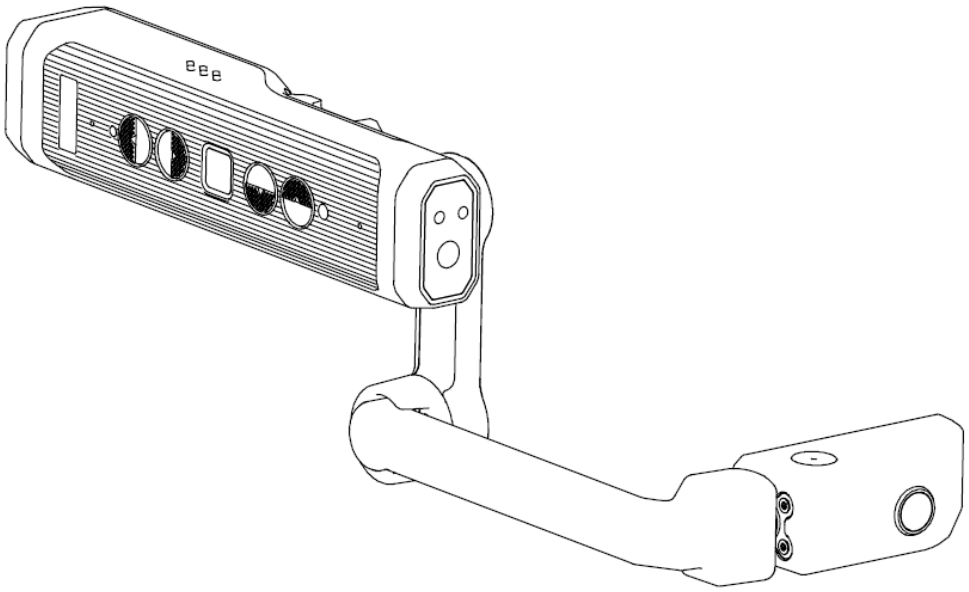
cimo®

cimo Release 1 User Guide



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Connected Intelligence for Mobility

The RealWear cimo is a hands-free Android™ tablet class wearable computer for industrial workers.

The RealWear cimo provides the foundation for Connected Worker programs.

Use it in wet, dusty, hot, dangerous, and loud industrial environments.

A fully rugged head-mounted device, it optionally snaps into safety helmets or attaches to bump caps and can be used with safety glasses or corrective eyewear.

The high-resolution micro display fits just below your line of sight and views like a 7” tablet. It’s an industrial dashboard: Be there when you need it and out of your way when you don’t.

The cimo works with powerful software applications from our solution partners in four core categories, each optimized for completely hands-free voice control. That means no scrolling, swiping, or tapping - just simple voice commands.

Use it for remote mentor video calling, document navigation, guided workflow, mobile forms and industrial IoT data visualization.

cimo Features

100% Hands Free
Voice based operating system with local speech recognition in loud areas.

Powerful Audio
Integrated speaker and 3.5mm audio jack for use with hearing protection.

Unmatched Noise Cancellation
The cimo uses four microphones and advanced algorithms to perform noise cancellation prior to voice recognition.

PPE Compatible
Designed to work with standard hard helmets, bump caps and safety glasses.

Full-Shift Working Time
Both Standalone and attach to external battery module

Outdoor Display
Viewable in bright sunlight.

Water Proof
IP66 – Protected against heavy seas or powerful jets of water.

Dust Tight
IP66 – Complete protection against the ingress of micro particles.

Drop Proof
Resistant to 1.5-meter drops onto concrete from any angle.

Built Rugged
Fully operational from -20° C to +50° C.

Fingerprint
Account security, fast device authentication

cimo Product Specifications

Core Platform & Functions

Chipset
2.0 GHz 8-core Qualcomm® Snapdragon™ 662 with Adreno 610 GPU - OpenGL ES 3.1 & OpenCL 2.0

Included Applications
File Browser, Camera, Barcode Reader, Media Player, Settings, Language Selector

Languages Supported
English, Mandarin Chinese

Memory
32 GB Internal Storage / 3 GB RAM

Operating System
Android 10 + Infinity OS hands-free interface

Connectivity & Sensors

Bluetooth
BT 5.0 LE (Low Energy)

Wi-Fi
802.11 a/b/g/n/ac – 2.4GHz and 5GHz

IMU
9-DOF (3-axis accelerometer, magnetometer, and gyroscope), software enhanced stabilization

Battery

Capacity
750 mAh Li-Ion, rechargeable，support additional battery pack or 4G dongle

Battery Life
Full shift (3 hours) with typical use

Physical Characteristics

Weight
155 g

Ruggedization
IP66, MIL-STD-810G, 1.5-meter drop test

Dedicated Keys
power and finger print key，direction key（up，down，left，right）

Ports
3.5mm audio，Type-C USB 3.0

Boom Arm
Adjust six ways for all head sizes, left or right eye compatible, display flips out of way when not in use，foldable to pocket, easy for carrying on

Display

Type
20° field-of-view, 1-meter fixed focus 24-bit color LCD, 0.33-inch diagonal, outdoor visible

Resolution
WVGA (854x480)

Audio

Microphone
4 digital microphones with active noise cancellation Accurate voice recognition even in 95 dBA of typical industrial noise

Speaker
Internal 91 dB loudspeaker

Multimedia

Camera
16 MP, PDAF with LED flashlight and laser

Front camera
8 MP， real 1st field view, see through view

Video
Up to 1080p @30fps. Codecs: VP8, VP9 and hardware encoding support for H.264, H.265 HEVC

Accessories

Included
USB Type-C data and charging cable

Optional
Charger, Hard hat clips, Bump Cap, Lightweight universal head band, Modular Headband, Ear Bud Hearing Protection Headphone rated at 33dB noise reduction rating (NRR), Semi Rigid Carrying Case, Portable battery,

cimo Overview

Purpose-built hands-free secure software for increased productivity.

Safer. Faster. Smarter.

cimo Release 10 - powered by Android 10 - is the only software purpose-built for harsh or dangerous environments where workers use their hands for more connected and secure work. Release 10 is optimized for safe and secure jobs, taking hands-free to new heights of productivity and connectivity.

cimo Release 10 lays the groundwork for RealWear UEM Cloud Services, improving your overall hands-free experience while keeping you securely connected to the data in your cloud.

Enhanced Usability

Redesigned user interface, keyboard and file management system, focused on ease of use and productivity.

Core Functions	
Operating System	Android 10
Smart Camera System	My Camera App 1.0

Usability	
Enhanced UI	The new UI utilizes head movement for easy scrolling left to right. The new My Controls menu and speech keyboard allow the user to look left or right and make selections using their voice. Improved user experience with better screen layout and colors and a more consistent philosophy overall design. Better access to core Android capabilities such as Notifications.
Gestures	Better leverage head gestures when doing so is more effective than voice commands
Customization	White label design can be branded just for your business needs
Keyboard	Fully redesigned hands-free keyboard with gestures and voice including: Standard keyboard Secure Entry mode enables hands-free password entry without speaking the characters aloud Full dictation for improved productivity

Security	
Android 10 Security	Security patch Level Security patch updates targeted within 90 days Compliance with current enterprise IT security policies Regular software updates from RealWear
Fingerprint	Account Security

Customization and Configuration	
Centralized Infinity OS configuration	OS level and App level customization and configuration. Default values and preferences can be stored in a common configuration space and updated, refreshed, or managed for easier deployment and support
Cloud Services	Fully manageable by Mozione UEM Cloud
Language	Dynamic and individual language strings can be adjusted or improved by administrators
More languages	2 languages Languages can be updated over the air (OTA)

Most Advanced Camera System for Harsh Environments	
Hands-free for industry	Command and control all features while keeping your hands free for work
Preview	Instant preview of photos and videos
Smoother experience	Seamless experience from ‘MY CAMERA’ to ‘MY PHOTOS’ and ‘MY MEDIA’
Low Light Performance	Improved performance in low light settings and situations
Field of View (FOV)	Wide angle range or standard range
Image and Video Stabilization	More usable footage when work is being done and image and video accuracy is required for compliance, inspections and remote mentoring
Flashlight	Flashlight functionality can be controlled directly from the camera app
Camera	Photo preview. Zoom level 1-5

cimo Safety Guidelines

Battery Performance

A inside rechargeable battery powers your device. The full performance of a new battery is achieved only after 3 to 4 complete charge and discharge cycles. The battery can be charged and discharged for multiple cycles, but it will eventually wear out. Unplug the charger from the electrical plug and the device when not in use. Ensure that you do not leave the fully charged battery connected to the charger. If left unused, a fully charged battery will lose its charge over time.

Warning: There is a risk of explosion while charging if a battery other than the specified model is used.

Battery Replacement

If the cimo battery can’t work anymore, please contact RealWear technical support team.

Avoid High Temperatures

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. For the best results, try to keep the battery between -10°C and +50°C (+14°F and 122°F). A device with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures well below freezing.

