Hiru | The only eye-tracker that works in Windows and iPadOS, indistinguishably

IRISBOND

Hiru

User Manual | Quick Start Guide: iOS

See it Possible

IRISBOND

User Manual IRISBOND Hiru
Eye Tracking System

Contact Information

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What are you looking for?

IRISBOND Hiru Eye tracker

Compliance Information: CE and MDR

Declaration of conformity (MDR)

Technical Specifications

Hiru First Steps Overview

Install Hiru App.

Download it from the App store on your iPad.

Connect Hiru to the iPad

Use the provided cables.

Activate your Hiru iOS license

Calibrate in Hiru App!

Calibrating lets the Hiru adapt to your eyes so you have the best experience.

Compatibility

Minimum requirements	Intel Graphics
◎ CPU 1.33GHz ◎ RAM 2GB ◎ Hard Disk 3GB + HDD ◎ USB 3.0	Nvidia and others with OpenGL 2.0

Multiplatform

Hiru eye tracker can be used both with Windows and iOS (iPad).
The same eye tracker works with both operating systems.

We recommend iPad Pro / Surface Windows 10

iPadOS	Windows
iPad Pro 12.9" 5th and 6th generation **iPad Pro 11"** 3rd and 4th generation	Windows 7-11

Positioning

Optimum working distance	Optimum screen size
55 cm.	10" – 20" inches

55cm

If you want to use the eye tracker with larger screens, you can do so by changing the position of the camera and placing it further away from the screen.

USB Connection and mounting

Depending on the device that you may be using, an adaptor might be needed:

O For **Windows** devices, just use the long C-A cable. The C male connects
   to the Hiru and the A male connects to the device.

O For **iPad PRO**, the A-C adaptor is needed. Connect the adaptor to the
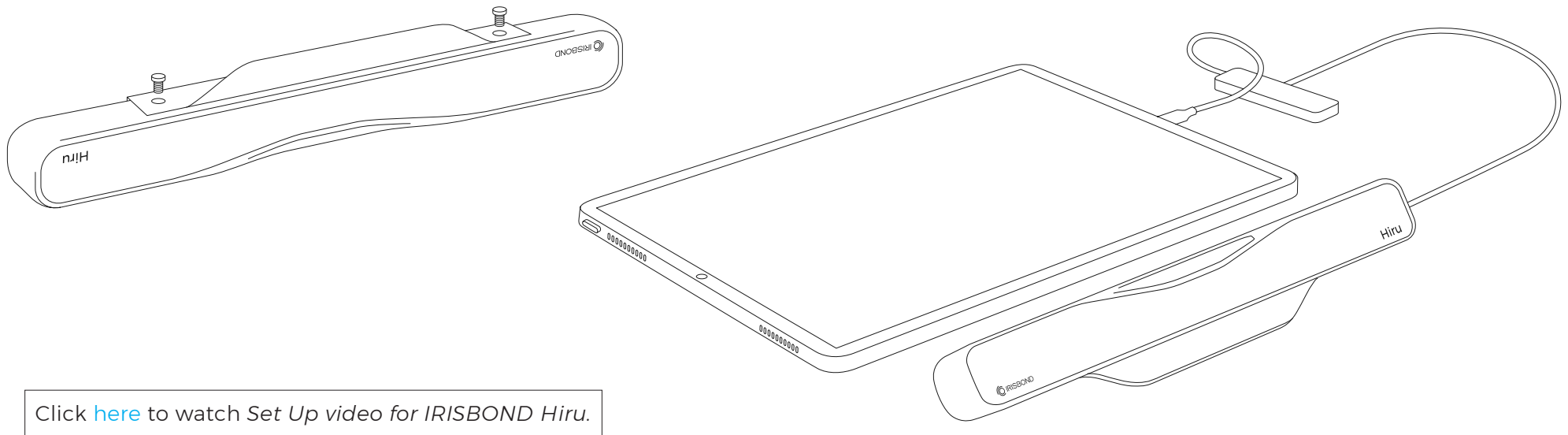   iPad Pro, and the long cable to the Hiru.

Hiru

Adapter
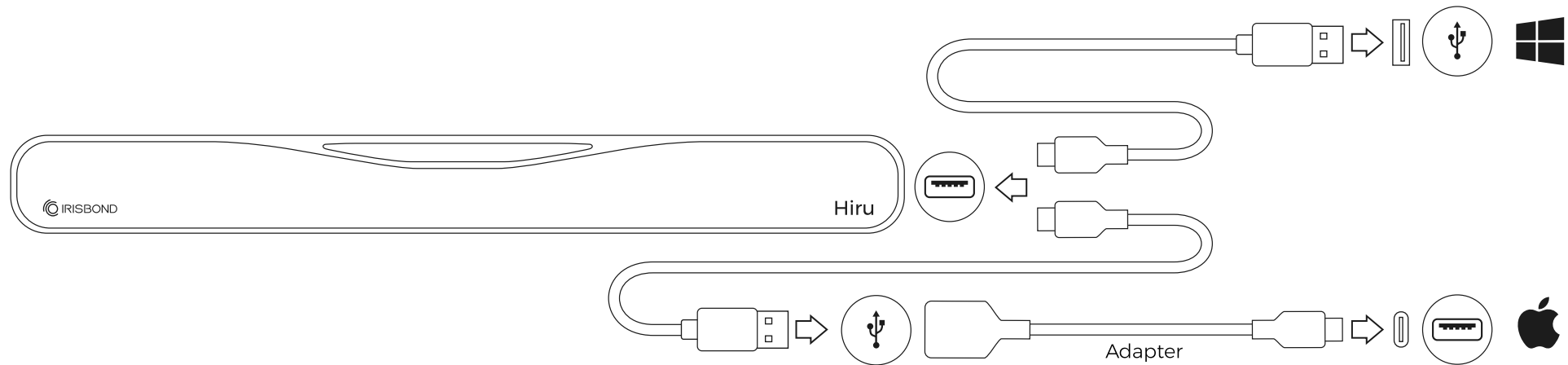
Assembly Options

The IRISBOND Hiru system is designed to be fully adaptable for use with iPads with a USB-C connection.

iPad Pro

Attach the Hiru to the holder with the provided screws and place the Hiru in front of the iPad.

