IRISTICK.Z1
User Manual
Table of Contents

1.1 Overview .................................................................................................................. 4
1.2 Introduction .................................................................................................................. 4
1.3 Features ....................................................................................................................... 4

2 Iristick.Z1 ....................................................................................................................... 4
  2.1 Package Components ............................................................................................... 4
  2.2 Headset ..................................................................................................................... 5
  2.3 Pocket Unit ................................................................................................................ 6

3 Iristick.Z1 Device Setup ............................................................................................... 6
  3.1 Charging .................................................................................................................... 6
  3.2 Installing Iristick Services ....................................................................................... 7
  3.3 Connecting Mobile Phone to Pocket Uni ............................................................... 8

4 SDK .................................................................................................................................. 8

5 Mobile Devices Supported ............................................................................................ 8

6 Using Your Iristick.Z1 .................................................................................................... 9
  6.1 Central Camera .......................................................................................................... 9
  6.2 Zoom Module ........................................................................................................... 9
  6.3 Head Mounted Display ........................................................................................... 9
  6.4 Touch Pad ................................................................................................................. 9
  6.5 9-axis Sensor ........................................................................................................... 10

7 Trouble Shooting .......................................................................................................... 10
  7.1 Synchronizing Firmware ....................................................................................... 10

8 Certifications ................................................................................................................ 10
  8.1 CE ............................................................................................................................ 10
  8.2 EN62368 ................................................................................................................ 10
  8.3 EN55032-CISPR32 Class B ITE (Information Technology Equipment) ............... 10
  8.4 EN 60825-1:2007 EN 60825-1:2014 ................................................................. 10
  8.5 EN 166 S ............................................................................................................... 10

9 Environmental Information ........................................................................................... 11
  9.1 Disposal .................................................................................................................... 11
  Waste Electrical and Electronic Equipment ............................................................... 11
  Disposal of batteries in the product ........................................................................... 11
  9.2 RoHs Compliance ................................................................................................. 11
1.1 Overview

1.2 Introduction

Iristick is an ergonomic smart safety glass designed specifically for industrial applications. All Iristick smart glasses are certified safety glasses enabling live streaming technology for hands-free remote assistance, you-see-what-I-see applications and procedural instruction software.

1.3 Features

- Ergonomic and lightweight
- Compatible with your Android mobile device
- Certified safety glass
- 3-pivot axis heads up display
- Gesture and voice control
- Laser
- Flash LED
- Central camera with user perspective
- Zoom module with 5x optical zoom
- Connects to off-the-shelf Android mobile phone
- 8 hours battery life
- 9-axis sensor
- Application software support

2 Iristick.Z1

2.1 Package Components

Set includes:

- **Headset**: glasses
- **Pocket Unit**: battery and connection to mobile phone with USB-C connection
- **COAX cable**
- **Standard USB-C charging cable**
- **Magnetic metal plate**: for mounting mobile phone
Optional:
- Thin cable (optional) connecting pocket unit to headset
- Android mobile device/phone with pre-installed applications
- Regional wall charger
- 4 hours of individual support
- Protective carrying case

2.2 Headset
The Iristick.Z1 headset includes:
1. Capacitive touch pad supporting gestures forward, back, long-press, up, down and double tap.
2. Audio with integrated speaker and quad microphone array that can be used with voice recognition.
3. Cold-bendable temple tips for user comfort.
4. COAX connection
5. Zoom module with 5x optical zoom camera, laser and flash LED
6. Central camera
7. Heads-up display with 3-pivot adjust
8. 9-axis sensor
2.3 **Pocket Unit**
The pocket unit is the both the power source for the headset and sends information from the mobile phone to the headset via the COAX cable.

1. Magnetic bed for mobile phone
2. USB-C mobile phone connection
3. USB-C charging connector (requires unplug)
4. LED Indicator
5. COAX connection for headset

LED Indicator color meanings:
- **Green** = charged
- **Yellow** = Low battery
- **Red** = Not charged
- **Flashing** = charging
- **Blue** = Connected to mobile phone/device

### Setup

#### 3.1 Charging
Check the charge your Iristick before use by shaking it gently back and forth, the LED indicator at the bottom of the pocket unit will indicate charge level. Green means fully charged, yellow or red means charging is required.

Fully charged your Iristick should last up to 8 hours with constant use. Important to note this time can be reduced if the phone needs charging. Some phones can charge themselves from the pocket unit causing the pocket unit to drain charge to supply the phone.

Steps for charging:

- [www.iristick.com](http://www.iristick.com)
- [info@iristick.com](mailto:info@iristick.com)
- April 2018
To charge the device unplug the cable at point 3 to expose the standard USB-C connection. This does take some force. The other side of the cable should remain anchored in the slot.

Plug in a standard USB-C cable at point 3 and charge with a high-speed wall charger. A high-speed version will fully charge the device in 2 hours while standard wall chargers may take more time. The LED indicator will blink every second when charging.

