



 **FLAIM**

Workplace  
Safety Fire



**User Manual**

March 2024

Safer | Smarter | Deeper Learning

ISO 9001

**BUREAU VERITAS**  
Certification



Designed, developed and supplied under a Quality Management System certified by Bureau Veritas against the requirements of ISO 9001:2015.

Doc no. BR-09-012 V3 March 2024

## Welcome to the FLAIM Community

Knowing how to respond to fires quickly and effectively is essential to saving lives and preventing property damage.

To enable emergency responders to do this, FLAIM Systems has created an immersive hands-on extinguisher training system that utilises virtual reality to deliver a realistic fire training experience to teach the necessary skills needed for dealing with different kinds of fires.

Trainees learn what to do in the case of a real fire and can train safely in a broad range of realistic fire scenarios and environments that replicate real-life fire hazards.

**The outcome is a better prepared, safer workforce and workplace.**

## Getting started

First off please register the system by scanning the QR code on the box or go to [www.flaimsystems.com/register](http://www.flaimsystems.com/register) Registration is IMPORTANT as it ensures you receive regular software updates and triggers the commencement of your warranty.

## The FLAIM Systems Team

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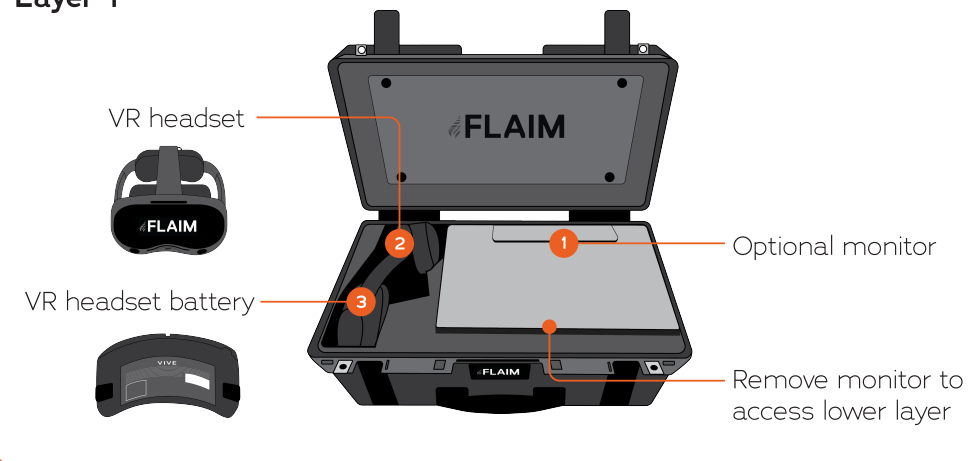
## Overview

In this section you will find all the details about the components that make up the system.

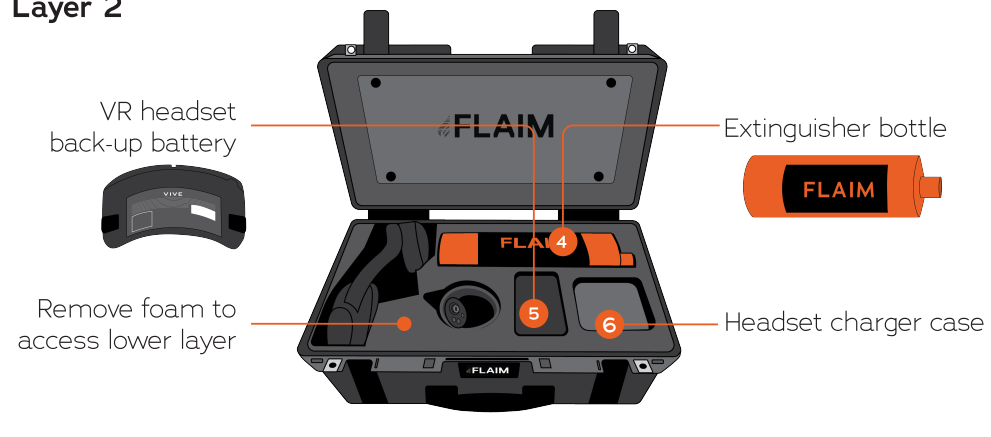
## Case checklist

The case is configured into three layers that are easy to remove and replace at training session start-up and completion.

