



**FORKLIFT-
SIMULATOR**

SDM
FORKLIFT-SIMULATOR
SEATED DESKTOP MODEL

GETTING STARTED

Congratulations on your brand new VR Forklift-Simulator!

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WHAT IS IN THE BOX?

UNBOXING THE REACH TRUCK SIMULATOR - FLIGHT CASE

The desktop model comes in a military grade transport case.



WHAT IS IN THE BOX

- 1 Desktop Module
- 2 Floorboard
- 3 Quest 3 headset with battery-comfort strap and charger
- 4 Tablet and charging cable
- 5 1 UTP Cable (floorboard-desktop connection)
- 6 12V power adapter for desktop module
- 7 USB to HDMI adapter
- 8 50 RFID badges

WARNING !



IMPORTANT:

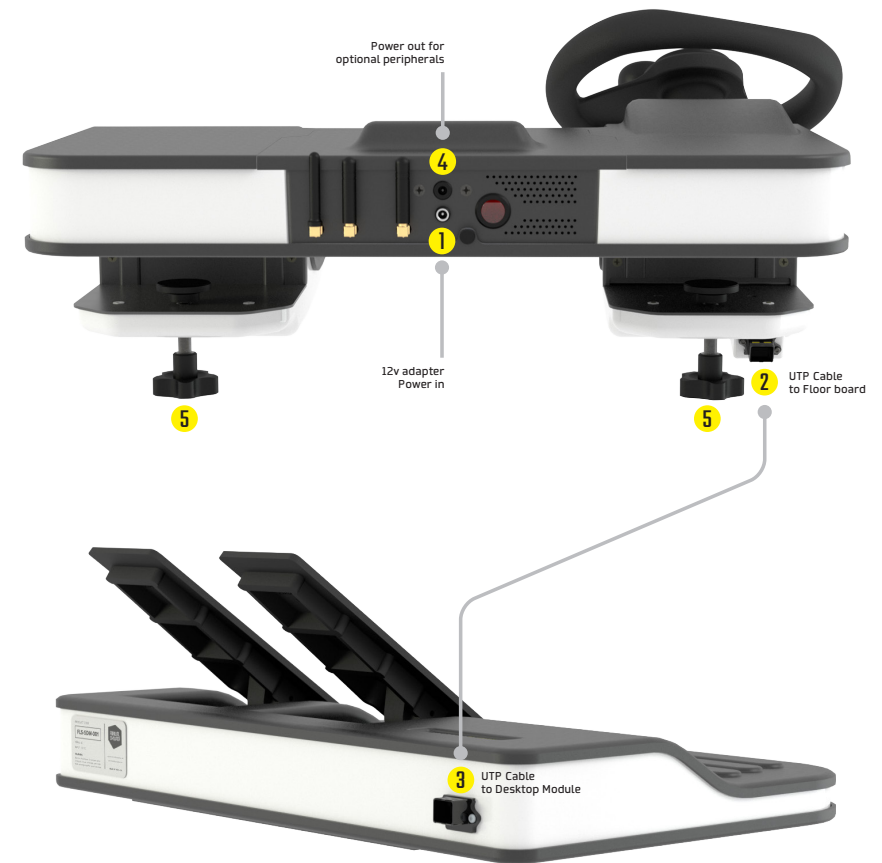
For your own safety and the safety of others:

1. Always ensure the desktop module is securely clamped to your desk or table to prevent it from sliding off during your VR session. Do not use a desk that is too thin or thick for the thumb screws to properly secure the module.
2. Use a stable, non-rolling table or desk that won't tip over. Avoid light, foldable tables and those on wheels. We recommend a heavy table with a wide base or one that is fixed to the floor.
3. Never let a first-time user operate the simulator unattended. Ensure they are fully familiar with the equipment and understand how to use it safely before their session.
4. We recommend a stationary chair that does not roll or swivel.