Battery Disposal

Do not dispose of batteries in a fire as they may explode. Batteries may also explode if damaged. Dispose of batteries according to local regulations and recycle when possible. Do not dispose as household waste. Do not dismantle, open or shred cells or batteries. In the event of a battery leak, do not allow the liquid to come into contact with the skin or eyes. In the event of leak or a hazard seek medical help immediately.

Child Safety

Do not allow children to play with your device or its accessories. Keep it out of their reach. They could hurt themselves or others or could accidentally damage the device or accessories. Your device and its accessories may contain small parts, which could be detached and create a choking hazard.

Health and Safety Warnings

Stop using RealWear cimo or its display immediately if you experience a headache, vertigo, dizziness or nausea. Do not use the cimo display while operating any vehicle. Move the boom arm completely out of your line of sight when not using the display. Maintain situational awareness of your surroundings while using the cimo.

Safety and Usage Guidelines

• Do not use cimo while driving
• Always wear cimo with eye protection.
• Always use your dominant eye for comfortable viewing.

Disposal of Old Electrical and Electronic Equipment

The symbol of the crossed-out wheeled bin indicates that within the countries in the European Union, this product, and any enhancements marked with this symbol, cannot be disposed as unsorted waste but must be taken to separate collection at their end-of-life.

Disposal of Battery

Please check local regulations for disposal of batteries. The battery should never be placed in municipal waste. Use a battery disposal facility if available.

Guideline for Headphone and Earphone

To prevent possible hearing damage, do not listen at high volume levels for long periods.

過度使用恐傷害視力

Charger Use Safety Instructions

Warning: To use the charger follow these instructions:
- Use only safety certified adapter or the one in our optional accessories. Adapter shall be installed near the equipment.
- Make sure that the cable plug is properly connected.
- Keep the charger away from liquids.
- In case of any strange smell or noise from the charger, disconnect it and contact support.
- Before cleaning the cable or charger, disconnect from power supply.
- When using an extension cable, check the integrity of the ground conductor.
- Disconnect the charger from cimo once the battery is fully charged.
- Do not use this charger in wet areas This charger is for indoor use only.
- Do not insert or remove the plug with wet hands.
- Do not open the charger. For any issues, contact support.
- Do not cut, break or bend the cable in a knot.
- Do not put any objects on the cable that may let it overheat. It may damage the cable and cause fire or electrocution.
- Do not use any cable other than the original cable as it may cause short circuit or electrocution.

- Hereby, [RealWear (Shanghai) Intelligent Technology Co., Ltd.] declares that the radio equipment type [MZ1000] is in compliance with Directive 2014/53/EU.
- The full text of the EU declaration of conformity is available at the following internet address: https://www.realwear.com.cn/

cimo Connectivity

Operating Frequency Bands for RealWear cimo

Wi-Fi operating frequency band(s) details are as follows:

2.4G（2400-2483.5MHz）: 14.54 dBm
5G（5150-5250MHz）: 12.26 dBm
5G（5250-5350MHz）: 12.92 dBm
5G（5470-5725MHz）: 14.87 dBm
5G（5725-5850MHz）: 12.95 dBm

5G Wi-Fi Connection Information

Operations in the 5.15 — 5.35GHz band are restricted to indoor use only.

AT	BE	BG	HR	CY	CZ	DK
EE	FI	FR	DE	EL	HU	IE
IT	LV	LT	LU	MT	NL	PL
PT	RO	SK	SI	ES	SE	UK(NI)

Bluetooth

BT 5.0 LE (Low Energy) (2400-2483.5MHz): 13.26 dBm

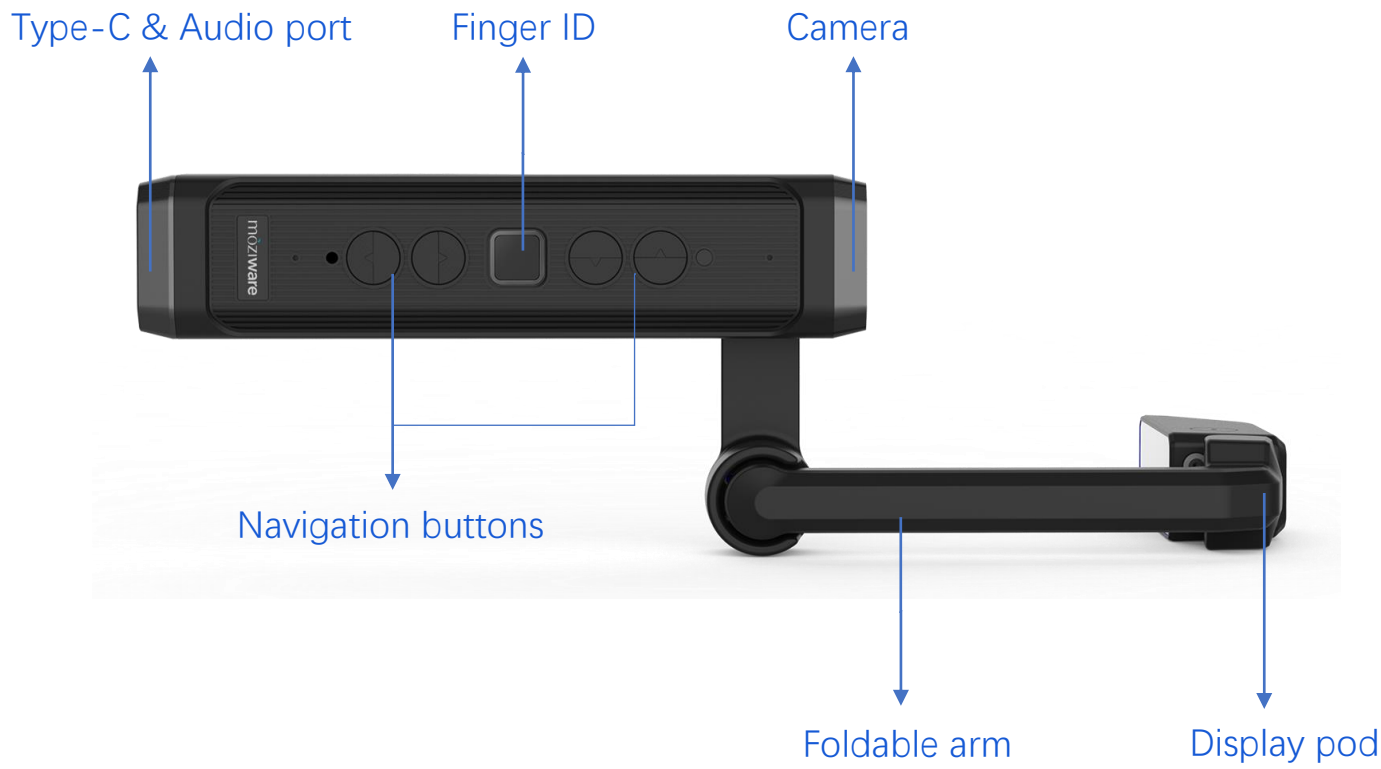
cimo Box Contents

The list of items in the RealWear cimo box are:

RealWear cimo
- USB 3.0 cable type C
- cimo Quick Start Guide

cimo Device Overview

Front View



cimo Device Overview – Details

Power/Fingerprint Button

There are 5 buttons on the opposite side of the boom arm side of the device. The square button in the middle is the power button. Later you will learn how to use this button to select the highlighted option to turn the device on, off, or wake it up or put it into sleep mode.

Direction Button

There are two buttons on the left and right sides of the power button, which are left and right keys and up and down keys respectively. Tap these four buttons to toggle highlighting options. Long press the up and down keys to adjust the speaker volume. Long press the left key and right key to turn on and off the laser light and flash lamp respectively.

Main Camera

The main camera is located at the front of the fuselage. It can take 16mp photos and 1080p videos. It is also equipped with a built-in flash that can be controlled by voice and a laser pen that can be controlled by long pressing the left key.

Front Camera

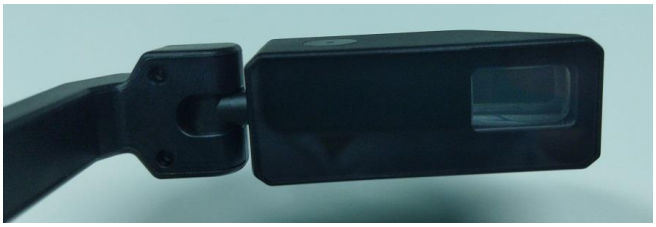
The front camera is located on the outside of the display module in the same direction as when the eyes look at the display. It can take 8mp photos and 480p videos.

Details Continued

Boom Arm

The Boom Arm allows the user to adjust the positioning of the Display Pod and allows for 6 degrees of freedom, which means it can be adjusted up and down, left and right, and forward and back. It is comprised of a Shoulder, Elbow, and Wrist joint (imagine the human arm). Its orientation can be inverted to allow use by left or right eye dominant users.

Display pod



The Display Pod can be rotated and adjusted so the user can see the display clearly. The Display itself is an 854x480p 24-bit LCD Display with 20-degree field-of-view and 1-meter focal depth, meaning that it appears like a 7in. Tablet at arm's length.

