

# Augmented Reality (AR) Glasses

Y O U B I Q U O



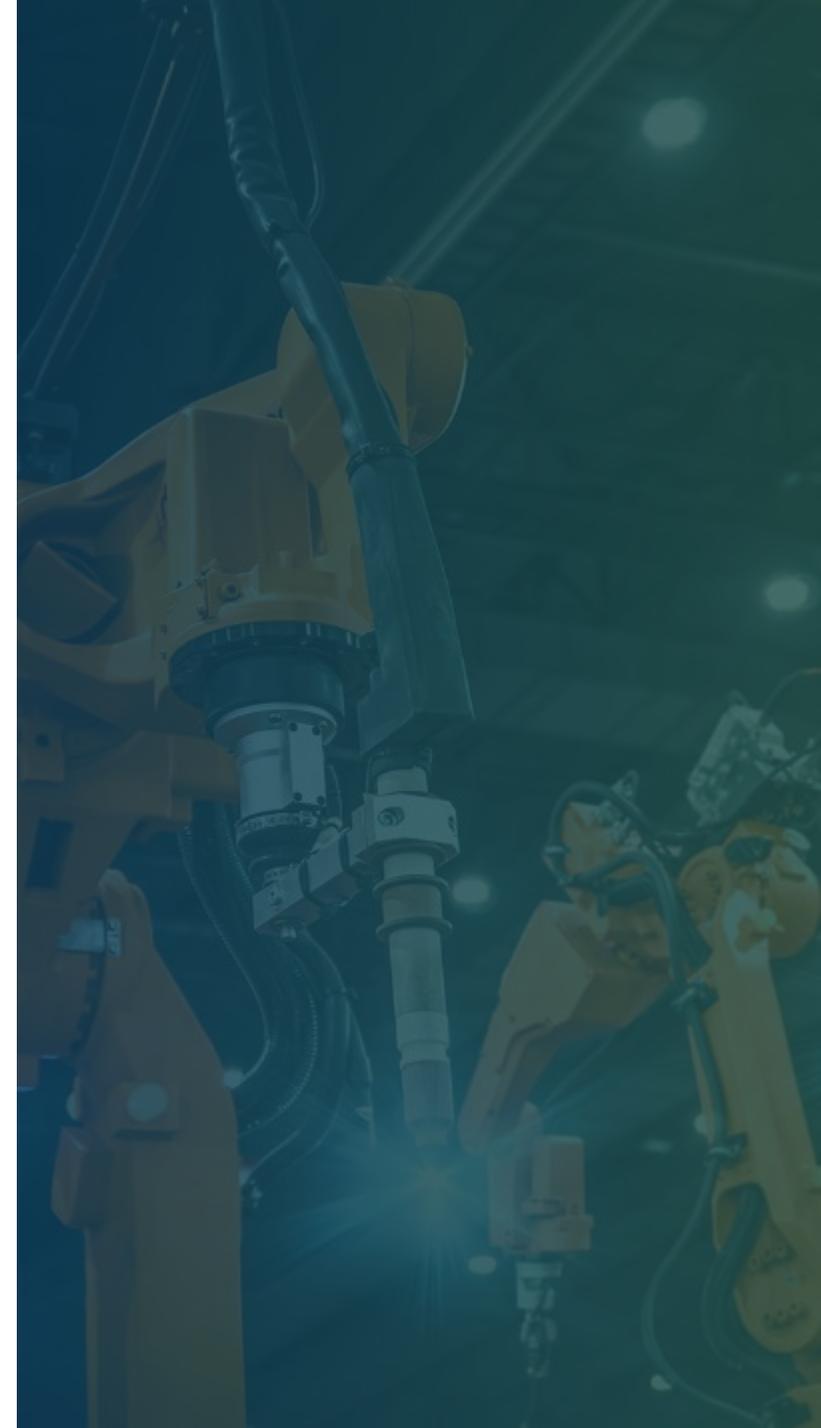
This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 958264

The material presented and views expressed here are the responsibility of the author(s) only. The EU Commission takes no responsibility for any use made of the information set out.