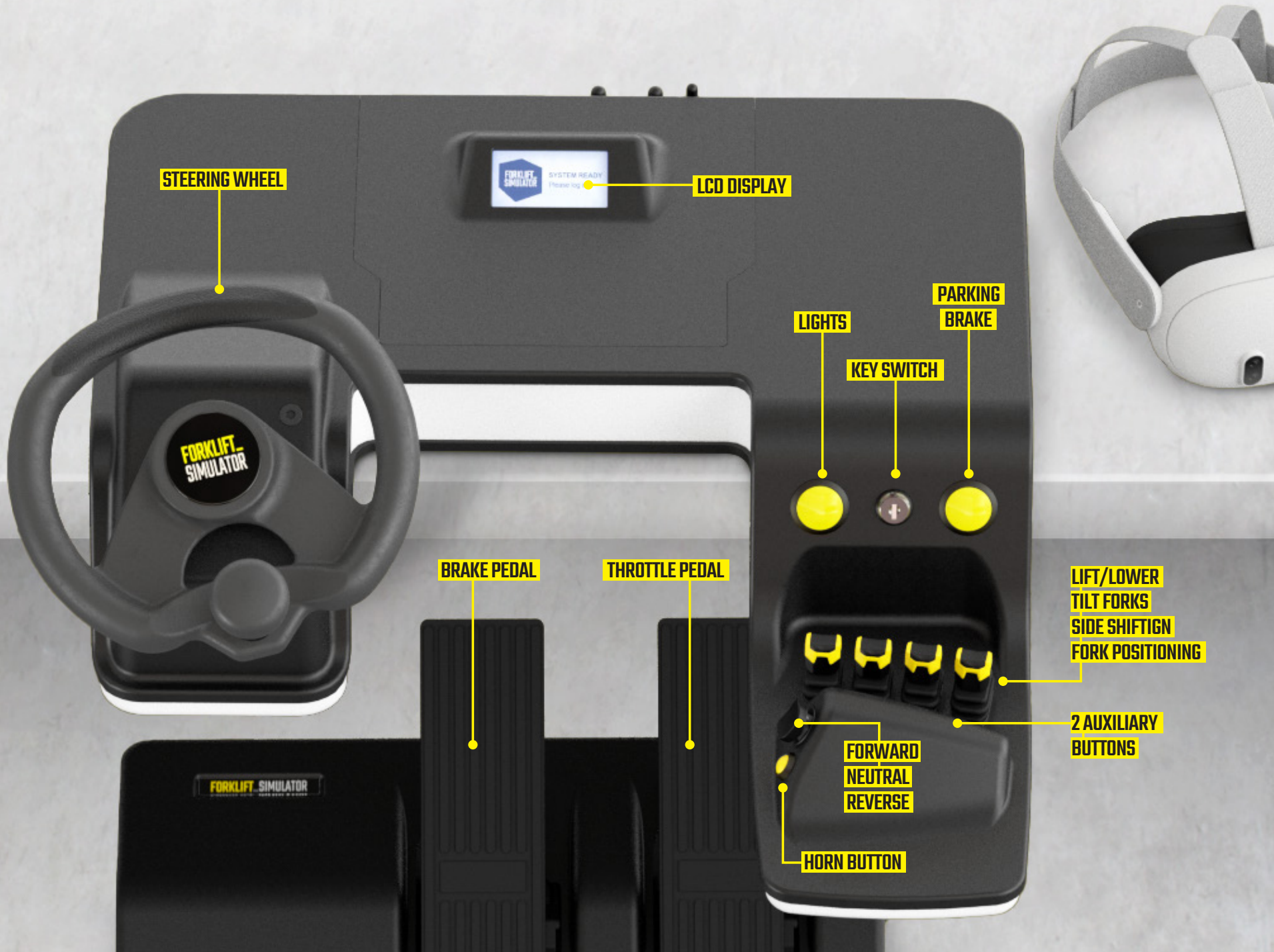
SETTING UP - HARDWARE

SETTING UP THE UNIT

To set up your unit for use, follow these simple steps.



- 1 12v Power adapter (Power in)
- 2 UTP connector (desktop module to floorboard)
- 3 UTP connector (floorboard to desktop module)
- 4 Power out (reserved for optional accessories)
- 5 Thumbscrews to secure the desktop module



STEERING WHEEL

LCD DISPLAY

LIGHTS

PARKING
BRAKE

KEY SWITCH

BRAKE PEDAL

THROTTLE PEDAL

LIFT/LOWER
TILT FORKS
SIDE SHIFTIGN
FORK POSITIONING

2 AUXILIARY
BUTTONS

FORWARD
NEUTRAL
REVERSE

HORN BUTTON

FORKLIFT SIMULATOR

FORKLIFT
SIMULATOR

SETTING UP - HEADSET

HOW TO PROPERLY USE THE VR HEADSET

A best practice guide on how to deliver a Forklift Simulator experience to new and experienced users.

