FS-FT-UM2019.2

User Manual
FLAIM Trainer™

Version 2
May 2019

1. Overview

Welcome and thank you for your purchase of the FLAIM Trainer™ virtual reality fire training package from FLAIM Systems.

This manual should get you on your way in no time and is aimed at trainers with a minimal understanding of virtual reality. The FLAIM Trainer™ system is not designed to replace hot fire training, but instead allow experiential learning through a number of practical scenarios developed to improve dynamic thinking, risk assessment, radio messaging, muscle memory, hose handling technique and nozzle control. As the scenario library evolves, new training methodologies can be adapted allowing both novice and experienced fire fighters to develop their skillsets in a safe, repeatable and realistic way.

Of course, the FLAIM System can also be used to train the public in the dangers of fire and allow them to appreciate the work that you do.

FLAIM Trainer™ provides firefighters the capacity to train situations and scenarios that are:

- Inherently unsafe and difficult to reproduce.
- No longer possible due to environmental, community and regulatory constraints.
- Incur significant training cost in time, people and assets.

FLAIM Trainer™ places firefighters in the most realistic training scenario available by utilising several customised elements:

- **Head Mounted Display:** Breathing apparatus (SCBA) kit incorporates a head mounted virtual reality (VR) display.
- **Nozzle:** Hose-line system provides realistic jet or nozzle reaction force.
- **Protective Clothing:** Personal protective clothing with heat generation components.

Once again, thank you for your support.

The FLAIM Systems Team.

Train Virtually, Experience Reality.

2. What's in the Box

This section covers the FLAIM Trainer™ system and what to expect when you open the box. It also lists the individual parts included and explains what they do.

Figure 1 The FLAIM Trainer™ system

Figure 2 Standard packaging for the FLAIM Trainer™ system

Part Number	Quantity	Description	Picture
	1	SCBA Backpack including main computer and virtual reality headset.	
	1	Heat suit	
	2	Tripod for mounting tracking hardware	
	1	Force feedback hose reel	
	1	TFT G-Force Nozzle	

Part Number	Quantity	Description	Picture
	1	Half face SCBA mask and lung demand valve	
	1	Operator control tablet	
	2	Vive tracking hardware	
	1	Nozzle tracking puck	
	2	Standard power cable for powering tracking hardware from battery bank	
	1	Power cable for tablet charging	

Part Number	Quantity	Description	Picture
	1	Power cable for nozzle tracking puck charging	
	2	Swivel mount for Vive tracking hardware installation	
	2	Tracker batteries	
	2	Tracker Battery – Power Source	
	2	Tracker Battery Adapters – Brackets for power source	
	1	HDMI receiver	
	2	Main SCBA backpack batteries	

Part Number	Quantity	Description	Picture
	1	Mouse for user setup – initial *Mouse may appear different to image shown	
	1	Vive wand for future AR instructor use	
	1	Charge plug (country specific) for charging want, puck and tablet.	
	1	Milwaukee Battery charger for both tracker batteries and main SCBA battery charging (country specific power plug supplied)	
	1	Instructor and upgrade keyboard (not used in general operation)	
	1	Hose Reel Power Supply	
	2	Vive Tracker room mounting hardware	

Part Number	Quantity	Description	Picture
	1	Country specific Hose Reel power cable	
	1	Country specific power cable and power adaptor for tracker charging and HDMI receiver power supply (may be a different brand)	 
	1	HDMI extension cable	

Figure 3 Standard packaging of support components

Figure 4 Standard packaging of the SCBA, VR headset and half facemask

Figure 5 Standard packaging of the hose reel

3. Quick Start Guide

This section covers the basic setup, use and running of the FLAIM Trainer™ system.

3.1. Hardware Setup

The hardware consists of a number of support components that must be installed before the training can commence. This section covers the placement and installation of all tracking hardware and instructor television (or projector) monitoring equipment.

3.2. Tracking hardware.

Tracking is achieved using the Vive lighthouse system from HTC. A pair of trackers are installed that define the maximum training space allowable for the user to train in. At present the system supports a training area of 6 x 6m ~(20 x 20ft) or a total distance between the two trackers of not more than about 7m (23ft).

This training area should be cleared of all furniture, not contain large mirrors or highly reflective surfaces and should not be in direct sunlight. The tracking system used by FLAIM Trainer™ relies on Infrared Light (IR) and tracking performance can be degraded in certain conditions.

Each tracker is assembled as per the following figures.

Figure 6 tracking system

Figure 7 Tracking system showing plug locations

As shown in

Figure 7, the tracking system is plugged into the power receptacle. Once assembled, the system can be placed into position at diagonal corners of the training space and powered on (by connecting the battery to the system).

Please ensure that there is at least one red light (our of a possible 4) on the power adaptor before beginning a scenario.

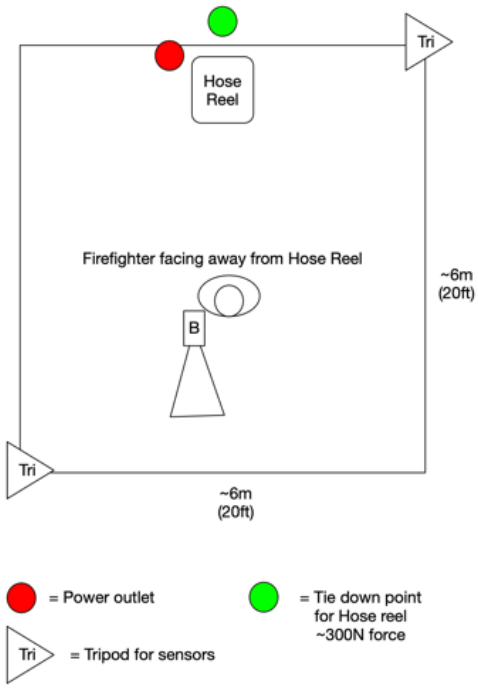


Figure 8 Typical configuration of training area

The trackers should be placed at diagonal corners of the training space at a height of ~2m (6ft). The sensor face should be angled down at an approximately 30-degree angle as shown in Figure 9.

Figure 9 trackers installed on tripods angled at ~30 degrees

Note: *When installed and powered on, both trackers should show a power led on the front window.*

3.3. Instructor Viewing Hardware

In addition to the tracking hardware, the instructor viewing hardware must also be installed. This hardware receives the signal transmitted by the FLAIM Trainer™ SCBA so that the instructor and/or fellow trainees can view live footage from the training environment. This hardware is also crucial for setting up the tracking environment for the first time.

The instructor viewing hardware consists of a HDMI receiver that connects to a TV/Projector (not supplied in standard kit) via a supplied HDMI cable (Figure 10).

Figure 10 Instructor viewing hardware

Power is supplied to the HDMI receiver from the included USB Power supply supplied with the system or by plugging the attached micro USB lead into the USB port on most newer TV's and projectors.

The system is a commercial unit and has been trialled with a number of televisions and projectors with great success. Some systems cannot supply enough power from their in-built USB port and it is suggested to use the included power supply in this instance.

When powered, the receiver power light will glow blue.

3.4. The SCBA Set

The SCBA set is a self-contained virtual reality computer with built in head mounted display.

The system is powered by a high-capacity lithium power tool battery installed within the cylinder. The main system battery is installed by clipping the battery into the lower half of the SCBA cylinder.

Figure 11 SCBA Main battery installation

Figure 12 Battery connected and secured

3.5. Hose Reel

The hose reel system provides nozzle reaction force to the user but also contains the wireless syncing hardware to enable the system to operate.

The hose reel requires a power connection (Figure 13) and is supplied with a country specific IEC lead (standard computer lead). If operating correctly, a system power light will show under the 'Hose Rewind' button above the power connection (Figure 14).

Figure 13 Connect the hose reel to a standard power socket

Figure 14 Hose rewind and system power

The hose reel also requires a solid connection to an immovable object to provide force feedback to the trainee. The supplied line can be used to lash to an object generally in excess of 25kg (50lb).

