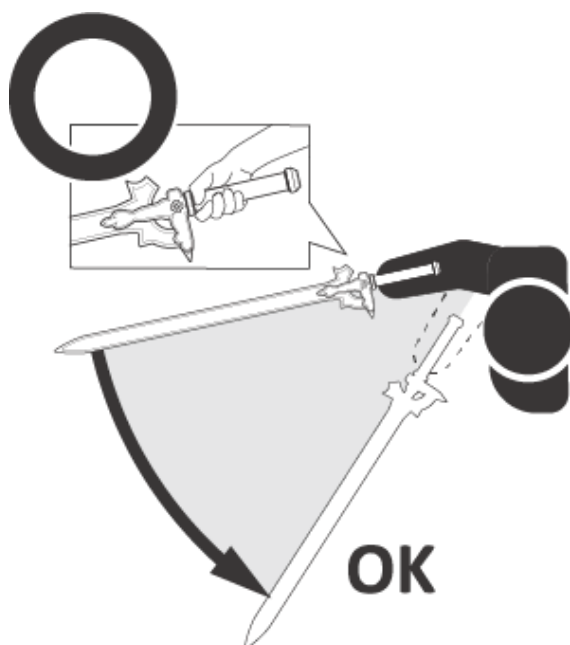> ***To prevent malfunction of the device, only swing the blade as shown in the OK images below.**
> **(Waving the blade rapidly in both directions can cause the blade to warp and the circuit board inside to malfunction or break.)**
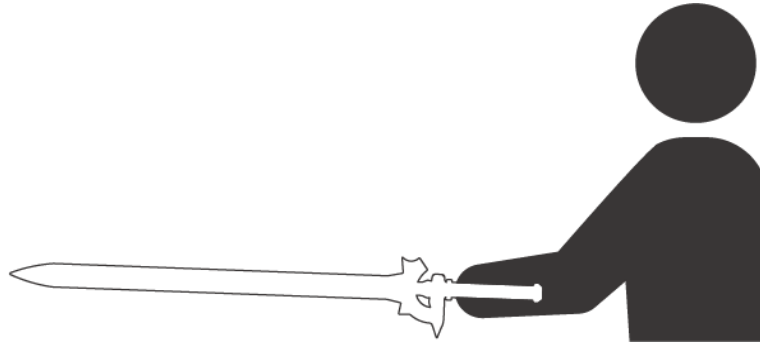

▪ **Proper vertical blade handling**

▪ **Proper horizontal blade handling**
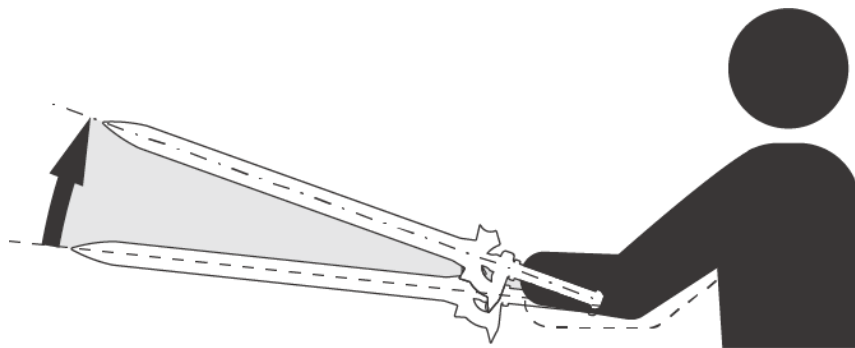
Blade handling effects

▪ Gripping (with sound effect)

- Grasp the grip of the sword. This produces audio and an effect.

▪ Ready stance (with sound effect)

- Grasp the grip and move it slightly upward. This produces a sound effect.

### ▪ Weak/strong impact (with sound effect)

- Two types of sound effects are produced depending on the intensity with which you strike the blade.

Weak impact:
Grasp the grip of the sword and gently strike the middle of the blade against the palm of your hand.
This produces a sound effect.

Strong impact:
Grasp the grip of the sword and gently strike the tip of the blade against the palm of your hand.
This produces a sound effect.