MAINTENANCE

Clean the lenses free of smudges and dust particles.
Avoid scratching the lens by using high quality lens cloths.
You can use anti-septic wipes to sanitize the headset.

ASSURE COMFORT AND VISUAL CLARITY

Release the top velcro strap.

Enter in the headset, eyes first while fitting the back of head.
(Put it on like a baseball cap, forward to back.)

You can tighten the headset by turning the adjustment wheel on the back.
Then fasten the top velcro strap. If preferred, the top strap can be removed.

Assure that the lens is placed over the eyes where the image is most clear!
If the image is not sharp, move the headset up or down a little and reposition.
There is a sweet spot in the middle of the lenses.

On the bottom of the headset you will find a wheel to change the interpupillary distance. (distance between the lenses)

PRO-TIP If the position of the headset is falling over the eyes, tighten the top strap. Experience that is not in focus can stimulate motion sickness.

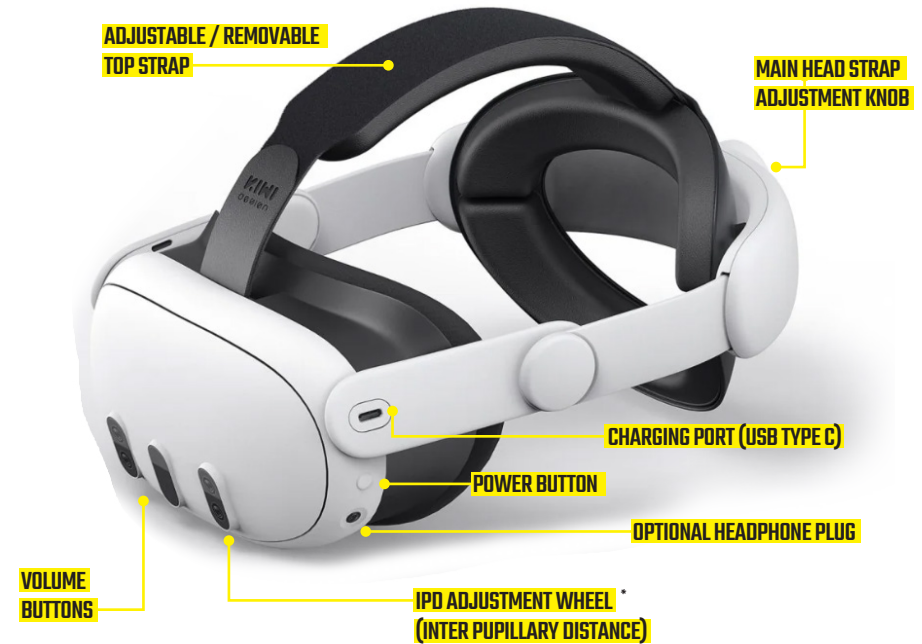
Users with glasses should be extra careful with putting on the headset.
Enter in the headset glasses first. Once their glasses have passed through the headset, fit the back of headset to the back of head.

GETTING STARTED

Important to remember that first time users should ease into their first VR experience! Making the user feel comfortable is key.

Once a lesson has been chosen, begin by having users look around the environment. Encourage the user to look behind them, above them, and carefully leaning outside the truck. When the driving portion of an exercise begins, start by driving slowly around the environment.

SETTING UP - VR HEADSET



PRO-TIP It usually takes 2-3 trials before first time users get acclimated to the VR technology. Users will build a higher tolerance overtime.

If user cannot proceed with VR simulation, help remove the headset and have them relax until they are ready to proceed.

REMOVING THE HEADSET

Release the main strap using the adjustment wheel and remove the headset.

For additional information on the use and maintenance of the headset please visit [meta.com](https://www.meta.com) and search for 'Getting Started With Meta Quest 3'.

START UP PROCEDURE

1. DOUBLE CHECK CONNECTIONS

Make sure everything is connected and plugged in properly. (Page 7)

1. The desktop module 12v power adapter is plugged in.
2. The floor board is connected to the desktop module using the provided cable.
3. The simulator is turned on.

2. THE TABLET

You can control settings, change camera views and launch exercises from the tablet application. Turn it on and make sure it is connected to the SDM network.