3.6. The Nozzle

Now that the SCBA set, tracking hardware, hose reel and instructor monitoring have been configured. It's time to connect a tracking puck to the nozzle. The tracking puck is magnetically attached to the front of the nozzle and keyed into place firmly. Once attached, the puck is turned on by briefly depressing the power button for one second (Figure 15).

Note: *Important this button is not held down or double pressed or the puck will need to be re-paired (refer section 14.1).*

Figure 15 Nozzle face showing batteries installed and tracking puck

Figure 16 When installed, the puck should look like this

The batteries in the nozzle (2 x AAA) should last a month or more of continuous use. Please remove the tracking puck when not in use and store separately as this will ensure that the battery life is optimised. These two batteries are the only user replaceable batteries in the FLAIM System and should be recycled appropriately.

The tracking puck also contains an internal battery. This is charged by plugging a USB cable into the charging port on the base of the puck. See the charging section of this manual.

3.7. Half facemask

The half facemask is used to capture respiration information from the user as well as to overlay the sounds of breathing through a standard positive pressure SCBA. Simply connect the facemask to the connector on the right-hand shoulder strap of the SCBA and adjust the straps on the face prior to donning the VR eyepiece. Metrics are reset on each scenario launch and can be viewed in the 'Monitor' tab on the iPad user interface.

3.8. Heat suit

Heat suits are supplied pre-paired to SCBA sets. Heat suits are worn over a t-shirt or similar and are designed to be worn underneath the firefighters standard personal protective clothing.

To turn on the heat suit, simply connect the supplied power cable to the magnetic connector on the top of the SCBA cylinder. The suit will automatically power on and connect to the SCBA. In the software on the iPad, 'Heat On' must be selected for the suit to generate heat.

The suit will automatically regulate heat zones proportional to the position and orientation from the fire in the virtual scenario. Not all scenarios generate the signals required for the heat suit to operate. Contact FLAIM Systems for a list of heated scenarios or to add additional functionality.

4. Turning the System On

Congratulations! The system hardware is now assembled and you're ready to begin using the system.

The order of turning on the system is not absolutely critical; however, it is best to follow the below steps to ensure fault finding is easier if you experience problems.

For guidance refer to the following figures for the locations of all power buttons and switches.

Step 1. Turn on/ensure the Hose reel power supply is on and the power light is green.

Figure 17 Step 1. Power to hose reel

Step 2. Connect the tracker batteries (see **Error! Reference source not found.**), ensuring that there is sufficient charge.

Figure 18 Step 1 Connect two trackers

Step 3. Turn on/ensure the HDMI receiver (making sure the power light is blue).

Figure 19 Step 3. Ensure HDMI receiver is powered

Step 4. Turn on the SCBA backpack (short press to power button).

Figure 20 Step 4. Power on SCBA Backpack - short press

Step 5. Turn on the nozzle puck (single press of power button).

Note: *Reminder -Single press only for waking tracker. A double press may put the puck into pairing mode and requires re-pairing to the system (see adding hardware in section 14.1.)*

Figure 21 Step 5. Short press to power on nozzle puck

Step 6. Wake up/turn on the instructor tablet.

Figure 22 Step 6. Power on or wake instructor tablet

Step 7. Connect the heat suit to the SCBA set via magnetic connector.

Note: *If when waking up the tablet the instructor software is still shown, please close and re-open the software by double clicking the home button and swiping up to close the currently running program or by relaunching the application from the home screen. This is also required when re-starting the SCBA system.*

5. Turning the System Off

Turning the system off is accomplished in the reverse order of turning the system on.

Note: *All of the individual battery powered components will automatically turn themselves off when their battery level is depleted to protect the batteries. If the system does not turn on, shows a low battery indicator or does not function as expected. Please follow the battery charging steps in section 9.*

6. Using the Instructor Tablet

6.1. Starting the Application

The generation one instructor tablet uses an Apple iPad as the main interface for controlling all aspects of the simulation after initial hardware setup.

Once awake or turned on, the tablet screen should look like Figure 23.

Figure 23 Instructor tablet home screen

If the tablet shows anything else, it's best to double tap the home button and close any open applications by swiping the active application up. See https://youtu.be/0pTAM3Cgs-I for a video of the process if unfamiliar with the Apple iOS.

Once the home screen is shown and the SCBA system is powered on (after 30+ seconds) the instructor software can be launched by pressing on either FLAIM Trainer™ button on the screen.

When launched, the FLAIM Trainer™ Instructor station currently look like Figure 24.

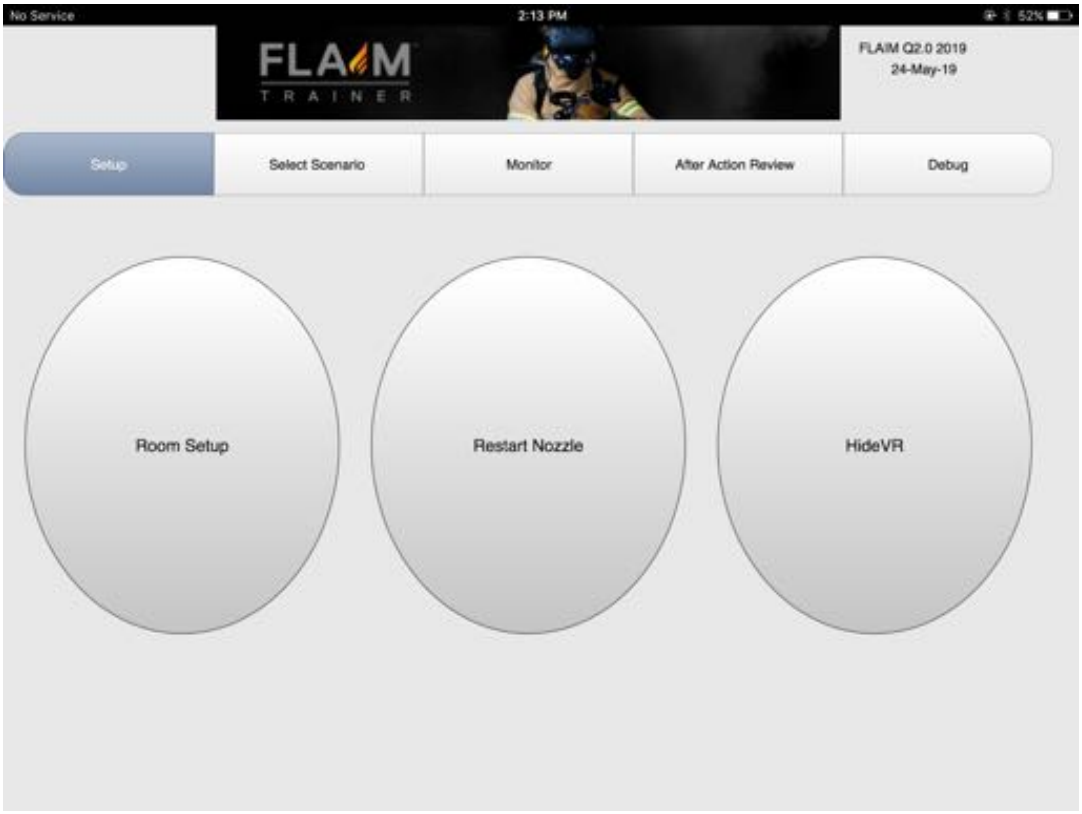


Figure 24 FLAIM Trainer™ instructor software

A single row of Tabs across the top of the user interface allows full control over the FLAIM Trainer™ System in both single user mode and multi-user mode.

6.2. Setup Tab

The default tab when launching the FLAIM Trainer™ software on the iPad.

Allows a user to:

1. **Restart the Nozzle**– useful for when the nozzle is unresponsive or not connected. This button can be pressed any time and the nozzle connector will usually connect within 10 seconds.

2. **Room Setup** – Used to configure a new room space on first start up in a new location (See below)

3. **HideVR** – used to hide the standard SteamVR window.

