



Car Simulation

Module tutorial



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1. GENERAL

1.1. Description

CAR SIMULATION software is an immersive 3D simulation based on virtual reality technology, i.e. it allows a person to be immersed in an artificial digitally created world.

CAR SIMULATION software allows you to be a passenger or a driver in a car and to be subjected to the visual scrolling of a landscape.

1.2. Required accessories

VR headset and steering wheel and pedals kit.

1.3. Patient setup

Patients must be seated to reproduce a situation where they would be sitting in a car.

In **active driving mode**, their hands must be on the steering wheel, and their feet on the pedals.

In **passive driving mode**, they must be seated.



RECOMMENDATION

During the first session, it is recommended to use the "**Active Driving**" mode to get patients to drive. (Steering wheel accessory required). Once patients "tolerate" the chosen circuit, they can switch to "**Passive Driving**" mode, namely passenger mode, for their treatment.

2. Settings

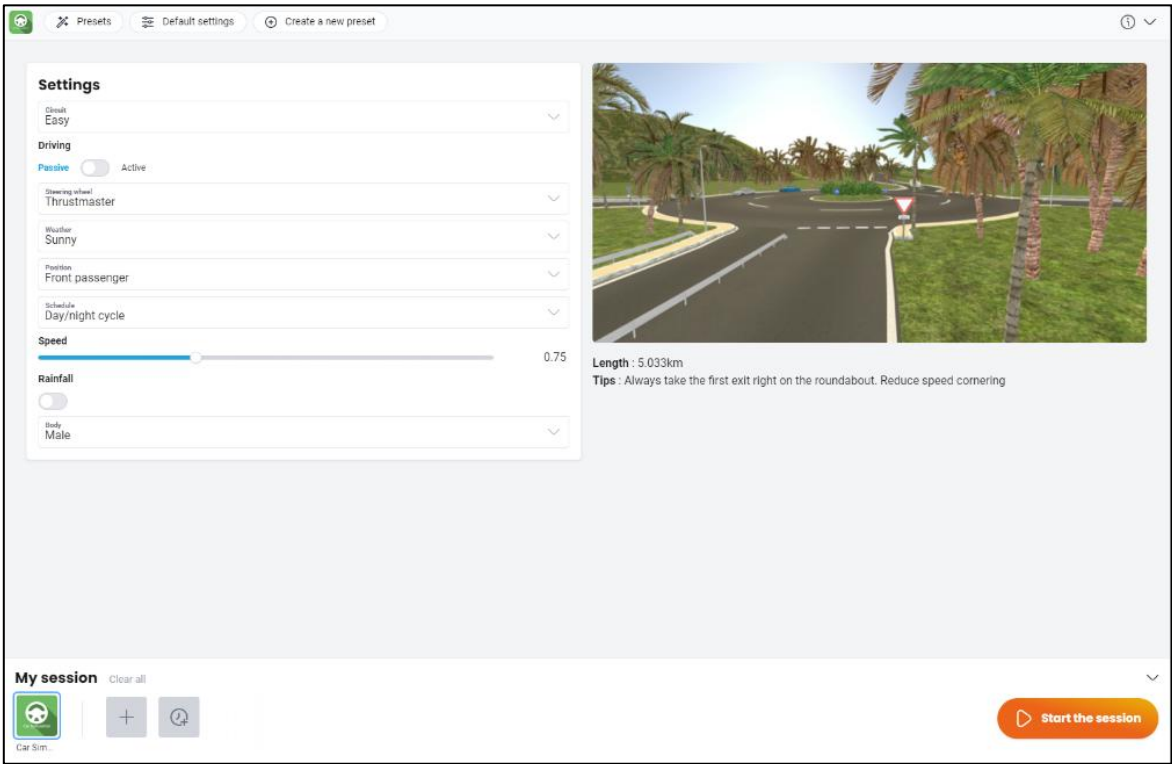


2.1. Session settings



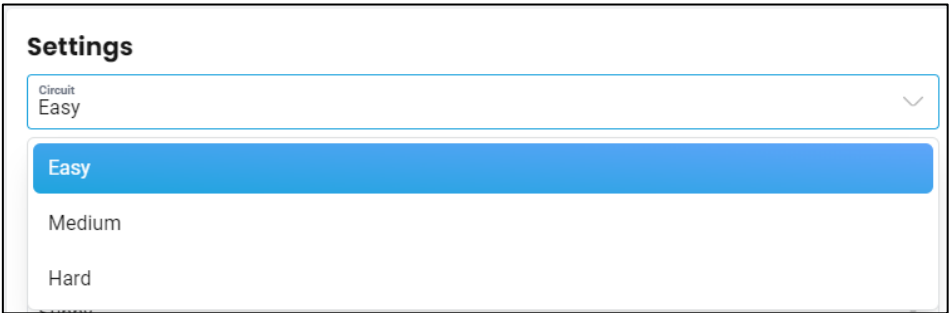
WARNING

If you have both, it is imperative to disconnect the Xbox controller when using the steering wheel. Conflicts appear when both are connected at the same time.



The variable settings for this module are as follows:

2.1.1. Circuit





Environment selection according to difficulty.

According to the difficulty, the length and type of course vary:

Circuit	Display
Easy	<div><p>Length : 5.033km Tips : Always take the first exit right on the roundabout. Reduce speed cornering</p></div>
Medium	<div><p>Length : 3.08km</p></div>
Hard	<div><p>Length : 10km</p></div>

2.1.2. Driving

Two driving styles are available: active or passive.





2.1.3. Steering wheel

This setting is only available in **Active driving**.



WARNING

The steering wheel shall be the same as the one configured in the administration settings.

The selection is made directly from a drop-down menu, select:

- **Thrustmaster GT cockpit 458** for Ferrari 458 steering wheels.
- **Thrustmaster** for other references.