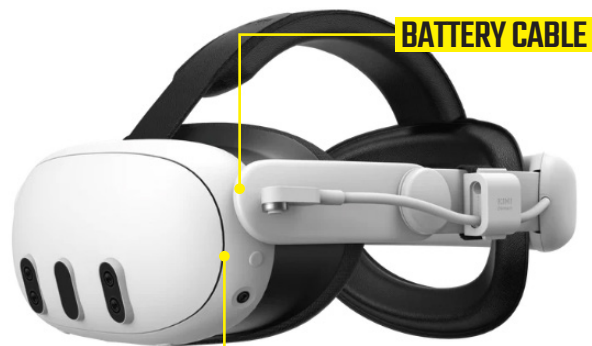
3. THE HEADSET

Before you start, make sure the headset is sufficiently charged. You can charge it using the USB type C port on the back of the head strap to charge it.



BATTERY CHARGING PORT

1. Make sure the cable coming from the external battery on the back of the head strap is connected to the USB C port on the side of the headset. This will extend the battery life for up to 4 hours.
2. Turn the headset on by pressing the round button on the left side of the headset for 2 seconds. Then, put on the headset.



BATTERY CABLE

POWER BUTTON

START UP PROCEDURE

3. You might be asked if you want to continue a previous session. Unless you are continuing after a short break, we recommend ending the session and starting a new one. > The headset will restart.
4. Press the volume button located on the bottom of the headset to acknowledge the disclaimers.



5. The Forklift-Simulation application will start up automatically.
 - Calibrate your position in the virtual space if needed.
 - Sign up or log in with your personal Forklift-Simulator account.
 - If you do not wish to use a personal account, select 'Quickplay'



Hand and Body Tracking is turned on by default. The hand controllers are not needed during the Forklift Training Simulation.

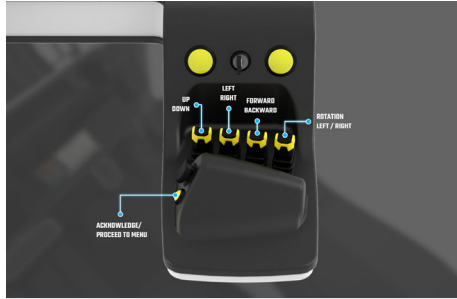
FORKLIFT-SIMULATOR SOFTWARE

CALIBRATION

On startup, you'll be asked if the simulator needs to be calibrated.

If the position of the virtual controls match the real ones, select 'Skip' and press the horn to continue.

If they don't match, select 'Calibrate'. Use the controls to move the virtual truck until its controls align with the real ones. Once set, press the horn to proceed.



Calibration using the controls.

QUICK CALIBRATION

You can use the Quick Calibrate method at any time for a quick preset position based on your hands.

To perform a Quick Calibrate:

- Touch and hold the button on your left hand until the light around it fills up.
- Place your left hand on the steering wheel at the 6 o'clock position.
- Place your right hand on the armrest and press the horn.



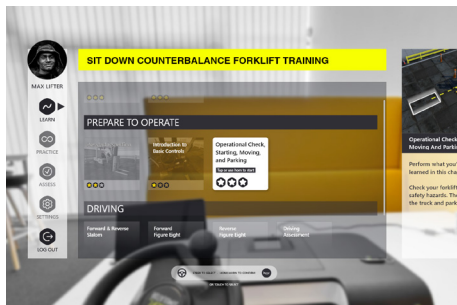
Using the Quick Calibrate button.

MENU AND NAVIGATION

You can navigate the menus using the steering wheel:

- Turn the wheel left to scroll up.
- Turn the wheel right to scroll down.
- To select an item or confirm a choice, press the horn on the armrest.

Alternatively, you can use your index finger to point and touch. To scroll, touch and hold, then drag.



FORKLIFT-SIMULATOR SOFTWARE

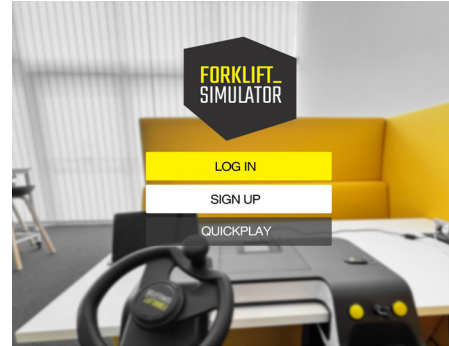
QUICKPLAY - LOGIN

QUICKPLAY MODE

This modus can be used by anyone. No individual results will be saved and progress will not be tracked in this mode.