**OPTIMAI**

# Contents

- 1 Device Specifications
- 2 Device Usage
- 3 Interactive Controls



# Device Specifications

1

## In the Box

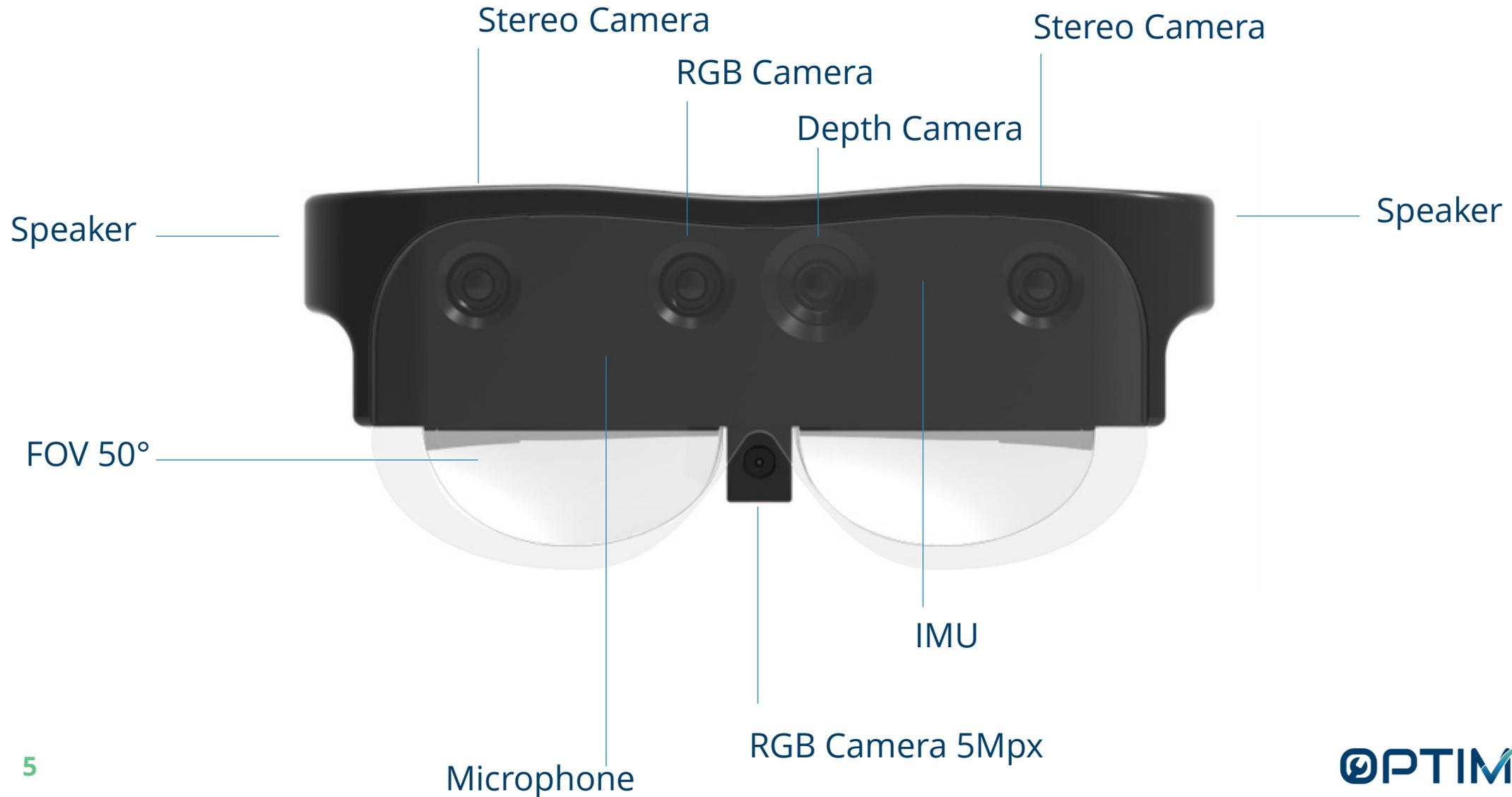
1 x OPTIMAI  
Visor Module



1 x OPTIMAI  
Computational  
Module



# AR Glasses – Visor Module



# AR Glasses – Computational Module



Touchpad

Power Button



Volume + -

# Visor Module – Technical Specification



## Optics

- Binocular transparent field of view (FOV) 50°
- Diagonal FOV over 90°



## Display resolution

- 720p HD (1280×720)