Microphone Array

There are two sets of two microphones on the cimo. The Primary Microphones handle user input, while the reference microphones cancel external noise. The front microphones, active by default, are located on the display pod. The Primary Mic is downward-facing, close to the user's mouth, and the reference mic is upward-facing to pick up and remove background noise.

The rear microphones are located on the side of the device opposite from the boom arm. These should be used only when communicating when the boom arm is flipped back and out of your field of view.

Speakers

There is a 91 dB loudspeaker that sits above the ear when worn on either side.

USB-C Port and Auxiliary Jack (Headphones)

USB-C port is used for fast charging and data communication (double headed type-C full-function USB cable specially customized in accessories is required). The port is located on the back end of the device.

Headphones can be connected to the cimo via this jack. We recommend using RealWear 33 dB noise-reduction earbuds with your cimo. This jack is located beside the USB-C port.

cimo Setup Guide

Wearing the cimo

This article will walk you through how to wear your cimo device and ensure the best possible experience.

Step 1 - Determining Left- or Right-Eye Configuration

The cimo can be set up so that the display and camera are aligned with the left or right side of your head.

First, it is important to determine your dominant eye, to do so, follow the simple instructions in this linked article. Viewing the HMT's display with your dominant eye will allow for the most clear and comfortable use of the device.

Step 2 - Get the cimo Ready

Before wearing, hold the cimo level with the boom-arm/display on the left or right, whichever is your dominant eye side. Bend the boom so it forms a slight "Z" shape as shown below.

Step 3 - Ensure proper head-mounting accessories are in place.

These can include the hardhat with clips, bump cap, or baseball cap with mounting kit. See the article on mounting accessories for instructions on how to attach the device to your chosen mounting option.

Step 4 - Putting on the cimo

Start by positioning the device on your head so that it is roughly level with ground. The head strap should be positioned vertically, not at an angle, resting over the top part of your head.

Step 5 - Fitting the HMT- Lite

Adjust the head strap or mounted headwear so that the device is not hanging too low - it should be positioned right along your temple area, above your ears.

Next, move the display pod into position. For the optimal experience it is recommended that the display is close to the center line of your face, in front of and close to your eye.

Step 6 - Adjusting the fit

Ensure that the display pod is not positioned too far to the outside or too far in front of your eye.

Move the display towards the center line by pushing from the outside inward.

Then holding the boom arm with one hand and holding the back of the cimo with the other, push the display pod inward so that it is close to, in front of and slightly below your eye.

Step 7 - Turning on the HMT- Lite

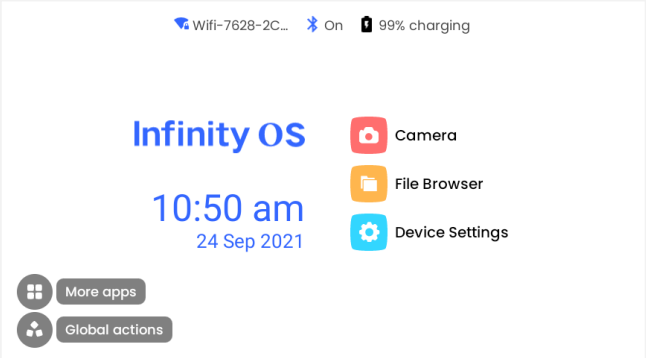
Before putting the cimo on your head, press and hold down the power button for about three seconds then release the power button. The power button is the round silver button on the same side of the cimo as the boom arm/display.

In about ten to fifteen seconds you will hear a sound as the start-up sequence completes. The cimo is now powered on and ready to wear. You should now be able to see the screen.

Step 8 - Fine tuning

It is best to tilt and rotate the display pod to make minor adjustments.

Make sure that the display pod is rotated so that all four corners of the screen are clearly visible to your eye. With your cimo powered on, and the display pod positioned correctly, you will see the entire cimo Home Screen.



Warning: If you are not able to clearly see what is on screen, review how your device and display setup - double check the fitting of the strap or headwear and if your display is correctly setup for your dominant eye.

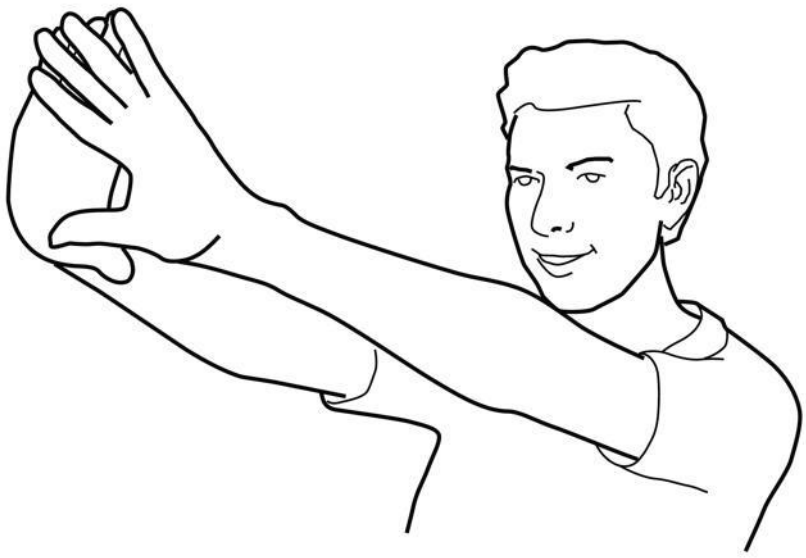
Determining Eye Dominance

Eye dominance is the tendency to prefer visual input from one eye to the other. It is best to use your dominant eye when viewing the display.

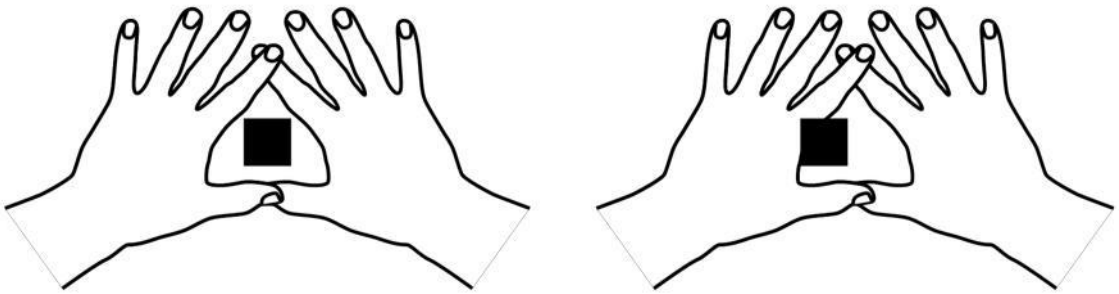
Eye dominance is not related to right- or left-handedness.

To determine which eye is dominant:

1. Form a triangle with your hands placed together at arm's length.



2. With both eyes open, focus on any distant object centered in the triangle (such as a light bulb or door knob).
3. Maintaining focus on the object centered in the triangle and - keeping your head and both hands still - close your right eye.
4. If the object is still in the triangle, you are left-eye dominant.
5. Maintaining focus on the object centered in the triangle and - keeping your head and both hands still - close your left eye.
6. If the object is still in the triangle, you are right-eye dominant



7. If the object is in the triangle with either eye, then you are dominant eye neutral.

Headwear with cimo Devices

(Check RealWear Website for specific model availability.)

cimo devices are equipped standard with a Removable Head Strap.

Compliant with your PPE, HMTs can be mounted several other ways in order to increase stability, comfort, and safety.

Mounting with Hardhat and optional accessory clips.

Using the cimo with a Hard Hat

To get hard hat clips, visit shop.RealWear.com.cn.

Wearing cimo with Eye Protection

If you wear eye-glasses to operate a computer, or eye protection for your work, continue to wear the same glasses or eye protection while using cimo. While cimo devices are designed to work well with or without eye-glasses or eye protection, RealWear recommends wearing eye protection while using an cimo.