Weak impact   **Strong impact**
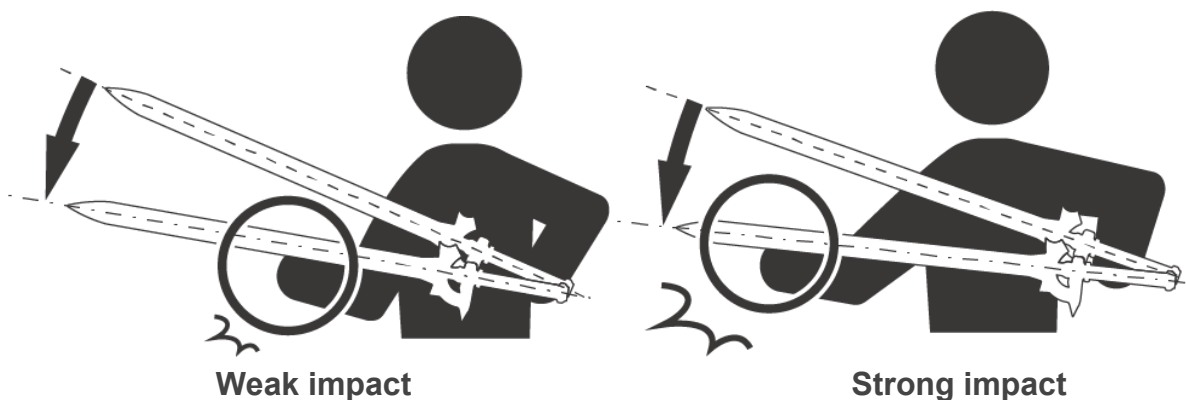
▪ Upward sweep (with sound effect)

- Grasp the grip of the sword and swing the blade from bottom to top.
- Audio and an effect are triggered at around 45 degrees, as seen in the image (#1).
- <u>Gradually decrease speed</u> as you reach the 90 degree point (#2) and stop moving.
- Steps #1 through #2 should be performed slowly (1 second or more).

❷ 90°

❶ 45°
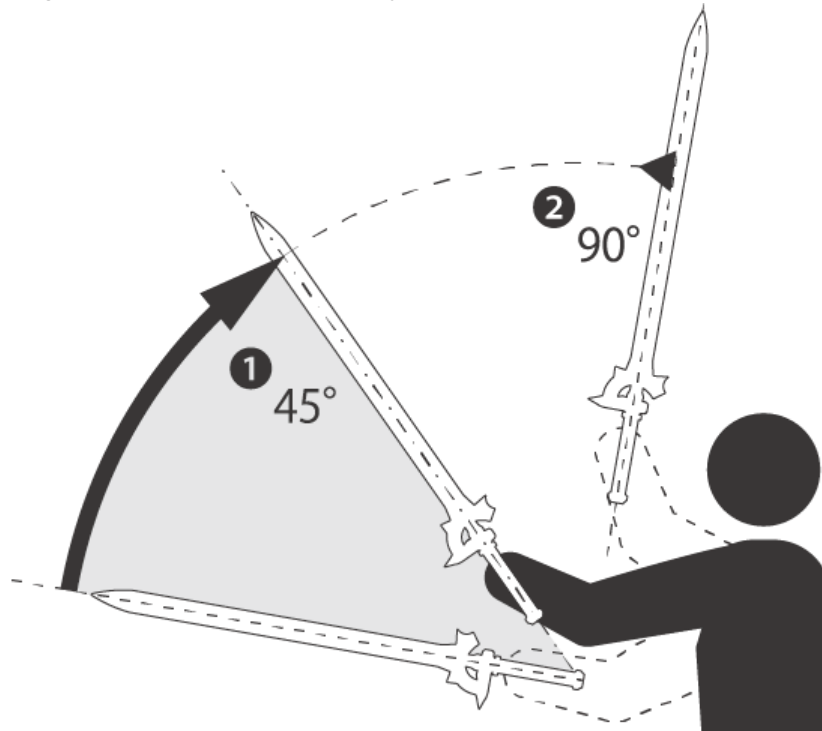
*Applying excessive force may damage the product.

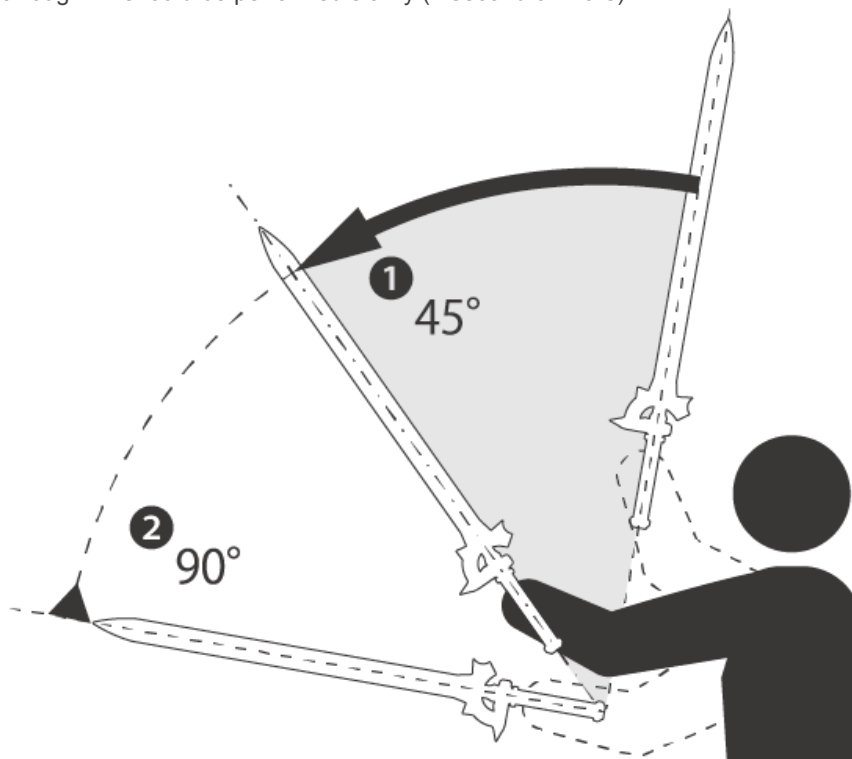## ▪ Downward sweep (with sound effect)