LOGIN MODE

If your company uses the LMS, individual drivers can log in with a PIN provided by their system administrator to track their progress. This saves individual results, allowing both the driver and trainer to monitor progress over time.



Quickplay or Log in

COMPLETING AN EXERCISE / IN GAME MENU

Once an exercise is complete, a new screen will appear showing your results and any trophies you've earned. From here, you have three options:

Retry: Restart the same exercise to try and improve your score.

Next: Skip immediately to the next exercise in your current level.

Back to Menu: Return to the main exercise selection menu.

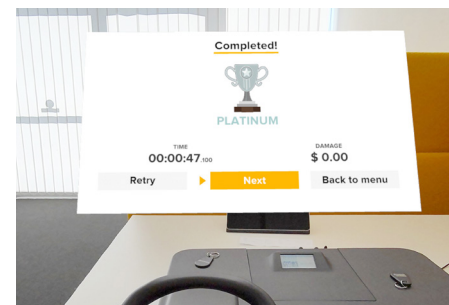
To select an option, turn the steering wheel and press the horn button to confirm.

During any exercise, you can access an expandable menu located under the head-up display. Simply touch the menu icon, and it will expand to give you the following choices:

Exit: End the current exercise.

Settings: Access the settings menu.

Reset/Restart: Reset or restart the exercise from the beginning.



Result page



Head Up Display and expandable menu

COMFORT MODE

COMFORT MODE

Some people may feel a bit of discomfort while moving in VR. This sensation, known as "vection," happens because your eyes see movement while your inner ear and body don't.

If you're experiencing vection, you can activate our Comfort Mode. This mode uses Mixed Reality to help reduce the sensation. Simply press both buttons located between the mini-levers and the palm rest at the same time.

To switch back to full VR, just press them again. This makes it easy to transition for tasks that don't involve driving but require precise movements, like picking up a pallet. For traveling from one point to another, Comfort Mode is perfect.



Transition to Full VR for tasks that don't involve driving but require precise movements.

COMFORT MODE

COMFORT MODE BUTTONS

While in Mixed Reality, you can glance to your left, right, or up, and a new screen will appear to help you navigate the warehouse.



Use comfort mode for traveling from one point to another.

ACCESS PASSTHROUGH

WHAT IS PASSTHROUGH ?

Pass-through is a feature that allows you to temporarily exit the virtual world and see a live view of your real surroundings. This is especially useful for communicating with others or reorienting yourself without having to take off the headset.

Passthrough can be accessed in three ways:

1. DOUBLE-TAP

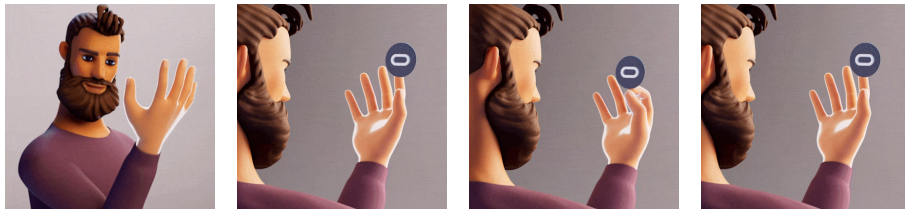
To switch between Passthrough and full VR environments while in the headset, simply double-tap either side of the device.



2. QUICK PINCH

Another way to exit the application and switch to the Passthrough environment is with a quick pinch gesture. Simply look at the palm of your right hand and briefly pinch your index finger and thumb together.

To return to the VR simulation, just repeat the same gesture.



Look at the palm of your right hand.

When you see the Meta logo appear...

... shortly pinch/tap index finger and thumb...

... and release.

3. PASSTHROUGH BUTTON (3S MODEL ONLY)

Push the round button on the bottom right of the headset to switch between the VR and Passthrough environments.

Note that this option is only available on the Quest 3S model.



PASSTHROUGH VIEW



**QUICK
SETTINGS**

**RESUME
SESSION**

**END
SESSION**

Passthrough view

SETTINGS

While in the Passthrough environment, you can access the headset settings by touching the clock, Wi-Fi, and battery icons in the bottom-left corner. If the screen is out of reach, you can aim at the icons and pinch your thumb and index finger together.

RESUME SESSION

To switch back to VR, select 'Resume.' Alternatively, you can double-tap the headset or perform a quick pinch gesture as described previously.

END SESSION

This will end your current session and restart the headset.