When charging is complete plug the pocket unit USB-C cable back into the pocket unit. Gently shake the unit to see the LED indicator is solid green.

### 3.2 Installing Iristick Services

Iristick Services can be installed from the Google Play Store. After installing you should see a icon with your other applications. Iristick Services will run automatically once your device is connected to the pocket unit.

Find and install Iristick Services from the Google Play Store. You should see the Iristick Services app installed on your device. Iristick Services will start automatically and run in the background when you connect the phone to the pocket unit.
3.3 Connecting Mobile Phone to Pocket Uni

Apply a standard or included magnetic plate included in set onto the phone. Iristick supports any Android mobile phone/device with Android 7 or above and a USB-C connecter. Preferred phones can be found in section 5.

Mount phone onto pocket unit and plug in the USB-C connector. You should see part of the Iristick symbol at when device is connected. The LED indicator should be blue when the device is connected.

Plugin the thin or standard COAX cable to your headset. Either side is ok since it is completely reversible.

When connected you will get the message that Iristick services are connected and will see the complete Iristick icon on the top left information page. LED will stay blue.

4 SDK
The Iristick SDK can be used for developing your own customized applications using the Iristick features. Software examples and documentation can be found at https://developer.iristick.com/

5 Mobile Devices Supported
The Iristick product line is compatible with most Android 7 mobile devices having a USB-C connecter. However, with so many Android devices on the market it’s impossible to test all of them. The following are preferred devices tested and recommended.

- Google Pixel
- Sony Xperia
- Samsung 8S
6 Using Your Iristick.Z1

This section describes some unique features for your Iristick device. Existing software
application supporting Iristick can be found at support.iristick.com.

6.1 Central Camera

The central camera is ideal for giving the users perspective. Its location between the eyes and wide-angle lens gives it a true view of what the operator sees.

6.2 Zoom Module

The zoom module contains an additional camera with 5x optical zoom, flash LED for illumination and laser. These can be used together to perform quick barcode scanning at distances.

6.3 Head Mounted Display

The head mounted display can be adjusted to best suit the users unique preferences. The patented 3-pivot movement can be moved up, down, across and/or pivoted to line of sight. When not in use the display can be moved up giving an unobstructed view.

6.4 Touch Pad

The touch pad is located on the flat area under the head mounted display. Different gestures include:

- **Single tap**: the user briefly touches the touchpad
- **Double tap**: the user taps twice in quick succession
- **Long tap**: similar to a single tap, but held for a longer time
- **Swipe forward**: the user swipes their finger over the touchpad from the back towards the front, away from their ear
6.5 9-axis Sensor

The Iristick’s 9 axis sensor provides an accelerometer, gyroscope and compass sensory data with update rate of 100Hz. Separate outputs or absolute position data are available via the SDK.

7 Trouble Shooting

7.1 Synchronizing Firmware

When the Iristick Services app runs it automatically checks that it is compatible with the firmware inside the headset and pocket unit. If it is not it will prompt the user to download and install new firmware. This only takes a minute depending on your data connection. When you need to synchronize firmware, you will see the Iristick icon with an exclamation point in the top left-hand corner of your mobile device.

For support please contact support@iristick.com

8 Certifications

8.1 CE

The Iristick.Z1 is fit for use in all European Union countries, Norway and Switzerland.

8.2 EN62368

Safety standard for audio, video or information communication technologies and the converging of new technologies into state of the art tech

8.3 EN55032-CISPR32 Class B ITE (Information Technology Equipment)

This is a class B product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

8.4 EN 60825-1:2007 EN 60825-1:2014

IEC 60825-1:2014 is a class one is applicable to safety of laser products emitting laser radiation in the wavelength range 180 nm to 1 mm.

8.5 EN 166 S

Frame and lens must withstand the impact of a 22 mm steel ball weighing 43 grams dropped from 1.3 meters at a speed of 18 km/h. The lens must remain in the frame and is not to shatter. The frame must remain intact as well.
9  Environmental Information

9.1  Disposal

**Waste Electrical and Electronic Equipment**
This symbol on the product indicates that, under the European Directive 2012/19/EU governing waste from electrical and electronic equipment, this product must not be disposed of with other municipal waste. Please dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources. For more information about recycling of this product, please contact your local city office or your municipal waste disposal service.

**Disposal of batteries in the product**
This product contains batteries covered by the Directive 2006/66/EC which must be collected and disposed of separately from municipal waste. If the battery contains more than the specified values of lead (Pb), mercury (Hg) or cadmium (Cd), these chemical symbols will appear below the crossed-out wheeled bin symbol. By participating in separate collection of batteries, you will help to ensure proper disposal and to prevent potential negative effects on the environment and human health.

9.2  RoHs Compliance
Iristick certifies that all materials used to make our products meet RoHs Compliance standards. Please contact us at support@iristick.com for more details.