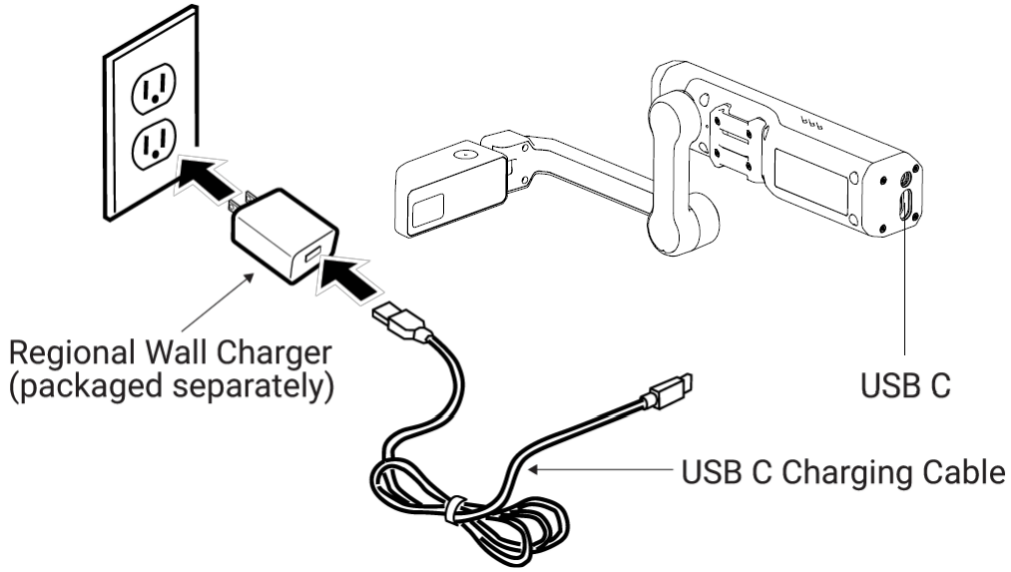
cimo Charging Basics

cimo Direct Charging

To charge the cimo battery while installed in the cimo, use the included Wall Charger and USB-C cable.

To recharge the battery:

1. Connect the USB Type-C charging cable to the Type-C USB port located under the rubber lid on the rear of the boom-side housing. Using the USB-C cable and USB C port will ensure the shortest charging time.



2. Connect the charging cable to the wall charger.
3. Plug the wall charger into an electrical outlet. The power button LED will blink throughout the charging cycle, changing color from Red to Yellow to Green, depending on the amount the battery has charged. Green signifies a full charge.

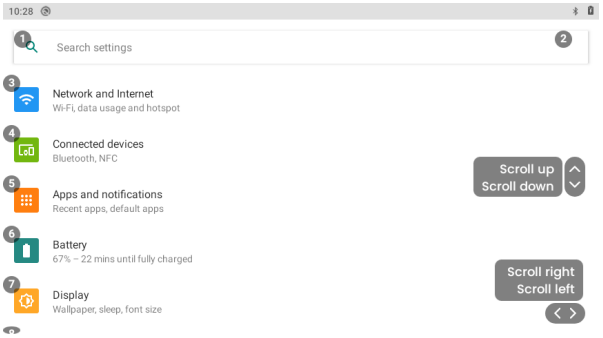
A Red light means the battery is extremely low or dead.
A Blue light means the battery is less than 90% and charging.
A Green light means the battery is full.

The battery icon will 'fill up' indicating its state of charge.

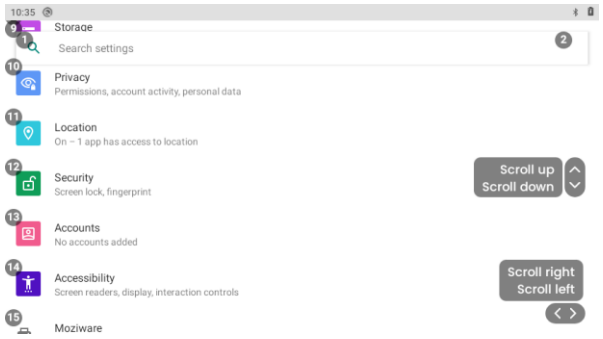
Configuring your cimo

Settings

You can access Settings in applications list. Say ‘MORE APPS’, then say 'SETTINGS'.



‘Scroll down' to see more options.



Settings provides access to important system level controls and capabilities. Each of the following Settings options can be select by speaking the corresponding commands:

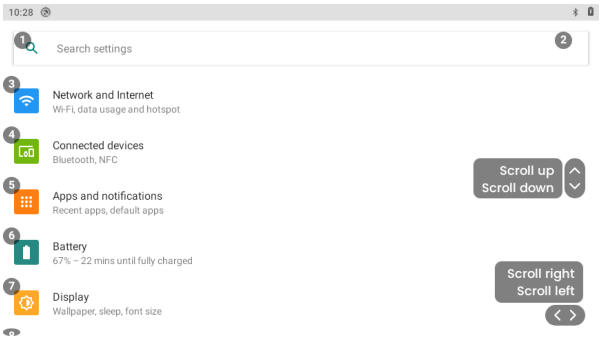
- Network and Internet
- Connected devices
- Apps and notifications
- Battery
- Display
- Sound
- Storage
- Privacy
- Location
- Security
- Accounts
- Accessibility
- Moziware
- System
- About phone

cimo Configure Continued

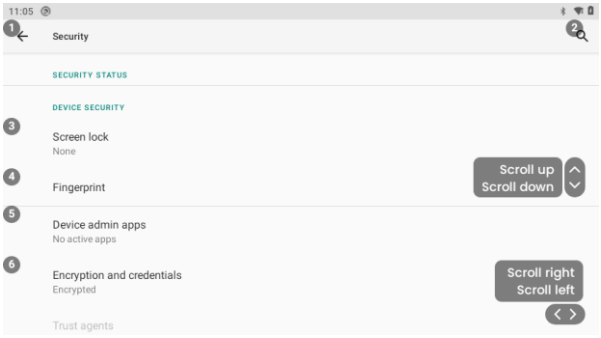
Setting Up Screen Lock

Using Android's Screen Lock feature protects your cimo device from unauthorized access. To setup the screen lock, do the following:

Step 1:
Enter Settings one of two ways. You can say "DEVICE SETTINGS", then "MORE SETTINGS". Or you can say 'MOVE HOME", "MORE APPS", then "SETTINGS".

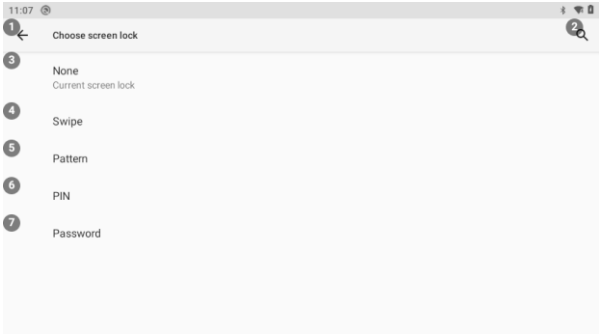


Step 2: Say "SCROLL DOWN", then say "SECURITY".



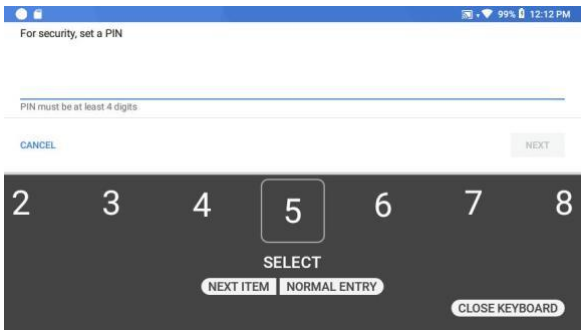
(Note, the Settings page will be scrolled to the last location visited after a reboot. So, Settings may not be scrolled all the way to the top of the page. The instructions here assume you will start at the top of the page.)

Step 3: Say 'SCREEN LOCK' or select using the 'SELECT ITEM #' command. On the screen above the correct command would be "SELECT ITEM 3"

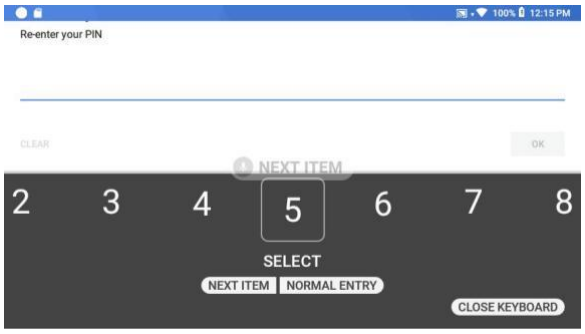


Step 4: Say the word 'PIN'

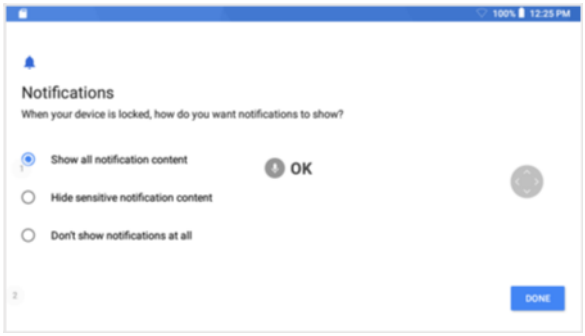
Step 5: Move your head left or right until the number you want to select is within the frame. Say "SELECT" to enter that number.



Step 6: Repeat to input your desired PIN sequence. The PIN may be from 4 to 16 digits. When complete say "NEXT ITEM"

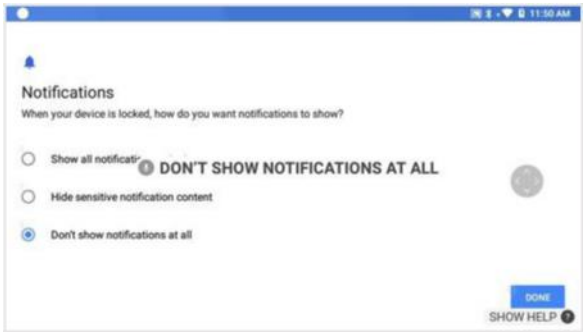


Step 7: Re-enter the PIN for confirmation. When finished, say "NEXT ITEM" or say "CLOSE KEYBOARD", then say "OK".

