

Contact:

- **Call: +1 (860) 893-0080**
 - Weekdays 9 AM-5 PM (Eastern)
- **E-Mail: SimSpraySupport@vrsim.net**
- **Or fill out a [web ticket](https://simspray.net/technical-user-support/)**
(<https://simspray.net/technical-user-support/>)

Additional Documentation:

- **[SimSpray website](https://simspray.net/)** (<https://simspray.net/>)
 - Features, benefits, and [support docs](#).
- **[Performance Portal](https://portal.simspray.net/)**
(<https://portal.simspray.net/>)
 - Online student reports, gradebook, and [guides](#).
- **[SimSpray 3.x Support Portal](http://support.simspray.net)**
(<http://support.simspray.net>)
 - Older guides.

Hardware Terminology:



SimSpray 3

SimSpray Go

HMD <i>(Head Mounted Display) (VIVE Pro, VIVE Pro Eye, VIVE Pro 2, or Valve Index)</i>	Base station <i>(2.0)</i>	VIVE Tracker
 <p style="text-align: center;">or</p>		

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Troubleshooting:

Item/Location	Description/Symptoms	Next Steps/Actions
SET UP AND POWER ON/OFF:		
Setting up and powering on	How to	<ol style="list-style-type: none"> 1. Go to SimSpray Support. 2. Select your model type. 3. Go to "Quick Start Guide."
Setting up and powering off		

EQUIPMENT SETTINGS:		
Equipment Settings screen - Incorrect Settings	<p>When clicking "Proceed" on the Equipment Settings screen, you get the "Incorrect Settings" message.</p> 	<ol style="list-style-type: none"> 1. Use the values found in the Paint or Project Settings. See the Default Paint Types (software v3.3.x or later) or Default Project List (software v3.2.x or earlier). <ol style="list-style-type: none"> a. This applies to VRSim default content. For custom projects and lessons, ask your teacher to identify the settings in the Admin portal of the SimSpray software. 2. OR: log into Admin Mode, select Score Settings, Proceed, change Machine Settings to "Automatic", Apply, and Log Out. This automatically sets the proper settings on the Equipment Settings screen. (Software v3.2.1 and later)

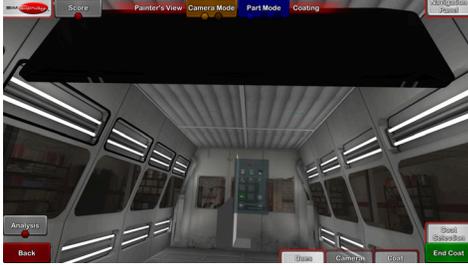
ADMIN MODE:		
Cannot access Admin mode		<ol style="list-style-type: none"> 1. After turning on the system and selecting a product, click on "Admin." 2. Use the code provided with your system. It is typically printed on a small card. <ol style="list-style-type: none"> a. If someone in your organization has changed the code, request this from them. b. If you do not know the new code or cannot find the default passcode, contact tech support.

Item/Location	Description/Symptoms	Next Steps/Actions
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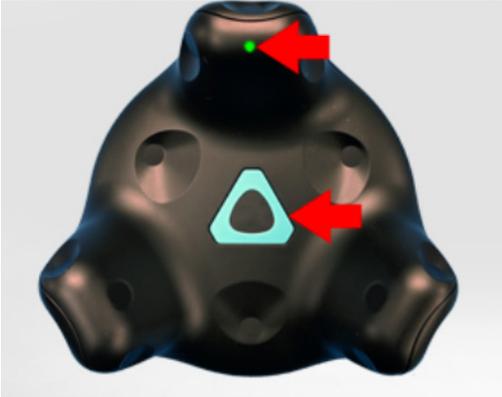
GUN PAINTING:		
Painting - Gun stuck painting or in air stage	After releasing the physical gun's trigger, the virtual gun continues to paint in the paint or air stage. The physical gun vibrates when not being physically triggered	<ol style="list-style-type: none"> 1. Check your software version. 2. If you are running software version 3.2 or later: <ol style="list-style-type: none"> a. Apply a content update fix for the gun. 3. Otherwise, contact tech support.

WINDOWS UPDATES:		
Windows Updates	Windows notifies you: <ul style="list-style-type: none"> ● There are Windows updates available. ● Do you want to update from Windows 10 to Windows 11 	<ol style="list-style-type: none"> 1. We highly recommend Suppressing Windows Updates <ol style="list-style-type: none"> a. Otherwise, your operating system may become incompatible with your system. b. Updating from Windows 10 to Windows 11 <u>is not supported</u>. <ol style="list-style-type: none"> i. Keep whatever version of Windows your system originally shipped with. <p><i>This applies to SimSpray units produced near the end of November 2021 to April 2023. Units produced before or after this have Windows Updates suppressed.</i></p>

MOTION TRACKING:		
Positioning SimSpray for best motion tracking <hr/> Part or environment are too far away, high, low, or rotated incorrectly <hr/> Gun or HMD are not motion tracking properly (wrong location or flying away)	When wearing the HMD: <ul style="list-style-type: none"> ● The part is behind the SimSpray unit ● The environment or part seem: <ul style="list-style-type: none"> ○ far away ○ too high or low ○ rotated incorrectly ● The view in the HMD does not change when you move your head. ● It looks like your view or the gun is/are moving or flying away when you are not moving either. 	Steps: <ol style="list-style-type: none"> 1. Use a compatible environment: <ol style="list-style-type: none"> a. Rotate or aim SimSpray away from windows, TVs, infrared sources, and reflective materials. Minimize reflections or infrared interference. SimSpray uses a camera based tracking system. Cover sources of IR (Infrared) interference, turn off infrared emitting devices, and turn off nearby Bluetooth devices for best results. b. Keep SimSpray away from dust and dirt. It is intended on being used in an office setting, not a paint shop. 2. Use the expected location: <ol style="list-style-type: none"> a. For software version 3.4 or after:

Item/Location	Description/Symptoms	Next Steps/Actions
	<p><i>Correct view (when a user wearing VIVE is facing the SimSpray unit). Notice the virtual part is nearby:</i></p>  <p><i>Incorrect view (when a user wearing VIVE is facing the SimSpray unit). Notice you are seeing the back of the scoreboard:</i></p> 	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>SimSpray 3 Top view</p>  </div> <div style="text-align: center;"> <p>SimSpray Go Top view</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Virtual Part</p> <p>X</p>  </div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Virtual Part</p> <p>X</p>  </div> </div> <p style="margin-top: 20px;">b. For software version 3.3.3 or before:</p> <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>SimSpray 3 Top view</p>  </div> <div style="text-align: center;"> <p>SimSpray Go Top view</p>  </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Virtual Part</p> <p>X</p>  </div> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Virtual Part</p> <p>X</p>  </div> </div> <p style="margin-top: 20px;">3. Check warnings:</p> <ol style="list-style-type: none"> a. Take off the HMD. b. Look at the monitor. c. If any of the following warnings appear, follow the troubleshooting for the corresponding item(s): <ol style="list-style-type: none"> i. “Gun Not Visible / Check Gun Light”

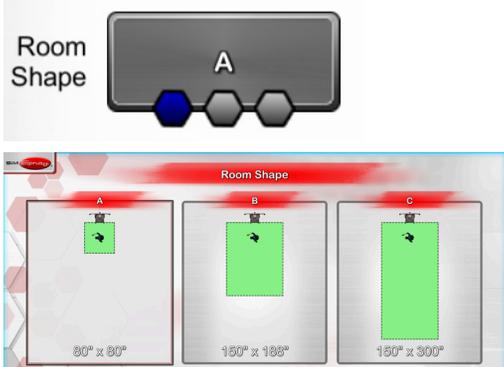
Item/Location	Description/Symptoms	Next Steps/Actions
		<ul style="list-style-type: none"> ii. “HMD Not Visible” iii. “Left Base Station Not Visible” iv. “Right Base Station Not Visible” <ol style="list-style-type: none"> 4. Reset Space (<i>software version 3.2.x or later</i>): <ul style="list-style-type: none"> a. Click the “SimSpray” menu, and select “Reset Space.” b. Follow the onscreen instructions. c. Repeat 1-2 more times if issues are not resolved. 5. Recalibrate (<i>software versions 3.0.x or 3.1.x</i>): <ul style="list-style-type: none"> a. Click the “SimSpray” menu, select “Recalibrate,” and confirm. b. Go back into the motion tracked zone, and put on the HMD. c. Wait up to 1 minute and see if the issue is resolved. d. Repeat 1-2 more times if issues are not resolved. 6. Follow “Jittery motion tracking.” 7. Follow “No gun”. 8. Follow “HMD Not Visible.” 9. If using a Powder Gun, remove the “SimSpray Powder” stickers. (These can sometimes cause infrared reflectivity that can interfere with motion tracking.) 10. Make sure you have not changed the Windows region settings. See Windows Region Settings. 11. If the base station connection feels loose around the screws that hold either in: <ul style="list-style-type: none"> a. Hold the base station as you use an allen wrench to slightly unscrew the screw. b. If you are able to purchase Loctite: <ul style="list-style-type: none"> i. Hold the base station as you use an allen wrench to fully unscrew the screw. ii. Add a drop of Loctite to the screw. iii. Screw the screw back in, but do not tighten. c. Reorient the base station so it is upright (not rotated). d. Retighten the screw via an allen wrench.
No gun	You do not see the virtual gun when you move the physical spray, powder, or blast gun and are wearing the HMD.	<ol style="list-style-type: none"> 1. Power on the VIVE Tracker: <ul style="list-style-type: none"> a. On the gun’s VIVE Tracker, if the status light is off (not lit), ensure the USB is inserted firmly into the back of the Tracker. b. If the status light is white, press and hold the blue button for 1 second, and release.
Gun not visible		
Gun not motion tracked		