- Grasp the grip of the sword and swing the blade from top to bottom.
- Audio and an effect are triggered at around 45 degrees, as seen in the image (#1).
- <u>Gradually decrease speed</u> as you reach the 90 degree point (#2) and stop moving.
- Steps #1 through #2 should be performed slowly (1 second or more).

❶ 45°

❷ 90°

*Applying excessive force may damage the product.

▪ Horizontal sweep (with sound effect)

- Grasp the grip of the sword and swing it from right to left.
- Audio and an effect are triggered at around 45 degrees, as seen in the image (#1).
- Gradually decrease speed as you reach the 90 degree point (#2) and stop moving.
- Steps #1 through #2 should be performed slowly (1 second or more).

❶ 45°

❷ 90°
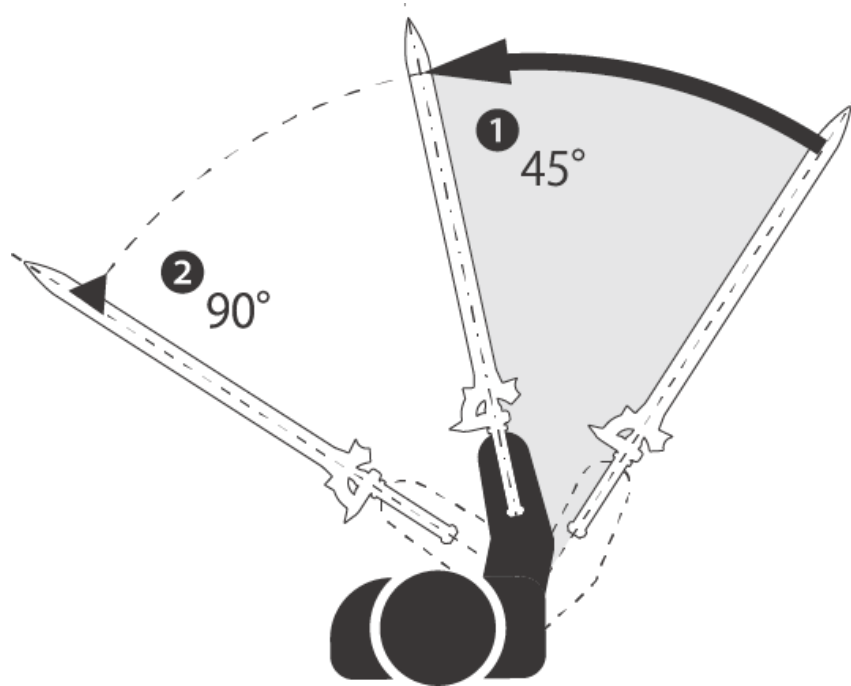
*When swinging from left to right, reverse the order shown in the image.

▪ Forward strike (with sound effect)

- Grasp the grip of the sword and thrust forward.
- This produces audio and an effect.
- This thrust should be performed slowly (1 second or more).
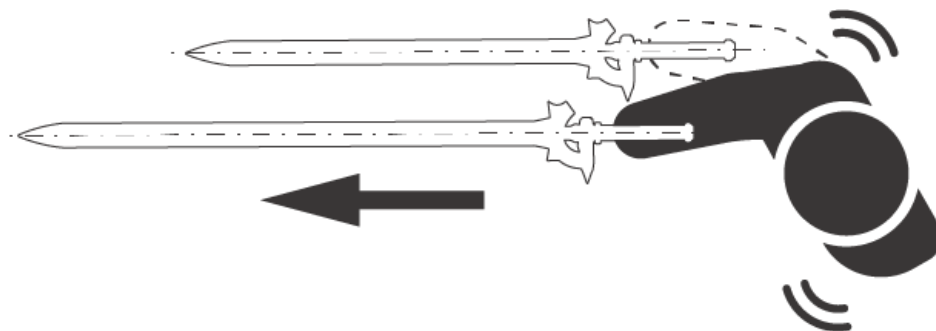
▪ Sword skills

Combining the basic functionality above allows you to simulate the below sword skills.

Sword Skills	Action
SLANT	A diagonal slash
VERTICAL	A slash from above
VERTICAL ▪ ARC	A slash from above, then vertically from below
HORIZONTAL	A slash from the side
VORPAL STRIKE	A stab through the middle

*The diagonal slash action has the same visual effect and sound effect as downward sweep and horizontal sweep actions depending on the angle.