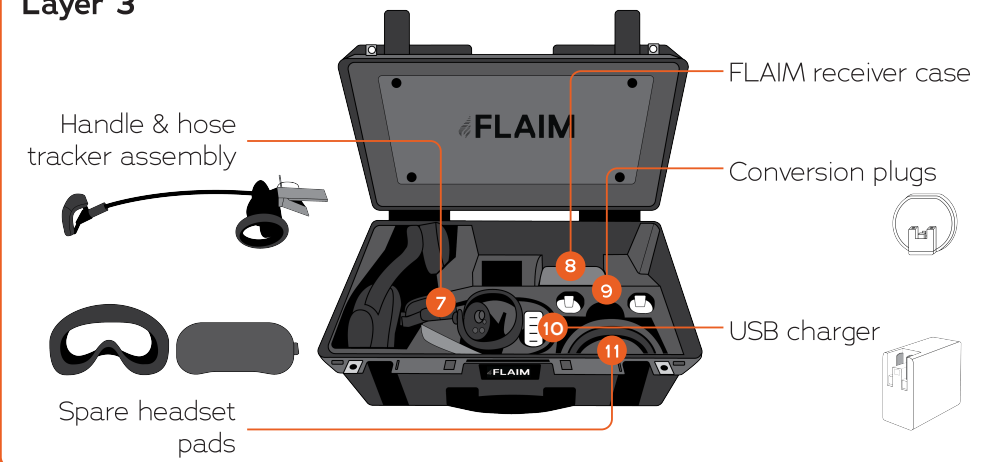
### Layer 1



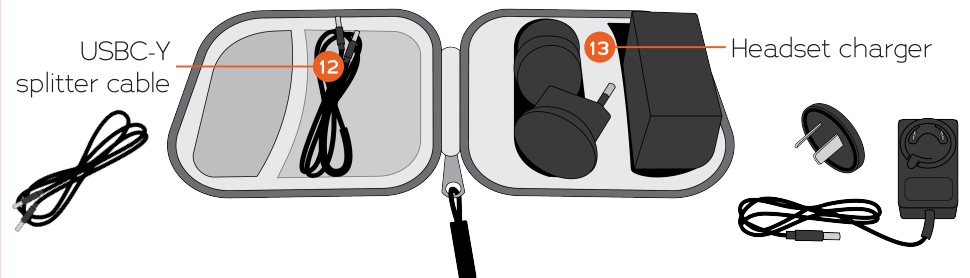
### Layer 2



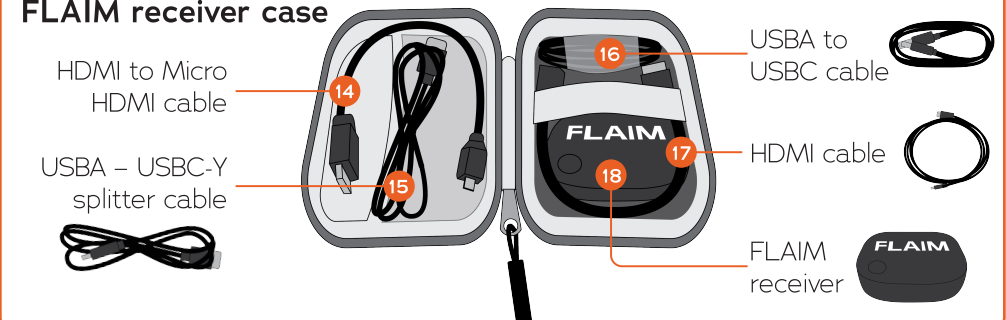
### Layer 3



### Headset charger case



### FLAIM receiver case





## Charging



System should be recharged prior to each use.  
Follow the steps identified below to charge.

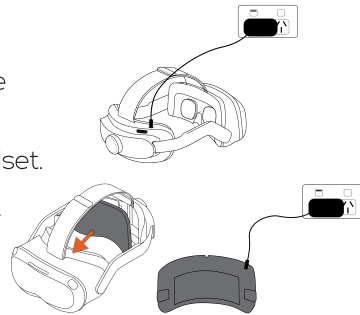
### Charging the VR headset



The headset provides the visualisation of the scenario to the user and displays the FLAIM launcher and a range of fire scenarios.

Complete the following steps to charge the VR headset:

- 1 Remove the headset charger and appropriate adapter from the headset charger case.
- 2 Plug the headset charger cable into the headset.
- 3 Plug the headset charger into a power outlet.



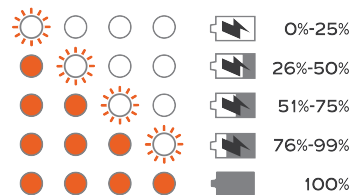
#### Note:

The VR headset battery can be charged when attached or not attached to the headset.

### How to measure battery life

The flashing LEDs indicate the charge level. It is fully charged when 4 LEDs are illuminated.

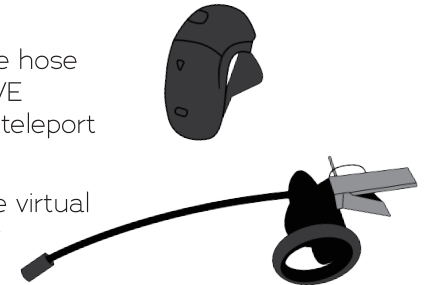
The headset battery has a run time of around two hours and will re-charge within one hour.



### Charging the controllers

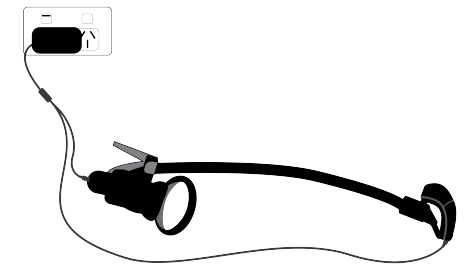
The hose tracker attaches to the end of the hose and is used to interact with the headset VIVE menu, the launcher, scenario selection and teleport function.