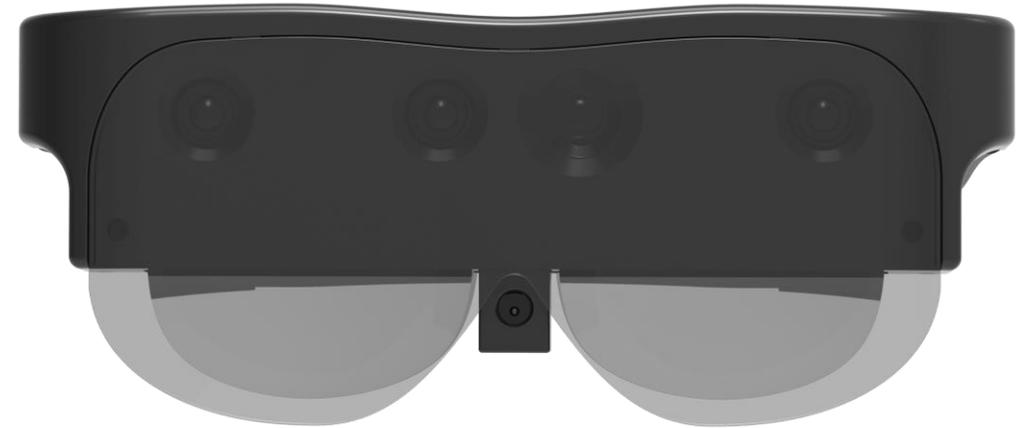
## Display brightness

- 3000nits



## Tracking sensor

- Compass
- Accelerometer
- Gyroscope



# Visor Module – Technical Specification



## Audio

- Microphone
- Stereo Speakers



## Interaction

- Touchpad
- Hand Gesture
- Voice Control



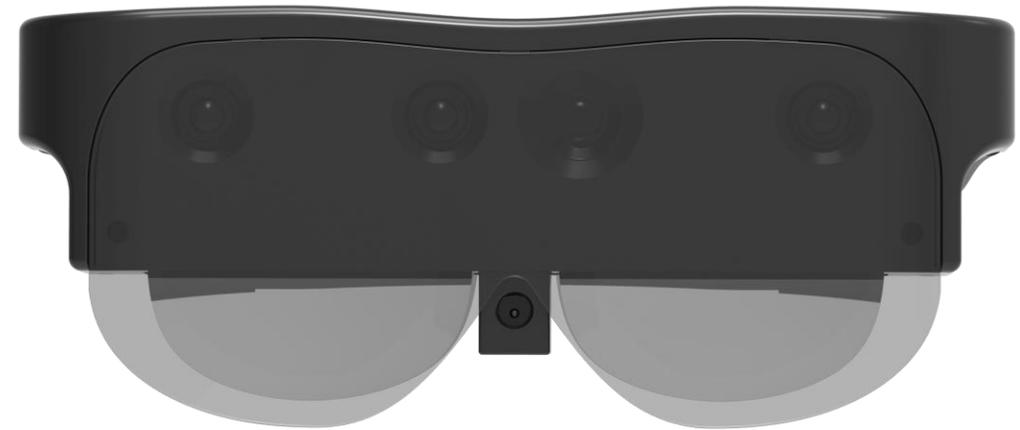
## Camera

- 5Mpx RGB Usb



## 3D Camera

- Intel® RealSense™ Vision Processor D4

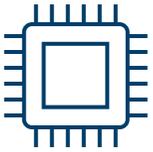


# Computational Module – Technical Specification



## CPU

- Snapdragon 845 Processor
- Octa-core 64-bit Kryo™ 385 CPU
- Adreno™ 630 GPU
- Hexagon™ 685 DSP with dual HVX51