Click here to watch *Set Up video for IRISBOND Hiru.*

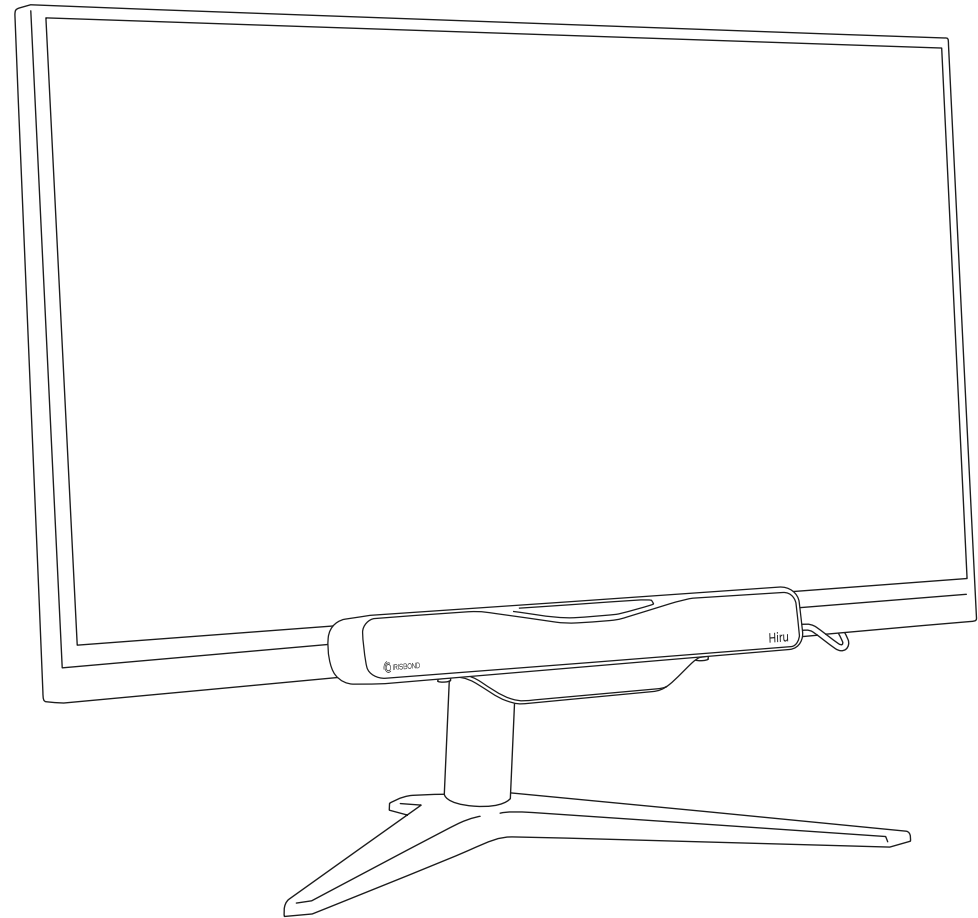## Assembly Options

Desktop Computer / Monitor

Place the holder on a screen with the provided magnets and screw the Hiru to the holder.
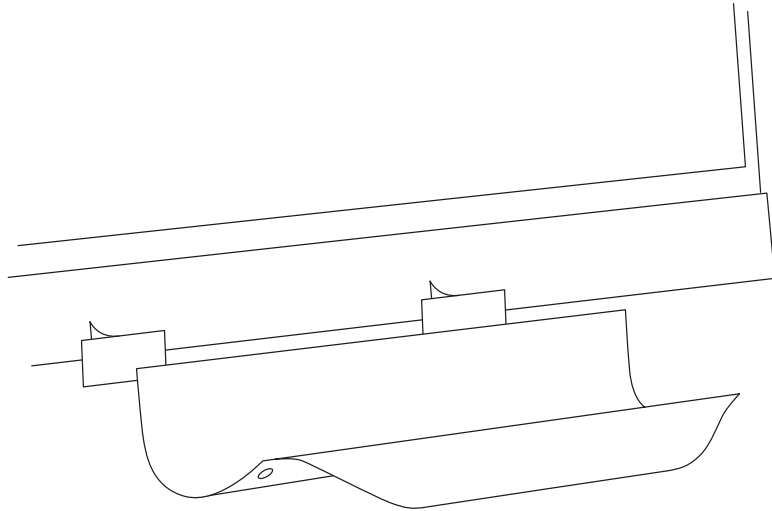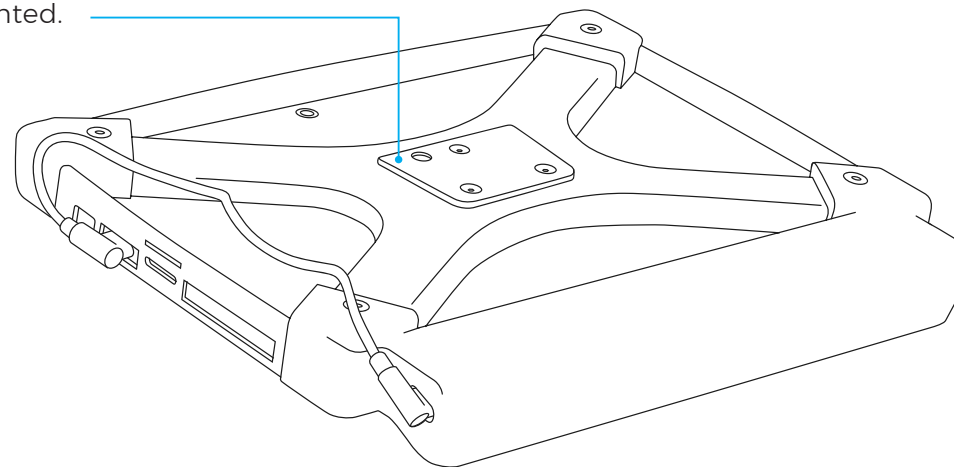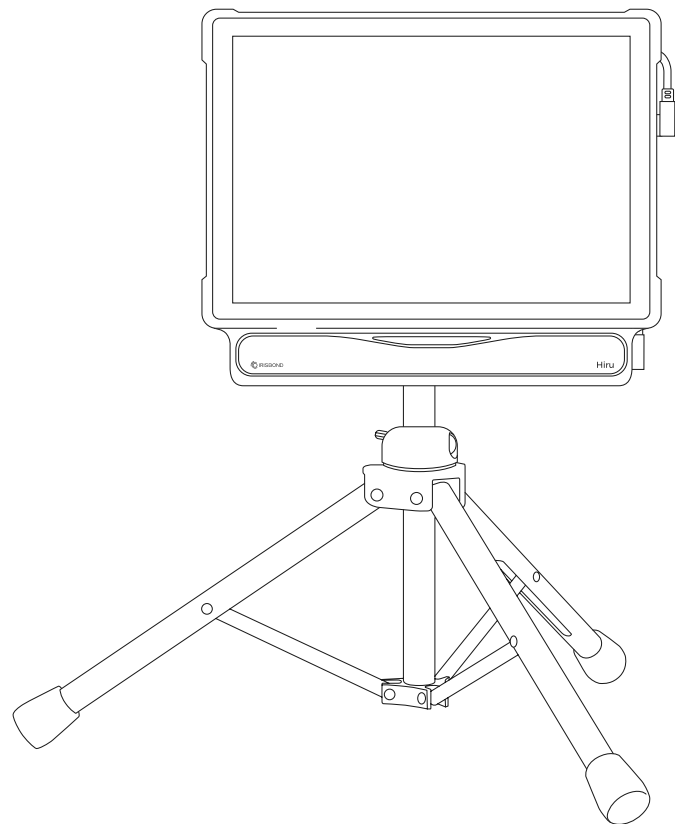
Click here to watch *Set Up video for IRISBOND Hiru.*