6.3. Room Setup

The following section shows an operator how to calibrate the system to the environment for the first time. This setup needs to be run when the system is first installed in a new location or the trackers have been moved for any reason.

For a room setup to be successful, the SCBA should be placed in the room as defined by the two tracers with the VR headset facing the 12 O'clock position with the hose reel at the 6 O'clock as shown in

Figure 25. The position and orientation of the SCBA set is not important, just that the headset is facing to the front of the room when the hose reel is behind you.

Figure 25 shows the base of one of the tracker tripods. In this room, tracker 2 is at the bottom right of picture (out of frame).

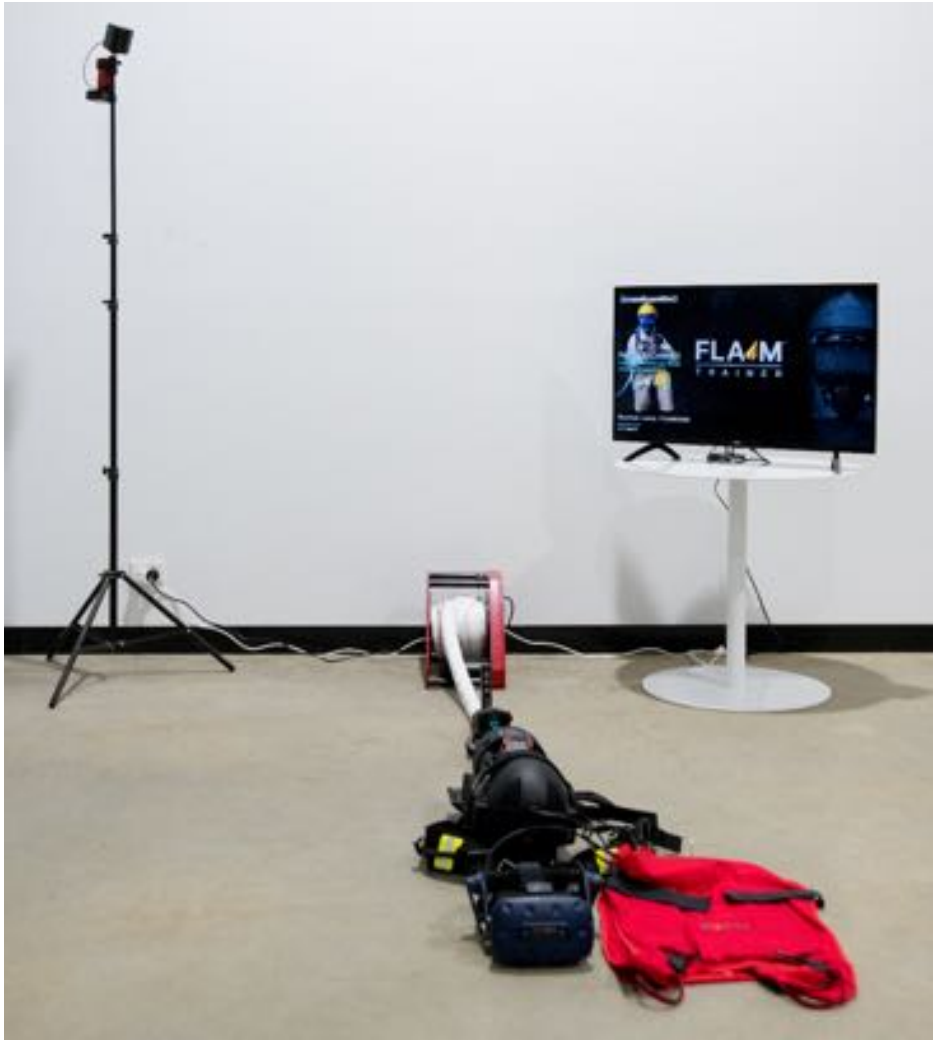


Figure 25 Basic room setup configuration

STEP 1. The TV or projector should be showing an image such as shown in Figure 26.

Figure 26 Room Setup Step 1

Step 2. On the instructor tablet, press 'Room Setup' (button 1 in Figure 24). This will launch the VR room setup utility as shown in Figure 27. From here you will need the mouse included in the box to progress through the steps below. This is the only time you will use the mouse in general operation of the FLAIM Trainer. Click 'Standing only' for general operation.

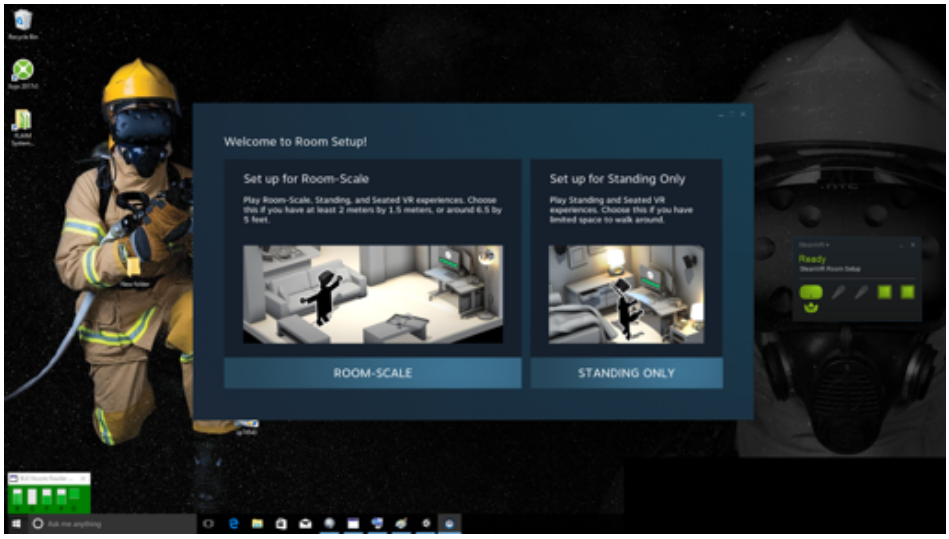


Figure 27 Room Setup Step 2

Step 3. When the screen looks like Figure 28 you can click 'NEXT' with the mouse.

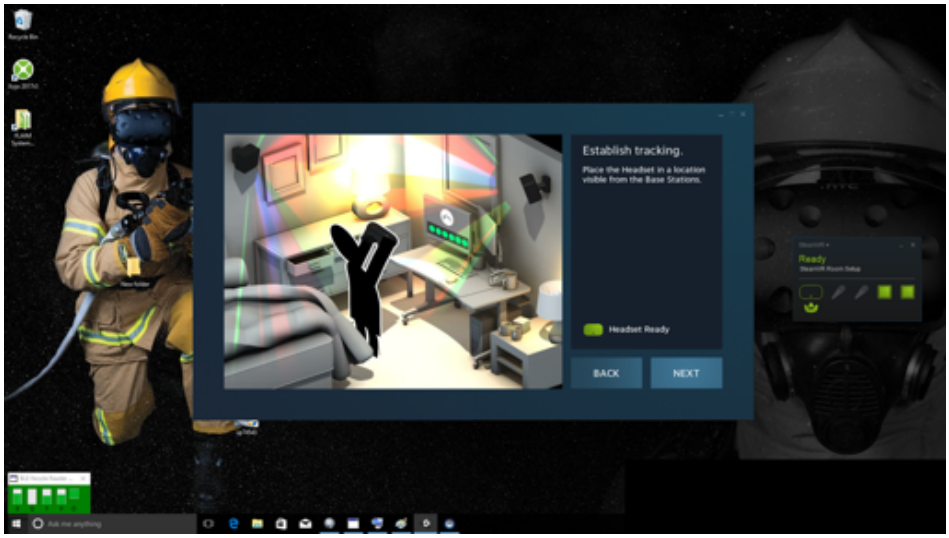


Figure 28 Room Setup Step 3

Step 4. When the screen looks like Figure 29 you can click 'Calibrate Center' with the mouse.

