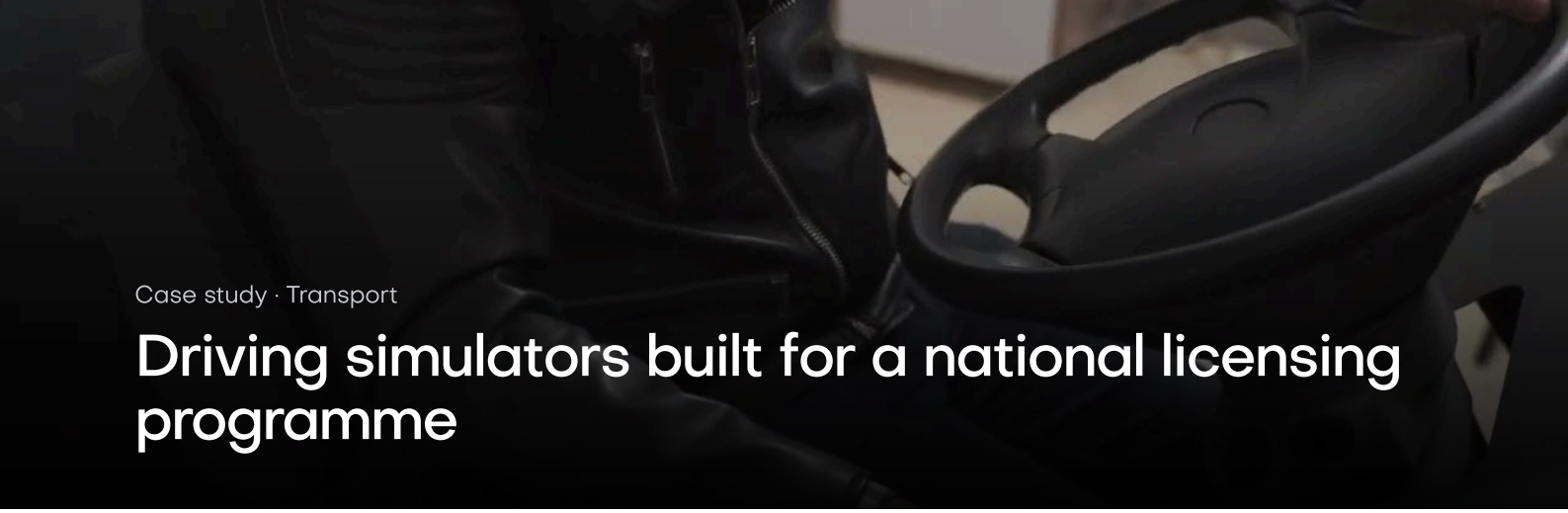


Case study · Transport

Driving simulators built for a national licensing programme

The challenge

A national digital services provider wanted to improve driver education and road safety in Egypt, and to streamline the driving licence process. Learners needed a safe place to practise before they drove on real roads. The technology had to be local: built around Egyptian road systems, traffic patterns and the way people actually drive there. It also had to be physical, with controls a learner would recognise from a real car.

What we built

We handled research and development, design, build and testing across hardware, software and embedded controls. The result is a complete driving simulation platform.

- **The rig.** Seat, wheel, pedals and dashboard wired to the software, with screens in front of the driver. Embedded control systems connect each physical component to the simulation.
- **The roads.** Egyptian road systems, traffic patterns and driving behaviour, modelled so learners get used to local conditions.
- **The traffic.** Realistic vehicle physics and AI-controlled vehicles that react to the driver, creating real-world driving scenarios.
- **The training.** Training adapts to each learner's strengths and weaknesses, with targeted instruction and feedback.

The whole simulator was designed and built by our team, from the hardware and controls to the training software.

What changed

Learners now practise and improve in a safe simulator before they take a car onto a public road. They meet local roads, local traffic and realistic vehicle behaviour from their first session. Instruction and feedback focus on each learner's weak points. Driver education and licensing in Egypt now has a consistent, repeatable practice step, delivered on equipment built for that programme.

At a glance

Sector	Transport, driver education and licensing
Delivery	Simulator platform: hardware, software and embedded controls
Hardware	Rig with seat, wheel, pedals, dashboard and screens
Where	Egypt, modelled on local roads and traffic

Planning something similar?

Start a project at genesiscreations.co or email info@genesiscreations.co. WhatsApp +971 55 843 3183. Offices in Abu Dhabi and Cairo.