A screenshot of a web interface showing a dropdown menu for "Steering wheel". The menu is open, displaying two options: "Thrustmaster GT Cockpit 458" and "Thrustmaster". The "Thrustmaster" option is highlighted with a blue background.

2.1.4. Weather

Used to select the weather: sunny, sunny spells, cloudy or overcast.

A screenshot of a web interface showing a dropdown menu for "Weather". The menu is open, displaying four options: "Sunny", "Sunny Spells", "Cloudy", and "Overcast". The "Overcast" option is highlighted with a blue background.

2.1.5. Position

Used to choose the passenger seat in the car: front passenger, left back passenger or right back passenger. This setting is only available when the **Passive driving** mode is selected.

A dropdown menu titled "Position" with a downward arrow. The menu is open, showing four options: "Front passenger" (highlighted in blue), "Left back passenger", "Right back passenger", and an empty space at the bottom.

2.1.6. Schedule

Used to choose the time of the day: day/night cycle, morning, noon, evening or night.

A dropdown menu titled "Schedule" with a downward arrow. The menu is open, showing five options: "Day/night cycle", "Morning" (highlighted in blue), "Noon", "Evening", and "Night".

2.1.7. Speed

A horizontal slider control labeled "Speed". The slider has a blue track and a white circular knob. The value "0.75" is displayed at the right end of the slider.

- The animation speed is adjustable.
- Value: 0.10 to 2.0

Factor applied to animation speed. 1.0 corresponds to 100 % of animation speed.

- Can be modulated using the cursor.
- Only available in **passive driving**.

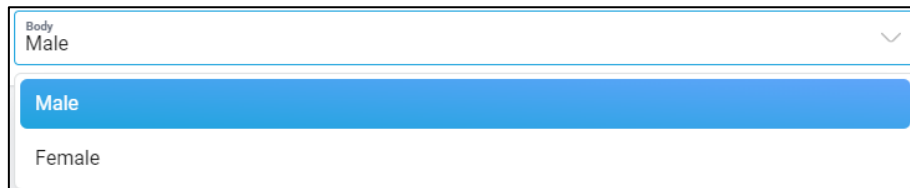
2.1.8. Rainfall

Activates or deactivates rain.



2.1.9. Body

Choice of the body according to the patient's gender

A dropdown menu for selecting the patient's body. The menu is open, showing two options: "Male" (highlighted in blue) and "Female". The text "Body" is visible in the top left corner of the menu, and a small downward arrow is in the top right corner.

3. Module

3.1. Session

Once the presets have been selected, click on "**Start the session**" in the bottom right corner of the screen.