3-3.Using the STARBURST STREAM mode

This mode can be enabled by using either voice recognition or the function buttons.
The STARBURST STREAM mode plays anime background music and produces effects and audio for each sword movement.
***This product also contains special audio for the dual wield sword skill.**

▪ Triggering STARBURST STREAM via voice recognition

- Grasp the grip of the sword to engage the touch sensor and say **"STARBURST STREAM" i**nto the microphone.
- If your voice is correctly detected, a trigger sound is played back to indicate that STARBURST STREAM mode is engaged.

*If your voice is not detected, use a louder voice or try changing your intonation.
***Note that your voice may not be detected properly if there is ambient noise.**
*In some cases, voice recognition may react to conversational sounds and environmental sounds that have the same intonation as the "STARBURST STREAM".

Mic
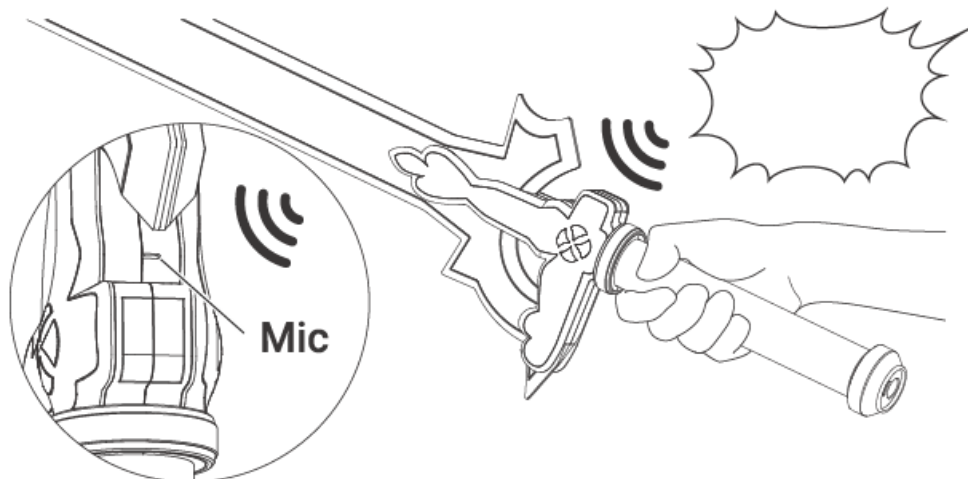
▪ Triggering STARBURST STREAM via the function button

- Grasp the grip of the sword to engage the touch sensor and push and hold the function button for **three seconds**.
- A trigger sound will play back to indicate that STARBURST STREAM mode is engaged.

Function button
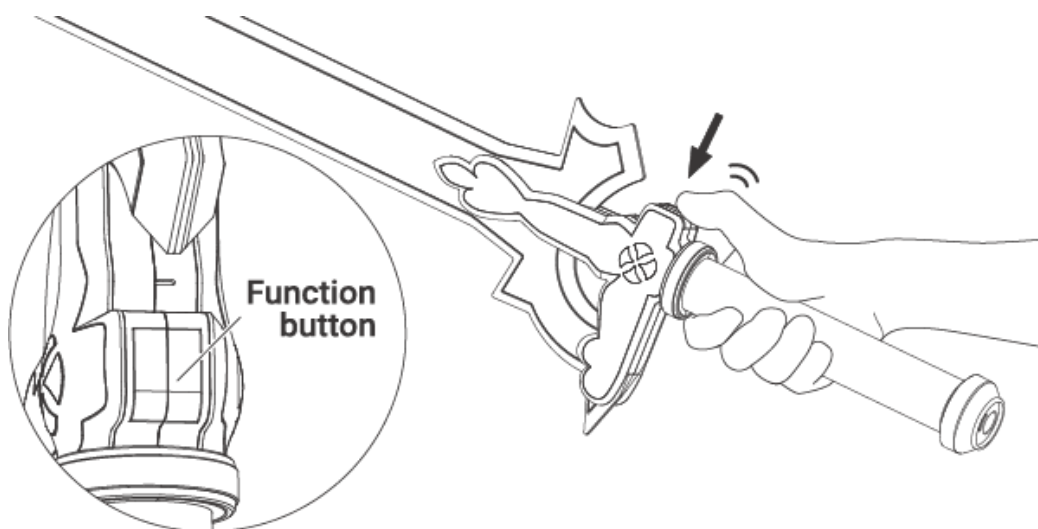
3-4.Supplying constant power to the device

You can use the device while it is charging by connecting the battery pack via USB while it is inserted.

*Turn the power off before connecting the USB cable, then turn power back on once connected.
*Compared to use on a charged battery, the constant power method will use reduced LED brightness.
*Please note that constant use of the LEDs can degrade performance of the hardware and shorten the product's lifespan.

- Supplying power to the device

- Attach the battery pack to the device.