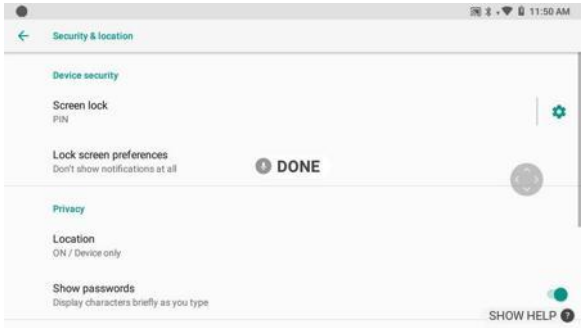


Step 8 Select desired Notifications display option. This will determine if the cimo will display notifications on the Home screen when the device is locked.
You can opt to view all the notifications or hide specific notifications.

You can also opt to hide all the notifications.
The default is "Show all notifications". Simply say "SHOW ALL NOTIFICATIONS", "HIDE SENSITIVE NOTIFICATION CONTENT" or "DON'T SHOW NOTIFICATIONS AT ALL" to select.



Step 9: When finished, say 'DONE'.



The Screen Lock is enabled, and the device will lock the next time it goes to sleep. You can press the power button for one second or less to lock the device. Or if the device is idle for an amount of time selected in Settings>Display>Sleep.

cimo Configure Continued

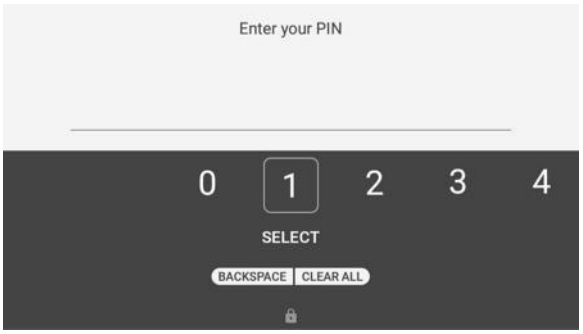
Unlocking the cimo

When screen lock is enabled, the device requires a PIN number upon waking from sleep mode or when the device is restarted.

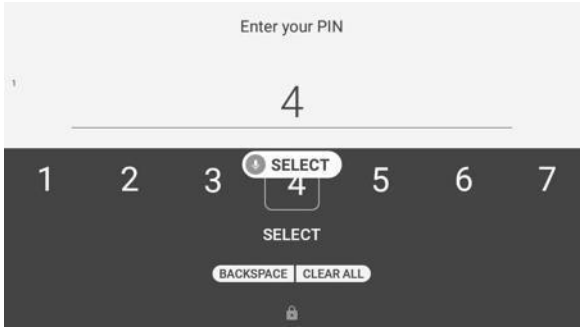
To unlock the device:

Step 1: Press the Power button. When the lock screen appears say “UNLOCK”.

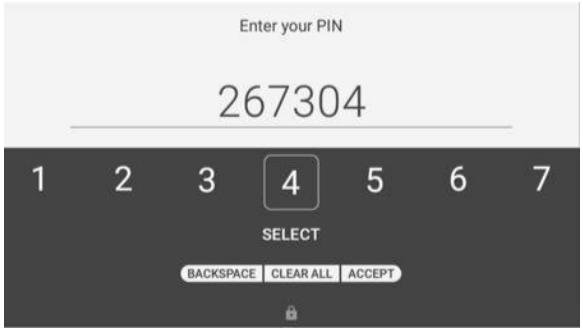
Step 2: Input your PIN. Move your head left or right to highlight numbers.



Step 3: When highlighted, say "SELECT" to enter the number. Repeat to enter your entire pin.



Step 4: When finished, say "ACCEPT" to unlock the device. The device will go to the Home Screen in the case of a reboot of the device or will return to the last screen open in the case of waking from sleep mode.



cimo Configure Continued

Selecting cimo Interface Language

The cimo supports the following languages:

1. English (US)
2. Mandarin Chinese

To select the user interface language:

Enter applications, say ‘LANGUAGE SELECTOR’, highlight the language by left buttons, press power key to select, then the system will get into the language you selected.

cimo Device Care

Powering Off the cimo

RealWear recommends that you power off your cimo device when not in use to conserve battery and ensure the longevity of the device:

1. Press and hold power key for 3 seconds.
2. It will show three options: Power off, Restart, Sleep.
3. Say “POWER OFF”

Rebooting the cimo

1. Press and hold power key for 3 seconds.
2. It will show three options: Power off, Restart, Sleep.
3. Say “RESTART”

Sleeping/Waking the cimo

1. Press and hold power key for 3 seconds.
2. It will show three options: Power off, Restart, Sleep.
3. Say “SLEEP”
4. When asleep, a single, brief press of the Power Button will wake up the cimo.

Storing the cimo

The cimo is built rugged, but to ensure a long and healthy life:

Power off the device or put to sleep when not in use.

1. Store the cimo device in a cool, dry place.
2. Place the device on a level surface or securely hang it on a wall.
3. If mounted, you can keep the cimo device connected to a hard-hat or bump cap as needed.

cimo Care Continued

Cleaning the cimo device

Follow these instructions for cleaning the different areas of the cimo:

- The cimo is water resistant so cleaning with a damp cloth and mild soap is appropriate. Ensure that all covers are firmly secured when cleaning. The cimo should never be submerged.
- You may also use isopropyl alcohol wipes to clean and lightly sterilize the hard surfaces of the cimo. Dry surfaces or simply allow to air dry.
- Display and Camera glass: Use a standard micro-fiber cloth to wipe off glass parts. You can use screen cleaner to enable the sharpest possible images.

Cleaning cimo Accessories

- Hardhat Clips: Hardhat mounting clips are made of plastic and can be cleaned with alcohol wipes or water. Tip: Toothpicks can be used to remove dirt in hard-to-reach areas.
- Tri-band Strap: The Tri-band Strap is comprised of plastic and fabric. It can be cleaned with alcohol wipes, but excess cleaning may accelerate wear. Replacement straps can be purchased at http://shop.RealWear.com.
- Hearing Protection Ear Buds: The RealWear Hearing Protection Ear Buds are an electronic component with a metal connector, and cleaning of the buds themselves is not recommended. A polish with a dry or lightly damp cloth should be sufficient. Too much moisture could cause damage to the speakers.
- Foam Tips for Hearing Protection Ear Buds: The foam tips for the ear buds are comprised of memory foam. You may clean with a dry cloth. Too much moisture could damage the foam. The Foam Tips are considered consumables and are expected to eventually require replacing.
- Replacement parts can be purchased at http://shop.RealWear.com.cn.

cimo Interaction Modes

Speech Keyboard

Speech Keyboard is the default method by which text may be entered into a text field using the cimo -1. Whenever a text entry screen is brought into focus or selected, the hands-free keyboard is displayed overlaying part of the application.

Normal Entry Keyboard

Using the Normal Entry Keyboard you may enter letters, numbers, or symbols.

Scan Code

Saying the command “SCAN CODE” opens the barcode reader and allows the user to scan a QR Code for remote keyboard entry using the RealWear Companion app on a mobile phone. This is convenient for passwords and long strings of text. Simply open the RealWear Companion app, select 'Remote Keyboard', enter text and tap on the QR Code. From the cimo keyboard say, “SCAN CODE”, then scan the QR Code visible on the screen of your smartphone. You can also access the “SCAN CODE” option by saying “MORE OPTIONS”.

cimo Interaction Continued

Voice Control

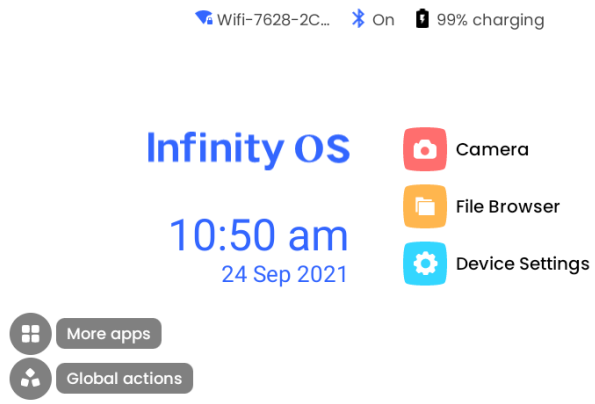
Introducing Infinity OS™

Infinity OS™ is an innovative software solution that enables you to use your RealWear cimo as a hands-free device. It is easy to use and loaded with intuitive functions.

Speech Recognition — Say What You See

cimo devices operate based on speech recognition. Instead of pressing or tapping a control button on the screen, all you need to do is speak the name of the respective control. cimo devices use the latest technology for advanced noise cancellation and speech recognition which work even in the harshest noisy environments. It can recognize many different languages and accents and can detect the command even if you speak in a low voice.