In the bottom left of the screen is the animation speed of the car parameter. It can be adjusted during the session if **Passive driving** was selected. Value: 0.10 to 2.0.

In the bottom right of the screen is the « Exit » button to end the session.

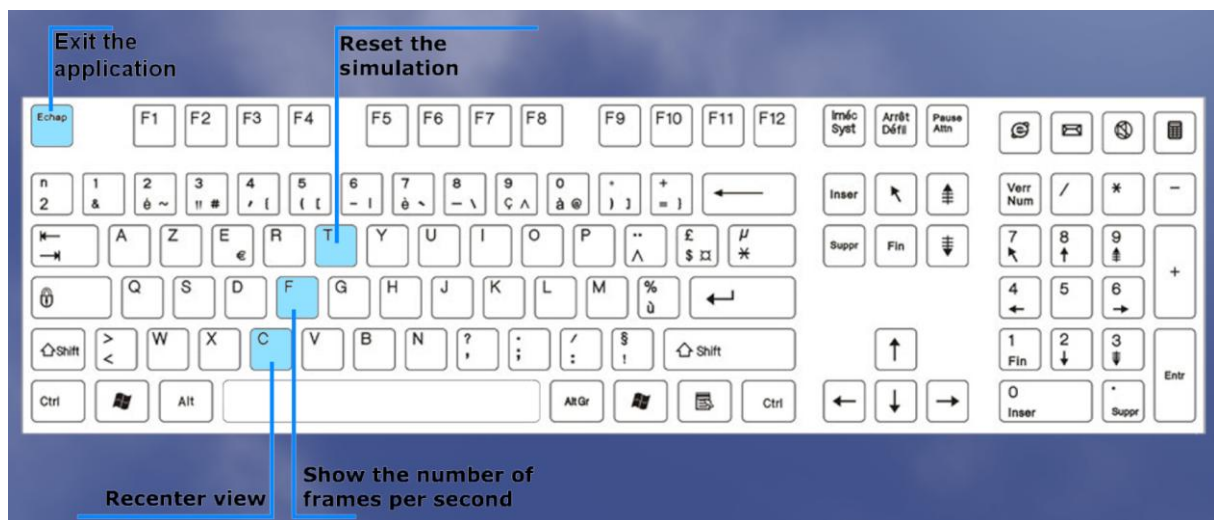
These settings are not visible to the patient.

The patient sees the 3D environment. Depending on the chosen mode, they drive on the circuit using a steering wheel and pedals (controlling speed, cornering, braking, reversing), or they are a passenger in a moving vehicle. Refer to the shortcuts for using the steering wheel and pedals.