Item/Location	Description/Symptoms	Next Steps/Actions
	<p>Warning appears on the monitor.</p> 	 <ol style="list-style-type: none"> i. The light should turn green, orange, or red. ii. If the light turns blue, wait 30 seconds, and it should then turn one of the other colors. c. (If the status light is orange, normally you do not need to press the button to turn the tracker on. It will already be charging and connected.) <ol style="list-style-type: none"> 2. Reposition the gun so the motion tracking system sees it: <ol style="list-style-type: none"> a. Follow steps in “HMD Not Visible.” 3. If the VIVE Tracker light does not turn on: <ol style="list-style-type: none"> a. Check the cable connection to the VIVE Tracker. b. For Blasting, check the cable connection to the SimSpray unit. c. Note: if these do not resolve the issue, you may need to check the connections on the inside of the SimSpray unit. See “Accessing the inside of the SimSpray unit.” Or the cable and/or VIVE Tracker may need to be replaced. Contact VRSim tech support. 4. For Blasting: <ol style="list-style-type: none"> a. Run “Blasting Details.” 5. Make sure you have not changed the Windows region settings. See Windows Region Settings.
Jittery motion tracking	<p>The HMD or Gun jitter excessively or intermittently lose tracking. Or the motion tracking feels stuttery, not smooth, or like it keeps pausing.</p>	<p><i>Note: SimSpray uses a camera based tracking system. Reflections, infrared devices, or other VIVE motion tracking systems in the area may degrade the motion tracking.</i></p> <ol style="list-style-type: none"> 1. Move yourself, your HMD (Head Mount), and your Gun into the motion tracked zone. Follow these, in this order: <ol style="list-style-type: none"> a. “Positioning SimSpray for best motion tracking.”
Intermittent motion tracking		
Pauses or stutters in motion tracking		

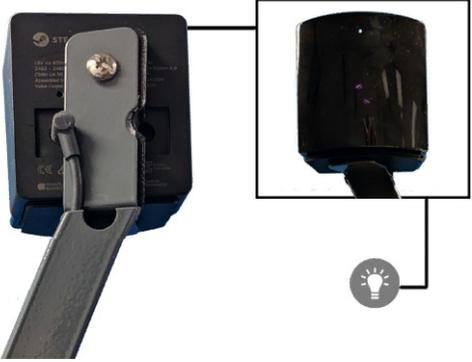
Item/Location	Description/Symptoms	Next Steps/Actions
		<ul style="list-style-type: none"> b. “HMD Not Visible.” c. “Gun Not Visible.” <ol style="list-style-type: none"> 2. Rotate the SimSpray unit. <ul style="list-style-type: none"> a. Rotating the unit (e.g., in 90 degree increments) can decrease environmental issues and improve motion tracking. 3. Reposition the SimSpray unit. <ul style="list-style-type: none"> a. Move the SimSpray unit somewhere else in the room or to a different room. 4. Minimize reflections or infrared interference. <ul style="list-style-type: none"> a. Cover sources of IR (Infrared) interference. b. Turn off infrared emitting devices. c. Reorient, reposition, or move the SimSpray system away from reflective materials or infrared sources. 5. Remove obstructions: <ul style="list-style-type: none"> a. Make sure there are no obstructions between: <ul style="list-style-type: none"> i. The base stations and the gun. ii. The base stations and the HMD. b. If using a SimSpray Go unit, make sure the laptop is as forward as possible. Make sure the fan air vents under the laptop are not blocked. 6. Do not cover the HMD with your hand. <ul style="list-style-type: none"> a. Normally if someone has a hand on the HMD during use, it means the HMD does not fit well. Adjust the top strap and back knob of the HMD so the HMD is a comfortable fit. Make sure to keep your hand off the HMD while painting, blasting, or powder coating. 7. Do not side gun away from the base stations: <ul style="list-style-type: none"> a. If you are holding the gun sideways so the gun body is obscuring the gun’s tracker from line of sight with the base stations, then instead: <ul style="list-style-type: none"> i. Keep the gun vertical and turn the nozzle orientation 90 degrees. ii. Or turn the gun to the other side so it sees the base stations. iii. Or move to the opposite side of the part, and rotate the part 180 degrees around the vertical axis. 8. If there are Bluetooth devices in the room, turn them off so that they don't interfere with hardware pairing. Bluetooth may cause motion tracking drifting.

Item/Location	Description/Symptoms	Next Steps/Actions
		<p>9. If running a software version before v3.4:</p> <ol style="list-style-type: none"> a. Toggle all Visual Cues on and then off every hour of use or when the symptoms occur. b. Alternatively, contact support to see if you are eligible for or can purchase software v3.4 or later. <p>10. If using aSimSpray Go unit:</p> <ol style="list-style-type: none"> a. Make sure the laptop is connected to power (not running on battery): <ol style="list-style-type: none"> i. Tap the Windows key. ii. Look at the system tray. iii. If the laptop is powered, it will show the following icon: <div data-bbox="1423 565 1577 678" data-label="Image"> </div> <ol style="list-style-type: none"> 1. iv. If instead you see the following icon, then check the power cable is connected at back of the laptop, theSimSpray Go power cable is connected to a power outlet, lift up the laptop and foam up, check the laptop power brick is attached to the power strip, and check the laptop power brick is attached to its power cable. <div data-bbox="1423 906 1566 1049" data-label="Image"> </div> <ol style="list-style-type: none"> 1. b. Using the mousepad or mouse, click on the SimSpray software again to focus off of the Windows taskbar. <p>11. If using aSimSpray Go unit:</p> <ol style="list-style-type: none"> a. Verify all laptop fans on the underside of the laptop are running. b. Make sure the laptop fans are not blocked. Bring the laptop forward. <p>12. If using aSimSpray Go unit:</p> <ol style="list-style-type: none"> a. Run laptop performance improvements. <p>13. If using a Blasting Gun:</p> <ol style="list-style-type: none"> a. Run "Blasting Details." <p>14. Make sure there are no other VIVE base stations (as seen below) in the area. If there are:</p>

Item/Location	Description/Symptoms	Next Steps/Actions
		 <ol style="list-style-type: none"> a. Turn off non-SimSpray VIVE base stations. b. Move the SimSpray system to another location. <p>15. Make sure the channels of your SimSpray's motion tracking system are not conflicting with other VIVE base stations in the area. Follow the steps in "Base Station Setup Error / Changing frequencies."</p> <p>16. If using a Powder Gun, remove the "SimSpray Powder" stickers. (These can sometimes cause infrared reflectivity that can interfere with motion tracking.)</p>
Part height, rotation, or position	<ul style="list-style-type: none"> ● The part is too high or low to access it. ● You want to adjust the part rotation around the vertical axis. ● The part is too far forward, back, left, or right. 	<ol style="list-style-type: none"> 1. Change the part height or rotation: <ol style="list-style-type: none"> a. See "In-Sim Tablet use." 2. Adjust the forward-to-back position: <ol style="list-style-type: none"> a. Change the Room Shape: <ol style="list-style-type: none"> i. See "Motion tracked spatial volume adjustment." 3. Adjust the forward-to-back or left-to-right position: <ol style="list-style-type: none"> a. Reset Space: <ol style="list-style-type: none"> i. See "Positioning SimSpray for best motion tracking." 4. Make sure motion tracking is working correctly: <ol style="list-style-type: none"> a. Check warnings, Reset Space, or Recalibrate: <ol style="list-style-type: none"> i. Follow the steps for "Positioning SimSpray for best motion tracking."
Motion tracked spatial volume adjustment	Change the motion tracked zone size (e.g., for larger or smaller rooms).	<p><i>Note: the following applies to v3.3.3 or earlier:</i></p> <ol style="list-style-type: none"> 1. Click on the "SimSpray" menu. 2. Select "Options."

Item/Location	Description/Symptoms	Next Steps/Actions
		<p>3. Press “Room Shape” to toggle the room shape.</p>  <p><i>Note: in SimSpraySimSpray Go, the motion tracked volume has the longer side left-to-right vs. as shown above.</i></p> <p><i>Note: v3.3.2 defaults to room shape B each time the user gets into the virtual environment. v3.4 has a single, default room shape.</i></p>
“HMD Not Visible”	One or more warnings appear on the monitor.	<ol style="list-style-type: none"> 1. Move yourself and your HMD (Head Mount) into the motion tracked zone. Note that you may need to step back, away from the SimSpray unit monitor.
“Left Base Station Not Visible”		<ol style="list-style-type: none"> 2. Remove obstructions: <ol style="list-style-type: none"> a. Make sure there are no obstructions between: <ol style="list-style-type: none"> i. The base stations and the gun. ii. The base stations and the HMD.
“Right Base Station Not Visible”		<ol style="list-style-type: none"> 3. Do not cover the HMD with your hand. <ol style="list-style-type: none"> a. Normally if someone has a hand on the HMD during use, it means the HMD does not fit well. Adjust the top strap and back knob of the HMD so the HMD is a comfortable fit. Make sure to keep your hand off the HMD while painting, blasting, or powder coating. 4. Make sure the small light at the front of each of the two base stations (black boxes on the tops of the metal arms for SimSpray) (black boxes on the inside top of SimSpraySimSpray Go) is lit with a green light. If not: <ol style="list-style-type: none"> a. Access the inside of the SimSpray unit. See “Accessing the inside of the SimSpray unit.” b. Connect the HLO and HRO AC/DC power bricks if either is disconnected from the power strip. c. Wait 30 seconds. d. If either base station’s light is still unlit, continue.