All the commands associated with the specific screen should be displayed clearly on the screen, usually in ALL CAPITAL LETTERS. You can operate the device by speaking the name of any control. For example, the Home Screen has large icons with respective names such as "MORE APPS" or "FILE BROWSER". To access these applications, you can say the application name and the corresponding screen is launched.

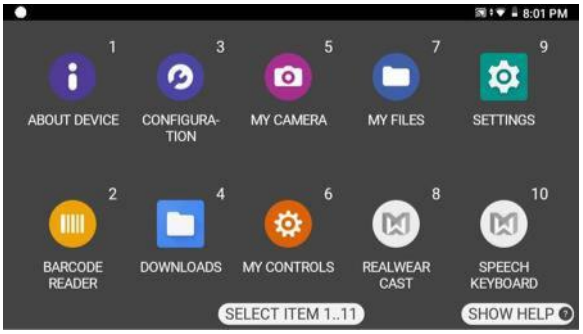


Voice Continued

Alternate Speech Recognition

Sometimes, the control on the screen has no name, is a scroll button without a label, or is a file with an unpronounceable filename such as 3454-x.pdf. Infinity OS™ automatically proposes an alternative speech command and assigns a number. This number is displayed next to the respective control on the screen. To recall the specific control numbers for that screen, say “GLOBAL ACTIONS”. To select a specific control, use the number assigned to it. For example, you can say “SELECT ITEM 1” to select the item associated with number 1.

Note some command numbers might be hidden by a GLOBAL ACTIONS command as it may bring up both the command label popup and the alternative speech command numbers. When you say "MOVE BACK" the command numbers will remain on screen for a moment in order to see those items behind the pop-up window.



Mute Microphone

To stop the speech recognizer, say “MUTE MICROPHONE”. The device will not respond to your voice commands while the microphone is muted, and a red warning sign is displayed on the screen.

To restart the speech recognizer, tap once on the Action button on the side of the device, located just in front of the Power button.

Scroll Up and Down

On screens with scroll views, you can scroll using the following voice commands.

Voice Command	Action
“SCROLL UP”	Navigates to 1 page up.
“SCROLL DOWN”	Navigates to 1 page down.
“PAGE LEFT”	Navigates to 1 page left.
“PAGE RIGHT”	Navigates to 1 page right.
“GLOBAL ACTIONS”	Displays pop-up window with the help for commands associated with the current screen.

For example, In Settings page, we can use voice command “SCROLL DOWN” to scroll down and “SCROLL UP” to scroll up.

cimo Software Overview

Home Screen

The Home Screen is the primary user interface view and dashboard for the cimo and is where you start when you power on the cimo.

The Home Screen allows cimo users to quickly access files and key applications while providing useful information such as the time, date, WiFi, and battery status.

Jump to primary applications directly from the home view by simply saying what you see. To launch the apps, simply say the corresponding commands:

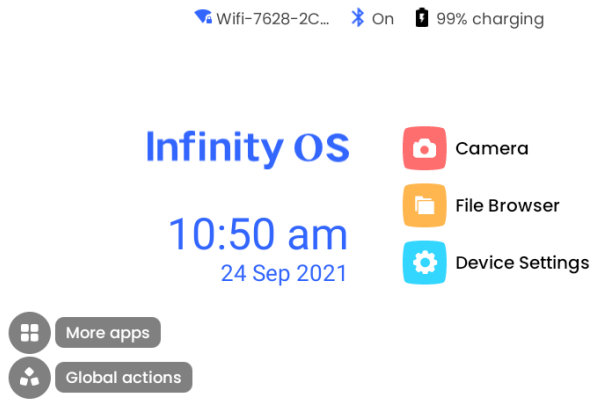
"More apps"

"CAMERA"

"File Browser"

Tip:

- Quickly return Home at any time using the global speech command "MOVE HOME".
- You can also single tap the Action Button once to return to the Home Screen when needed.
- Note: your organization may have modified the home screen to add or subtract some of the launch icons.



cimo Home Screen

Accessing the Home Screen

To access the Home Screen from anywhere in the system, say “MOVE HOME”.

Home Continued

Control Buttons
You can access the various applications by activating the following controls provided in the Home Screen.

Voice Command	Action
“MORE APPS”	Launches application launcher to see and access all the applications installed in the device.
“CAMERA”	Launches camera.
“FILE BROWSER”	Launches file manager to easily access documents, videos, photos and other files.
"GLOBAL ACTIONS"	Opens the help panel.
"DEVICE SETTINGS"	Launches the Control Panel for easy access to some commonly used settings
"SHOW NOTIFICATIONS"	Launches and displays recent notifications.

Home view with Help panel active:

When the Help Panel is open, say "MOVE BACK" to hide.

Software Overview Continued

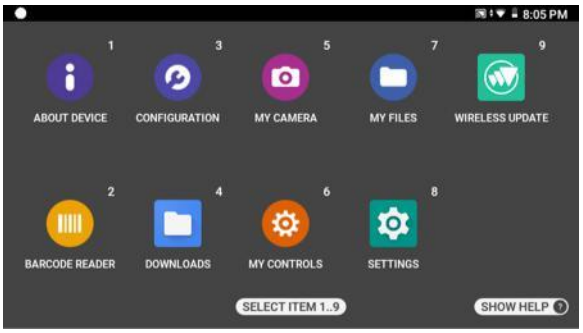
More Apps

More apps enables cimo users to access installed applications.

Applications provided by default are:

- Barcode Reader
- Configuration
- My Camera
- My Controls
- My Files
- Settings

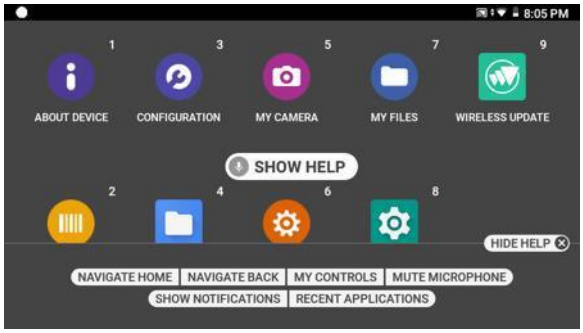
More apps user interface view.



You can activate any application by just saying the application name as written underneath the application icon even if the icon is not fully visible. For example, to start the camera, say “CAMERA”.

You can also launch an application by saying the number associated with the application. For example, to launch an application with item number 8, you say “SELECT ITEM 8”. You can see up to ten applications in a single screen. To scroll and view other applications, move you head to your left or right.

To view contextual voice commands, say, "GLOBAL ACTIONS".



The help menu will stay active until you dismiss it by saying “MOVE BACK”.

Software Overview Continued

File browser

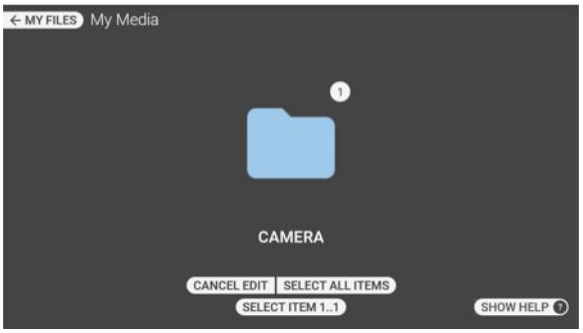
View documents, photos and video files locally stored or stored on an installed MicroSD card using the File browser app. Launch File browser from the Home Screen or More apps.

Photos folder

Photos folder contains all still image files organized into folders in supported formats. By default, a folder called Camera will display. It contains images captured in the cimo Camera app.

Media folder

The Media folder contains a list of video files taken using the cimo.



Documents folder

Accessing File Browser Functions

File browser Continued

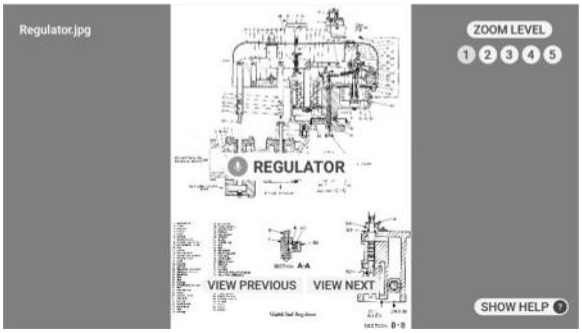
Documents folder

Documents folder

Photos folder

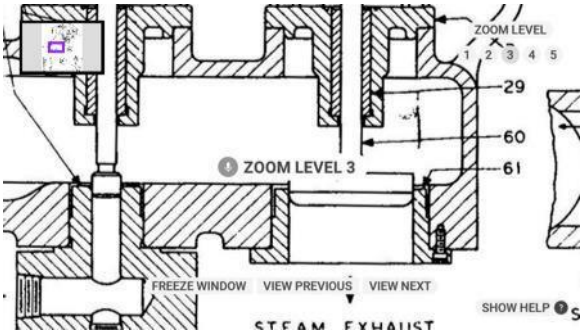
You can open PDF files and image files using document viewer with hands-free control.
If you select a PDF or image file from Documents folder, it is opened using the Document Viewer app.