3.2. Shortcuts

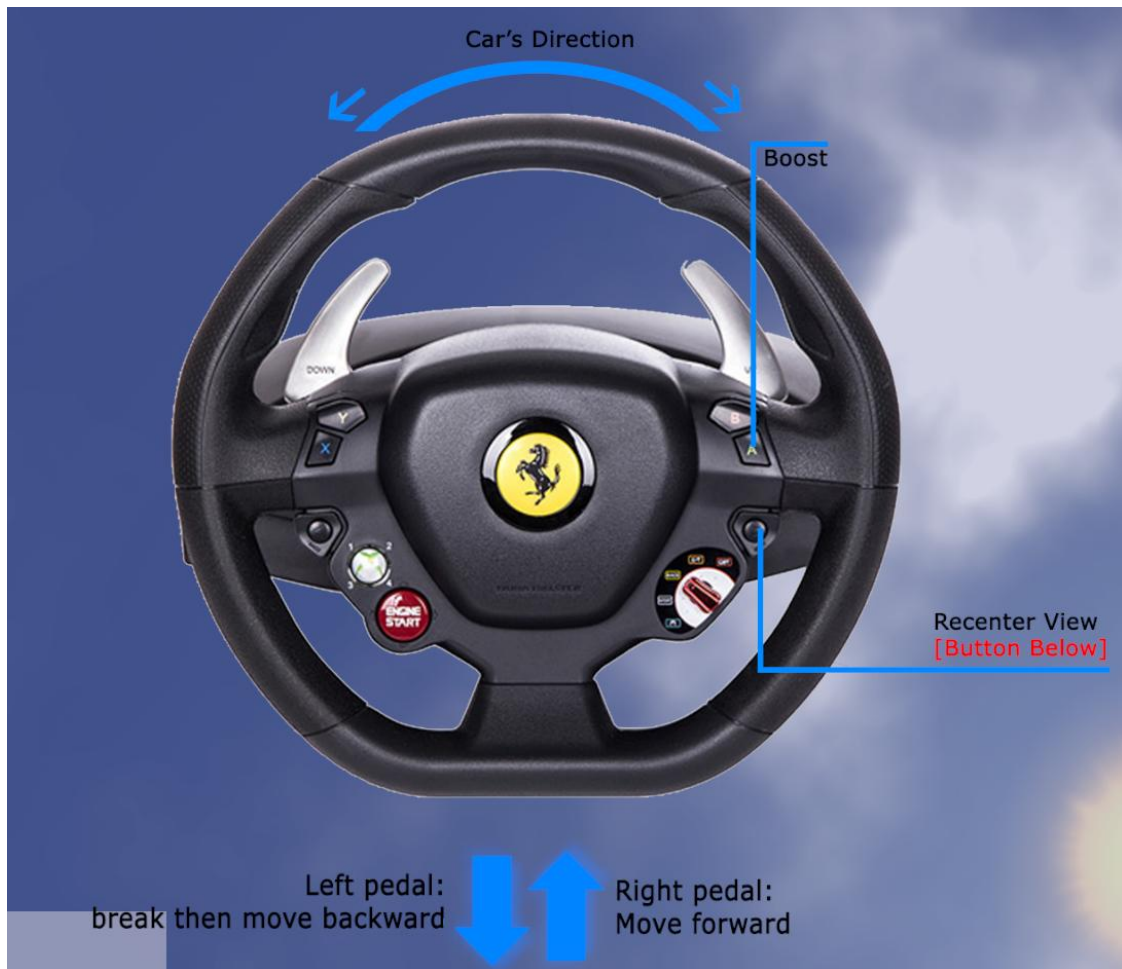
During the session, the shortcut list is found by clicking on the Xbox controller icon in the upper right corner of the screen.