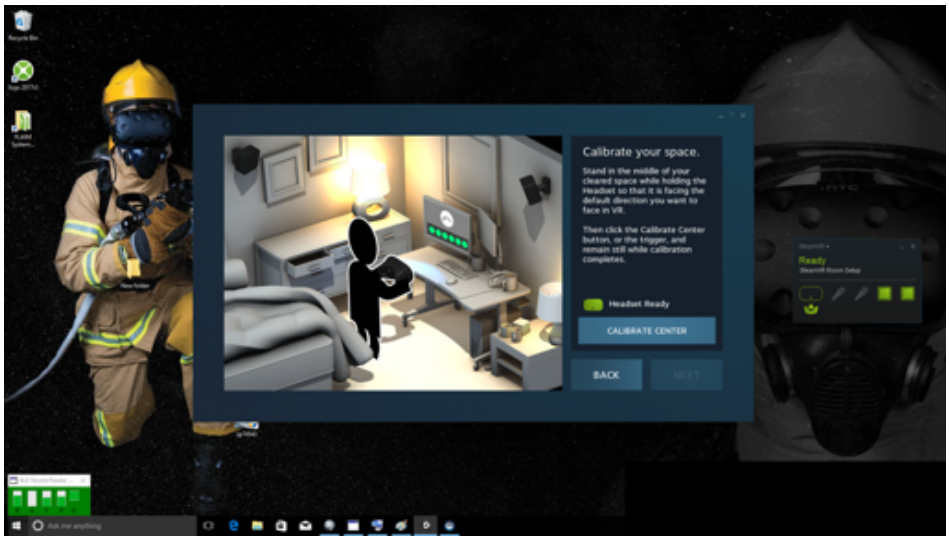


Figure 29 Room Setup Step 4

Step 5. When the screen looks like Figure 30 you can click 'NEXT' with the mouse.

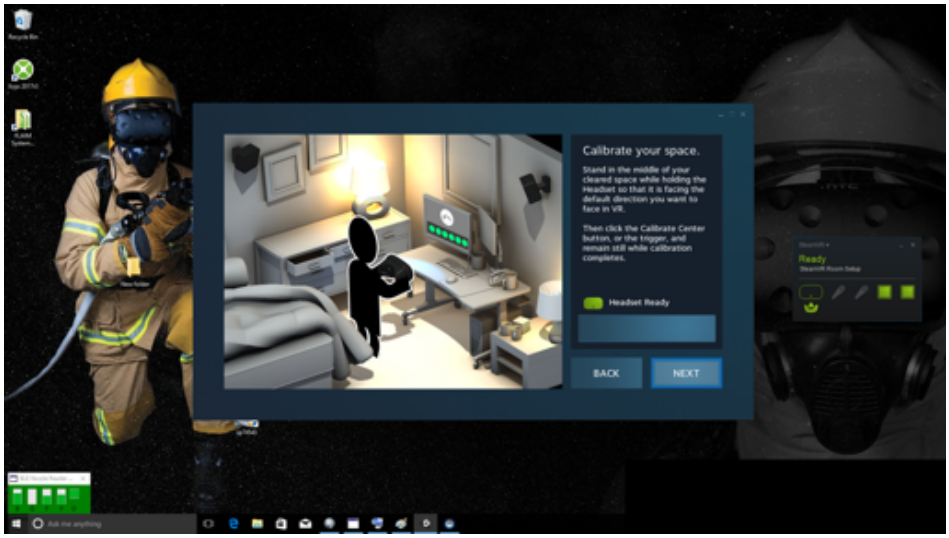


Figure 30 Room Setup Step 5

Step 6. When the screen looks like Figure 31 you can click 'Calibrate floor' with the mouse. Note that as the headset is on the floor you do not need to enter a height in the field.

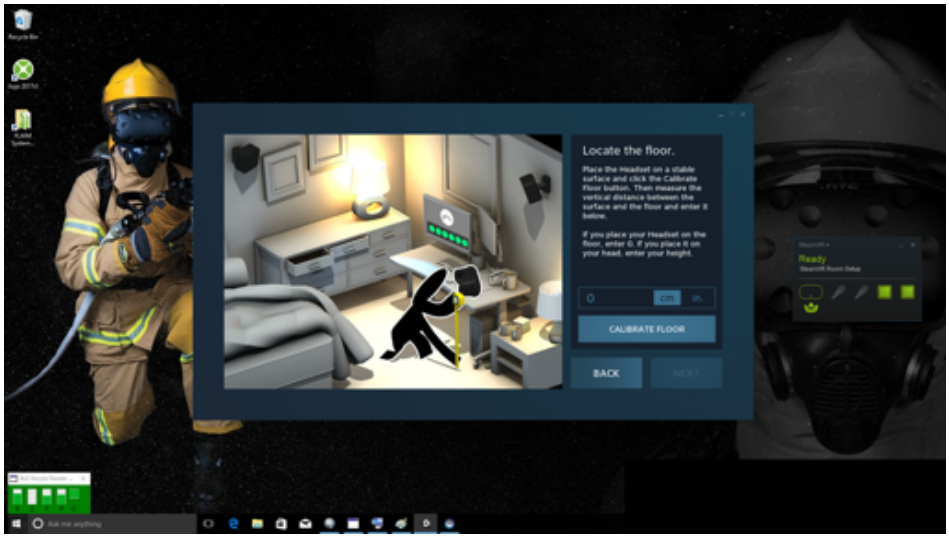


Figure 31 Room Setup Step 6

Step 7. When the screen looks like Figure 32 you can click 'NEXT' with the mouse.

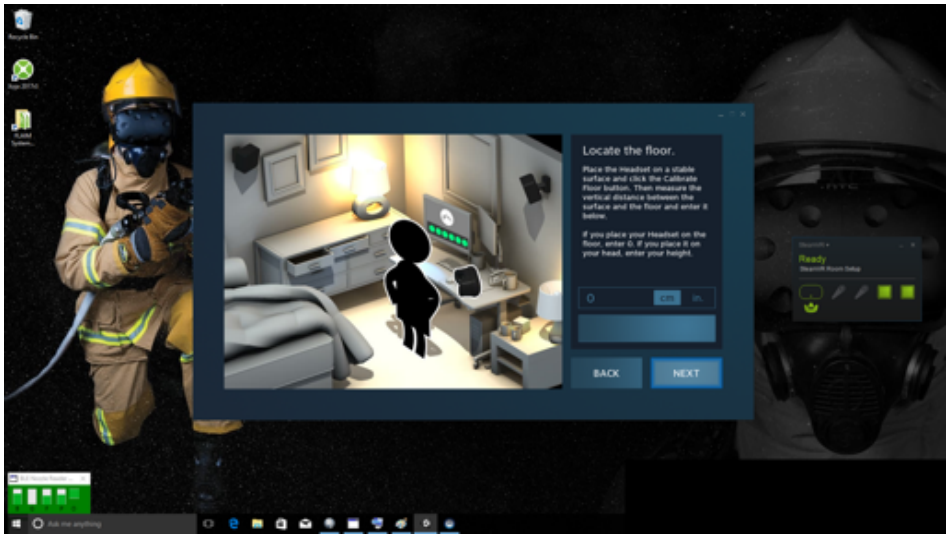


Figure 32 Room Setup Step 7

Step 8. When the screen looks like Figure 33 you can click 'NEXT' with the mouse. This will automatically close the room setup utility and you're ready to run a scenario!