The handle controller is used to activate the virtual suppressant and interact with the launcher and scenarios.



Complete the following steps to charge the hose tracker and handle controller:

- 1 Remove USBC-Y splitter cable from the headset charger case.
- 2 Remove USB charger and appropriate plug from the case.
- 3 Plug the headset charger into a power outlet.
- 4 Connect the USBC-Y splitter cable input to the USB port on the USB charger.
- 5 Connect one USBC-Y splitter cable output to the hose tracker.
- 6 Connect the other USBC-Y splitter cable output to the handle controller.



### How do you know when it's charging?

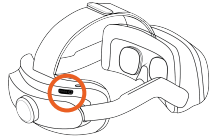
The illuminated LED indicates the charging level.

- An alternating amber & blue light means the devices are charging.
- A solid blue light means the devices are fully charged.

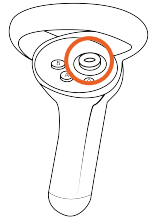
The hose tracker and the handle controller should last approximately four hours and charge within one hour.

## Inputs

### Power on/off



**Headset**  
Power on/off.



**Handle controller**  
Power on/off.



**Hose tracker**  
Power on/off.

### Interaction methods



**Extinguisher handle**  
Use to activate the suppressant and make selections in the launcher and headset.

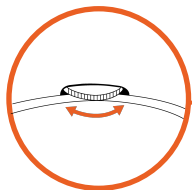


**Hose tracker teleport and interaction button**  
Use to activate the headset VIVE menu, the launcher, scenario selection and teleport function.

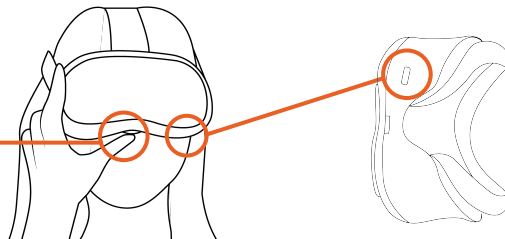


**Headset side button**  
Press and hold button to return to lobby. Double-press to switch to pass-through mode which enables visibility of real world.

### Headset controls



**Lens adjustment**  
Use to focus the headset resolution.



**Headset volume controls**  
Use to adjust the volume.

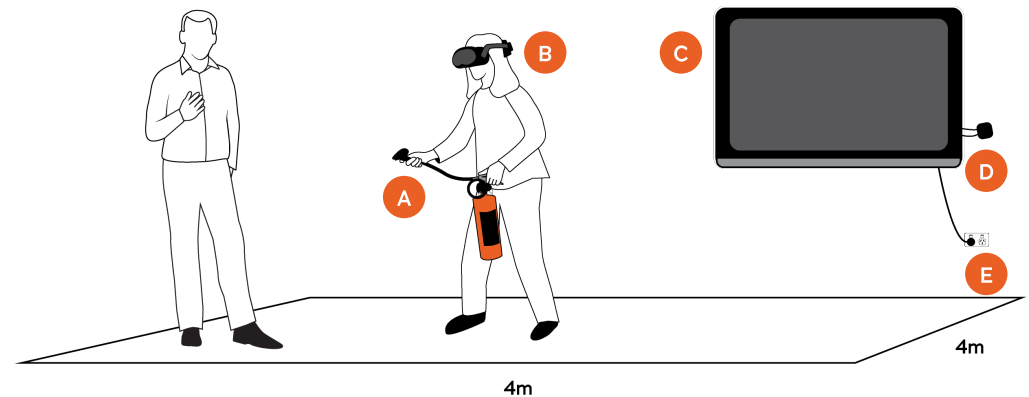
## Overview

The space layout is recommended to ensure a safe effective training session.

The training space should be a minimum of 4mx4m (13'x13') and be an object free flat floor space. It is important to make sure you have adequate space to perform a safe training session as some scenarios require the trainee to move to complete the scenario.



It is critical to ensure that all trainees are instructed NOT TO RUN or walk fast when wearing the headset.



### Key

- A Extinguisher, handle and hose assembly
- B Headset
- C External display or monitor
- D FLAIM receiver
- E Power supply outlet

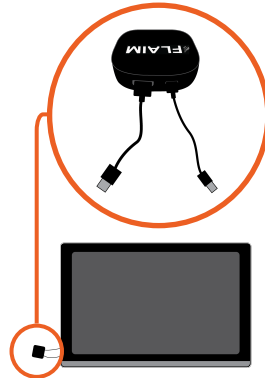
## Setup sequence

### Step 1: Turn on the FLAIM receiver

The instructor viewing system allows the trainer and others in the room to view what the trainee is seeing in the headset on a display or monitor.

#### TV display setup

- 1 Take the FLAIM receiver, HDMI cable and USBA to USBC cable from the FLAIM receiver case.
- 2 Connect the HDMI cable to the HDMI port on the FLAIM receiver.
- 3 Connect the USBC cable to the USBC port on the FLAIM receiver.
- 4 Plug the HDMI cable into the HDMI port of the TV display.
- 5 Plug the USBA end in the USB port on the TV display.
- 6 A white light will illuminate on the FLAIM receiver to indicate power.