Assembly Options

Oskol

Every Oskol casing comes by default
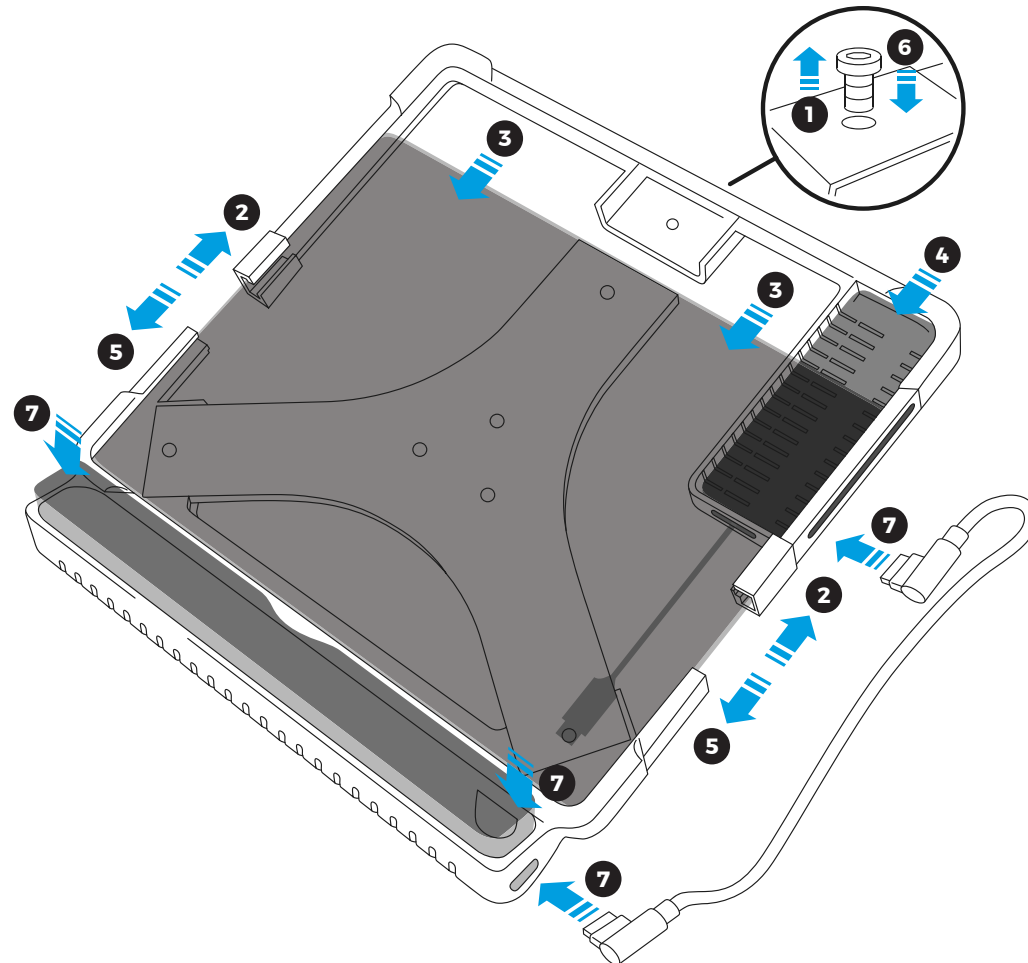with the Rehadapt's GA Universal adapter
(#16.1224) mounted.

Click here to watch *Set Up video for IRISBOND Hiru.*

How to mount Oskol

1. Identify the top connection point, and ensure the screw is removed. The screw will be shipped in the bag below the Oskol.

2. Separate the top and bottom pieces of the casing. Push up on each side joint to separate them.

3. Place the iPad in the bottom piece of the casing. The bottom corners of the iPad should sit tightly in the casing.

4. Place the hub and spring in the compartment. The hub's ports should facing the outside edge of the casing, so they are accessible through the space in the casing. Place the spring in the compartment, to the left side of the hub, to provide a tighter fit.

5. Place the top piece over the the iPad. Slide the top piece down until it is in place. The side joints and middle piece should fit together.

6. Place the screw back in the top connection point. Use the allen wrench to tighten the screw.

7. Place the Hiru in the compartment below, and connect the cables. Connect the USB-C cable to the Hiru. Connect the hub to the iPad.

Oskol has a space dedicated for the iPad and another for Hiru. To mount the iPad in the Oskol follow these steps:

Click here to watch *How to insert and remove your iPad from Oskol.*

See it Possible

www.irisbond.com

IRISBOND

iOS

Getting started in iOS

Initial Set up:

1. Plug in Hiru. Wait until the Hiru starts and the AssistiveTouch cursor appears on the screen.

When Hiru is on, you will see 4 red LED lights on each of the edges.

Hiru App

1. Download and Open the HIRU APP. The first time the Hiru is plugged into the iPad, a message will appear prompting the download of the HIRU APP.