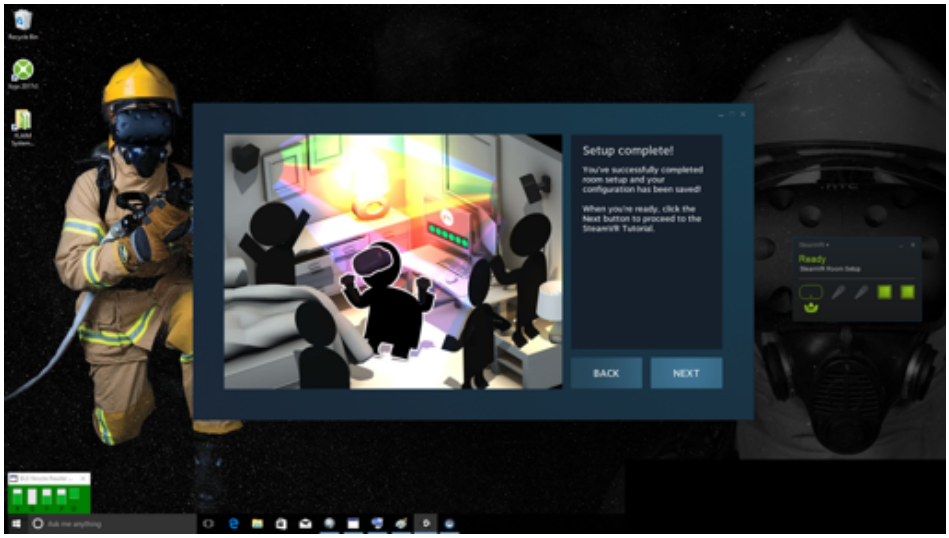


Figure 33 Room Setup Step 8

Note. *If the software alerts that the headset is not visible, please move it briefly to wake it up and try again.*

7. Running a Scenario

This section highlights how to select and run a scenario from the 'Select Scenario' tab.

7.1. Select Training Mode

By default, single user mode is selected. When running FLAIM Trainer™ without a second operator (FLAIM Trainer™ *Dual*) this mode should be left unchanged.

When depressed, the left button under 'Select Training Mode' cycles through **Single User – Multi-User.**

Single User is used for all scenarios where one operator is using the FLAIM Trainer™ system. No further selections need to be changed as the user will use the nozzle by default.

- Multi User sets the primary operator to use the nozzle while the secondary user defaults to the Vive controller. Multi user launches the scenarios on both the primary and secondary sets automatically.

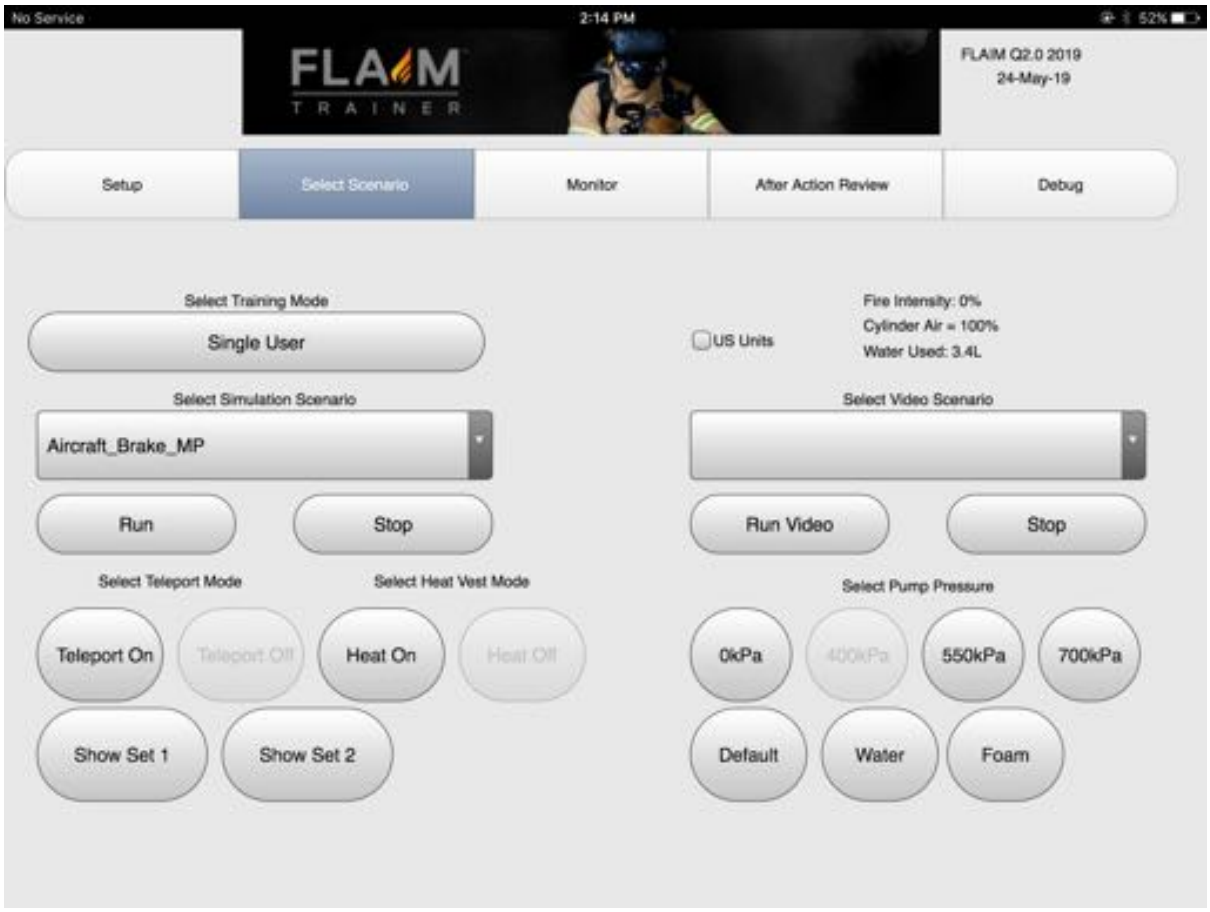


Figure 34 Scenario Tab

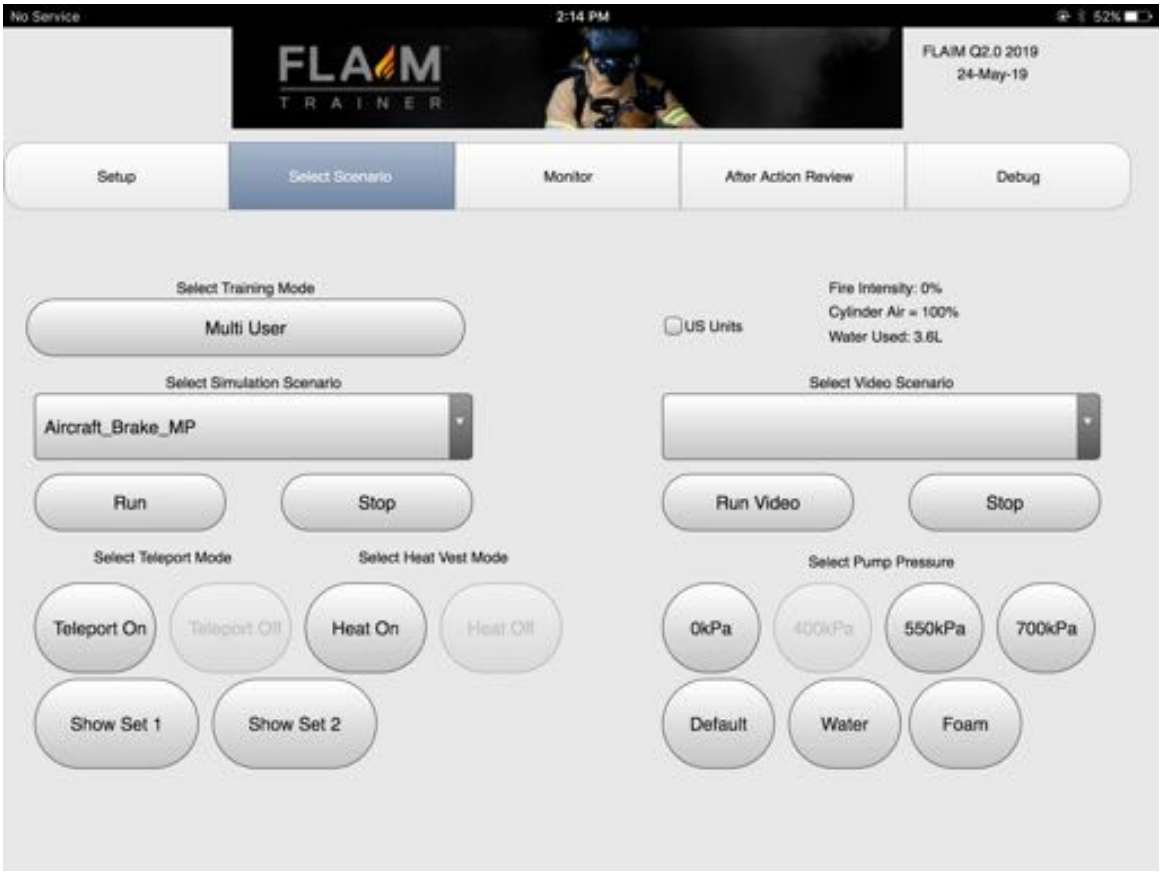


Figure 35 Select Training Mode Button

By default and standard for Single User Mode is Nozzle

7.2. Select Simulation Button

The scenario Tab is used to control the majority of the user experience. Launching scenarios, enabling heat and enabling teleport are all controlled within this tab.