Item/Location	Description/Symptoms	Next Steps/Actions
		<p>e. Connect the HLO and HRO power cable connections to the base stations if either cable is disconnected. Note: for SimSpraySimSpray Go, you may need to unscrew a fastener on the case lid to access the base stations.</p>  <p>f. Wait 30 seconds.</p> <p>g. If this does not resolve the issue, the cables or Base Station may need to be replaced. Contact VRSim tech support.</p>
<p>“Turn on your Vive HMD” reappears after restarting application</p>	<ol style="list-style-type: none"> 1. You follow the instructions on the “Turn on your Vive HMD” screen at startup, and press “Restart Application.” 	<ol style="list-style-type: none"> 1. Press “Restart Application.” Sometimes you may need to do this step ~2-3 times.
<p>Valve Index shows a blue light</p>	<ol style="list-style-type: none"> 2. The same “Turn on your Vive HMD” screen appears after the application restarts. 	<ol style="list-style-type: none"> 2. Follow “No image in the HMD / no light on the HMD.” 3. Follow “Link Box Details.” 4. For SimSpray Go, if using Laptop B (Lenovo Legion 7i), make sure to connect the USB-C dongle to the left, back USB-C (Thunderbolt), not the left, front USB-C port. 5. For SimSpray Go, fully power cycle: <ol style="list-style-type: none"> a. Fully power down the unit. b. After 30 seconds, disconnect the power from the wall. c. Wait 10 seconds. d. Connect the power to the wall. e. Turn on the laptop. f. Wait until SimSpray loads. g. Do not turn on the VIVE linkbox until prompted.

Item/Location	Description/Symptoms	Next Steps/Actions
Cannot complete “Reset Space”	<p>1. After pressing “Proceed” on the “Reset Space” screen, the “Scanning” bar never fills up.</p> 	<ol style="list-style-type: none"> 1. Make sure the gun light is green or orange. Follow “Gun Not Visible.” 2. Make sure no one is standing between the gun and case. 3. Make sure the VIVE tracker is facing the case. 4. Make sure the gun is in the motion tracked space. It must be far enough away that any tables, objects, or the SimSpraySimSpray Go case do not obscure the line of sight between the VIVE Tracker and base stations. I.e., place the VIVE Tracker at least 4’ (1.2m) in front of the case. Move the VIVE Tracker even further away if still having issues. 5. Make sure both base stations have green lights. See “Base Station light codes.” 6. Possibly change base station frequencies. Follow “Base Station Setup Error / Changing frequencies.”
Base Station light codes		<ul style="list-style-type: none"> ● Powered off: <ul style="list-style-type: none"> ○ Light not lit. ● Stabilizing: <ul style="list-style-type: none"> ○ Blue or blinking blue = base station is waiting to stabilize. If it remains in this state, check if it is mounted securely or on a surface that's not prone to vibration. ● Normal: <ul style="list-style-type: none"> ○ Green or white = normal mode. ● Error <ul style="list-style-type: none"> ○ Blinking red = error. See below for troubleshooting.
Base Station red light		<p>This indicates an error, usually from hardware.</p> <ol style="list-style-type: none"> 1. Contact tech support: <ol style="list-style-type: none"> a. Contact your distributor or VRsim. <ol style="list-style-type: none"> i. Fixing this issue normally requires a physical replacement of the base station (VIVE base station 2.0) and/or power cable. b. After getting replacement hardware, follow the instructions to replace a base station. 2. If you need to fix this issue immediately and cannot wait, sometimes but infrequently attempting the following may provide a workaround: <ol style="list-style-type: none"> a. Disconnect the base station’s power cable, H10 or H20, at the top of the arm. Loosely twist the cable in both directions, and

Item/Location	Description/Symptoms	Next Steps/Actions
		<p>reconnect it so it is unbent or only lightly bent. Check if the light is corrected. If not, continue.</p> <ol style="list-style-type: none"> b. “Access the inside of the SimSpray unit.” c. At the back of the unit where the cables are, lightly unbend and untwist the corresponding base station’s power cable, HLO or HRO, and any extension cable attached to it. Check if the light is corrected after doing this.
VIVE HMD light codes		<ul style="list-style-type: none"> ● Powered off: <ul style="list-style-type: none"> ○ Light not lit. ● Normal: <ul style="list-style-type: none"> ○ Green = normal mode. ● Red: <ul style="list-style-type: none"> ○ Red or blinking red = cable, driver, or hardware issue.
VIVE HMD red light		<ol style="list-style-type: none"> 1. Check hardware connections: <ol style="list-style-type: none"> a. See “No Image in the HMD.”

Item/Location	Description/Symptoms	Next Steps/Actions
Valve Index HMD light codes		<ul style="list-style-type: none"> ● Powered off: <ul style="list-style-type: none"> ○ Light not lit. <ul style="list-style-type: none"> ■ Cause: SimSpray unit may be powered off, trident cable disconnected from HMD cable, power disconnected from trident cable, and/or power disconnected from power strip. ● Normal: <ul style="list-style-type: none"> ○ Green = normal mode. ● Standby: <ul style="list-style-type: none"> ○ Blue <ul style="list-style-type: none"> ■ Cause: DisplayPort disconnected from computer, adapter between SimSpraySimSpray Go laptop and Valve Index DisplayPort disconnected, and/or trident USB disconnected from computer. See “Valve Index shows a blue light.” ● Red: <ul style="list-style-type: none"> ○ Red steady = display has failed to initialize. <ul style="list-style-type: none"> ■ Cause: Check all connections listed in “powered off” and “standby” listed above. ○ Read blinking = startup error. <ul style="list-style-type: none"> ■ Cause: make sure the System Button is not being pressed while the headset is turned on. Otherwise, this may be a firmware issue.
VIVE Tracker light color codes (on spray, blast, or powder gun)	Identify what the light means on the gun’s VIVE Tracker.	<ul style="list-style-type: none"> ● Powered off: <ul style="list-style-type: none"> ○ Light not lit. ● Not fully turned on: <ul style="list-style-type: none"> ○ Light is white. ● Normal: <ul style="list-style-type: none"> ○ Green = normal mode. ○ Orange = charging. ○ Blinking red = battery is low. ○ Blinking blue = attempting to pair with the HMD or another device. <ul style="list-style-type: none"> ■ After 30 seconds, pairing attempts will end. ○ Blue = when connecting with the HMD or another device (not normally expected).

Item/Location	Description/Symptoms	Next Steps/Actions
		<p>Notes:</p> <ul style="list-style-type: none"> ● The Tracker may automatically turn off if: <ul style="list-style-type: none"> ○ The battery is drained ○ Pairing has timed out after being idle for more than 30 seconds ○ There was no user movement for 5 minutes

CURRICULUM OR LESSON MODE:		
<p>Curriculum Mode - creating users, signing in, or credentials</p>	<p>When going into Curriculum Mode, you do not know how to create a user or what credentials to use.</p> <p>Note:</p> <ul style="list-style-type: none"> ● Curriculum Mode is in software v3.3 or later. 	<ol style="list-style-type: none"> 1. To access Curriculum Mode for the first time (<i>requires software v3.3.x or later</i>): <ol style="list-style-type: none"> a. Option A: <ol style="list-style-type: none"> i. Create a new student user in Portal. See “Performance Portal - creating users, signing in, or credentials”. <ol style="list-style-type: none"> 1. <i>Note: you will need your teacher or admin to send you the student key for your organization’s account.</i> ii. On the SimSpray unit, go to Curriculum Mode, and enter the same sign in information. b. Option B: <ol style="list-style-type: none"> i. In SimSpray, enter a username and password. ii. Then “Proceed” and select “Yes” to create this new profile. iii. If you have issues creating a user: <ol style="list-style-type: none"> 1. Follow any prompts that come up when you attempt to Proceed after entering a username and passcode.

Item/Location	Description/Symptoms	Next Steps/Actions
		<ol style="list-style-type: none"> 2. Make sure you see a wifi icon in the upper, right. If you do not, Curriculum Mode may be in offline mode. Contact tech support. 3. Otherwise, follow "Curriculum Mode - cannot connect." <ol style="list-style-type: none"> 2. To access Curriculum Mode again: <ol style="list-style-type: none"> a. In SimSpray, go to Curriculum Mode, and sign in. If you forget your credentials, ask your administrator or teacher to find or reset these in: <ol style="list-style-type: none"> i. Portal (https://portal.simspray.net/user/login) on a non-SimSpray computer ii. Admin mode in SimSpray (if your organization setup and uses SimSpray in offline mode only).
Lesson Mode - creating users, signing in, or credentials	<p>When going into Lesson Mode, you do not know how to create a user or what credentials to use.</p> <p>Note:</p> <ul style="list-style-type: none"> • Lesson Mode is in software v3.2.2 or earlier 3.x. 	<ol style="list-style-type: none"> 1. To access Lesson Mode for the first time (<i>requires software v3.2.x or earlier</i>): <ol style="list-style-type: none"> a. Enter a username and password. b. Then "Proceed" and select "Yes" to create this new profile. 2. To access Lesson Mode again: <ol style="list-style-type: none"> a. Sign in. If you forget your credentials, ask your administrator or teacher to find or reset these in Admin mode.
Curriculum Mode - cannot connect	<p>When going into Curriculum Mode, you see this icon or you see another indication the unit is disconnected:</p> <div data-bbox="506 1187 1010 1287" style="border: 1px solid gray; padding: 5px; display: inline-block;"> <p style="text-align: center;">Network connection unavailable.</p>  </div> <p>Note:</p> <ul style="list-style-type: none"> • This feature requires your SimSpray unit is running software version 3.3 or later AND your 	<p>When using Curriculum Mode online, Performance Portal and SimSpray 3.3 require an active internet connection. The connection must be constantly connected or always online for users to access the reporting functionalities and other capabilities in Performance Portal.</p> <ol style="list-style-type: none"> 1. Check that your SimSpray computer is connected to the internet. <ol style="list-style-type: none"> a. If using SimSpray 3, follow "Attaching a mouse and keyboard for tech support". b. Tap the Windows key on the keyboard. c. Once the taskbar is open, find the internet connection icon and click on it.