Hiru

2. Activate the Hiru license within HIRU APP. To do this, open the app, and click Activate License.
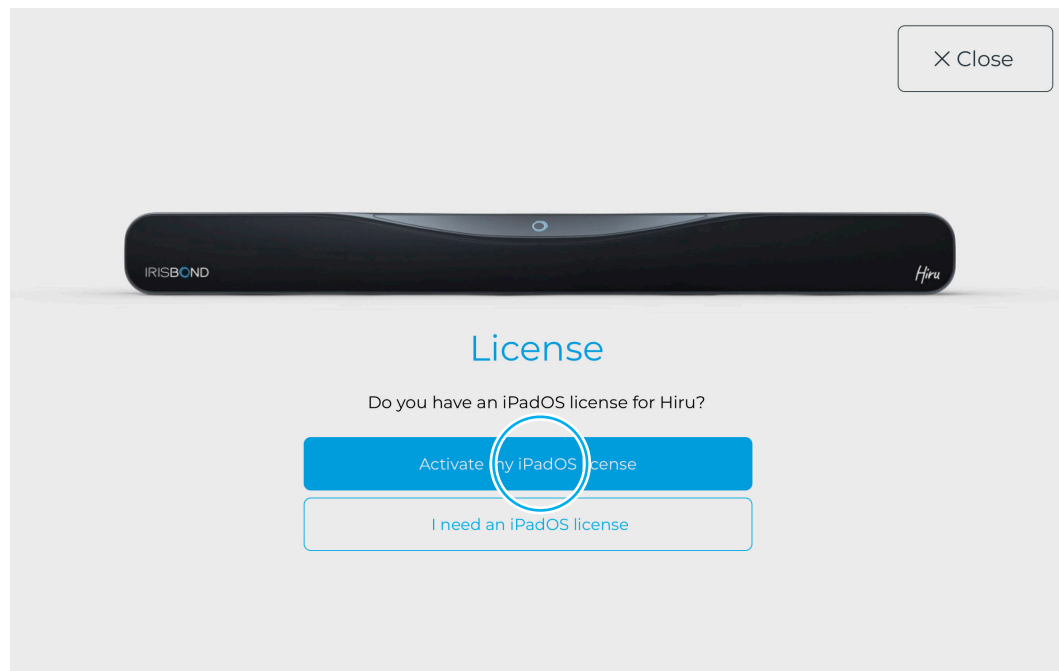
Hiru App

Choose "Calibrate" and Position yourself using the positioning guide.
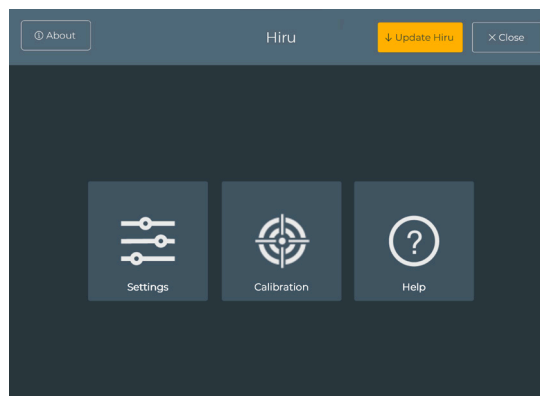
○ Red means that you are too close or too far from the Hiru. Green means that the distance is correct.

○ Position your eyes in the middle of the box.
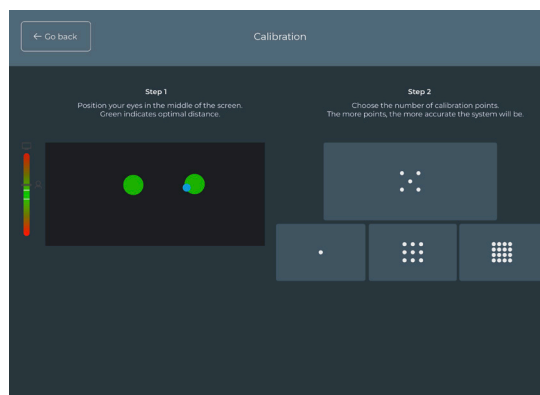
Hiru App

3. Calibrate: Choose how many points you want to calibrate with (1, 5, 9, 16).

○ A target will move across the screen. Look at the point in all the positions where it stops. During the calibration process, Hiru learns from the user's eyes to estimate the gaze points on the screen.

4. Settings: from the home screen, select Settings to configure eye gaze *within the app.*
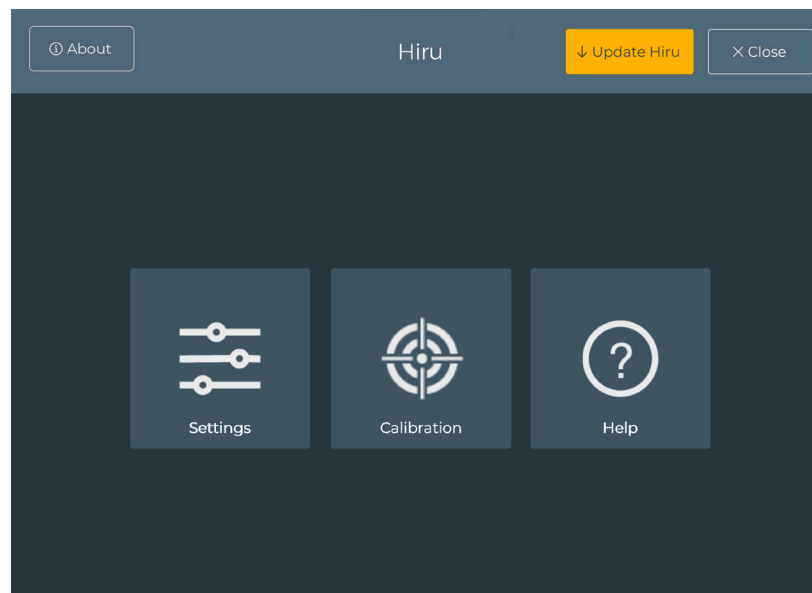
Hiru App

○ Select the **dwell time**: This determines how much time to fixate on a button in order to click. The lower the time, the quicker the click. On the left, choose from SLOW, MEDIUM or FAST defaults, or adjust the time on the right hand side.

○ Adjust **Smoothing**: This determines how sensitive the cursor is to small movements. On the left choose from LOW, MEDIUM or HIGH defaults, or adjust the level on the right hand side. The smoothing chosen here will apply in and outside the Hiru app.