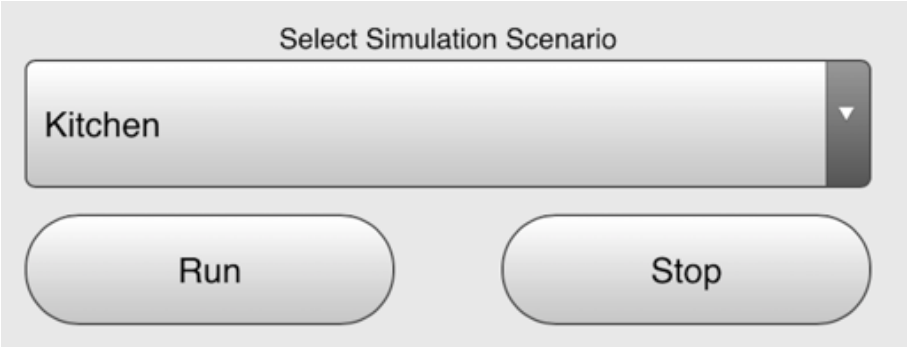


Figure 36 Select Simulation Scenario Button

The list underneath the Select Simulation Button displays a list of all presently installed scenarios. Once selected, the user can then click the 'Run' button to launch the selected scenario. Scenarios may take up to 20 seconds to launch.

To end the current scenario, push ‘Stop’

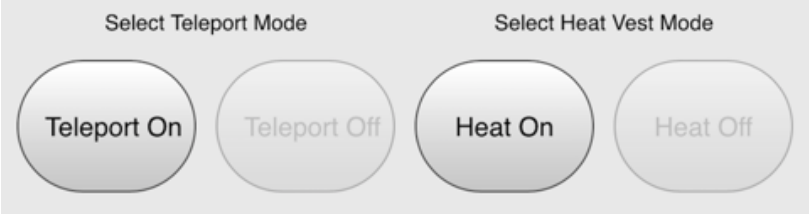


Figure 37 Select Teleport Mode and Select Heat Vest Mode Buttons

Also on the simulation tab is the instructor controls to allow enabling/disabling teleport and enabling/disabling of heat suit temperature output.

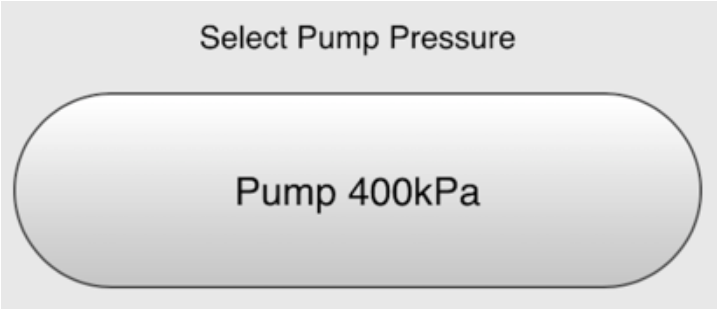


Figure 38 Select Pump Pressure Button

Pump pressure and by extension, hose force can be controlled by the Pump Pressure button. Default pump pressures are 400kPa, 550kPa and 700kPa. Note that when 700kPa is selected there is significant force applied to the user and this setting should not be used for more than a few minutes. The hose reel system is not designed for long duration operation at 700kPa.

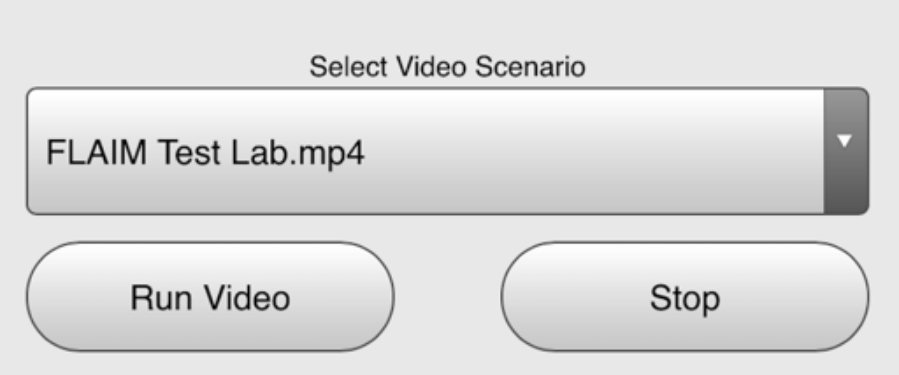
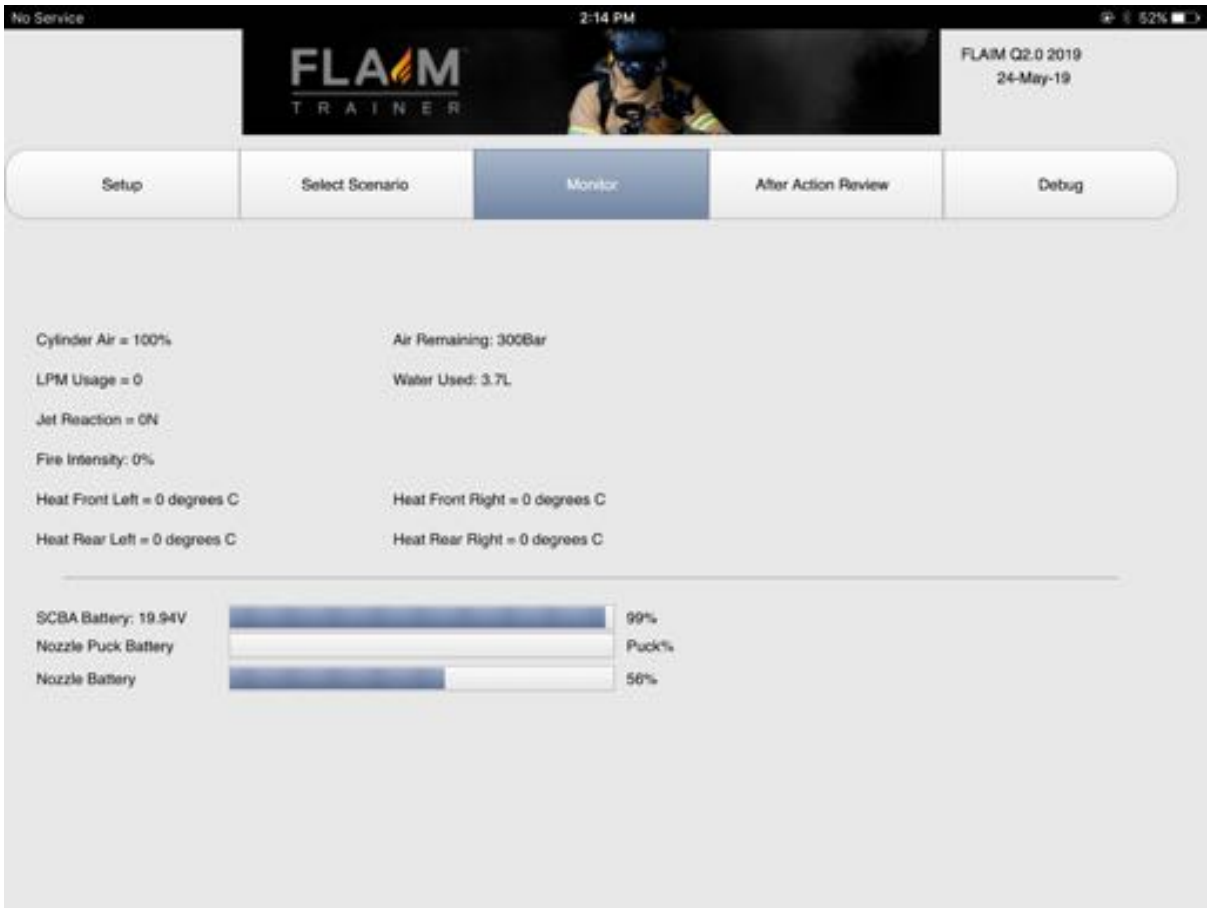