Item/Location	Description/Symptoms	Next Steps/Actions
	<p>SimSpray unit is connected to the internet.</p>	<p>d.  ,  , or </p> <p>e. Find your local wifi connection, ensure the “connect automatically” box is checked, and then connect to that wifi connection. Enter your wifi credentials if prompted. You do not need the computer to be discoverable. This should be all you need to do to ensure that your unit automatically connects to your wifi when you start it up.</p> <p>i. Note: if the wifi connection is weak or not stable, you may need to add compatible wifi antennas to the computer or use a wired ethernet connection instead.</p> <p>f. Press the Windows key to open the taskbar.</p> <p>g. Type “Chrome” using the keyboard, and hit enter to run SimSpray Google Chrome.</p> <p>h. In Chrome, in the navigation bar at top, type the following, and then press Enter: https://www.google.com/</p> <p>i. Verify the page loads. If not, then diagnose your internet connection or ask your IT for help.</p> <p>2. If using wifi, double check your wifi connection is set to auto connect on startup.</p> <p>a. See the above details.</p> <p>3. Run the Windows Firewall hotfix.</p> <p>4. Verify that you have a stable connection that does not drop.</p> <p>a. If you are having trouble maintaining a constant wifi connection, your unit will benefit from a wired connection or adding wifi antennas.</p> <p>i. Details: wifi antennas were added to SimSpray 3 units shipped late November 2021. SimSpray 3 units before then do not have the antennas but do have wifi. Purchasing a compatible set of antennas may help if using wifi. Alternatively, use a wired ethernet connection instead.</p>

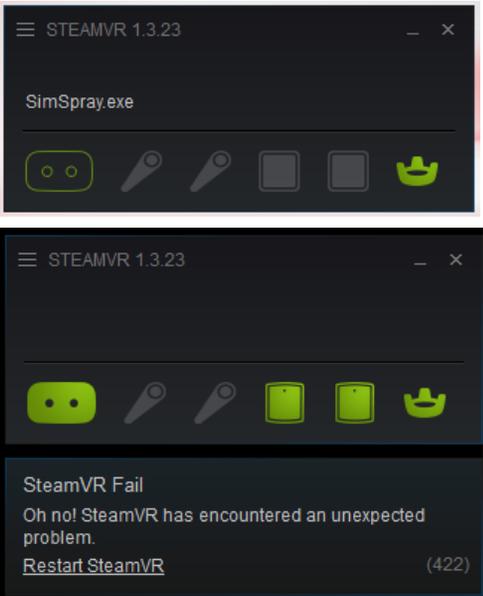
Item/Location	Description/Symptoms	Next Steps/Actions
		<ol style="list-style-type: none"> 5. If using wifi, check that the wifi user the SimSpray computer is signed into that can access the outside internet and is not internally restricted. Ask your IT department if unsure. 6. Verify with your IT department that https://data.simspray.net is not blocked, especially on port 443. This may need to be whitelisted. 7. Contact VRSim tech support.
Curriculum mode - “Hardware ID must be registered”	<p>When trying to create a new user in Curriculum Mode, the following messages display:</p> <ul style="list-style-type: none"> ● “New User Registration” ● “Hardware ID must be registered by support” 	<ol style="list-style-type: none"> 1. Follow Curriculum mode hardware ID.
Curriculum Mode - progress not saved or incorrect	<p>You see any of the following symptoms:</p> <ul style="list-style-type: none"> ● Your Lesson scores are different between Curriculum Mode on SimSpray and the Portal website. ● You have 2 or more SimSpray units, and the Lesson scores in Curriculum Mode are different between the 2 SimSpray units. <p>Note:</p> <ul style="list-style-type: none"> ● Curriculum Mode is in software v3.3 or later. 	<ol style="list-style-type: none"> 1. To have student data show in Portal, the SimSpray unit must be connected to the internet. <ol style="list-style-type: none"> a. Follow “Curriculum Mode - cannot connect”. b. Note: customers who are not allowed to ever connect the SimSpray unit to the internet (e.g., department of defense) may need to switch the unit to offline Curriculum Mode, new to v3.3. Contact tech support for more info about this. <ol style="list-style-type: none"> i. To check if you are in offline mode, go to Curriculum Mode. If you do not see a wifi icon on the top right, then you may be in offline mode. In this mode, your scores will not be saved to Portal. c. <u>Any offline progress will not show in Portal.</u> <ol style="list-style-type: none"> i. Performance Portal does not save or store data, performance, or new users if offline. Any Courses or Lessons completed by students while offline will not show in Portal. ii. For example, if a student attempts to sign in but has no connection, signs in offline, and completes a Lesson, this Lesson attempt will not show in Portal. The data is not synced between offline and online after the SimSpray unit connects back online.

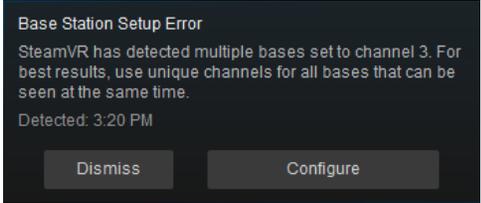
Item/Location	Description/Symptoms	Next Steps/Actions
		<ol style="list-style-type: none"> 2. Custom Paints, Lessons, and Courses are local to the SimSpray unit and will not show in Portal. <ol style="list-style-type: none"> a. SimSpray Portal will not show custom Lessons or Courses. As a teacher, to see student progress, sign into Admin Mode, go to Curriculum, and Export the user data to a USB thumb drive for each SimSpray unit. b. Student scores will be local to the SimSpray unit. I.e., if you have two units A and B, then any progress on A will not show up on B. 3. If using Curriculum Mode in offline mode, student profiles and progress are local to the SimSpray unit the student used. <ol style="list-style-type: none"> a. Student scores will be local to the SimSpray unit. I.e., if you have two units A and B, then any progress on A will not show up on B.

PERFORMANCE PORTAL:

<p>Performance Portal - creating users, signing in, or credentials</p>	<p>In the Performance Portal, you do not know how to create a user or what credentials to use.</p> <p>Note:</p> <ul style="list-style-type: none"> ● This feature requires your SimSpray unit is running software version 3.3 or later AND your SimSpray unit is connected to the internet. 	<ol style="list-style-type: none"> 1. To create a user in Portal: <ol style="list-style-type: none"> a. On a non-SimSpray computer, go to Portal (https://portal.simspray.net/user/login). b. Click “Create new account.” c. Enter your information. d. In the “Key” field enter the SimSpray Portal Student (for students) or Teacher (for teachers) Key <ol style="list-style-type: none"> i. Note: this requires the teacher or admin to provide students with their organization’s Portal student key. If you are a teacher or admin and do not know this key, contact tech support. e. Submit the info by clicking the “Create new account” at bottom. 2. To sign into Portal, sign in here: https://portal.simspray.net/user/login. 3. If you forget your credentials, press the “Reset your password” button on the login page. <ol style="list-style-type: none"> a. Note: teachers may be able to edit student accounts.
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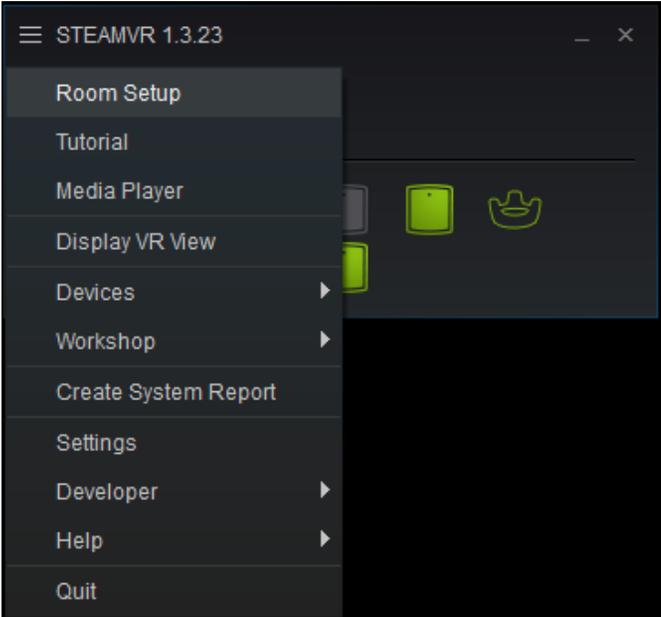
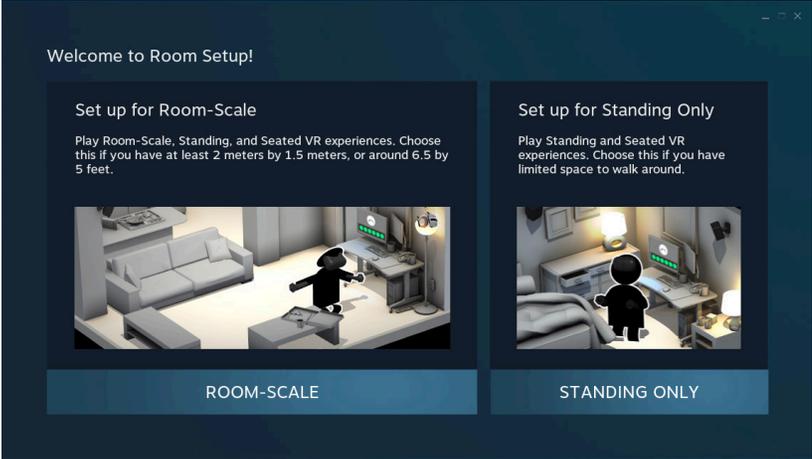
Item/Location	Description/Symptoms	Next Steps/Actions
Performance Portal - progress not saved or incorrect	<p>The progress, scores, or user accounts do not match between your SimSpray unit's Curriculum Mode and what is shown on Portal https://portal.simspray.net/user/login).</p> <p>Note:</p> <ul style="list-style-type: none"> This requires you have SimSpray software version 3.3 or later AND your SimSpray unit is connected to the internet. 	<p><i>Note: student data from SimSpray software version 3.2.2 or earlier will not show up in Portal.</i></p> <ol style="list-style-type: none"> Go to your SimSpray unit, and verify your software version is 3.3 or later. <ol style="list-style-type: none"> Check your software version number. Verify data is sending properly from SimSpray. See "Curriculum Mode - progress not saved or incorrect" Troubleshoot using the Performance Portal help resources: https://portal.simspray.net/help