The smoothing level is a number between 1 and 14. 14 is the highest level of smoothing, resulting in a mouse of low sensitivity. 1 is the lowest level, with a high level of sensitivity.

○ Select Visible Pointer (YES or NO): Choose Yes for a visible pointer and No to hide it within the app.
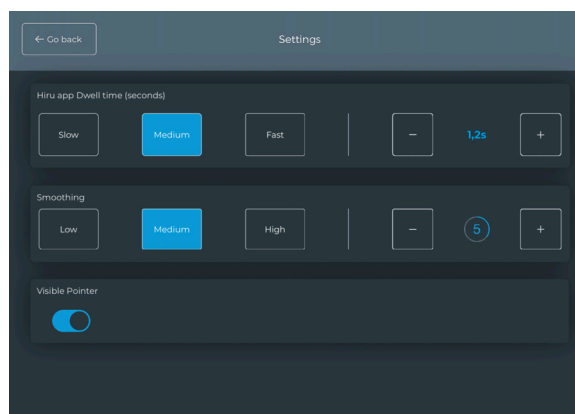
Hiru App

5. When finished, exit the App using the "Close" icon in the top right corner.
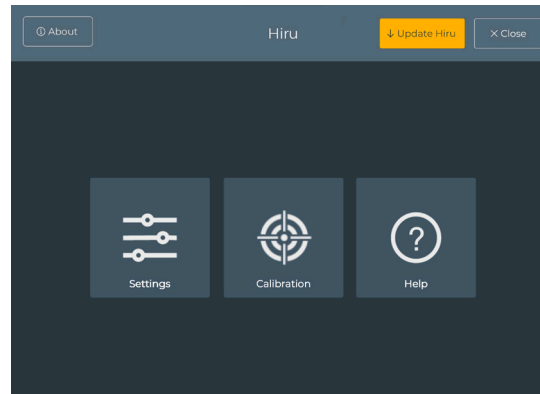
6. Navigate outside the Hiru App using the cursor to click on different icons.

O The cursor default is to perform a single tap. To choose an alternative command, go to the AssistiveTouch Menu and select an option. See more below in "Hiru and iOS Accessibility Tools".

Update Hiru in iOS

Check out this video for more information.

Software requirements

○ Hiru app needs to be at a minimum version of 2.8.

○ Hiru needs to have a license for iOS. If you don't have a license for Hiru, contact your provider.

Steps to update

In Hiru App, when a new version is available, the "Update Hiru" Button will appear in the upper right corner in blue. Click there, then click "Upgrade Hiru". Leave the Hiru plugged in while the Update completes. Click "Cancel Upgrade" to stop this process.
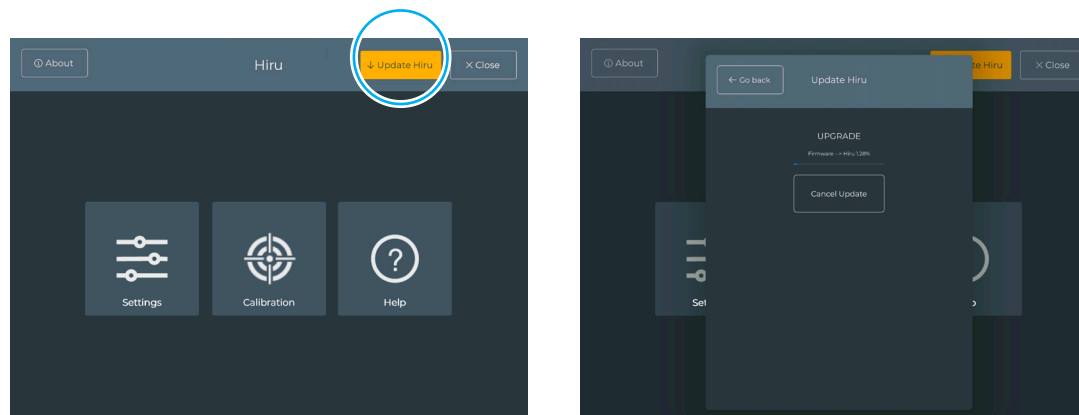
Hiru and iOS Accessibility Tools

Customize your iPad for Eye Gaze
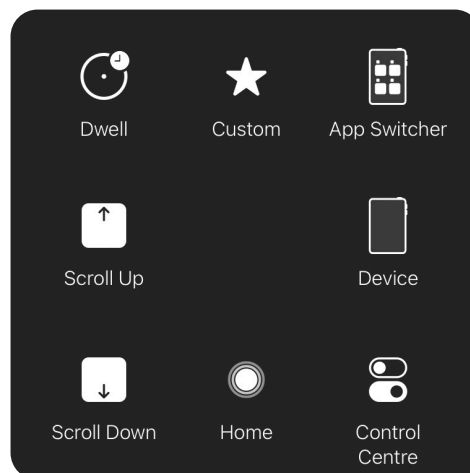
AssistiveTouch Menu

The AssistiveTouch menu has 8 spaces for commands and is used to simulate various gesture commands using eye gaze. Navigate the iPad using the cursor to click on different icons. The default action is a single tap. To choose an alternative action, select an option from the accessibility tool. This option will be performed once. This menu can be personalized to the user's preference.

Hiru and iOS Accessibility Tools

How to personalize the AssistiveTouch Menu

1. Open the AssistiveTouch Tool in the iPad Settings. To do this, Go to iPad "Settings", then choose "Accessibility", and on the right side choose "Touch". Within Touch, click on "AssistiveTouch Menu".
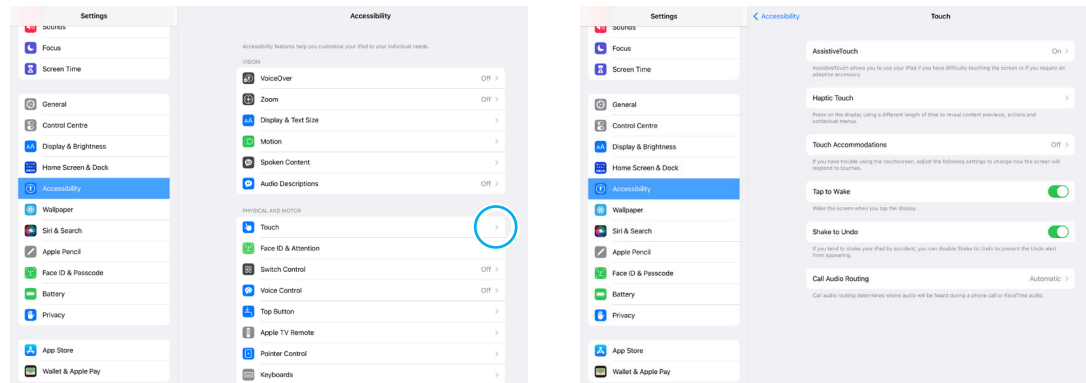
Hiru and iOS Accessibility Tools