ACCESS HEADSET SETTINGS

HEADSET SETTINGS

First, exit the simulation by double-tapping the side of your headset or by using the pinch method (see page 19).

Next, access the headset's Quick Settings Menu by touching the clock, Wi-Fi, and battery icons in the bottom-left corner of your view.



Passthrough view

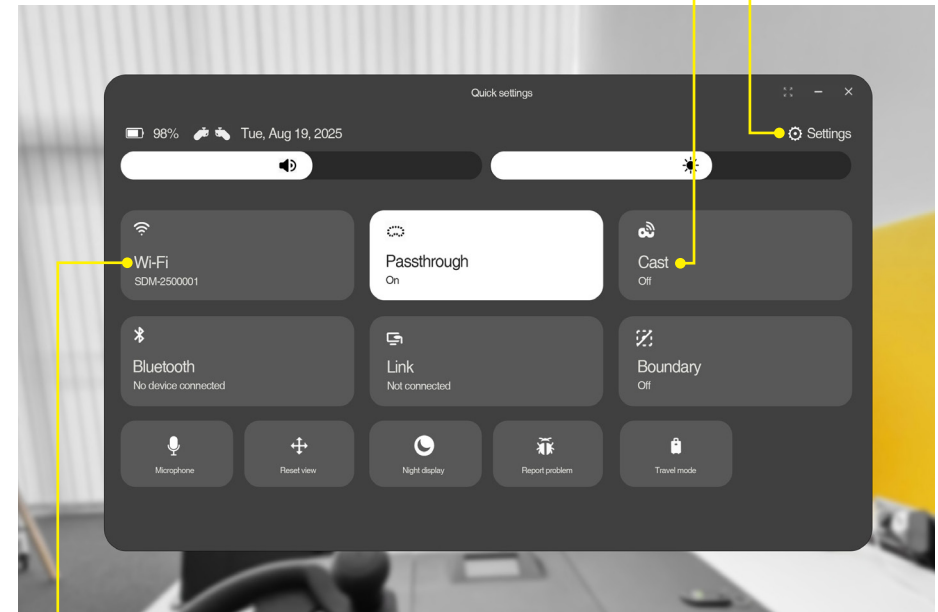
QUICK SETTINGS

HEADSET SETTINGS

CAST SESSION

You can cast your view to a web address to share your screen with the support team.

ADVANCED SETTINGS



WI-FI SETTINGS

You can access the Wi-Fi settings here. The headset must be connected to the local SDM network to receive controller signals and connect to the tablet. The network name is the serial number of the simulator.

SSID: SDM-XXXXXXX
Password: FL-connect

Please ensure the SDM network is set to auto-connect.

TABLET

TABLET

LAUNCHING THE APP

The tablet must be connected to the local SDM network to communicate with the headset. To access Wi-Fi settings, tap the 'settings' icon on the home page.

Once connected to the SDM network, you can launch the FLS companion app by tapping the first icon on the home screen.