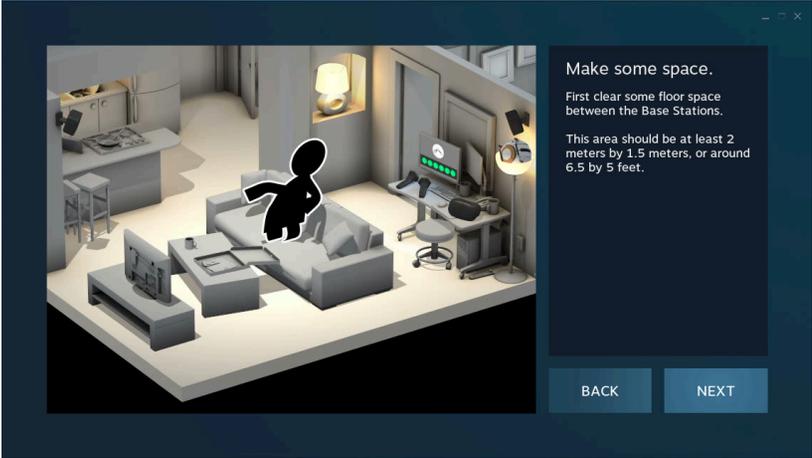
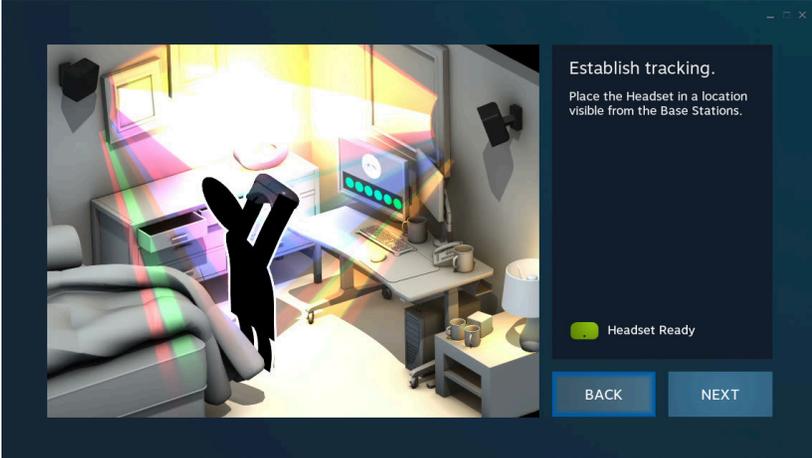
STEAMVR WINDOW:		
STEAMVR window shows up		
"SteamVR Fail"	<p>You see a window such as the following on top of the SimSpray software:</p> 	<p>Normally, you can ignore the STEAMVR window. It runs in the background and sometimes accidentally appears on top. Even if it indicates "SteamVR Fail," often the SimSpray software will work fine.</p> <ol style="list-style-type: none"> Click anywhere on the SimSpray software to bring the SimSpray software into focus and hide the STEAMVR window.

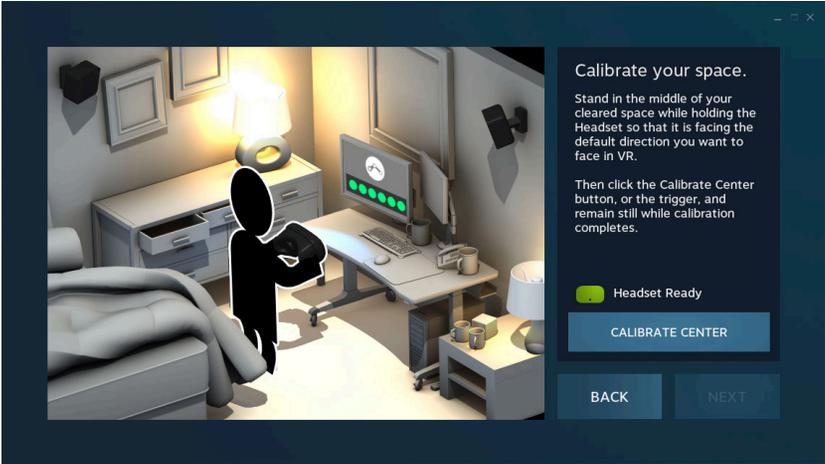
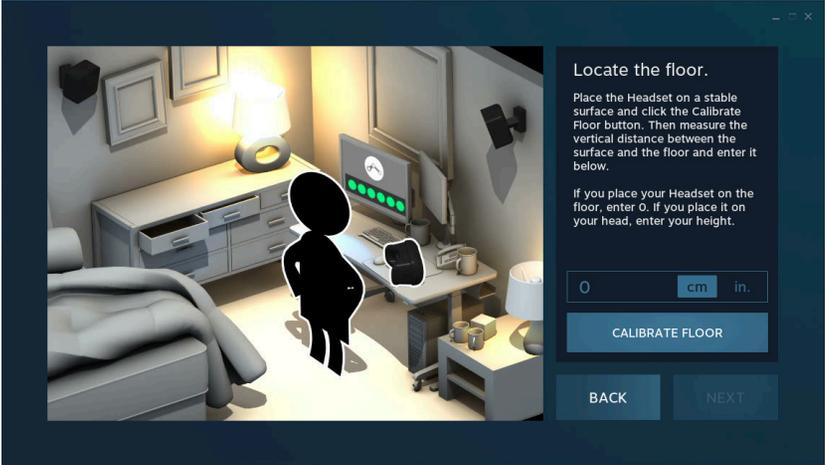
Item/Location	Description/Symptoms	Next Steps/Actions
<p>“Base Station Setup Error” / Changing channel frequencies</p>	<p>You see a window such as the following on top of the SimSpray software:</p> 	<p>One or more non-SimSpray VIVE base station(s) is/are conflicting and on the same channel(s) as your SimSpray’s VIVE motion tracking system.</p> <ol style="list-style-type: none"> 1. If you can, have whoever manages the non-SimSpray VIVE base stations turn their base stations off. If not possible, have them change the base station frequencies so they are unique and not overlapping SimSpray’s. 2. Move the SimSpray to a different room or area away from the non-SimSpray base stations. 3. If that is not possible, on the SimSpray unit, attempt to change the (SimSpray or non-SimSpray) base station channels so they are all unique: <ol style="list-style-type: none"> a. For SimSpray 3: <ol style="list-style-type: none"> i. To add a mouse and keyboard (<i>note: you can potentially do this using the touchscreen only, but using a mouse and keyboard is safer</i>): <ul style="list-style-type: none"> ● Locate the back metal plate of the SimSpray unit. ● Unscrew the 2 top thumbscrews holding it to your SimSpray unit. ● Carefully remove the panel. ● Remove the mouse and keyboard from their box on the inside of the back panel. ● Connect the mouse and keyboard to any available USB port on the SimSpray unit (e.g., at the front USB ports of the SimSpray unit). ● Using the touchscreen, touch the SimSpray window so it is in focus. b. On the keyboard, press and hold ALT, and tap F4. <ol style="list-style-type: none"> i. This will close SimSpray. You will see the desktop. c. On the “Base Station Setup Error” pop up, click “Configure.” d. If you see a yellow triangle with an asterisk next to a channel, click on the underlined channel to change that base station’s current channel. <ol style="list-style-type: none"> i. <i>Note: if you do not get to the screen below, then in SteamVR, you may need to go to the menu at top left->Settings->USB->Refresh. Then go to the menu at top left->Devices->Restart Headset. Then go to the menu at top left->Devices->Base Station Settings->Configure Base Station Channels.</i>

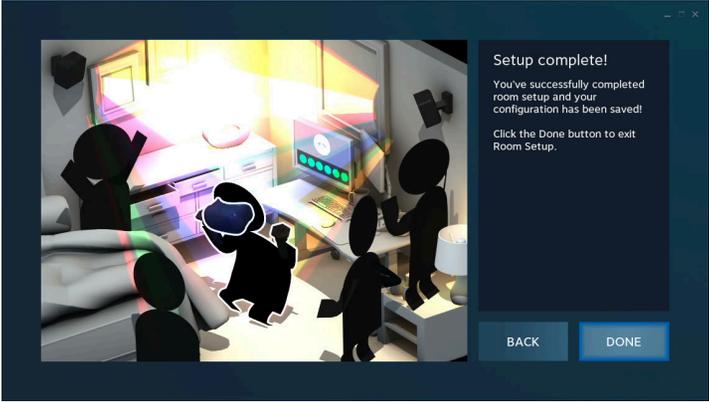
Item/Location	Description/Symptoms	Next Steps/Actions
		<div data-bbox="1234 167 1915 662"> <p>Base Station 2.0</p> <p>Scan Completed.</p> <p>Click on a channel link to change it.</p> <ul style="list-style-type: none"> LHB-5ED85A9A Channel: 1 LHB-5E3B5C03 Channel: 4 LHB-D131177D Channel: 5 LHB-50247420 Channel: 6 LHB-2E156B3C Channel: 1 LHB-B13BC0F4 Channel: 2 <p>Visible now in this tracking session (blue eye icon) Observed in a prior tracking session (grey eye icon) Click to identify Base Station (gear icon)</p> <p>Buttons: Scan For More, Automatic Configuration, Done</p> </div> <p>e. Select an unused channel from the available list, and click “Apply.”</p> <div data-bbox="1234 711 1915 1190"> <p>Base Station 2.0 Channel Configuration</p> <p>Configuring LHB-50247420 on Channel 6</p> <p>Select an unused channel for this Base Station to avoid potential tracking conflicts.</p> <p>✓ No conflict on Channel 6</p> <p>Grid of channels 1-16. Channel 6 is selected and highlighted with a dashed circle.</p> <p>Denotes a channel used by other Base Stations in radio proximity.</p> <p>Buttons: Cancel, Apply</p> </div> <p>f. Continue this process until all channels are unique.</p> <p>g. Click “Done.”</p> <p>h. Double click on the “SimSpray” icon.</p> <p>i. Test going in and painting, blasting, or powder coating.</p> <p>j. If there are issues with motion tracking:</p> <ol style="list-style-type: none"> Fully power off the SimSpray unit as normal. After it is off, remove the power cable from the power outlet. Wait 15 seconds.