- Ensure that the device power is currently switched off. (The indicator light should be off.)

- Connect the USB Type-C connector on the battery pack (located on the grip end) to a USB cable plugged into the AC adapter.

- Push the power button to start the device. (The indicator LED will turn green.)
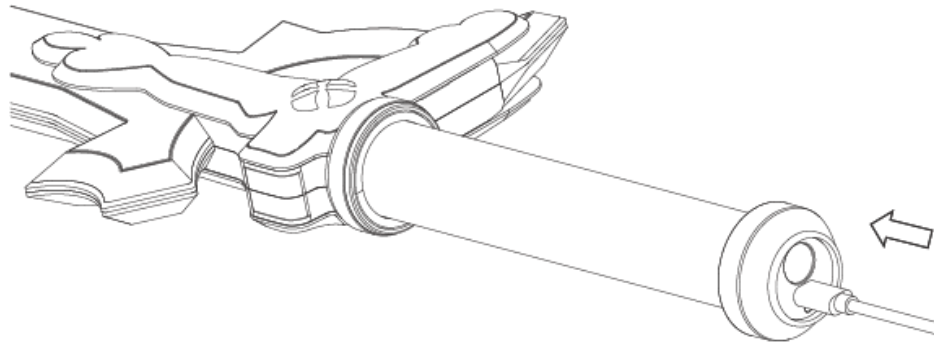
*If you connect the USB cable while the device is turned on, USB power will not be detected and the device will run on battery power.
*You will need to separately obtain a USB cable compatible AC adapter (rated at 2.1A or higher).

3-5.Turning off the power and storing the device

After use, always turn off the power switch to power off the device.
***Always turn the power off before removing the battery pack.**

- Turning off the power
- Press the power switch on the grip end to turn off the power.
- When the device is powered off, the indicator LED will also turn off.

- Storing the device
- When not in use, always remove the battery pack and place the device on a flat surface or store it in the box or carrying case.
*Storage on an uneven surface can cause the blade to warp and malfunction.
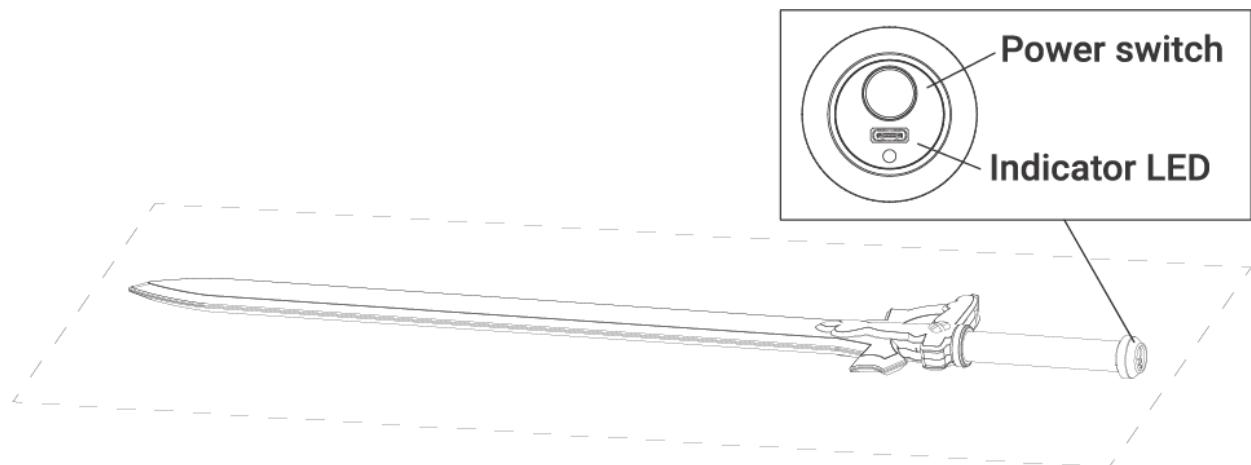
4.Using the app

The device can be paired with a companion app to control all functionality, including Display Mode, external speaker mode, sound configuration, light configuration, and more.
*The app can only be used when paired with the device. The app cannot be used on its own.

4-1.Installing the app

iOS

Access this page on your iOS device or search for **"Elucidator"** in the App Store and install the companion app.
iOS 10.0 or later(iPhone6 or later) is required to use the companion app.
*Please note that we do not guarantee that the app will function on all devices.

Android

Access this page on your Android device or search for **"Elucidator"** in Google Play Store and install the companion app.
Android 7.0 or later is required to use the companion app.
*Please note that we do not guarantee that the app will function on all devices.

4-2.Pairing the device and app

1. Power on the device
- Begin by powering on the device.**(Please refer to "3-1. Powering on the device")**

2. Pairing the device with a smartphone
- Before launching the app, select the Elucidator access point (listed as **ELUCIDATORxxxxx**) you wish to connect to from your device's Wi-Fi settings menu. Enter "**elucidator**" for the password.