2. Customize the AssistiveTouch Menu: Select "Customize Top Level Menu". Press + to increase the number of icons available to 8.
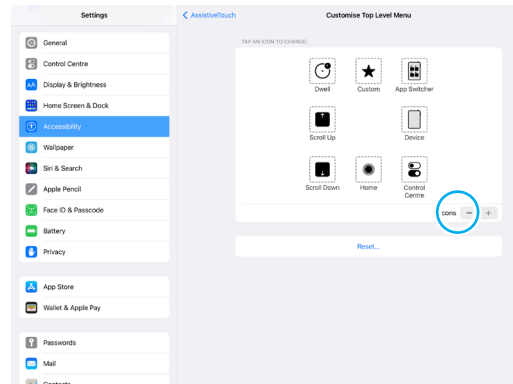
3. Select an icon from the defaults to be replaced (ex. Notification Center), and scroll down the list until you find the desired icon (ex. Pause/Resume Dwell).
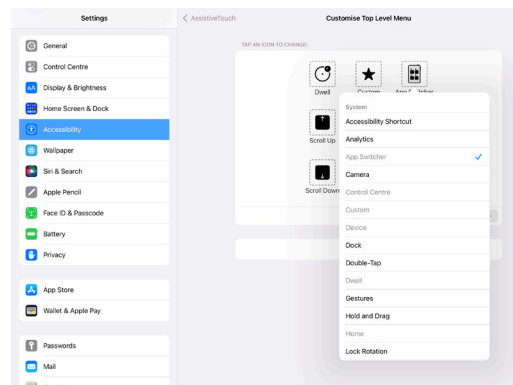
Hiru and iOS Accessibility Tools

4. Continue replacing icons until the menu is as desired. Use the icons below as a guide for eye gaze.

Recommended icons

Dwell	Custom	App Switcher
Scroll Up		Device
Scroll Down	Home	Control Centre
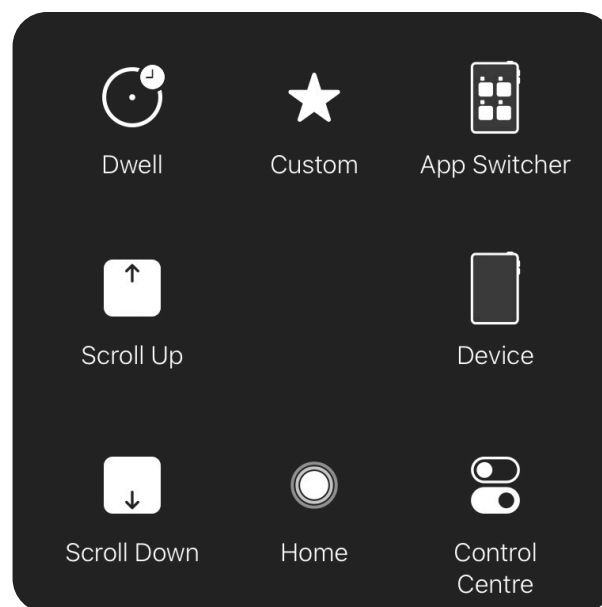
Hiru and iOS Accessibility Tools

Recommended commands for eye gaze in the AssistiveTouch Menu
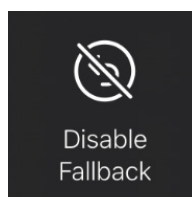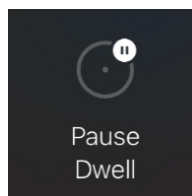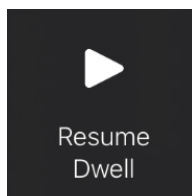
Pause / Resume Dwell

This icon allows you to stop clicking. When selected, the pointer is visible, but the dwell will not complete. Select "Resume Dwell" from the same icon on the AT menu to resume clicking. You can also set your fallback action to "Pause Dwell", so between each AssistiveTouch action, the dwell will be paused. Find it in Settings **>** Accessibility **>** Touch **>** AssistiveTouch in the Dwell section.

Enable / disable Fallback

With AssistiveTouch, there is a default "fallback" action of a "Tap". Each time you select an icon from the AT menu, the action will be performed once, and then returned to the fallback action. To maintain the selected action, first select "Disable Fallback" and your selection will be maintained until something else is selected.

User Profile Recommendations

Pro User Profile

Goal: Access and communication

Allow a user to access all features of the iPad in order to work, play, communicate and more.

This configuration seeks to maximize the number of icons available to the user, so they can perform the widest variety of actions possible.
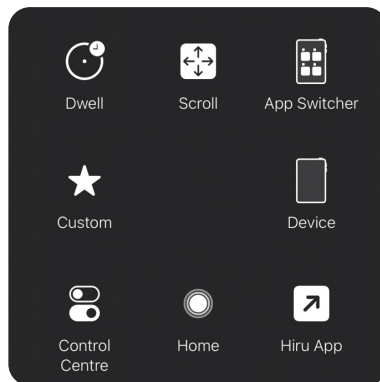
AssistiveTouch Menu

- **Home**: Jump to home screen.
- **App Switcher**: Change between apps.
- **Device**: iPad features (ex. Volume, sleep, etc.)
- **Dwell Menu**: Move menu and other features inside.
- **Scroll Menu**: More scroll directions.
- **Shortcut**: Open Hiru App for recalibration.
- **Custom**: Create & use custom gestures (swipe, long press, etc.)
- **Control Panel**: Open the Control Panel.

Top Left	Toggle Pause/Resume Dwell >
Top Right	Scroll Up >
Bottom Left	Enable/Disable Fallback >
Bottom Right	Scroll Down >

Dwell in a corner on the screen to perform an action.