Item/Location	Description/Symptoms	Next Steps/Actions
		<ul style="list-style-type: none"> iv. Plug the power cable into the power outlet, and turn the system on. v. Retest. k. If there are issues, follow “Reconfiguring motion tracked zone (Room Setup) / Fixing height offset.”
<p>Reconfiguring motion tracked zone (Room Setup) / Fixing height offset</p>	<p>For normally correcting gun or HMD motion tracking, see the other entries above in the “Motion Tracking” section.</p> <p>In extreme situations (e.g., changing VIVE base station channels), it’s possible the gun and HMD will not properly motion track, and the motion tracking zone needs to be partly reconfigured. This may occur if the VIVE base station channels were changed.</p>	<p><u>In normal use, you should not need to do this.</u> If you changed VIVE base station channels (see “Base Station Setup Error”), you may need to do this.</p> <ol style="list-style-type: none"> 1. For SimSpray 3: <ul style="list-style-type: none"> a. To add a mouse and keyboard (<i>note: you can potentially do this using the touchscreen only, but using a mouse and keyboard is safer</i>): <ol style="list-style-type: none"> i. Locate the back metal plate of the SimSpray unit. ii. Unscrew the 2 top thumbscrews holding it to your SimSpray unit. iii. Carefully remove the panel. iv. Remove the mouse and keyboard from their box on the inside of the back panel. v. Connect the mouse and keyboard to any available USB port on the SimSpray unit (e.g., at the front USB ports of the SimSpray unit). vi. Using the touchscreen, touch the SimSpray window so it is in focus. 2. On the keyboard, press and hold ALT, and tap F4. <ul style="list-style-type: none"> a. This will close SimSpray. You will see the desktop. 3. On the SteamVR window, click on the 3 horizontal lines at top, left, and choose "Room setup."

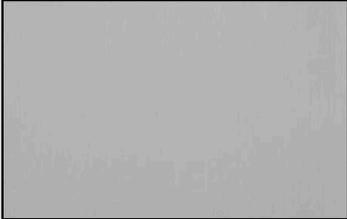
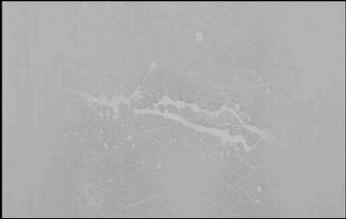
Item/Location	Description/Symptoms	Next Steps/Actions
		 <p>4. Click "Standing only."</p>  <p>5. Click "Next."</p>

Item/Location	Description/Symptoms	Next Steps/Actions
		<div data-bbox="1136 168 1948 626">  </div> <p data-bbox="1083 639 1934 667">6. Hold the HMD in front of and facing the SimSpray unit. Click "Next."</p> <div data-bbox="1136 675 1948 1133">  </div> <p data-bbox="1083 1146 1976 1214">7. Hold the HMD in front of, facing, and centered left-to-right in relation to the SimSpray unit. Click "Calibrate Center." Wait for the bar to fill up.</p>

Item/Location	Description/Symptoms	Next Steps/Actions
		<p>Then click "Next."</p>  <p>8. Leave the floor value at the default 0 cm. Place the HMD on the floor, a few feet in front, centered left-to-right, and facing the SimSpray unit. Click "Calibrate floor." Wait for the bar to fill up. Click "Next."</p>  <p>9. Click "Done."</p>

Item/Location	Description/Symptoms	Next Steps/Actions
		 <p>10. Double click on the SimSpray shortcut on the desktop. 11. Test going in and painting, blasting, or powder coating. 12. When issues are resolved, if you took out the mouse and keyboard, put them back, put the back metal plate back on, and tighten the 2 thumb screws to attach the plate back onto the SimSpray unit.</p>

WHERE TO PAINT, BLAST, OR POWDER THE PART:		
Live Scene - where to paint, blast, or powder coat on the part	Certain areas of the virtual part are expected to be painted, blaster, or powder coated. Other areas are not.	<p>Some areas are unscorable and not expected to be painted. These areas are often indicated with a surface that is unclear.</p> <p>If you paint in these areas, your Transfer Efficiency will decrease because material is wasted, and your Mil Build Score will <i>not</i> increase. Other parameters such as Angle, Distance, and Speed will still be scored.</p>
Scorable regions		
No mil build score or 0 mil build		

Item/Location	Description/Symptoms	Next Steps/Actions
		<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Clean Paint, Blast, or Powder Coat this side.</p> </div> <div style="text-align: center;">  <p>Unclean <i>Don't</i> Paint, Blast, or Powder Coat this side.</p> </div> </div> <p>If you are facing the front of the unit with your HMD on, you are expected to:</p> <ul style="list-style-type: none"> ● Paint or blast: <ul style="list-style-type: none"> ○ For SimSpray 3: <ul style="list-style-type: none"> ■ Starting v3.4: The front facing side of most parts. ■ v3.3.3 or earlier: The right facing side of most parts. ○ For SimSpraySimSpray Go: The front facing side of most parts. ○ The top of most horizontal parts. ● Powder coat: <ul style="list-style-type: none"> ○ In the Electrostatic Booth Environment: the full part. ○ In the Electrostatic Conveyor Environment: <ul style="list-style-type: none"> ■ Starting v3.4: The front facing side of most parts. ■ v3.3.3 or earlier: The right facing side. ● See "Positioning SimSpray for best motion tracking."

EXTERNAL DISPLAY:		
TV, projector, smart board, or monitor adding	How to	Use an additional external display if you want more people to be able to see the image and (optionally) hear the sound of SimSpray:

Item/Location	Description/Symptoms	Next Steps/Actions
		<ol style="list-style-type: none"> 1. Verify the external display (TV, projector, or monitor) supports 1920x1080 resolution and progressive scanning (1080p). 2. Connect an HDMI cable to the SimSpray HDMI out. <ol style="list-style-type: none"> a. For SimSpray 3: this port is located at the back or, for older units, on the inside near the power button. b. For SimSpraySimSpray Go: this is located on the HDMI splitter behind the laptop. 3. Connect the cable to the external display's HDMI in. 4. Turn on the external display. 5. Make any other AV adjustments on the external display (e.g., which video input is being used, scaling, zoom, sound unmuted and volume adjustment). <p>Notes:</p> <ul style="list-style-type: none"> ● The SimSpray image is intended to display on both the monitor and external display. ● Sound is intended to play from the SimSpray speakers and external display for external displays that support sound. ● Touch will only work on the SimSpray 3 touchscreen.
TV, projector, smart board, or monitor no, fuzzy, or pixelated image		<ol style="list-style-type: none"> 1. See “TV, projector, smart board, or monitor adding.” 2. Fully power cycle SimSpray off and then on. See “Setting up and powering off” and “Setting up and powering on.”

ADMIN MODE:		
Cannot access Admin mode		<ol style="list-style-type: none"> 1. After turning on the system and selecting a product, click on “Admin.” 2. Use the code provided with your system. It is typically printed on a small card. <ol style="list-style-type: none"> a. If someone in your organization has changed the code, request this from them. b. If you do not know the new code or cannot find the default passcode, contact tech support.
Outputting student lesson completion	How to	<ol style="list-style-type: none"> 1. Insert a USB thumb drive into one of the USB outputs. 2. Go into “Admin” mode. See “Cannot access Admin mode.” 3. See Tracking Lesson Progress on http://support.simspray.net/.

Item/Location	Description/Symptoms	Next Steps/Actions
Outputting Paintometer Info	How to	<ol style="list-style-type: none"> 1. Insert a USB thumb drive into one of the USB outputs. 2. Click on “Options” and then “Paintometer.” 3. Go to the advanced options, and select to output a snapshot of the data.
Paint Editor has too large values	The Paint Editor values in Admin Mode are large, and when editing the values the value ranges are more restricted than normal.	<ol style="list-style-type: none"> 1. Make sure you have not changed the Windows region settings. See Windows Region Settings.

NO POWER:		
Unit not powering on	The SimSpray or Go unit does not power on.	<ol style="list-style-type: none"> 1. For SimSpray: <ol style="list-style-type: none"> a. Check the power extension cable on the outside of the unit is tightly connected to the shorter power strip cable. b. Check the power cable is connected to the wall outlet. c. Press the power button at the front of the unit. d. If the unit does not power on, continue. e. Follow “Accessing the inside of the SimSpray unit.” f. Check the computer is connected to a power cable, and this is connected to the power strip. g. Check the unit’s front power button is connected to the internal computer. 2. For SimSpray Go: <ol style="list-style-type: none"> a. Check the power cable is connected to the wall outlet. b. Check the laptop power cable is connected to the laptop. c. Lift up the laptop foam and: <ol style="list-style-type: none"> i. Check the laptop cable is connected to the power strip. ii. Check the laptop power brick is connected to the power cable (if it is a 2-part power supply). d. Press the power button on the laptop.

NO IMAGE:		
No image on the monitor		For SimSpray 3: <ol style="list-style-type: none"> 1. Verify there is a light on the bottom, right of the touchscreen. If not, then press the power button.

Item/Location	Description/Symptoms	Next Steps/Actions
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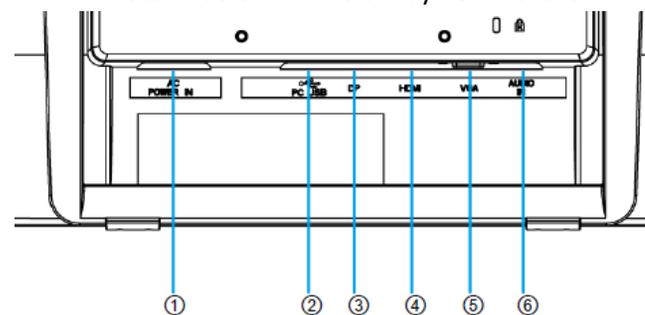
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- a. Note: the buttons on some monitors may be locked so users cannot accidentally turn off the monitor.