- Your device's Wi-Fi settings menu should show you connected to "**ELUCIDATORxxxxx**". (**xxxxx** is the device serial number* excluding GST from **GSTxxxxx**)

*The device serial number is located inside of the grip after removing the battery.
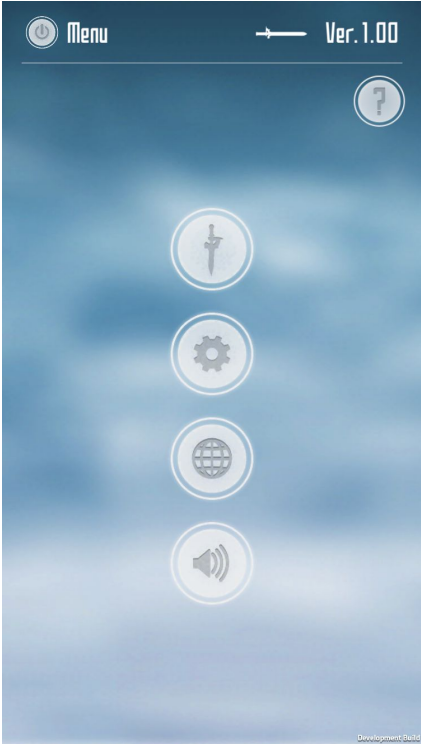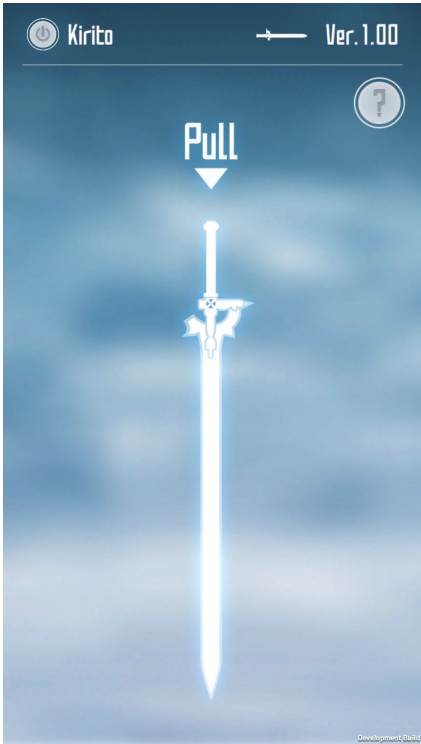
3. Launching the app
- Launch the app from your smartphone.
- If the device and your smartphone are paired, the app will automatically connect to the device.
- If it fails to connect, return to **2. Pairing the device with a smartphone** and attempt to connect again.

4-3.App menus explained

Menu (initial launch screen)

This menu lets you select various settings.

The icons are, from the top:

Mode
(toggle modes)

Setting
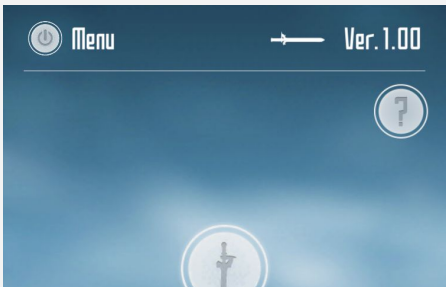(configure settings)

Language
(configure the voice recognition engine)

Sound
(configure sounds)

■**About connection status icons**
  The sword icon in the upper right corner of the app indicates the app and device are connected.

Ver. 1.00   : Connected

Ver. 1.00   : Not Connected

Mode (toggle modes)

This menu lets you toggle between device modes.
There are three modes available.

■Playable

This is the main mode, which lets you produce light and sound effects
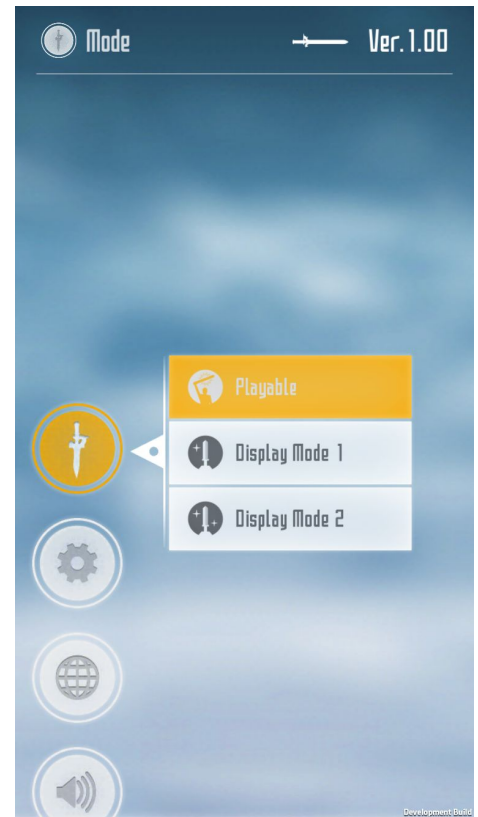by slashing the sword.