LAUNCH

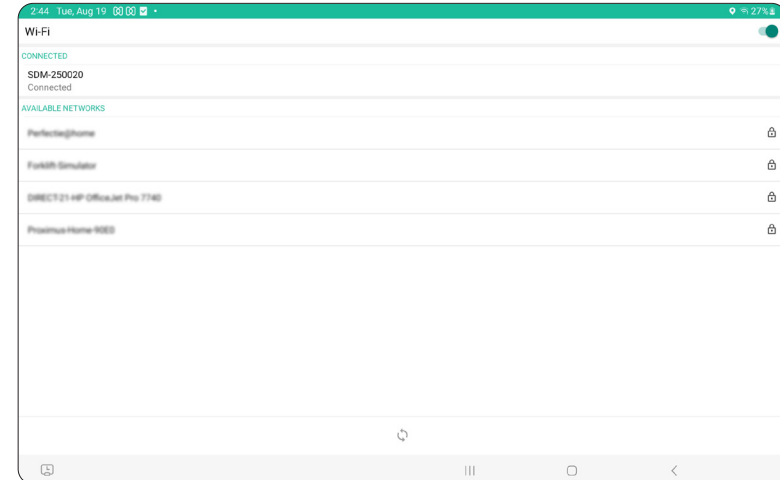
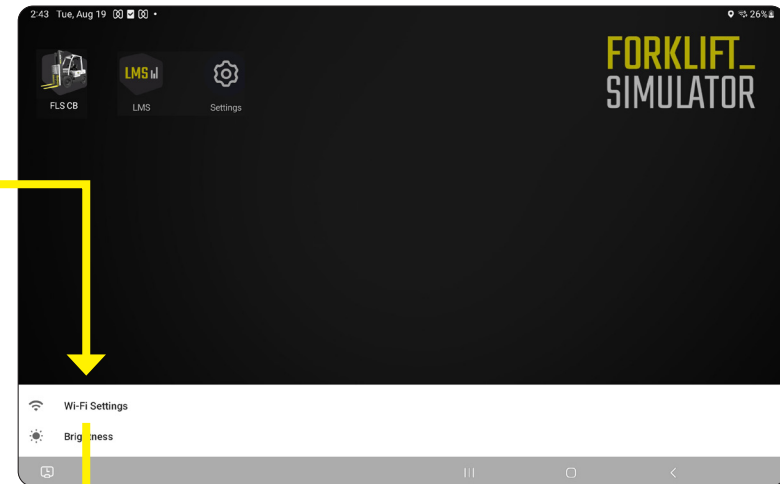
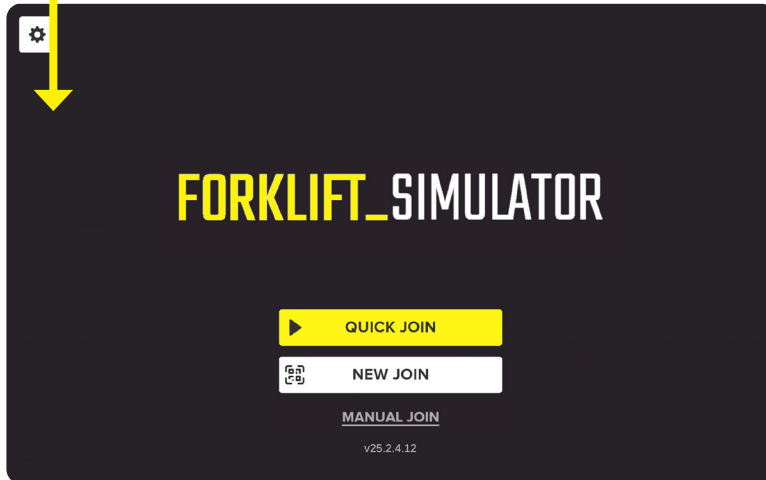
Simply launch the application by clicking the app icon.

SETTINGS

Click the settings icon to open the Wi-Fi and brightness settings.

CONNECT

Connect the tablet to the headset.
See page 24.



WI-FI

Make sure to select the SDM network. The tablet must be connected to this network to establish a connection with the headset.

The network name (SSID) is the SDM serial number, such as SDM-2500020.

The password is FL-connect.

TABLET

TABLET

CONNECTING TO THE HEADSET

1 QUICK JOIN

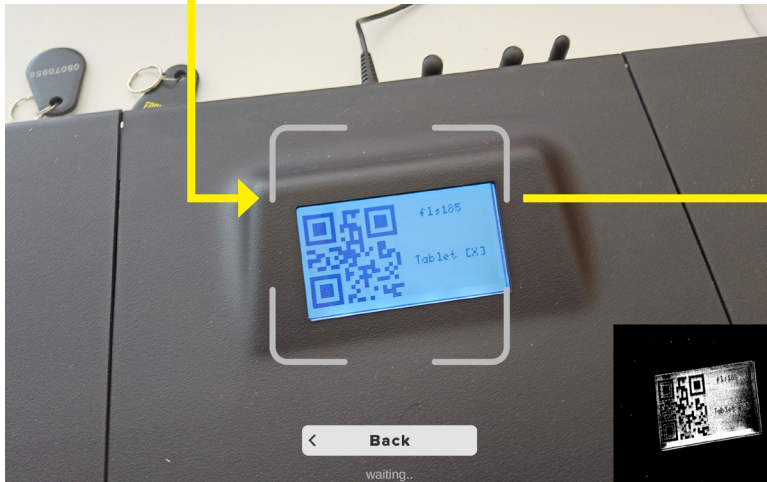
Use Quick Join to quickly connect to the most recently used headset.



2 NEW JOIN

You can use New Join to connect to the headset by scanning the QR code on the desktop module's LCD screen.

This QR code will only appear when the headset is connected to the SDM network and the simulation app is already running.