①	OSD Turn On/ Off
②	Scroll Down/ Adjust Decrease/ Brightness / Auto *
③	Scroll UP/ Adjust Increase/ Blue Light Reducer *
④	Input select/ Confirm Selection
⑤	Power On/ Off
⑥	LED Indicator

2. Verify the connections on the back of the monitor.
- a. Note: labeled numbers may be different.

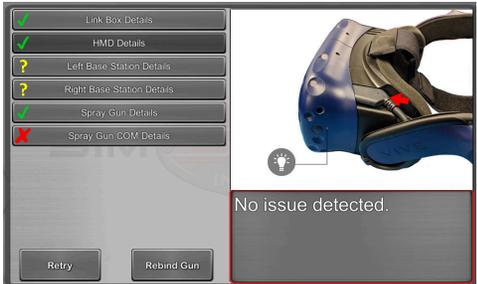


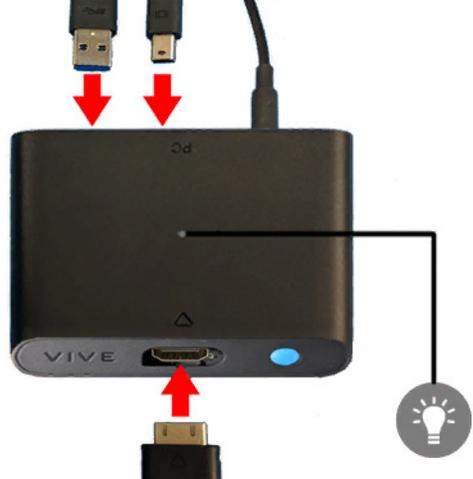
①	Power Input
②	Up-stream USB port (to PC)
④	HDMI input (HDMI 19 pin)

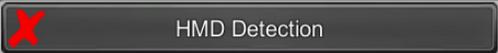
Item/Location	Description/Symptoms	Next Steps/Actions
		<ol style="list-style-type: none"> 3. Follow "Accessing the inside of the SimSpray unit." 4. Check the monitor cable and power connections (monitor, computer, power strip).
<p>No image in the HMD / no light on the HMD</p>		<ol style="list-style-type: none"> 1. If seeing only a blue image, then follow "HMD Not Visible." 2. If seeing "Please view screen," then take off the HMD and look at the monitor. 3. Put on the HMD, stand in front of your SimSpray unit, and make sure the HMD has line of sight with both base stations. 4. If using a VIVE HMD, check these connections: <ol style="list-style-type: none"> a. Verify there is a green light on the HMD. b. If there is no light: <ol style="list-style-type: none"> i. While facing the lenses, push up the bottom, left button of the HMD, and slide the front of the HMD forward. Let go of the button. This is to give you the most access to the cable at the top of the HMD. ii. Verify the cable going into the HMD at the HMD is secure and connected. If unsure, push the cable forward, into the HMD. iii. Ensure the cable is looped around and embedded into the cable channel on the left side of the HMD. c. Follow "Link Box Details." 

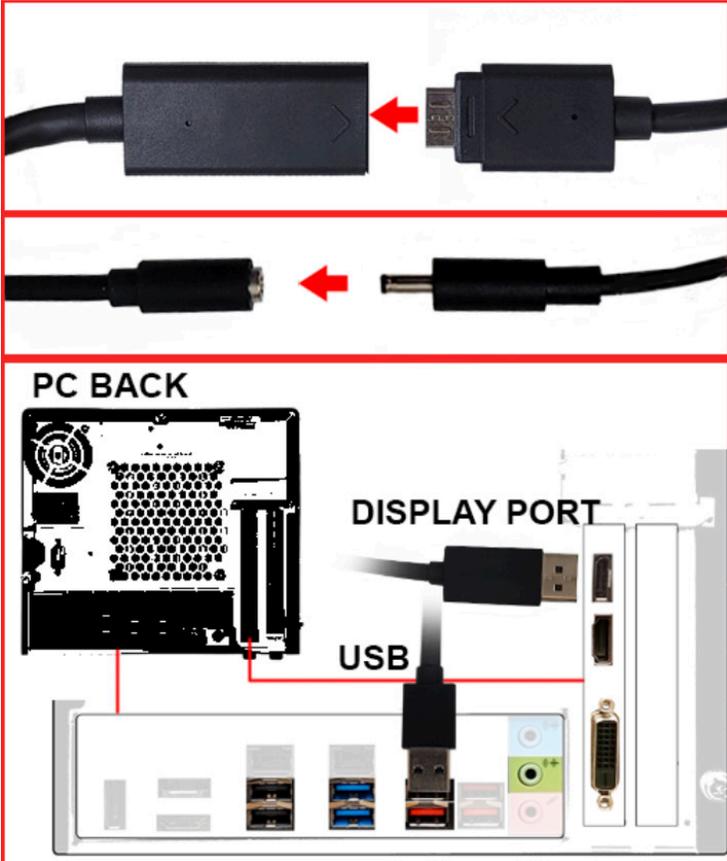
Item/Location	Description/Symptoms	Next Steps/Actions
		<ul style="list-style-type: none"> d. For SimSpray Go, if using Laptop B (Lenovo Legion 7i), make sure to connect the USB-C dongle to the left, back USB-C (Thunderbolt), not the left, front USB-C port. e. If using a SimSpraySimSpray Go: <ul style="list-style-type: none"> i. While the computer is starting up, repeatedly press F2 to get into the BIOS. Locate and disable always on USB power. ii. Make sure to fully power down the unit and fully power it up during a new session. When powering off, make sure to power down the laptop, wait for it to fully turn off, and then remove the wall plug at the end of each session. iii. When powering on SimSpraySimSpray Go, plug in the plug, turn on the laptop, wait for it to indicate if a linkbox needs to be turned on, and follow the onscreen instructions. <ul style="list-style-type: none"> 1. Turning on the linkbox while the laptop is powering up is not supported. 5. If using a Valve Index HMD, follow "HMD Detection." 6. Run performance improvements: <ul style="list-style-type: none"> a. If using a SimSpray 3: <ul style="list-style-type: none"> i. Run computer performance improvements b. If using a SimSpraySimSpray Go: <ul style="list-style-type: none"> i. Run laptop performance improvements 7. In Windows, check Device Manager for an "Unknown device." 8. Contact VRSim support. Replacement hardware may be needed.

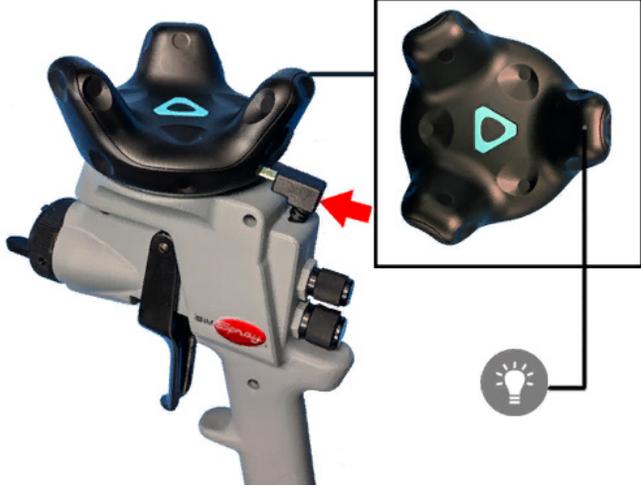
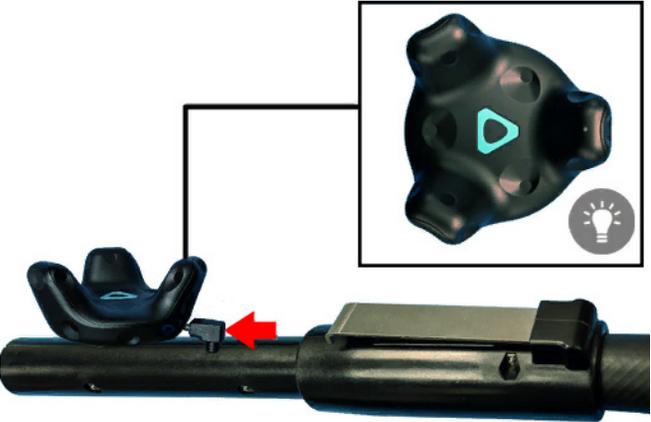
HARDWARE ERROR CHECK SCREEN:

Hardware error check screen	<p>Hardware error check screen comes up</p> 	<ul style="list-style-type: none"> 1. Follow the instructions on the monitor. 2. Find the corresponding item in this documentation and follow those instructions.
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Item/Location	Description/Symptoms	Next Steps/Actions
<p>“Link Box Details”</p>	<p>Error.</p> 	<ol style="list-style-type: none"> 1. Verify power to the Link Box: <ol style="list-style-type: none"> a. Check that the status light on the VIVE Link Box (the box attached directly to the HMD) is on. b. If the status light is off, press the blue button on the Link Box to turn the Box on.  <ol style="list-style-type: none"> c. Ensure that all cables shown are plugged into the link box. <ol style="list-style-type: none"> i. 1 cable goes directly to the HMD. ii. 3 cables go out. These attach to the computer.  <ol style="list-style-type: none"> d. Press “Retry” if needed.
<p>“HMD Details”</p>	<p>Error.</p>	<ol style="list-style-type: none"> 1. Follow <u>“No image in the HMD / no light on the HMD.”</u>

Item/Location	Description/Symptoms	Next Steps/Actions
		
<p>“HMD Detection”</p>	<p>Error.</p> 	<ol style="list-style-type: none"> 1. Check that the Valve Index lights are green.  <ol style="list-style-type: none"> 2. If not: <ol style="list-style-type: none"> a. Check the connection from the Valve Index HMD to the trident cable. b. Check from the trident cable to the power. c. Check the USB to the computer connection. d. Check the DisplayPort to the computer connection. For SimSpray Go, this includes checking the adapter to the laptop. e. Make sure the power is in the power strip.