## RAM

- 4GB LPDDR4X SDRAM



## Storage

- 32 GB UFS Flash Storage

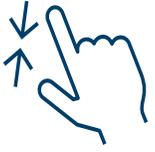


## OS

- Android™ 10



# Computational Module – Technical Specification



## Interaction

- Touchpad
- Hand Gesture



## WiFi

- 802.11.b/g/n/ac



## GPS



## BLUETOOTH

- BT: 4.2 BLE



## Secure Access

- NFC Reader



## Battery HOT SWAP

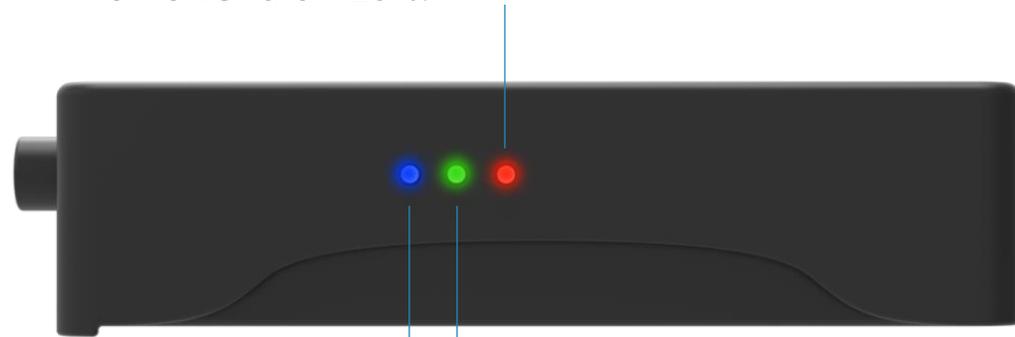
- Battery 5.000mAh
- Average Battery Life: up to 1 hour (depending on usage)



# AR Glasses – Computational Module

If the **red led** is on the device has more than 20% of battey level.

If the **red led** is flichering the battery level is equal or lower than 20%.



If the **green led** the battery is powering the device.

If the **blue led** is flichering the device is operating.

Recharge USB-C

USB-C to Visor



Battery Level Led

- 1 led on = 25%
- 2 led on = 50%
- 3 led on = 75%
- 4 led on = 100%

# Device Usage

2

# Before Use

1

Ensure the device is charged before use.

The battery requires 2,5 hours to fully recharge.



# Turning ON the Device

1

Press the power button. A blue LED will start flashing.

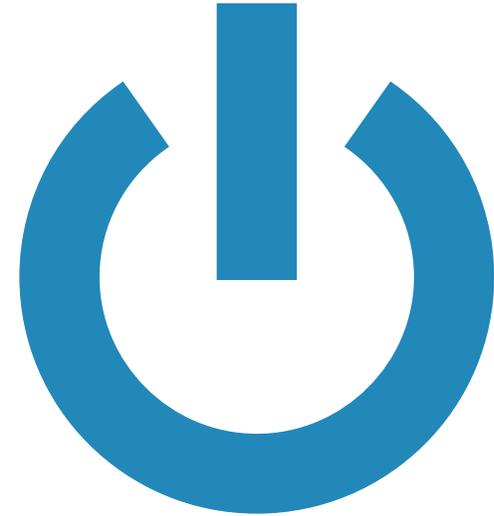
2

Wait ~ 120 seconds for the visor module to turn on.

**NOTE:**

When the box is booting, the LED flashes quickly. In the boot phase it may happen that the LED remains dark for a few seconds.

When the box has finished the boot phase, the blue LED flashes for ~ 1 second.



# Turning OFF the Device

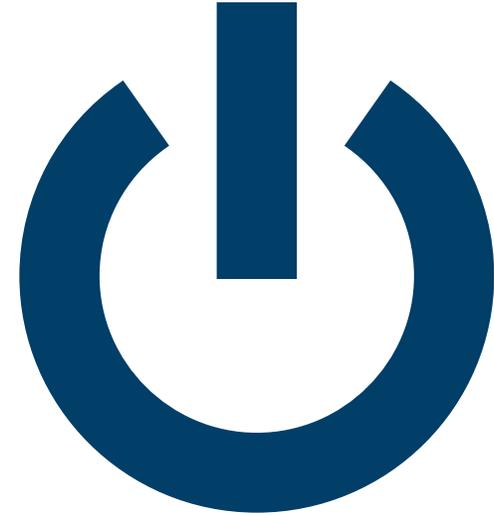
1

Press and hold the power button for 2 seconds.

2

A menu will appear on the right-hand side of the display. Select the 'Turn Off' window with the Left Key.

The display will start to shut down and the blue LED will also turn off.



# Putting the Device on STANDBY

1

Press the power button once,

**OR**

Press and hold the power button for 2 seconds.