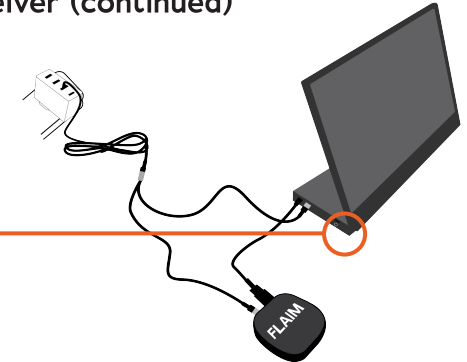


#### Monitor Setup

- 1 You will need the monitor, the HDMI to Micro HDMI cable, the USBA to USBC-Y splitter cable and FLAIM receiver.
- 2 Connect the HDMI cable to the HDMI port on the FLAIM receiver.
- 3 Connect the USBC-Y splitter cable into FLAIM receiver.
- 4 Plug the Micro HDMI cable into the Micro HDMI port on the monitor.
- 5 Plug the USBC from the Y splitter into the USBC port on the monitor.
- 6 Take the USB charger and plug from the case.
- 7 Plug the USB charger into a power outlet.

### Step 1: Turn on the FLAIM receiver (continued)

- 8 Plug the USBA into a USB port on the USB charger.
- 9 A white light will illuminate on the FLAIM receiver to indicate power.
- 10 Press the power button on the portable monitor.



TVs or monitors might not provide sufficient power through their built-in USB port. If the indicator light is off, or you are experiencing poor image quality, it probably means the USB port doesn't have enough power. In such cases, please utilise the USB adaptor plugged into a power outlet.

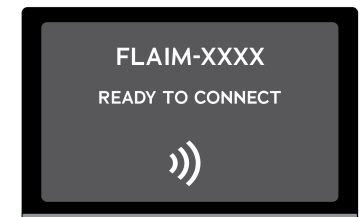
### Step 2: Select the input source

Complete the following steps to select the input source when using a TV display:

- 1 Power on the display.
- 2 Select the source on the external display.

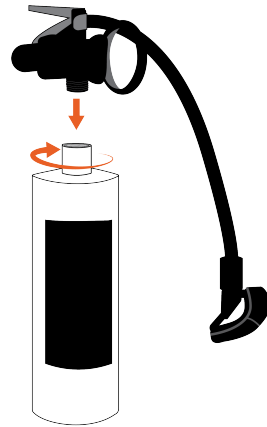
The READY TO CONNECT screen should display.

If the image displays in portrait mode, single press the illuminated button on the FLAIM receiver to change to landscape view.



## Step 3: Set up the extinguisher assembly

- 1 Remove the extinguisher bottle and handle assembly from the case.
- 2 Screw the handle assembly into the extinguisher bottle.
- 3 Orientate the hose tracker with the bulb facing upwards.

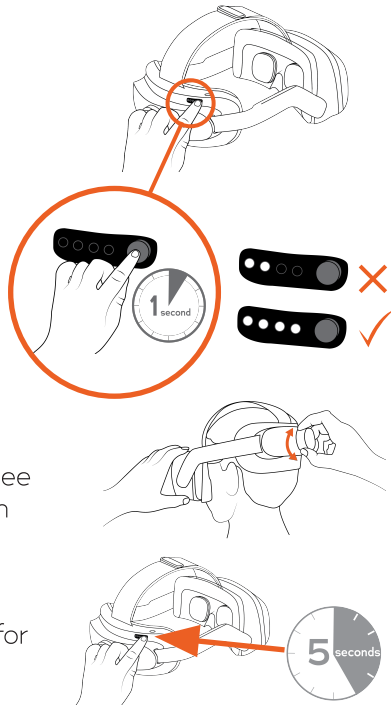


**!** Take care when assembling to prevent cross-threading and DO NOT overtighten.

## Step 4: Set up the headset

- 1 Remove the headset from the case.
- 2 Single press the power button on the headset to check the power level.

**!** If one status indicator is flashing white, this indicates the headset battery is low. Refer to the battery charging instructions under Get to know the system.

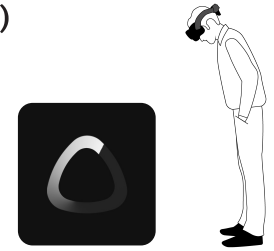


- 3 Place the headset on the head of the trainee adjusting the knob to tighten and to loosen when removing.
- 4 Press and hold the headset power button for five seconds to power up.

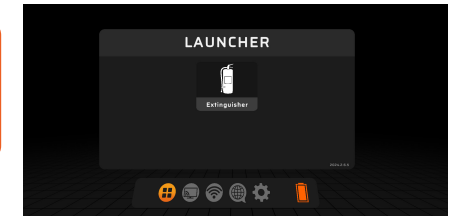
## Step 4: Set up the VR headset (continued)

- 5 Whenever the moving triangle image is displayed in the headset look directly to the floor to enable the headset to complete its start-up sequence.