Open a file by using the "SELECT ITEM #" command or by saying the name of the document without the file extension.



Zooming and Panning

To zoom in say "ZOOM LEVEL 2" or any level from 1 to 5. "ZOOM LEVEL 5" will zoom in furthest. When a document is zoomed in at any level past level 1, you can move your head to view different areas of the document.
A small thumbnail will appear in the upper left part of the screen with a purple rectangle representing the current view.



If you want to lock the location of the document say, "FREEZE WINDOW". You can then move your head while the view is frozen.

To return to panning say, "CONTROL WINDOW".
Even when frozen, the view can be zoomed in or out.
Document Viewer Functions

Voice Command	Action
“ZOOM LEVEL 1-5"	Zooms the document view size by setting the level to specific value from 1 to 5.
“FREEZE WINDOW”	Prevents the document from scrolling in response to head gestures.
“CONTROL WINDOW”	Unfreezes the document and enables document scrolling in response to head gestures.

Viewing Multiple Page Documents

To view documents with multiple pages, you need to use the following navigations controls.

Voice Command	Action
“GO TO PAGE 1",“GO TO PAGE 2",“GO TO PAGE 3"...	Scrolls to the specified page. For example, to go to page 5, say “Go to page 5”.
“NEXT PAGE" "PREVIOUS PAGE"	Scrolls to next/previous page.
"MY BOOKMARKS"	Displays the bookmarks currently saved in the device, for the open document.
"GLOBAL ACTIONS"	Displays extra commands.

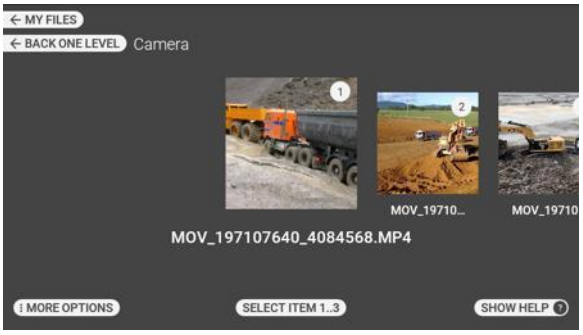
Software Overview Continued

Media Player

Media folder

If you select an audio or video file from Media folder, it is played using the media player.

View or open files that you've captures using the cimo by navigating into the Media folder.



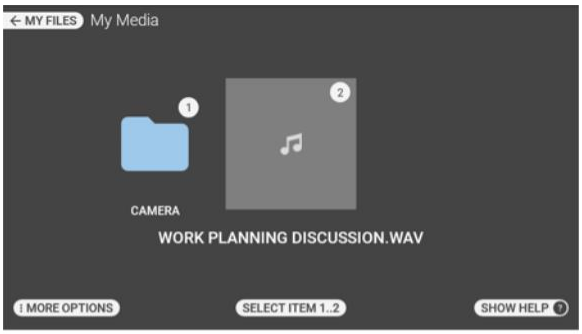
Select a file by using the "SELECT ITEM #" command. For instance, to select the third item, say "SELECT ITEM 3"

Playing a video file in the Media Player:

Media Player Commands for Video Playback:

Voice Command	Action
REWIND"	
"VIDEO STOP"	Stops the video and goes to My Media screen.
"VIDEO PAUSE"	Pauses video while playing.
"VIDEO PLAY"	Plays paused video.
"GLOBAL ACTIONS"	Displays extra commands.

Playing an audio file in the Media Player:



Software Overview Continued

Camera

Camera is a hands-free application for taking photographs and videos.

From the Home Screen or from the More apps screen, say "CAMERA" to launch the Camera application. When Camera is launched, a live view of the cimo camera's optical input will be visible in the cimo display pod.

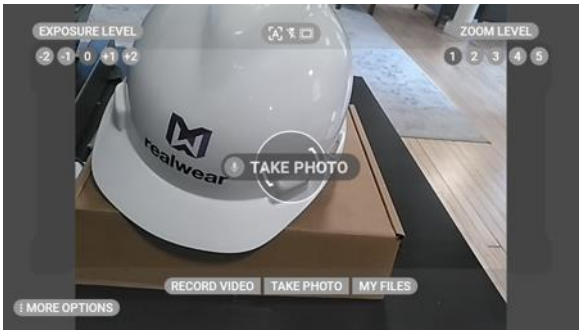
Record Video

Start capturing video by saying "RECORD VIDEO".

Say "STOP RECORDING" to stop recording video.

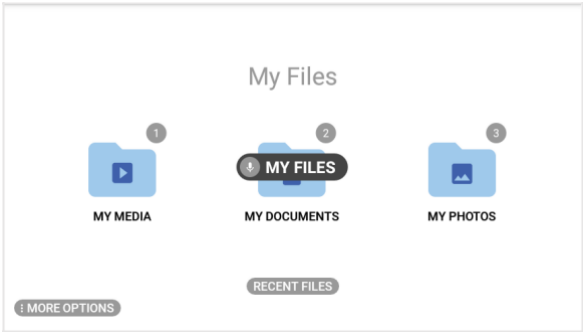
Take Photo

Take a photo by saying "TAKE PHOTO".



File browser

Say "FILE BROWSER" to access stored files on the device.



Preview

When a video or photo is captured, a preview will be displayed in the mid to upper right corner of the view.

Open it by saying 'PREVIEW' while the preview pane is displayed.

Preview of Photo

Preview of Video:

Exposure Level:

Zoom Level

As in other applications that use the Camera, say "ZOOM LEVEL #" to adjust it as you go.

More Options

Saying "MORE OPTIONS" displays more camera settings that are useful for fine adjustments and device adaptation.

Software Overview Continued

Device settings Continued

Barcode Reader

You can use the handsfree barcode reader built-in with the cimo to scan barcodes.

Supported Barcode Types are — UPC, EAN, QR Code, Data Matrix, and Code 128.

When launched, the barcode reader automatically scans any supported barcode that is detected and displays the details automatically. Point the camera at the barcode ensuring that the entire barcode is within the white rectangle with rounded edges.

You can also scan QR codes that contain RealWear bookmarks, URLs, and application codes to open the respective items. You can turn on or off the cimo Flashlight by saying “FLASHLIGHT ON” or “FLASHLIGHT OFF” while Barcode Reader is open.

Tip: Use zoom control to frame and read some barcodes more easily.

Barcode Scanner Functions

Voice Command	Action
“Zoom Level 1 to 5”	Zooms the camera view by setting the level to specific value — 1 to 5 For example, to set the zoom level to 4, say “Zoom level 4”.

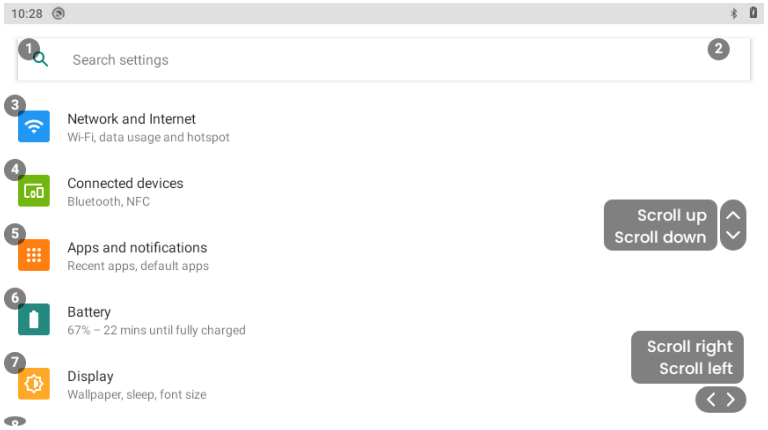
Software Overview Continued

Setting Up Bluetooth Master/Slave Switch

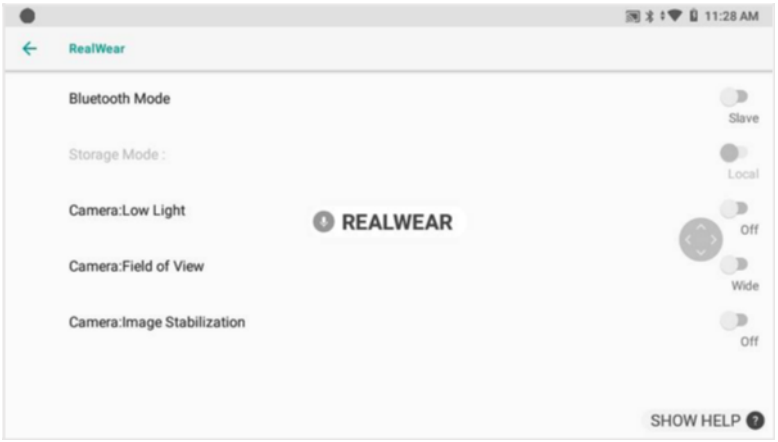
You can connect cimo to other Bluetooth devices, in either Bluetooth master or Bluetooth slave modes.