2

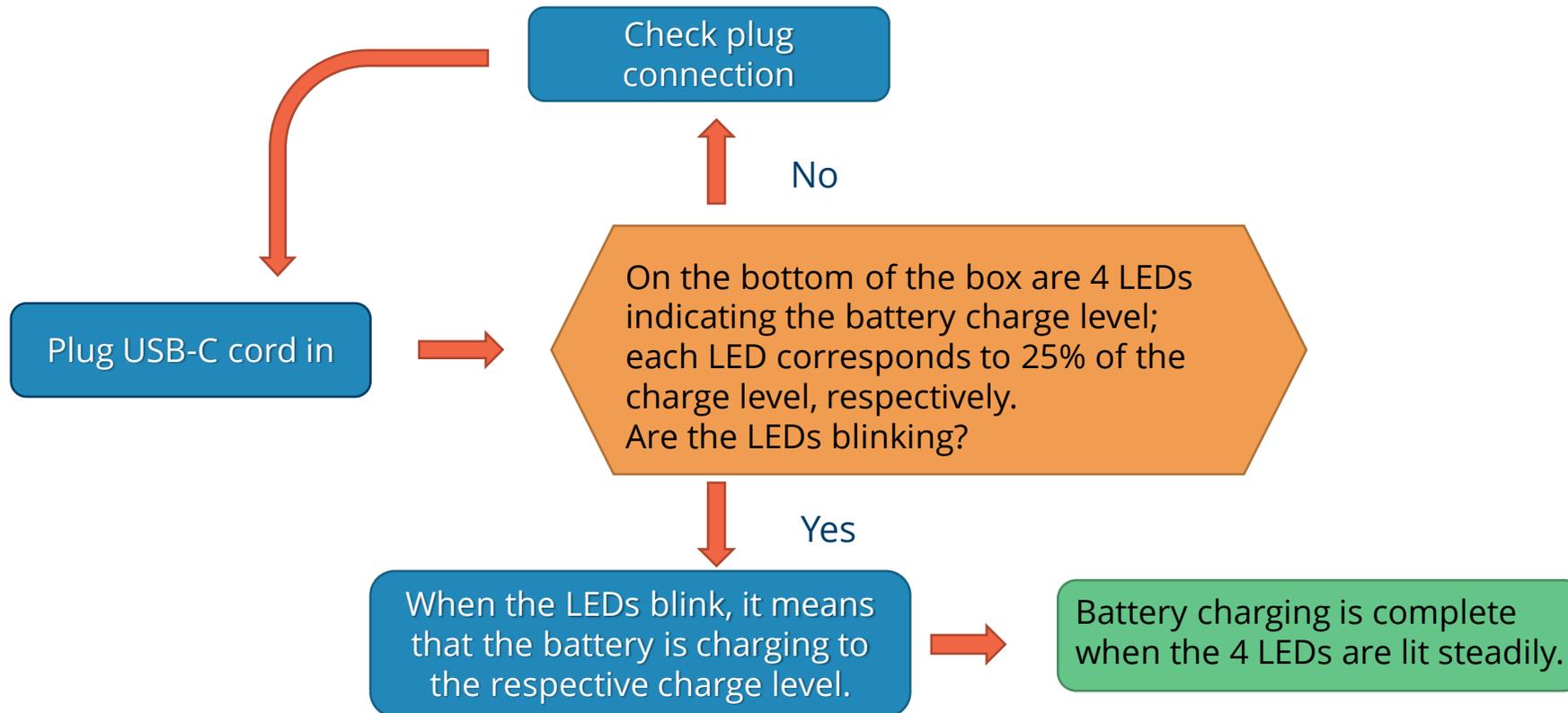
A menu will appear on the right-hand side of the display. Select the 'Standby' window with the Left Key.

The display will turn off but the blue LED will keep flickering.



# Device Lifecycle

The following diagram outlines the charging process:



# Operative Procedure – RESETTING the Device

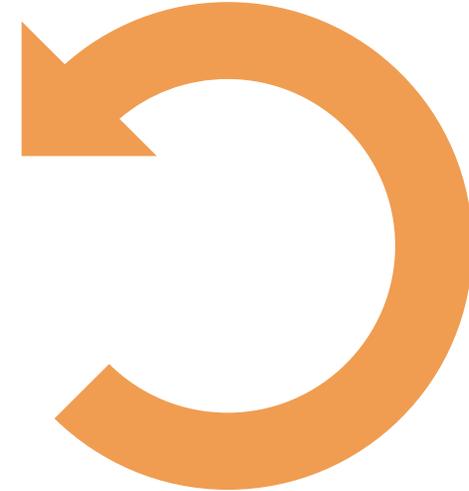
1

Press and hold the power button for 2 seconds.