Hot Corners

- **Top Left**: Pause / Resume Dwell.
- **Top Right**: Scroll Up.
- **Bottom Left**: Disable / Enable Fallback.
- **Bottom Right**: Scroll Down.

User Profile Recommendations

Beginner User Profile

Goal: Communication and Learning

Using AAC, cause and effect games and educational apps.

This configuration seeks to shorten the journey to any icon for quick access.

⚠️ Place parental controls on the user's iPad, to avoid unwanted clicks in the iPad Settings. Settings **>** Screen time **>** Content & Privacy Restrictions
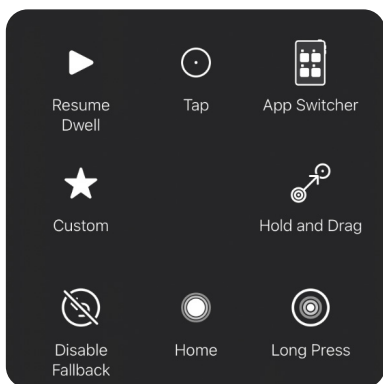
AssistiveTouch Menu

- **Home**: Jump to home screen.
- **App Switcher**: Change between apps.
- **Tap**.
- **Long Press**.
- **Hold and Drag**.
- **Custom**: Create & use custom gestures (swipe, long press, etc.)
- **Pause / Resume Dwell**.
- **Disable / Enable Fallback**.

▶ Resume Dwell	⊙ Tap	▦ App Switcher
★ Custom	⟋ Hold and Drag	
⊘ Disable Fallback	◉ Home	◎ Long Press

Top Left	Scroll Left ⟩
Top Right	Scroll Up ⟩
Bottom Left	Scroll Down ⟩
Bottom Right	Scroll Right ⟩

Dwell in a corner on the screen to perform an action.

Hot Corners

- **Top Left**: Scroll Left.
- **Top Right**: Scroll Up.
- **Bottom Left**: Scroll Down.
- **Bottom Right**: Scroll Right.

Note: Use a background photo with instructions for each hot corner command. (ex. in the bottom left, put a "zzz" image to indicate pause).
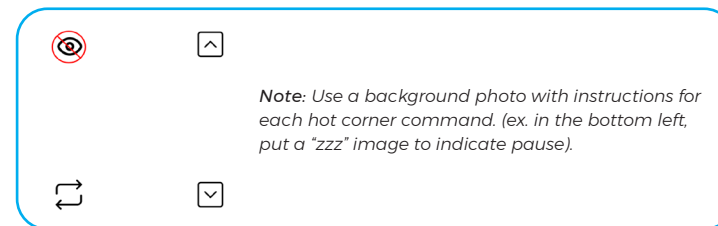
iPad Settings for Eye gaze

Dwell Time: Go to Settings **>** Accessibility **>** Touch **>** AssistiveTouch **>** Customize Top Level Menu. Scroll to "Dwell Control" and select "ON". To adjust the Dwell time, go down to four sections and turn to the desired dwell time.

○ 1.25 second dwell time is a good starting point. Change as desired.

Mouse Smoothing: Go to Settings **>** Accessibility **>** Touch **>** AssistiveTouch **>** Devices **>** Hiru. Here, select the desired smoothing level.

Mouse Size & Color: Go to Settings **>** Accessibility **>** Pointer Control, and in Pointer Size, scroll the size at least halfway up the scale.

○ Select a color other than "none" for higher visibility.

Motion Reduction ON: Go to Settings **>** Accessibility **>** Motion. Scroll to "Reduce Motion" and select "ON".

Pointer Animation OFF: Go to Settings **>** Accessibility **>** Pointer control. Scroll to "Pointer Animation" and select "OFF".

Sleep Mode NEVER: Go to Settings **>** General **>** Auto-lock. Choose "Never", or your desired time.

Dark Mode: (optional) Go to Settings **>** Display & Brightness **>** Appearance, Select "Dark".

View: Zoom or Standard. Go to Settings **>** Display and Brightness **>** View, choose Standard or Zoom. *When you change this setting, calibrate using the Hiru app again to ensure eye tracking accuracy.

Hot corners: Set each corner of your iPad screen to trigger an action. By just looking into the corner, the action will be selected. Watch this video to learn how to do it.

○ Settings **>** Accessibility **>** Touch **>** AssistiveTouch **>** Hot Corners. Select an action from the list for each corner.

shortcut to Hiru App
to access a calibration in one click.

How to create a Shortcut

Create a Shortcut

It's possible to add a shortcut directly to the AssistiveTouch Menu or Hot Corner.

1. Open Apple's "Shortcuts" App.

2. Click the + sign in the upper left corner.

3. Select the type of shortcut (Open App, set timer, etc.)

   a. Choose from different options depending on apps downloaded and the shortcut goal.

   b. Find the Apple instructions HERE.

4. Name the Shortcut (Ex. Open Hiru App).

5. To add to the AssistiveTouch Menu, go to iPad settings > Accessbility > Touch > AssistiveTouch > Customize top level menu and a shortcut from the bottom of the list. They appear there automatically when created.
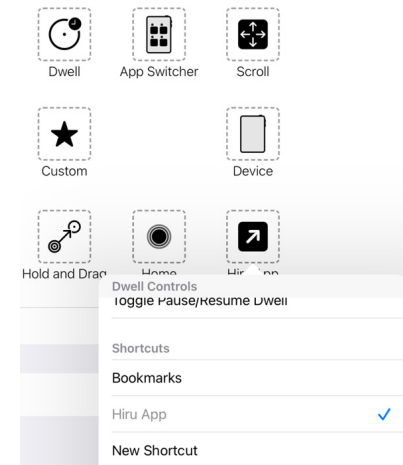
CE & MDR │ Technical Specifications

Compliance Information: CE and MDR

⟨CE⟩ DECLARATION OF CONFORMITY

MANUFACTURER	IRISBOND CROWDBONDING, SL
	VAT: ES-B75091058
	ADDRESS:
	    AVENIDA DE TOLOSA, 75 - 2°
	    San Sebastián
	    CP: 20018
	    Guipúzcoa, País Vasco

APPLICABLE DIRECTIVE	COUNCIL DIRECTIVE 93/42/EEC of 14 June 1993 concerning medical devices
HARMONIZED STANDARDS	EN 55032 (2015) / AC (2016) / A11 (2020) EN 55035 (2017): UNE-EN 62471-1:2009 FCC CFR 47, Part 15, Subpart B (10-1-15 Edition) ICES-003 Issue 6 (2016)
PRODUCT	Sistema de control del ordenador con la mirada HIRU/ Eye tracking system HIRU
REFERENCE	IRISBOND HIRU
TEST CERTIFICATES	65321IEM.001 65321REM.001 65321REM.002 2251989-PHO-21-018A

The device model has been designed and manufactured in conformity with the Directive.