Figure 39 Select Video Scenario Button

The FLAIM Trainer™ system has the ability to play instructional 360 degree spatially aware 3D videos. Please contact FLAIM Systems to inquire about the hardware required to record your own video content.

Select a video file from the drop down menu and press ‘Run Video’ to play.



8. Fault Finding

The following table contains a matrix of possible faults and solutions.

Fault	Solution
The SCBA set does not turn on	Ensure that the battery is connected firmly and is fully charged (by checking on charger or pushing the battery status button on the Milwaukee battery). Use a second battery to confirm. Press the power button and confirm that it is depressed and that the power light on this switch light comes on after ~5 seconds.
The SCBA set turns off or restarts	Ensure that the battery is fully charged Ensure that the operating temperature does not exceed 30 degrees Celsius / 85 degrees Fahrenheit.
iPad app doesn't respond to button presses	Restart the app by double clicking the home button and swiping up. Re-run the app from the home screen. Ensure that the hose reel and SCBA are turned on
iPad app doesn't load or shows a white screen	The SCBA isn't turned on or hasn't finished loading (~40 seconds) The Hose Reel is not powered Restart the computer and the iPad app

Fault	Solution
I can't see my nozzle	Ensure that the tracking puck is turned on and showing a green LED. If showing a blue flashing light, hold the power button for ~5 seconds until it turns off and turn it on again. If this doesn't work, try re-pairing the puck (see adding hardware section. If the puck is showing a red LED then it must be recharged
Headset isn't tracking / headset is grey	Ensure that the two trackers are installed correctly and powered on. Each tracker battery should have at least 1 red light. Make sure that the headset has a clear line of sight to at least one tracker at all times Restart the SCBA if tracking doesn't return
Tracking is off or I feel tall/short	Ensure that the trackers have not been moved. Redo room setup making sure the headset is on the ground.
No force feedback in hose reel or force is weak.	Ensure the hose reel is powered Ensure the nozzle isn't in 'flush' setting Ensure pump pressure is set on iPad app

Fault	Solution
Nozzle doesn't show correct water pattern or show water at all or pattern change is delayed	This fault can be caused by a number of factors. Restart the nozzle controller (V2) in setup screen. Check AAA batteries in nozzle Ensure tracking puck is firmly seated on nozzle Ensure no large RF generators or WIFI access points are too close to the system Restart the SCBA Disable heat suit and try with only the nozzle Re-pair the nozzle as shown in 'Adding New/Replacement Hardware)
Instructor view does not show on TV	Ensure the HDMI receiver is powered and shows a white or green power light. Ensure correct source is selected on the TV/Projector. Move the SCBA closer to the receiver. This system is an off the shelf video sender and is susceptible to RF noise. Change locations or restart SCBA if picture is not restored by trying the above. Ensure correct power supply and USB lead are used to power the system. Incorrect power supply can cause intermittent loss of video. On FLAIM Trainer™ *Dual* systems, please ensure that the correct transmitter has been selected. Restart the SCBA

FLAIM Systems maintains a support team via email at support@flaimsystems.com and will respond within 24 hours for any further technical issues.

9. Battery Charging

SAFETY ADVICE:

FLAIM Trainer™ has a number of batteries that must be charged and maintained for optimal usage. It is critical that all batteries are checked for damage before and after use and before and after charging.

If any battery shows signs of damage or swelling, then please dispose of safely.

Lithium polymer batteries can pose a fire risk if improperly stored, charged or maintained.

Please treat them with respect and only charge them under supervision in a safe area.

Failure to manage batteries may result in damage to FLAIM Trainer™.

9.1. Main battery charging

The main battery is connected to the charger by sliding it into its charge bay. The main battery should be fully charged within ~60 minutes and last ~60-70 minutes of solid use.

Figure 40 Main battery charger connection

9.2. Tracker battery charging

The tracker batteries are charged by removing them from the tripods and connecting them in turn to the supplied Milwaukee charger. The tracker batteries take ~1 hour to charge and should last a full day of operation or more.

Figure 41 Tracker batteries connect to charger

9.3. Nozzle battery replacement

The nozzle batteries are non-rechargeable standard off the shelf AAA batteries Figure 42. They can be replaced when the nozzle fails to connect.

Figure 42 Nozzle batteries behind tracking puck

9.4. Nozzle Puck charging

The nozzle puck is charged via a micro USB cable supplied in the kit. This USB cable can be connected to a USB power brick or the USB port on the left side of the battery charger. When fully charged, the power light should show a solid white colour. The nozzle puck should last ~8hrs and charge within 1 hour.

Figure 43 Nozzle puck charging via micro USB cable

9.5. iPad Charging

The iPad should be charged using the included lightning cable after each use.

10. Safety

The safe use of the FLAIM Trainer™ is paramount. The following safety guidelines should be followed to ensure that trainees and support staff are protected at all times.

SAFETY ADVICE:

FLAIM Trainer™ is only to be used for firefighting training of emergency services personnel and first responders, and workforce, customer and community engagement.

FLAIM Trainer™ must not be used for operational or actual fire-fighting, live fire training using gas fired, carbonaceous or other fuelled fire training, in wet conditions or where exposed to direct water or other firefighting liquids and agent streams.

10.1. Travelling with Batteries.

The batteries used by the FLAIM Trainer™ system a designed to be transported in their protective case when travelling by road.

When travelling by air, most airlines require the batteries, for the trackers and SCBA to be carried on board the aircraft as part of hand luggage. Airlines generally require the terminals to be taped to prevent in-advertent short circuit.

Please check with your airline before travel as some airlines require pre-approval for batteries of this capacity to travel.

SCBA Battery Capacity: 18V 6Ah 108Wh x 2
Tracker Battery Capacity: 12V 4Ah 48Wh x 2

10.2. Charging Batteries.

All batteries should be charged under supervision with appropriate fire protection in place (Dry Chemical Extinguisher).

Batteries should be charged in an open area ideally on a cement or non-combustible surface away from ignition sources and flammable objects. Batteries should not be charged when hot and may require a 30minute cooling period when removed from a SCBA before charging is commenced. The included batteries have a thermal safety mechanism built in and will not charge if too hot. Please ensure that only genuine Milwaukee, 6Ah, 8Ah, 9Ah or 12Ah batteries are used. FLAIM cannot guarantee ‘no name batteries’ and will not warrant FLAIM hardware when incorrect batteries are used.

10.3. Weight.

The SCBA sets weigh ~11kg and should not be worn by users with back problems. Generally, if users are not able to wear SCBA operationally then they should refrain from wearing the FLAIM Trainer™.

When performing public engagement small children and the elderly are discouraged from using the system. Please contact FLAIM Systems to ask about the ‘FLAIM Trainer™ *LITE*’ system for these use cases.

When travelling with the system care should be taken when lifting the units and their travel cases.

Cases weigh between 19kg and 28kg depending on fit out.