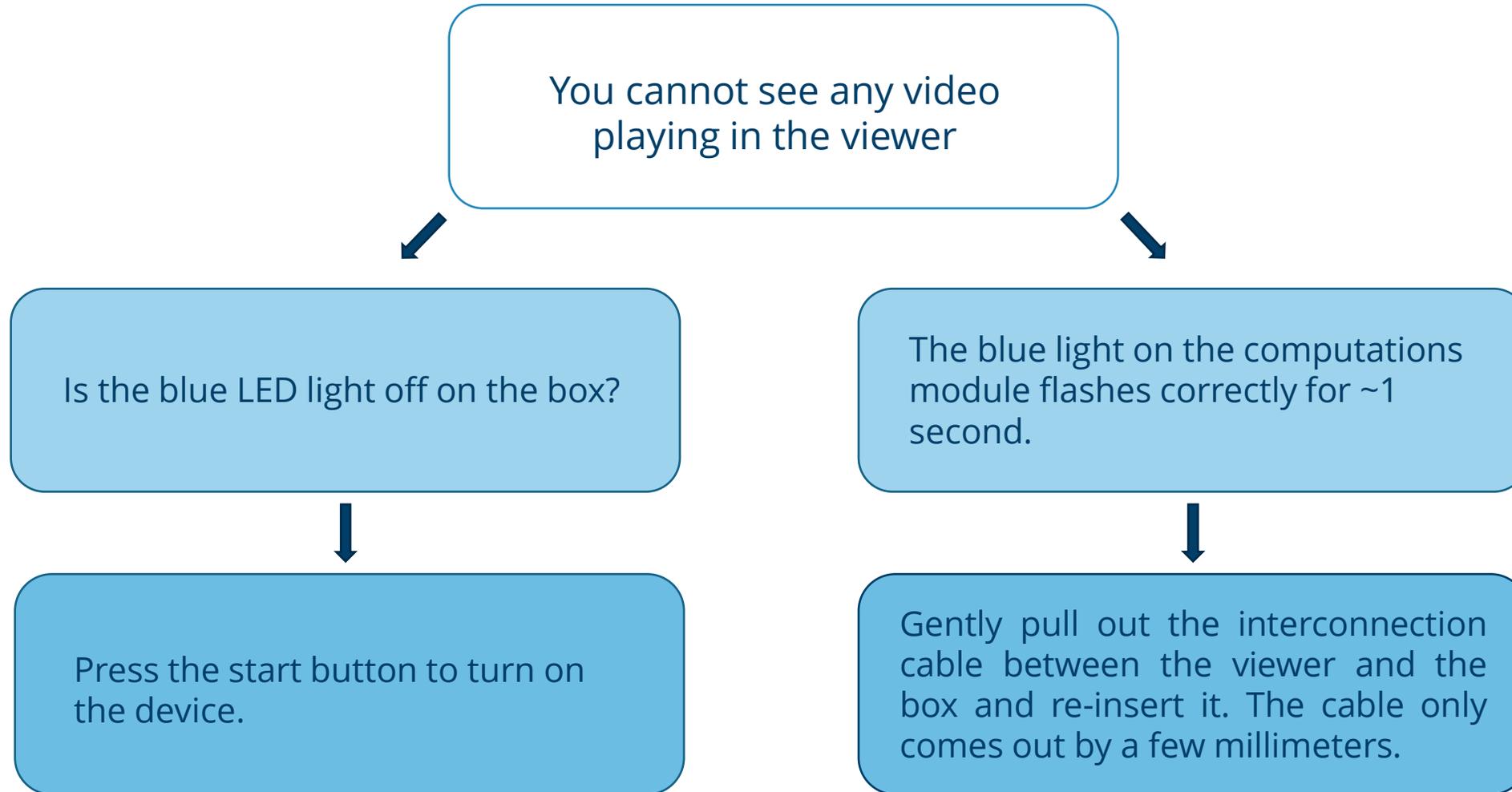
2

A menu will appear on the right-hand side of the display. Select the 'Reset' window with the Left Key.

The display will begin to shut down and the blue LED will also turn off.



# Troubleshooting Procedure





# Interactive Controls

3

# Interacting With the Device - Touchpad



—— Touchpad

# Gestures & Functions

Gesture	Function
	Accept initiation of Inspection process or Play video & Pause Video or Yes & No or Ready
	Select respective menu item Select respective list item
	Start the system Wake up from suspend mode
	Stop Production or Stop all processes and return to home page
	Rewind & Fast Forward video by seconds Adjust sliding bars towards the left or right side Increase or decrease the value of an actuator

# OPTIMAI

## Thank you

Y O U B I Q U O



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement No. 958264

The material presented and views expressed here are the responsibility of the author(s) only. The EU Commission takes no responsibility for any use made of the information set out.