San Sebastián, a 30th of April 2021

Eduardo Jauregui / Technical Director

Declaration of conformity (MDR)

We, Irisbond Crowdbonding Ltd, declare that the product listed below has been designed and manufactured in conformity with the Directive (UE) 2017/745:

MANUFACTURER	IRISBOND CROWDBONDING, SL ES-B75091058 AVENIDA DE TOLOSA, 75 - 2° San Sebastián, 20018 Guipúzcoa, Spain +34 9434 96 622 http://www.irisbond.com
REFERENCE	IRISBOND HIRU
PRODUCT	Eye tracking system HIRU

The aim of this declaration is a Class I Medical Device and is in conformity with the following harmonised legislation:

APPLICABLE DIRECTIVE	• Directive (UE) 2017/745 concerning medical devices, MDR. • EMC Directive, 2004/108/EC. • RoHS Directive, 2011/65/EU. • FCC Rules and Regulations.

The following harmonized standards and technical specifications have been applied:

HARMONIZED LEGISLATION	EN 55032 (2015) / AC (2016) / A11 (2020) EN 55035 (2017) UNE-EN 62471-1:2009 FCC CFR 47, Part 15, Subpart B (10-1-15 Edition) ICES-003 Issue 6 (2016)
TEST CERTIFICATES	65321IEM.001 65321REM.001 65321REM.002 2251989-PHO-21-018A

This declaration is signed on behalf of Irisbond Crowdbonding, Ltd in San Sebastián, on the 30th of April, 2021, by Eduardo Jauregui, CEO.

Declaration of conformity (MDR)

We, Irisbond Crowdbonding Ltd, declare that the product listed below has been designed and manufactured in conformity with the Directive (UE) 2017/745:

MANUFACTURER	IRISBOND CROWDBONDING, SL ES-B75091058 AVENIDA DE TOLOSA, 75 - 2° San Sebastián, 20018 Guipúzcoa, Spain +34 9434 96 622 http://www.irisbond.com
REFERENCE	OSKOL WINDOWS
PRODUCT	This product is composed by the following elements: • Medical device; Eye tracking system HIRU. • Case to bundle the Irisbond HIRU eye tracker and the Surface Pro tablet (TPU material has PASSED skin sensitization and cytotoxicity tests in accordance with ISO 10993-5 and 10993-10).

The aim of this declaration is a Class I Medical Device and is in conformity with the following directives:

APPLICABLE DIRECTIVE	**REGULATION (EU) 2017/745 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2017 on medical devices, MRD**, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directive 90/385/EEC.

The following harmonized standards and technical specifications have been applied:

HARMONIZED LEGISLATION	**HIRU:** EN 55032: 2015 / AC: 2016 / A11: 2020 EN 55035: 2017 UNE-EN 62471-1:2009 FCC CFR 47, Part 15, Subpart B (10-1-15 Edition) ICES-003 Issue 6: 2016 **OSKOL Windows:** ISO 10993-5 ISO 10993-10
TEST CERTIFICATES	65321IEM.001 65321REM.001 65321REM.002 2251989-PHO-21-018A

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MANUFACTURER	**IRISBOND CROWDBONDING, SL** ES-B75091058 AVENIDA DE TOLOSA, 75 - 2° San Sebastián, 20018 Guipúzcoa, Spain +34 9434 96 622 http://www.irisbond.com
REFERENCE	OSKOL iPad
PRODUCT	This product is composed by the following elements: • Eye tracking system HIRU, medical device class I. • Case to bundle the Irisbond HIRU eye tracker and the iPad Pro tablet (TPU material has PASSED skin sensitization and cytotoxicity tests in accordance with ISO 10993-5 and 10993-10)

The aim of this declaration is a Class I Medical Device and is in conformity with the following harmonised legislation:

APPLICABLE DIRECTIVE	**REGULATION (EU) 2017/745 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2017 concerning medical devices, MDR**, amending Directive 2001/83/EC, Regulation (EC) No 178/2002 and Regulation (EC) No 1223/2009 and repealing Council Directive 90/385/EEC.

The following harmonized and/or unharmonized standards and technical specifications have been applied:

HARMONIZED LEGISLATION	**HIRU:**
	  EN 55032: 2015 / AC: 2016 / A11: 2020
	  EN 55035: 2017
	  UNE-EN 62471-1:2009
	  FCC CFR 47, Part 15, Subpart B (10-1-15 Edition)
	  ICES-003 Issue 6: 2016
	OSKOL iPad:
	  ISO 10993-5
	  ISO 10993-10

TEST CERTIFICATES	65321IEM.001 65321REM.001 65321REM.002 2251989-PHO-21-018A

This declaration is signed on behalf of Irisbond Crowdbonding, Ltd in San Sebastián, on the 30th of April, 2021, by Eduardo Jauregui, CEO.

Technical Specifications

Optimum screen size	10-20"
Recommended working distance	35-80 cm.
Calibration	0, 1, 5, 9, 16 points
Selection mode	Dwell, Blink, Switch
Head box	20 x 18 cm. at 50 cm.
Eye tracking	Monocular and binocular
Accuracy	0.4°
Sampling rate (Frequency)	60 Hz.
Mounting	Holder, magnets, or specific adaptor for consumer device
Operating system	Windows: 7-10 iPadOS: 13 or above Others: Please get in touch with us
Eye Tracking processing	Hiru on-chip eye tracking technology
Minimum system requirements (laptop, PC, tablet)	Eye-tracking processing done at HIRU itself. System requirements related to the applications used with HIRU. Typically: • USB 3.0 -C • 1,33 GHz CPU • 2 GB RAM • 3GB + HDD Hard Disk • Intel Graphics, Nvidia and others with OpenGL 2.0 • iOS: iPad Pro
Weight	115 g.
Dimensions	259 x 25 x 28 mm.
Eye tracking technology	Dark pupil
USB connector	USB-C

See it Possible

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IRISBOND