The start-up sequence is complete when the FLAIM launcher is visible in the headset.



**!** This is essential for accurate floor height calibration.

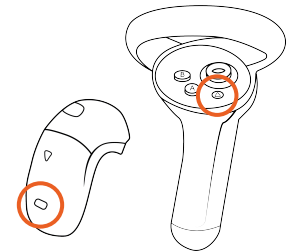


- 6 Lift the headset above your eyes.

## Step 5: Power on the controller tracking system

- 1 Holding the extinguisher assembly, short press the highlighted buttons to power on the hose tracker and handle controller.

The hose tracker and handle controller will power on and the status indicator light will flash blue, then turn green once connected.

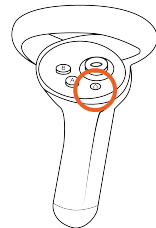
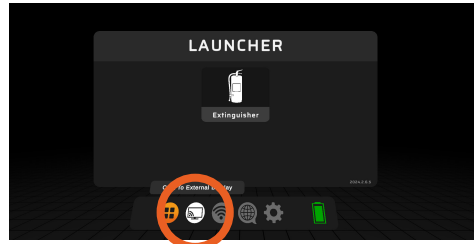


**!** If the status indicator light is flashing red, this indicates the hose tracker and handle controller battery is low. Refer to the battery charging instructions under Get to know the system.

- 2 Fit the headset over your eyes.
- 3 Pick up the extinguisher assembly and move the hose around to ensure that the hose and bottle are tracking within the virtual environment. You will know this is working as a laser will appear emitting from the hose tracker.

## Step 6: Set-up projection to display or monitor

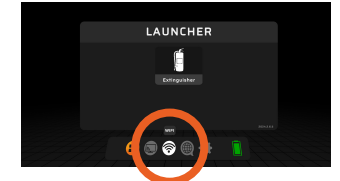
- 1 In the headset, use the hose tracker laser to select the Cast button from the toolbar.
- 2 Select the FLAIM device by clicking on its name displayed as FLAIM XXX.
- 3 If the laser is not visible, press the hose tracker interaction button once.
- 4 You should see 'Connecting to this display' on your external display. It may take 10-20 seconds to connect.
- 5 You are now ready to start streaming and the display or monitor will show the headset visualization view.
- 6 It will only stream while the headset is placed on your head. The external display will pause when the headset is removed.
- 7 If the overlay remains visible, short press the handle controller power button once to close the menu.



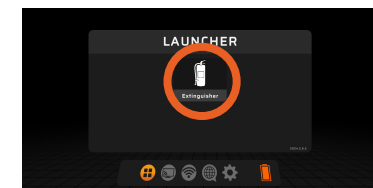
**!** If you are experiencing poor image quality, it probably means the USB port doesn't have enough power. If this happens use the USB adaptor and power outlet.

## Step 7: Connect to Wi-Fi

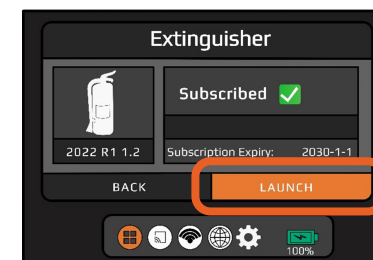
- 1 In the headset, use the hose tracker laser to select the Wi-Fi button from the toolbar.
- 2 Select the Wi-Fi network to connect to, then select the password box to open the virtual keyboard.
- 3 Use the virtual keyboard to enter the password, then press the enter key to fill the password box.
- 4 Select 'Connect' and wait until the message below the selected network shows 'Connected'.
- 5 Use the hose tracker laser to select the 'X' button and close the overlay.



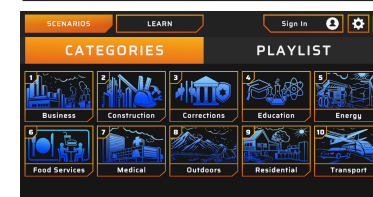
## Step 8: Launch the system



In the FLAIM Launcher screen, use the hose tracker laser to select Extinguisher.



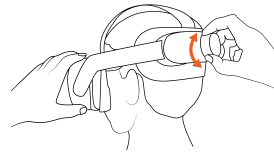
The screen on the left will display. Select 'Launch'.



The screen on the left will display.

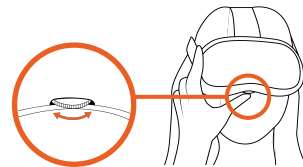
## Step 9: Setting up the trainee or user

- 1 Fit the headset by placing it over the eyes, then slide it over the back of the head.
- 2 Tighten the headset using the adjustment knob at the back of the headset and on top using the strap.
- 3 Instruct the user to look directly at the floor whenever the moving triangle image is displayed so that the headset can complete its set-up routine.



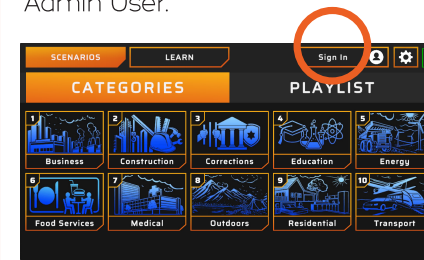
**!** This is essential for accurate floor height calibration.