3.2.1. Keyboard



3.2.2. Thrustmaster steering wheels

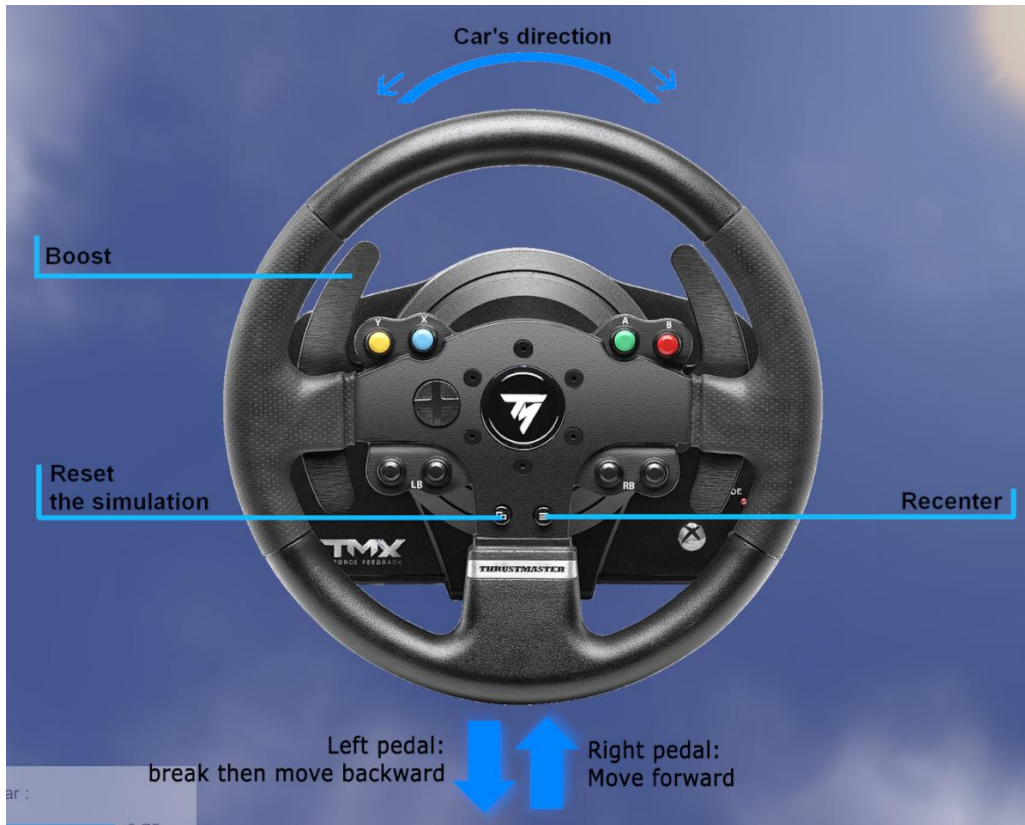
3.2.2.1. GT cockpit 458 / Ferrari 458



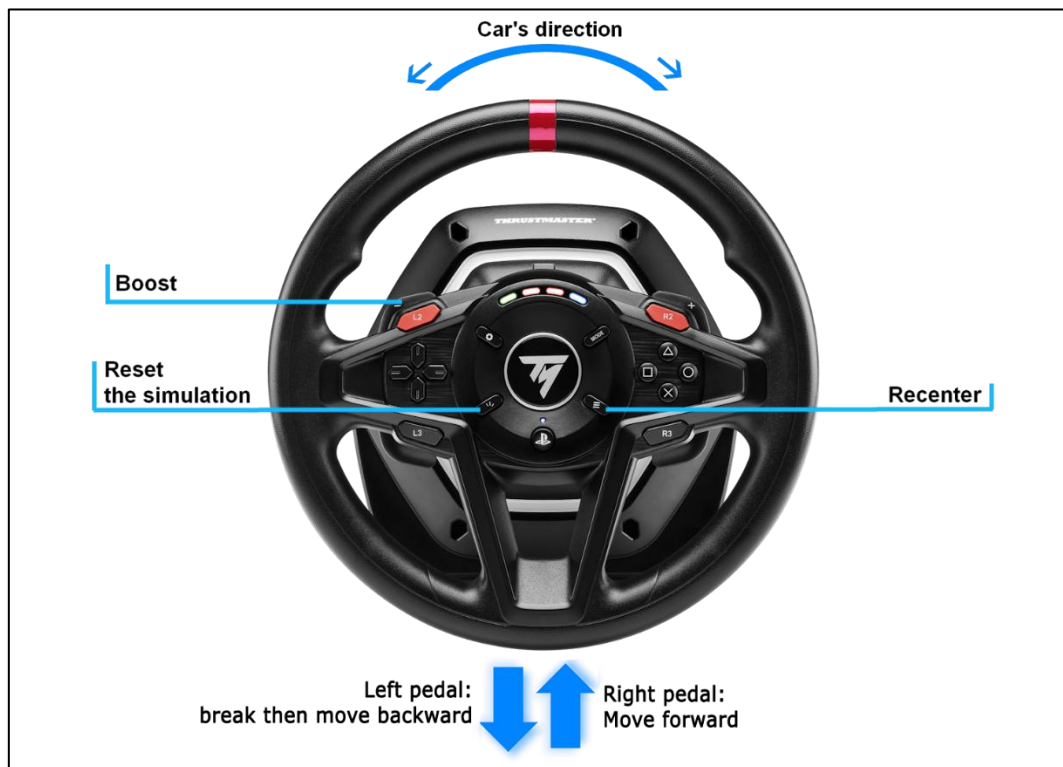
3.2.2.2. T150



3.2.2.3. TMX



3.2.2.4. T128





3.3. Results

Once the session is over, you can view the results.


3.3.1. Summarized results

No summarized results are displayed at the end of the session.

3.3.2. Graphs and report

To find the detailed results and to generate a report, click on the histogram icon.

Session details
05/07/2025 16:09



ParametersResultsNotes

Name	Initial value	Final value
Circuit	Easy	Easy
Body	Male	Male
Driving	✓	✓
Steering wheel	Thrustmaster	Thrustmaster
Weather	Sunny	Sunny
Position	Front passenger	Front passenger
Schedule	Day/night cycle	Day/night cycle
Speed	0.75	0.75
Rainfall	✗	✗

Start session
with initial values

Start session
with final values