Item/Location	Description/Symptoms	Next Steps/Actions
		
"Left Base Station Details"	Error or warning.	<ol style="list-style-type: none"> 1. Follow "Left Base Station Not Visible." 2. Press "Retry" if needed.
"Right Base Station Details"	 	
"Spray Gun COM Details"	Error.	<ol style="list-style-type: none"> 1. Press "Retry." <ol style="list-style-type: none"> a. <i>(Note: this is a known bug that occurs each time the SimSpray or SimSpraySimSpray Go unit is turned on in v3.2.2.)</i>
"Blasting COM Details"		
"Powder COM Details"	 	<ol style="list-style-type: none"> 2. There may be a problem with the connection between your gun and computer. Check this on both ends. 3. If not resolved, contact tech support.

Item/Location	Description/Symptoms	Next Steps/Actions
"Spray Gun Details"	Error.  Spray Gun Details	<ol style="list-style-type: none"> 1. Verify the gun's VIVE Tracker is powered: <ol style="list-style-type: none"> a. Follow "Gun Not Visible / Check Gun Light." 2. Make sure the USB cable going into the VIVE Tracker is connected. 3. Press and hold the VIVE tracker until it turns blue.
"Blasting Details"	 Blasting Gun Details  Powder Details	
"Powder Details"		 

Item/Location	Description/Symptoms	Next Steps/Actions
		 <p>4. If using a Blasting Gun:</p> <ol style="list-style-type: none"> a. If the VIVE tracker is green or white, then: <ol style="list-style-type: none"> i. Follow the blasting cable back to the USB connection. ii. Disconnect the USB cable from the SimSpray 3 unit. iii. Undo the cable wrap and electrical tape connecting the Y-cable to the rest of the cables. Set the Y-cable aside. iv. Connect the 2 USB cables to your SimSpray unit v. Select “Retry” onscreen. <p>5. Make sure you have not changed the Windows region settings. See Windows Region Settings.</p>

LAUNCHER SCREEN:		
Launcher screen	Launcher screen comes up	<p>Applies to VIVE Pro 2 HMD only. The launcher screen comes up</p> <p>This screen comes up:</p> <ol style="list-style-type: none"> 1. After the SimSpray 3 unit or SimSpray Go laptop is turned on and Windows loads. 2. Follow the instructions on the monitor.

Item/Location	Description/Symptoms	Next Steps/Actions
		

ACCESSING INTERNAL HARDWARE:		
<p>Accessing the inside of the SimSpray unit</p>	<p>If you need to access the interior of the SimSpray unit to check connections</p>	<p>SimSpray 3:</p> <ol style="list-style-type: none"> 1. Locate the back metal plate of the SimSpray unit. 2. Unscrew the 2 top thumbscrews holding it to your SimSpray unit. 3. Carefully remove the panel. <p>SimSpraySimSpray Go:</p> <ol style="list-style-type: none"> 1. Power down the laptop. 2. Disconnect the laptop connections. 3. Remove the laptop. 4. Lift up and remove the foam.
<p>Attaching a mouse and keyboard for tech support</p>	<p>If VRSim tech support asks you to attach your mouse and keyboard in order to access your computer, follow these instructions.</p>	<p>SimSpray 3:</p> <ol style="list-style-type: none"> 1. To add a mouse and keyboard (<i>note: you can potentially do this using the touchscreen only, but using a mouse and keyboard is safer</i>): <ol style="list-style-type: none"> a. Locate the back metal plate of the SimSpray unit. b. Unscrew the 2 top thumbscrews holding it to your SimSpray unit. c. Carefully remove the panel. d. Remove the mouse and keyboard from their box on the inside of the back panel. e. Connect the mouse and keyboard to any available USB port on the SimSpray unit (e.g., at the front USB ports of the SimSpray unit).

Item/Location	Description/Symptoms	Next Steps/Actions
Detaching a mouse and keyboard after tech support	After tech support is done, VRSim tech support may ask you to replace the mouse and keyboard into your SimSpray unit.	SimSpray 3: <ol style="list-style-type: none"> 1. With the SimSpray unit's back panel off, place the mouse and keyboard back into their box on the inside of the back panel. 2. Place the back metal plate back on. 3. Tighten the 2 thumb screws at the top of the back metal plate to attach it to the back of the SimSpray unit.

PAINTING:		
Changing air or fluid pressure does not change the paint	On the Equipment settings page or when using the In-Sim Tablet, changing the air or fluid pressure does not affect the physics.	Changing the air or fluid pressure is not intended to and does not affect the paint type or physics. These numbers are there only to expose users to and reinforce proper settings ranges.
Changing equipment settings has no effect in Powder		In Powder, the Powder Delivery, Total Air, Current, and Voltage settings on the Equipment page and In-Sim Tablet do not gate (do not prevent the user from going into Powder Coating), can switch back to defaults, and have no effect on the Powder physics. The tip type does change the physics.
Equipment settings keep defaulting	After changing an equipment setting, it changes back to a default.	In Powder, the Powder Delivery, Total Air, Current, and Voltage settings may not actually gate (this is a known bug), settings may default back if changed (this is a known bug), and these settings do not affect physics (as designed). See bugs 9733, 10975, 10977, 10978. For liquid Paint in v3.4.x+, here are steps that can cause equipment settings to default back: <ol style="list-style-type: none"> 1. On the equipment settings page, change the air and/or fluid pressure for liquid paint. 2. Get into painting. 3. On the in sim tablet, go to equipment settings. 4. Notice the pressures (air and/or fluid) (as shown both on the in sim tablet and monitor) are set back to the defaults. 5. Change the pressures in sim, and exit the pressures menu. 6. Repeat steps 3-4. Workaround for Paint: Change Machine Settings in Admin mode to Manual.

Item/Location	Description/Symptoms	Next Steps/Actions
Dripping paint	Drips keep forming when painting.	<ol style="list-style-type: none"> 1. Put down less paint by changing your technique (angle, distance, or speed) or by adjusting the gun settings (tip size, amount of trigger pull, or fan pattern). 2. Drips form when too much paint is applied (when the Coverage Map shows deep red). The allowable Mil Build range is defined by the chosen Paint. Choose a different Paint or make a custom Paint. 3. If running a software version before v3.4: <ol style="list-style-type: none"> a. Toggle all Visual Cues on and then off every hour of use or when the symptoms occur. b. Alternatively, contact support to see if you are eligible for or can purchase software v3.4 or later.

IN-SIM TABLET:		
Finding the In-Sim Tablet	While wearing the HMD, cannot find the In-Sim Tablet	<ol style="list-style-type: none"> 4. Make sure you are in the paint, powder, or blast environment. 5. Move closer to one of the walls until the Tablet appears. By default, the Tablet will typically be found docked on the inside of the closest of the four walls of the tracking environment. Note that the User will normally need to turn around to see the Tablet. 6. To redock the Tablet to the side walls, point the Gun at any of the 'Return' boxes located on the walls.
In-Sim Tablet use	Unsure how to use the In-Sim Tablet	<p>The In-Sim Tablet makes it easy to do common actions while keeping the HMD (helmet) on.</p> <p>Controls:</p> <ol style="list-style-type: none"> 1. Coating – View Coating Mode. 2. Coverage Map – Enable or disable Coverage Map Mode. 3. Defects – View Defects. Select the defect to highlight from a secondary menu. <i>Note: defect selection is limited to applicable defects in the selected process.</i> 4. Angle – Enable or disable the Angle Cue. 5. Distance – Enable or disable the Distance Cue. 6. Speed – Enable or disable the Speed Cue. 7. Controls shown here are dictated by the selected processes. These controls include:

Item/Location	Description/Symptoms	Next Steps/Actions
		 <p>Conveyor Speed – Adjust the conveyor line speed. <i>Note: this is only visible in the conveyor environment.</i></p>  <p>Edge Blending – Enable or disable the Edge Blending Cue. <i>Note: this is only visible in the HVLP Edge Blending process.</i></p> <p>8. Remove One – Remove the current Coat.</p> <p>9. Remove All – Remove all Coats.</p> <p>10. Equipment Settings or Part Adjustment– Adjust Equipment Settings, including Tip Size, Pressures, part height location, or part rotation (<i>in software version 3.2</i>).</p> <p>11. Lines – Enable or disable 3D line replay of Gun movement.</p> <p>12. End Coat / Project – End the current Coat. If on the last Coat, this ends the Project. <i>Note: in the conveyor environment, use this button to also start the conveyor line.</i></p> <p>13. Coat Selection – Use the left and right arrows to view the information (Score, Coating, Coverage, 3D lines, Defects) of the ‘previous’ or ‘next’ Coat(s).</p>

Item/Location	Description/Symptoms	Next Steps/Actions
MISCELLANEOUS		
Changing the size of the tracked zone	How to	<ol style="list-style-type: none"> 1. Click “Options,” and choose the item you wish to change. 2. Click “Options” again to close the menu. <p><i>Note: the motion tracked zone cannot be changed in some versions of SimSpray.</i></p>
Changing language		
Changing units of measurement (metric/imperial)		
Changing date and time formats		
Edit or make your own projects, lessons, or courses	<p>If you want to change the following:</p> <ul style="list-style-type: none"> ● Number or type of coats ● Dry film thickness ● Equipment settings (air and/or fluid pressure) ● Angle, distance, and/or speed ideals or ranges ● Which visual cues are allowed ● Target score for a lesson 	<ol style="list-style-type: none"> 1. Go into “Admin” mode. See “Cannot access Admin mode.” 2. See Managing Content on http://support.simspray.net/.
Saving student reports	How to	<p><i>Requires software v3.2.x or earlier:</i></p> <ol style="list-style-type: none"> 1. Insert a USB thumb drive into one of the USB outputs. 2. See Student Reports on http://support.simspray.net/.