- 4 If required adjust the headset lens to improve viewing quality.



## Step 10: Login user to record training performance in their FLAIM Capture student record

FLAIM Capture is our learning performance and analytics platform, available with some FLAIM WSF subscriptions. If your organisation has a subscription to Capture, you can ensure your user's training results are recorded in their Capture student record by completing the following steps to login using either a FLAIM Training Key or an Employee ID. FLAIM Training Keys are available in Capture. If you need help please speak with your organisation's Capture Admin User.



Select the Sign in button.



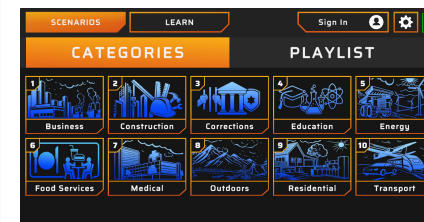
The Sign in screen (left) will display two options.

Select FLAIM Training Key or the Employee ID button.



Enter the Training Key or Employee ID.

Select Sign In button.



You will be returned to the sign-in categories tab.

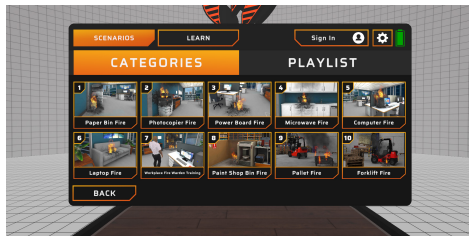


## Step 11: Select and run a scenario

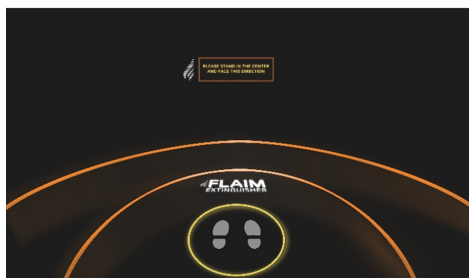
Complete the following steps to select and run a scenario:



Scenarios are grouped by category. Select a category to view the available scenarios within it. Alternatively, select the Playlist tab to view a selection of specific scenarios chosen by your organisation.



Select the type of fire from the range of scenarios available within the category or playlist.



When the screen is displayed, instruct the trainee or user to look down and step into the centre of the of the circle and align their feet to the markers.

The selected scenario will now load and the learning experience will commence.



When transferring in and out of a scenario the trainee or user will need to always return to the centre circle start point

For more information see:

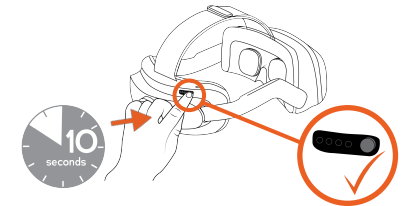
[Scenario descriptions and learning outcomes guide.](#)

## Overview

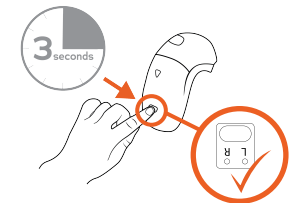


The system should be powered down when not in use.

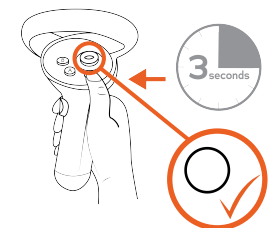
- 1 Press and hold the power button for approximately ten seconds until the power light turns off.



- 2 Press and hold the hose tracker power button for approximately three seconds until the power light turns off.



- 3 Press and hold the handle controller power button for approximately three seconds until the power light turns off



- 4 Unplug the FLAIM receiver from the external display



Ensure when you shake the handle controller that it does not turn back on again. If it turns on, press and hold the power button until it turns off.

## Introduction

The System is designed to develop important fire response skills and knowledge to improve the awareness and confidence of anyone who is confronted by a fire in the workplace and where there is an extinguisher present.

The System provides a method to practice the skills required in a genuine fire emergency, but within the safe confines of a controlled virtual environment.

### Important notes for the training instructor or facilitator

**Proper Handling:** to prevent possible interference with the tracker the trainee or user should ONLY HOLD THE HOSE when in the scenario as you would in real life and not the tracker.



#### Assistance wearing the headset:

The instructor should assist the trainee or user in the positioning of the headset and ensure they have some knowledge of fire safety training as provided in FLAIM's eLearning portal.

## Process for completing a scenario

### Pick up the extinguisher assembly

Hold the extinguisher handle with your dominant hand and hold the hose with your other hand, avoiding holding the hose tracker at the hose end.

### Become familiar with the extinguisher

Get a feel for the weight and size and maneuverability of the extinguisher and notice how the laser pointer moves.

### Explore the scenario

When entering a scenario, firstly look around to locate the fire and determine any other risks in the scene. FLAIM's scenarios have differing levels of difficulty and are designed to be challenging, so there is a need to explore to find the fire.