■Display Mode 1

This mode produces a range of colors as a demo.
*The preset demo cannot be changed.

■Display Mode 2

This mode sets the blade to maximum illumination.
This can be used if you want to photograph or film the sword.

Settings (configure settings)

This area allows you to change and calibrate the device's internal settings.

■Color Select (configure color settings)
Freely select the color emitted by the blade by using an RGB slider.

■Grip Sensitivity (calibrate the grip touch sensor)
Calibrate the sensitivity of the touch sensor located within the grip.
If the touch sensor fails to respond as intended, try calibrating it here.

Slider position:
Left: low sensitivity
Center: default sensitivity
Right: high sensitivity

■Output Device (configure audio output)
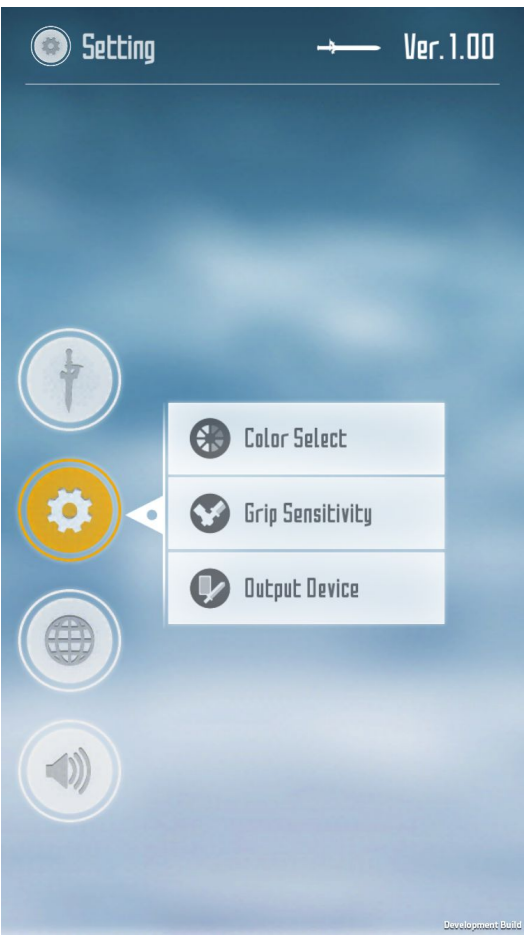This area allows you to change where audio is output from.
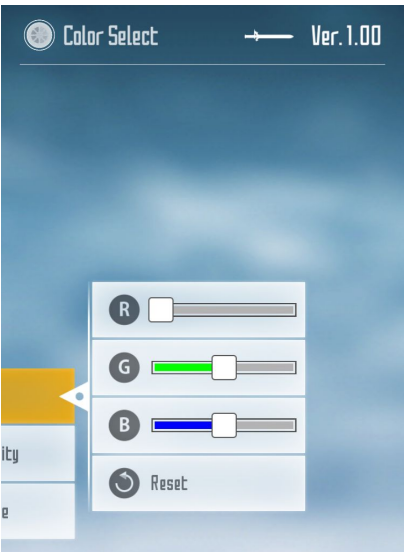### Sword
Emits audio from the device's internal speaker.
Mobile Device
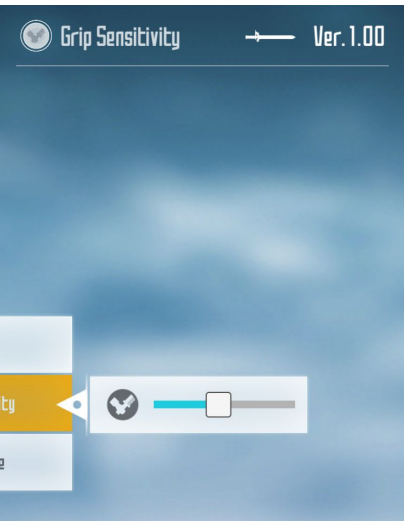Emits audio from your smartphone's speaker.
This also allows you to pass audio from your smartphone's headphone jack or to a Bluetooth speaker.
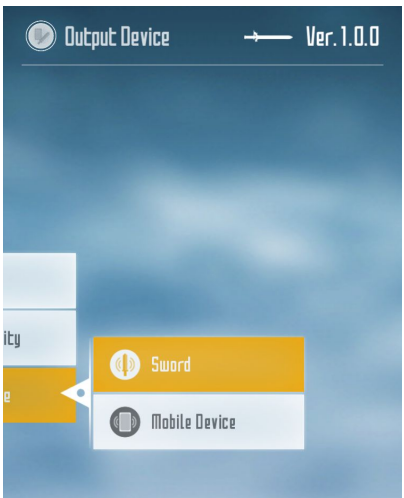

■Color Select (configure color settings)

■Grip Sensitivity
 (calibrate the grip touch sensor)

■Output Device (configure audio output)

Language (configure the voice recognition engine)

This area allows you to toggle the voice recognition engine used in the device.
There are two language settings available for voice recognition.
If the device fails to detect your voice, try toggling the mode here.