10.4. Reel/Hose line Forces.

The forces delivered by the haptic hose line can be significant and are equivalent to real world hose forces. Care should be taken to ensure that the hose line system is appropriately attached to a wall or anchor point and that the user is prepared and supported for the force to be exerted when operating the nozzle.

10.5. Heat.

The heat suit is capable of producing temperatures of up to ~70 degrees Celsius. The vest should be worn under PPE but over a suitable cotton t-shirt or similar. Hot temperatures are only created when in close proximity to a virtual fire for a very short period of time so as to ensure no lasting discomfort to participants. Heat can be removed instantly by disconnecting the magnetic heat suit power connector or by clicking heat off in the iPad application.

11. Maintenance

11.1. SCBA mask.

The half facemask should be removed from the SCBA backplate and regulator assembly after each use and cleaned as per departmental decontamination standard operating procedures. Ensure that the mask is thoroughly dry before re-attaching to the FLAIM Trainer™ system as damage to the breath detection system can occur.

11.2. Batteries.

Batteries should be charged after use and should never be left connected to the SCBA sets for extended periods. Batteries should be inspected before and after use and disposed of and replaced if swelling, cuts, nicks or damage to the pack is detected.

The batteries used by FLAIM Trainer™ are high capacity and should be treated with respect. Lithium Polymer batteries if punctured or treaded incorrectly can cause fire and injury.

11.3. SCBA.

Straps and the harness should be stowed appropriately before donning to ensure longevity of the SCBA backpack.

11.4.Head Mounted Display (HMD).

The HMD should never be left hanging from its cord as damage can occur. The HMD is robust but should only be cleaned with lens wipes as use of a cloth to clean lenses may scratch them and distort imagery.

11.5. Heat Suit.

The heat suit system may be hand washed after the removal of the electronics box and heating pads.

FLAIM Trainer™ has no user serviceable parts inside and if a subsystem is damaged or fails to operate as expected, please contact your nearest FLAIM representative for replacement components.

12. Travel Advice and Warnings

In addition to travel advice about batteries (see Safety – Travelling with batteries), when travelling with the FLAIM Trainer™ system on aircraft it is important to notify check in staff about the equipment. When X-rayed, the SCBA sets look like operational sets and as such airline staff often assume that the sets are pressurised. In order to reduce travel delay it is best to show/inform staff prior to check in. All batteries should also be removed from the support case and carried on board the aircraft.

13. FLAIM Trainer™ *Dual* Setup.

The FLAIM Trainer™dual setup is identical to the single user system. Two units are placed in the tracking area side by side and calibrated using the standing room setup. As there are two users working in close proximity it is important that they stay within their own safety zones (depicted as a blue circle on the floor) to ensure that they do not collide with each other in the 'real' world.

One HDMI receiver collects the signals from both SCBA sets and an instructor can choose which video feed to monitor using the 'Select Master Set 1' or 'Select Slave Set 2' in the scenario tab on the instructor iPad.

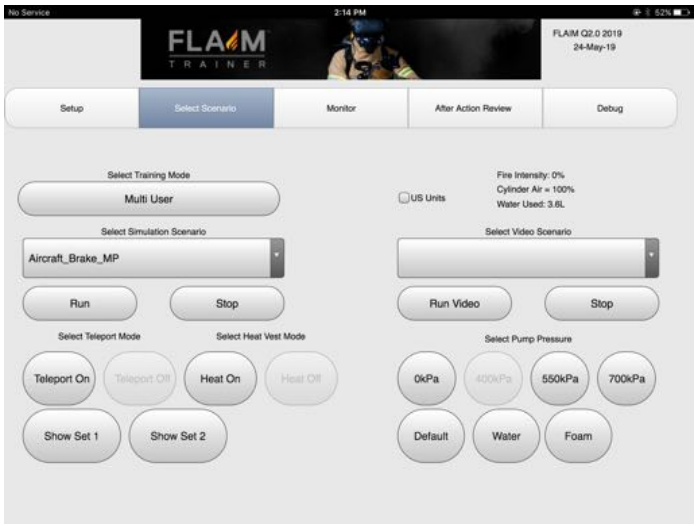


Figure 44 FLAIM Trainer™ Dual remote control for switching video sources

Both SCBA sets should be launched using their respective FLAIM Set 1 and FLAIM Set 2 buttons on the iPad.

14. Adding New/Replacement Hardware

This section should only be required if you need to replace a damaged piece of hardware. FLAIM Trainer™kits ship fully paired to work out of the box.

Connecting new hardware is accomplished by using the mouse to hover over the green 'Nozzle Connection Window' at the bottom of the screen. Selecting Pair Nozzle, Pair Heat Suit. Enables you to reselect a device. Please contact FLAIM for advice or updated documentation before attempting this task as it should not be needed in normal operation.

14.1. Re-pairing the tracking puck

If the nozzle tracking puck is accidently placed into pairing mode depicted by a blue flashing LED or if the puck light remains blue during operation and the nozzle isn't depicted in the training scenario, it may need to be 're-paired' to establish connection with the FLAIM Trainer™.

Step 1. Using the mouse, right click on the SteamVR window (Figure 45) and select Devices-Pair Controller.

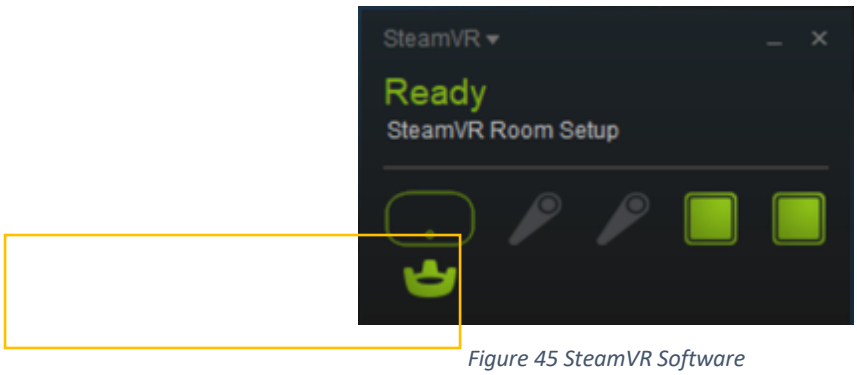


Figure 45 SteamVR Software

Step 2. Ensure that the tracking puck is charged and turned on (blue light). Press and hold the power button again for 2 seconds and the blue power light will start flashing indicating that it is in pairing mode. Within a few seconds 'Vive Controller Paired!' (Figure 46) should be displayed and the power light on the tracking puck should be green. You can now click 'Done' and start your scenarios.

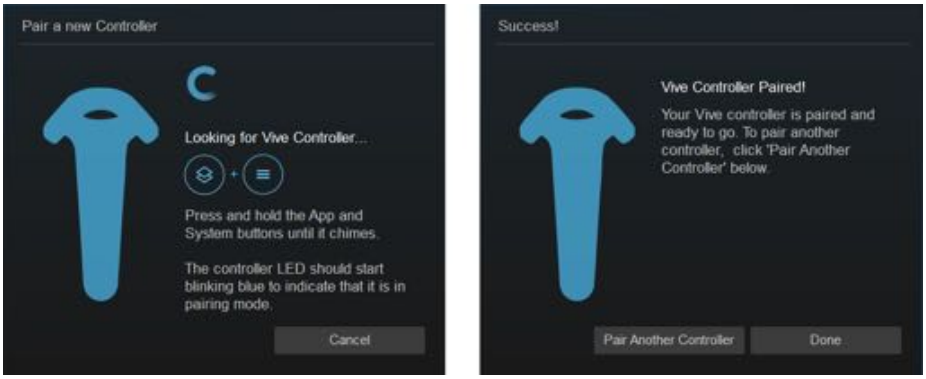


Figure 46 Looking for Tracking Puck and Paired!

15. Further Support

Once again thanks for choosing FLAIM Trainer™ from FLAIM Systems as a part of your training solution. For further support, please contact your local distributor or agent in country during business hours or email support@flaimsystems.com