## Practising the PASS technique

Before engaging with the fire the trainee or user should proceed to the PASS technique to extinguish the fire.

- P** Pull the pin.
- A** Aim low, pointing the extinguisher nozzle at the base of the fire.
- S** Squeeze handle to release the virtual extinguisher agent.
- S** Sweep from side to side at the base of the fire and watch out for re-ignition.

### Experience the realism of the scenario

As you use the extinguisher in the virtual world, the virtual fire is reacting as it would in the real-world.

### Learn and improve

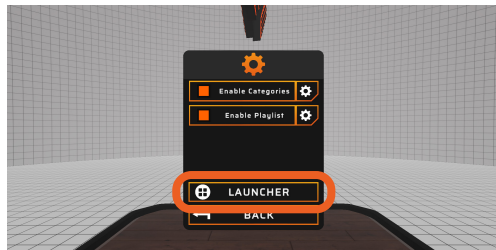
Engage in various scenarios within the virtual world to enhance your fire extinguisher capability and knowledge. With each practice session, your knowledge will expand, and your confidence will grow.



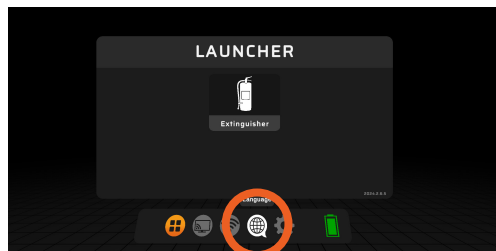
### Language selection



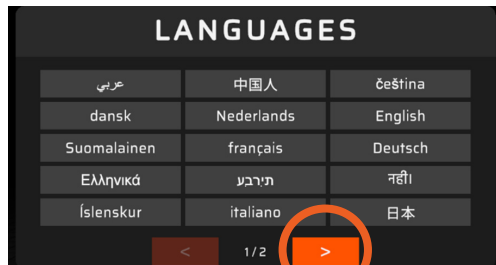
Launch the System.  
The screen on the left will display.  
Select the Settings icon.



Settings screen will display.  
Select the Launcher button.



Select the Language icon.

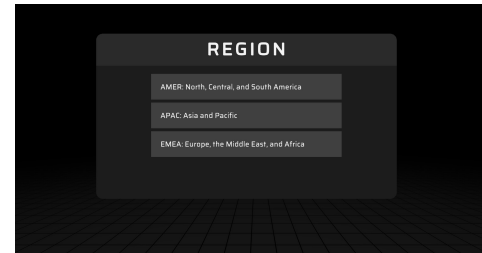


Language screen will display.  
Select the Forward orange arrow to proceed to the second page  
Select the required language

### Extinguisher regionalisation

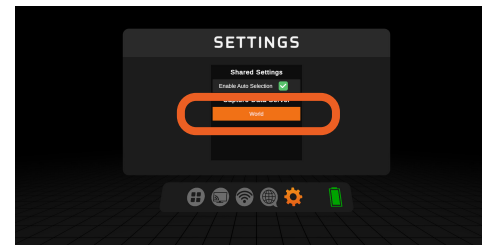


Selecting a region will display the relevant Extinguisher bottle designs for that region.  
e.g. Australian extinguisher designs.

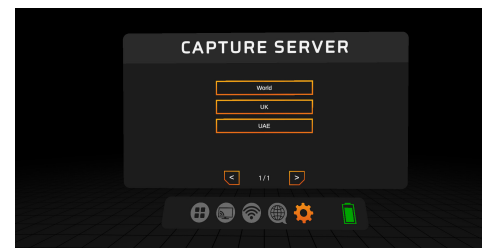


Region screen will display.  
Select the required region.  
The regional specific setting will be applied to System.

### Capture Data Server



Select Settings from the toolbar.  
Under Capture Data Server, select World (default setting).



To change to an alternate Capture Server, select from the available options.

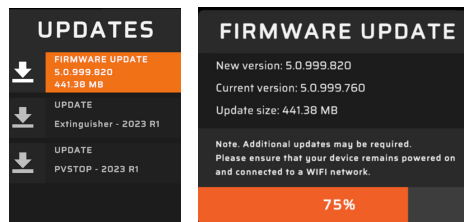
## Updating the system

- 1 Connect the headset to a Wi-Fi network.
- 2 Open the FLAIM launcher and check for updates on the right side of the screen.
- 3 If an update is available, select the Update button. If nothing appears, then your system is up to date or there may be an issue with your internet connection.
- 4 Keep your device powered on and connected to Wi-Fi while the update is being installed.
- 5 Once the update is complete, launch the latest version of the System.



## Updating firmware

- 1 Connect the headset to a Wi-Fi network.
- 2 If the headset detects that a firmware update is available, the prompt on the right will appear within the FLAIM launcher:
- 3 If the update is cancelled, it will be available within the Updates panel.
- 4 If the firmware button within the Updates panel is pressed, the firmware prompt will re-appear.
- 5 Select Update and the process will begin.
- 6 The device will automatically reboot once it has fully downloaded the new firmware.



## Overview

Safety is FLAIM's primary goal.

