

'Creating innovative entertainment solutions through imagination & motion based technology'

FACT SHEET



motion based technology

The ultimate, interactive, motion motorbike simulator with HMD (VR)



The Cesys Motorbike Simulator is a completely new concept promising maximum immersion, real motorbike handling and a spectacular experience. Using a Yamaha R6, the simulator features our advanced, professional motion system, new body-tracking technology, real motorbike controls and head mounted displays. It is presented to as a pair, for head to head racing. Multiplayer options are available from 2 to 8 motorbikes for the ultimate competition experience!

Key statistics

Dimensions & weight:

Footprint: 2.20 x 1.55m
Advised min. ceiling height: 2.85m
Weight: 950 kg
Dynamic floor-loading:
500 kg/m²

Power (set of two):

Voltage: 3-phase 400 VAC, 32 A
Typical power consumption:
4 kW
Peak power consumption:
17 kW

Service and maintenance:

No overhaul necessary.
Annual maintenance costs: < € 3k

**Price (ex. works) starting
From € 127.500 (set of 2)**

Operation:

Ride length: 4 – 8 minutes
One operator for a set of 2
simulators
Throughput: 16 guests per hour

*Designed and built to
EN 13814:2004 standard.
UL/CSA /ADIPS /TUV
certifications can be provided on
request.*

Design



Side view of the Cesys Motorbike



Rear view of the Cesys Motorbike

Cesys

Cesys is the entertainment division of Cruden. Cruden is the world's leading designer, manufacturer and integrator of professional driving simulators for the automotive, motorsport and marine industries. The knowledge and experience of Cruden is used to design, develop and produce high end, innovative entertainment simulators through imagination and motion based technology. Cesys has years of experience in designing, developing, manufacturing, gameplay and content development and does this all under one roof. By utilizing this knowledge and innovative technology, Cesys has transformed human experience as we know it.

Combining VR Technology with Interactive motion

Cesys is world leader in designing interactive driving simulators for the entertainment market. The knowledge of more than 15 years' experience has come together in the motorbike simulator. The combination of the latest virtual reality (VR) technology and interactive motion is unique in motorbike riding simulation. Riding the motorbike feels intense, real and the immersion is overwhelming.

Motorbike functionality

The motorbike mounted to the motion platform is a real Yamaha (or similar) race motorbike. Acceleration, shifting and braking of the motorbike is similar to riding a real motorbike. Multiple feedback mechanisms control the simulator. Unlike other "gaming"-motorbike simulators on the market, which feature steering feedback only, Cesys uses a high-end combination of steering-force input and a body-tracking system. Together, these systems determine the input to the motorbike. These features are unique to Cesys.

Steering

The motorbike handlebar is attached to the force feedback control loading motor. The force feedback system registers the forces the rider exerts on the handlebar. These forces, combined with rider-lean are used to determine the motorbike's steering behavior, just like on the real bike.

Body tracking

In addition to the handlebar input, a system consisting of multiple cameras monitors the rider's body position relative to the motorbike. The simulation engine uses this data as input on the motorbike simulation model, which increases the level of realism and immersion when riding the simulator.

Throttle, shifting & braking

Unlike arcade-style motorcycle simulators, the Cesys Motorbike Simulator has a functioning throttle, hand brake, foot brake, clutch and shift lever, all of which contribute to the ultimate riding experience.

Virtual reality

The simulator uses a Head Mounted Display (HMD) for an immersive motorbike riding experience.