It is also possible to turn off the voice recognition function.

■Japanese
Set voice recognition to Japanese language

■English
Set voice recognition to English language

■None
Voice recognition function : Turn off
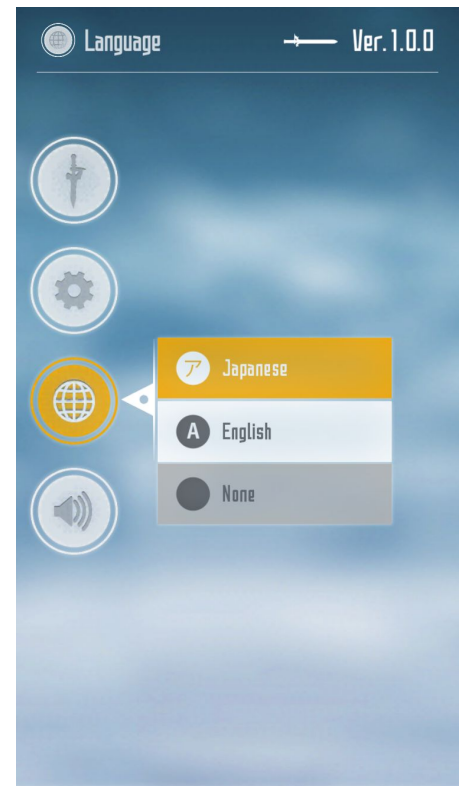
Sound (sound configuration)

Use the slider at the top to toggle the volume of sound effects and background music.

You can also perform sound tests using the playback buttons below each sound effect name.
In addition, you can use the STARBURST STREAM button at the bottom to toggle which sounds are played when in normal mode and STARBURST STREAM mode.

4-4.Elucidator Firmware Update

You can update your Elucidator firmware using the companion app.

①Updating the App
- If you are using an iOS device, update from the App Store; if you are using an Android device, update using the Google Play Store.
   *There are cases in which there is only an app update, with no firmware update.

②Connect the App to the Device
- Refer to **"4-2. Pairing the device and app"** and connect the app with your Elucidator.

③Confirm the Firmware Update
- After connecting, it will automatically check to see if there is a difference in the firmware of the updated app and the Elucidator.
- If the firmware version on the Elucidator is old, a window notifying you of the update will be displayed; **tap OK**.

④Updating the Firmware
- When the firmware update begins, a **"yellow"** band of light will emanate from the base of the blade to the tip.
- Leave the device on the level surface from step 1 above and, without touching it, wait a few moments for it to continue booting.
*The update may fail if the device powers down while the update is in progress, so please charge your battery or connect it via USB to change its power source if it is low on power.
- Once the yellow band of light disappears, the firmware update is complete.
- After this, it will automatically restart, and undergo the standard startup procedure. (A **"blue"** band of light will emanate from the base of the blade to the tip.)
- Once the blue band of light disappears, calibration and startup are complete.

5.FAQ

- The sword does not produce effects when swung

    1.The grip sensor may not be functioning as intended.
      Use the app's configuration menu to calibrate the sensor sensitivity.
      Note that the device may not respond if you are wearing thick gloves.

    2.The gyroscope sensor may not have been initialized properly.
      Place the device on a flat, even surface like a table or the floor and push the power button to reboot it.
      Once the boot-up effect on the blade fades, grasp the grip and try swinging it.

- The effects are delayed or stop working during use

    1. An error may have occurred in the gyroscope sensor, and operation may be delayed or unresponsive.
      Turn the power button off and then on again, and then reboot

- No sound is played back

    1.The app settings may be configured to emit sound via your smartphone.
      For details, please refer to **(Output Device (configuring audio output).**

    2.You may have the volume currently configured to 0.
      For details, please refer to **Sound (sound configuration)**.

6.Changelog

Firmware

ver 1.0.0 (2020/12/01)

iOS app

ver 1.0.0(2020/12/01)

Android app

ver 1.0.0(2020/12/01)

7.Inquiries

This product has been tested at the time of shipment, but if you believe your product is defective, please contact us from the following customer support.
Please be sure to read though this online manual before contacting us.

Good Smile Company Customer Support
Please use the contact form found on the site below.
https://support.goodsmile.info/en/

*Please allow a few days for your inquiry to be addressed.

*Please note that this product is only available for purchase in Japan,China,Taiwan and the USA and thus customer support will also be limited to these countries..
*Replacement stock is limited, and should stock run out we will end support for defective products. Please be sure to confirm your product works as quickly as possible.
*All replacement requests will be analyzed and any claims that are determined to not be an initial defect at the time of shipping may incur repair costs.

FCC CAUTION Contains Transmitter Module **FCC ID: 2AT5W-F11AUUM13**
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

FC