The following safety guidelines should be followed to ensure that users and support staff are always protected.

### Safety advice

- System is only to be used to train those who respond to fire safety.
- System must not be used for actual fires or live fire training.
- Do not use in wet conditions or expose to direct water or direct sunlight.
- Do not use with firefighting liquids or agent streams including gas, carbonaceous or other fuels.
- ALWAYS caution trainees or users to move carefully and slowly when wearing a headset and using the system and be always aware of the surroundings.

### Battery charging

- System has a battery within the headset and controllers that must be charged and maintained for optimal use.
- It is critical that the headset and controllers are checked for damage before and after use and before and after charging.
- If the headset or controllers show signs of damage, contact FLAIM Systems for advice.

### Use conditions

- System should never be used outside and in direct sunlight as this can damage the headset displays and will void the system warranty.
- If the headset displays have been inadvertently exposed to direct sunlight, contact FLAIM Systems for advice.

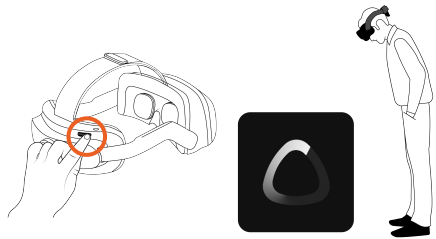
## Troubleshooting

The following are some common user issues.

### Floor height appears too high, or facing in the wrong direction

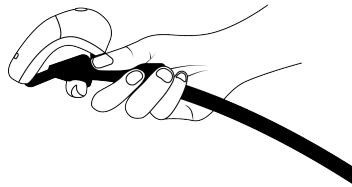
Short press the power button on the headset to turn the headset into sleep mode, followed by a second short press to wake the headset.

Whenever you see the spinning image, it's important to look down at a clear floor to ensure floor height calibration.



### Hose tracker freezing

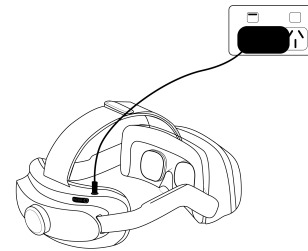
The hose tracker is optically tracked. Avoid blocking the line of sight between the headset and the tracker. Hold the hose instead of the tracker for best results.



### International headset charger

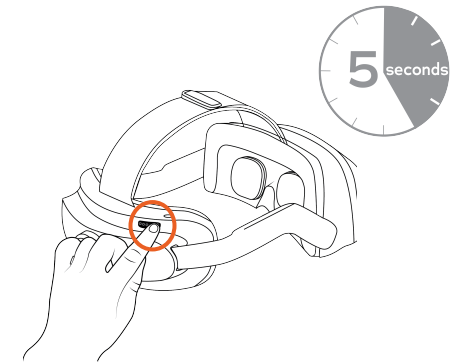
Charge the headset by connecting the AC adaptor to a power outlet, then connecting it to the headset.

It is not recommended to charge the headset while in use.



### Shutting down the headset

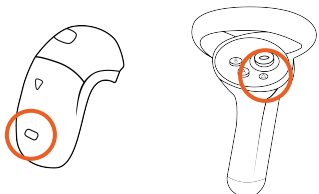
Press and hold the headset power button for 5 seconds to shut down.



### Hose tracker right controller is not tracking

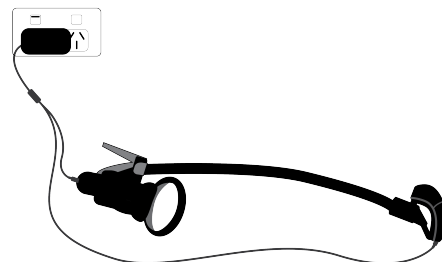
If a blue light is displayed on the controller or tracker, hold down the power button until the blue light turns off then single press the power button to turn on.

A green light indicates the device is connected. If not resolved, restart the headset.



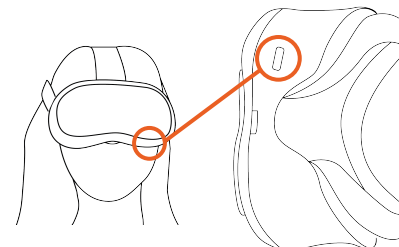
### Controller not charging

When using the split cable, ensure the single end is plugged into the power source and the other end is plugged into the controller / tracker.



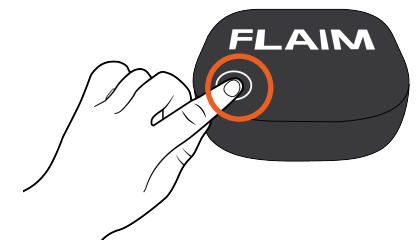
### The volume is too loud or too quiet

Use the controls on the bottom left-hand side of the VR headset to adjust the volume.



### FLAIM receiver in portrait mode

Single press the illuminated button to return to landscape view.



## Support

For further support, contact FLAIM by submitting a support ticket using the QR code.



To access support documentation about your product, use the QR codes below.

**FLAIM WSF**



**FLAIM Capture**





To access support visit  
<https://support.flaimsystems.com>

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