3 MANUAL JOIN

You can also connect to the headset by manually entering the FLS code (e.g., flsxxx) that is displayed on the desktop module's LCD screen.



CONNECTED

Once a connection is established, you will see the VR environment from the user's point of view.



TABLET INTERFACE

TABLET INTERFACE

USING THE TABLET

1. EXERCISES

You can browse the curriculum and launch exercises directly from the tablet.

2. MANAGE

Trainers can log in on the Manage tab to perform the following actions:

- Create and manage users
- Link RFID badges
- Unlink or release RFID badges

3. SETTINGS

You can access settings directly from the tablet to customize the experience for both the headset and the tablet.

4. DEBUG

This tab can be used to help the support team troubleshoot any issues that may arise.

5. EXIT

Log out and exit the current session.



6. DUPLICATE SCREEN

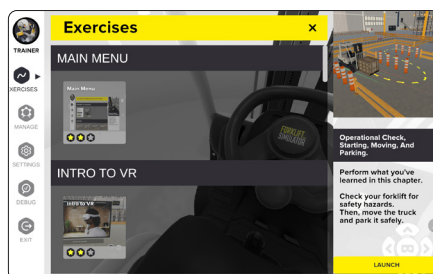
Need a bigger screen? Use the included USB to HDMI adapter to duplicate the tablet screen to a larger screen.



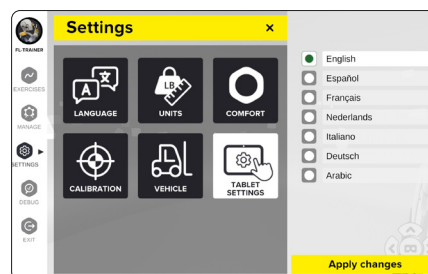
7. CAMERA VIEW

Switch between camera views on the tablet. Available views:

- POV
- Third person view
- Top view
- Left view
- Right view



Exercises



Settings



Third person view

SHUTTING DOWN

SHUTTING DOWN THE UNIT

Headset:

Press and hold the power button for a few seconds, then unplug the battery cable.

Tablet:

Simultaneously press and hold the Side (power) button and the Volume Down button until the power menu appears. Then, tap "Power off" and confirm.

Simulator:

Turn off the power using the red button located on the back of the desktop module.

Optional: If you are not using the unit for a while, you can unplug the 12V adapter for the desktop module.



TROUBLE SHOOTING

Issue	Solution
1	<p>The virtual controls in VR do not align with the position of the physical controls.</p> <p>When you start the application, you'll be asked if calibration is needed. If the virtual controls do not match the position of the physical controls, select 'Calibrate' using the steering wheel, then press the horn to confirm.</p> <p>Once in calibration mode, use the controllers to move the truck's position—up, down, left, or right—until the virtual controls align with the real ones. When everything is in place, press the horn to save and exit calibration mode.</p> <p>Quick Calibration You can also perform a quick calibration at any time to instantly reposition the virtual controls based on your hand position. Touch and hold the button on the back of your left hand until the circle around it is complete. Place your left hand on the steering knob at the 6 o'clock position. Place your right hand on the armrest and press the horn. This will immediately adjust the virtual controls to the new position.</p>
2	<p>Controls are not working</p> <p>First, double-check that the headset is connected to the correct SDM network. The controller signals will not be detected if the headset isn't on the right network.</p> <p>Also, confirm that the 12V power adapter is plugged in and the desktop module is powered on. You can tell it's on by checking the red button on the back of the module.</p>
3	<p>The tablet won't connect</p> <p>Ensure that both the tablet and the headset are connected to the same SDM network.</p> <p>You also need to verify that both devices are running the same app version.</p> <p>On the tablet, the version number is found at the bottom of the join page. On the headset, the version is shown on the loading screen when you launch the application.</p>
4	<p>Controls signal drops and/or is unstable</p> <p>Heavy wireless traffic can cause some channels to become congested. If you're experiencing issues, please contact our support team, and we can help you select a different channel.</p>
5	<p>Can't log in / no signal</p> <p>In locations with poor cellular coverage, it may be necessary to add a local network to the integrated router. There are two options:</p> <p>Wi-Fi Connection: Contact our support team to help you add your local Wi-Fi network to the router.</p> <p>Wired Connection: Plug an Ethernet cable directly into the back of the desktop module.</p>

For all other questions, please contact support@forklift-simulator.com

PLAY HARD
WORK SMART





www.forklift-simulator.com