- In Master mode, cimo can connect to audio devices such as Bluetooth earpieces and Bluetooth speakers.
- In Slave mode, the cimo can connect to mobile phones and act as a Bluetooth microphone/headset for the phone.

To change the Bluetooth mode, go to My Programs and say "SETTINGS".



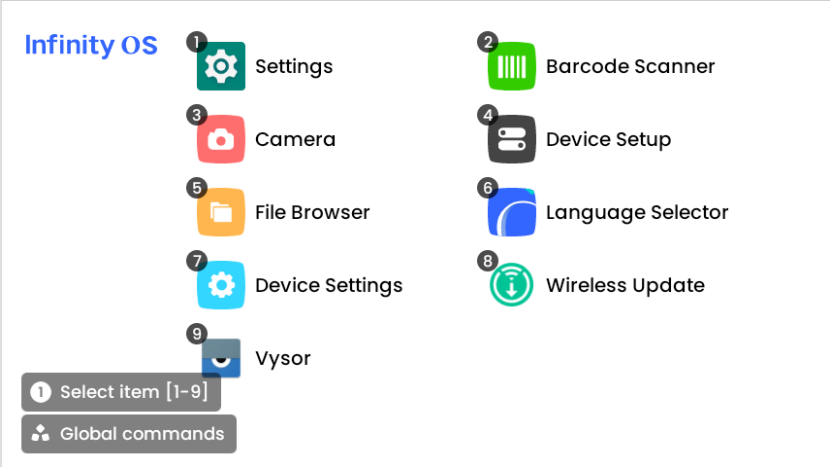
Select the item called "MOZIWARE" just by its name or select the item number using "SELECT ITEM #".



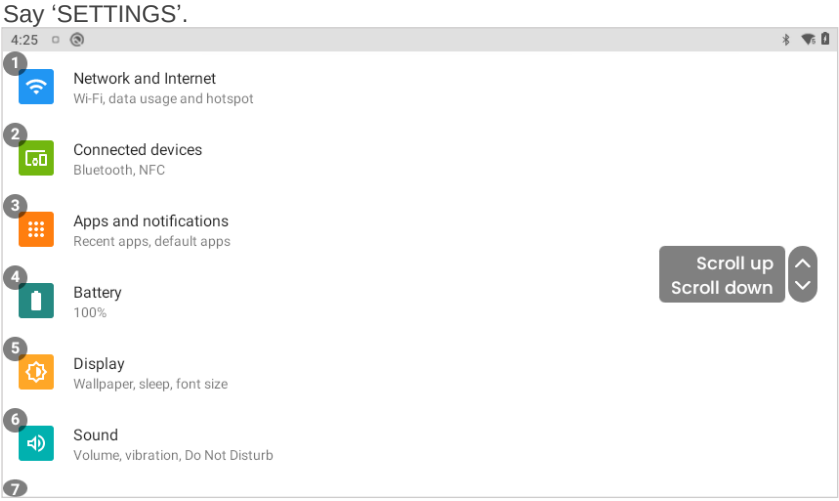
Here you'll see a setting called Bluetooth Mode. By default, this is set to Slave. Say "BLUETOOTH MODE" to toggle

View Regulatory Labels

To view the regulatory or electronic labels (E-Label), say “MORE APPS” from homepage.



Say ‘SETTINGS’.



Say ‘REGULATORY LABELS’, it will show the Electronic Label (E-Label). Its content is listed in the next page.

Genera Information

Manufacturer: RealWear (Shanghai) Intelligent Technology Co., Ltd.
Address: 2F,Block21, No.55 Chuanhe Road, Pudong New District, Shanghai, China.
Model name/型号/型號: MZ1000
Input/输入/輸入: 5V 2A
Brand name: Moziware
Type: Head-mounted tablet/ AI头戴式计算机(便携式计算机)/頭戴式平板電腦
Made in China

China

CMIIT ID： XXXXXXXX

Canada

IC: 27464-MZ1000

United States

FCC ID: 2A3DW-MZ1000

Japan

5GHz 帯(W52, W53)は屋内利用に限る (高出力システムと通信する場合を除く)

R 003-YYZZZZ
T AD061234003

Singapore

Complies with IDA Standards [Dealer's Licence No.]

TaiWan

RXXXXXX
RoHS

XXXXXXXXXXXX

減少電磁波影響，請妥適使用

過度使用恐傷害視力

cimo Ownership Information

All communications, notices and legal agreements have the meaning provided in the English language; translations into other languages are for convenience only. If there is any discrepancy between the translated and English version, the English version will prevail.

Models Covered

The information contained herein covers the following RealWear cimo model(s):
MZ1000

You can find the model's name on the cimo one of the two device labels on the rear inner band. You must take off the removable pad to see the label. Serial Numbers are 12 characters in length.

Ownership Information Continued

cimo Regulatory and Compliance Statements

WARNING: Changes or modifications made to this equipment not expressly approved by RealWear, Inc. for compliance could void the user's authority to operate the equipment.

FCC Statement

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. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures: • Reorient or relocate the receiving antenna. • Increase the separation between the equipment and receiver. • Connect the equipment into an outlet on a circuit different from that to which the receiver is connected. • Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

1. Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
2. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

IC Statement — English

1. This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: • This device may not cause interference, and • This device must accept any interference, including interference that may cause undesired operation of the device.
2. This Class B digital apparatus complies with Canadian ICES-003.
3. This device and its antenna(s) must not be co-located or operating in conjunction with any other antenna or transmitter, except tested built-in radios.
4. The Country Code Selection feature is disabled for products marketed in the US/Canada.

IC Statement - Français

1. Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:
• l'appareil ne doit pas produire de brouillage, et 90
• l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.
2. Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.
3. Cet appareil et son antenne ne doivent pas être situés ou fonctionner en conjonction avec une autre antenne ou un autre émetteur, exception faites des radios intégrées qui ont été testées.
4. La fonction de sélection de l'indicatif du pays est désactivée pour les produits commercialisés aux États-Unis et au Canada.

CAN ICES-003(B)nmb-003(B)

Regulatory and Compliance Continued

IC Statement — FOR WLAN 5GHZ DEVICE

Caution

1. Operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.
2. The maximum antenna gain permitted for devices in the bands 5250-5350 MHz and 5470-5725 MHz shall comply with the e.i.r.p. limit.
3. The maximum antenna gain permitted for devices in the band 5725-5850 MHz shall comply with the e.i.r.p. limits specified for point-to-point and non-point-to-point operation as appropriate.
4. The worst-case tilt angle(s) necessary to remain compliant with the e.i.r.p. elevation mask requirement set forth in Section 6.2.2(3) shall be clearly indicated.
5. Users should also be advised that high-power radars are allocated as primary users (i.e. priority users) of the bands 5250-5350 MHz and 5650-5850 MHz and that these radars could 91 cause interference and/or damage to LE-LAN devices.

Avertissement 1

1. Les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.
2. le gain maximal d'antenne permis pour les dispositifs utilisant les bandes 5250-5350 MHz et 5470-5725 MHz doit se conformer à la limite de p.i.r.e.
3. le gain maximal d'antenne permis (pour les dispositifs utilisant la bande 5725-5850 MHz) doit se conformer à la limite de p.i.r.e. spécifiée pour l'exploitation point à point et non point à point, selon le cas.
4. les pires angles d'inclinaison nécessaires pour rester conforme à l'exigence de la p.i.r.e. applicable au masque d'élévation, et énoncée à la section 6.2.2 3), doivent être clairement indiqués.
5. De plus, les utilisateurs devraient aussi être avisés que les utilisateurs de radars de haute puissance sont désignés utilisateurs principaux (c.-à-d., qu'ils ont la priorité) pour les bandes 5250-5350 MHz et 5650-5850 MHz et que ces radars pourraient causer du brouillage et/ou des dommages aux dispositifs LAN-EL.

Ownership Information Continued

cimo Specific Absorption Rate (SAR) Information

Radiation Exposure Statement — The United States and Canada

This device meets the government’s requirements for exposure to radio waves. This device is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. The exposure standard for wireless devices employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6 W/kg. Tests for SAR are conducted using standard operating positions accepted by the FCC with the device transmitting at its highest certified power level in all tested frequency bands. No minimum separation distance needs to be maintained between the user’s limbs/hands and the device, including the antenna, during limbs/hands operation to comply with the RF exposure requirements in the United States and Canada. The limit recommended by FCC and IC is 1.6 W/kg averaged over one (1) gram of tissue.
The highest SAR value of the cimo for use:
• Head SAR is 0.22 W/kg (1g)

Radiation Exposure Statement — Europe

No minimum separation distance needs to be maintained between the user's Head and the device, including the antenna during Head operation to comply with the RF Exposure requirements in Europe.

Radiation Exposure Statement — Canada

The product complies with the Canada portable RF exposure limit set forth for an uncontrolled environment and is safe for intended operation as described in this manual. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé. Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

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