TRUSIMULATION.COM

TRU SIMULATION

FIXED-WING FULL FLIGHT SIMULATOR

ODYSSEY AURA

CHANGING HOW YOU THINK ABOUT SIMULATION

When you work with TRU Simulation™, you'll get a team who listens to your needs for today and tomorrow. Together, we'll consider your training requirements and financial realities to help you select from our full lineup of devices—supporting ab-initio to type rating pilot training. Keep exploring to learn how TRU Simulation™ excels in fixed-wing simulation and how we can bring that reality to you.

ODYSSEY AURA

Discover the highest-quality, most immersive training experience available. TRU Simulation's™ Full Flight Simulators (FFS) are built from the ground up to deliver the full flight experience at the highest fidelity and realism. Full flight simulators are equipped to handle your complete training needs.

QUALIFICATION

FAA Level D | EASA Level D | CAAC Level D | CASA Level D

EXPLORE THE DEVICE

The world of simulation and training can be a complicated and confusing one. At TRU Simulation™, we are here to help guide you in understanding your training requirements and suggest a solution that is best fit for you.

SIMULATOR COMPONENTS

The required components of a Level-D FFS are largely defined by aviation regulators. While these regulations vary from country to country, most are aligned with the FAA (14 CFR Part 60) or EASA (CS-FSTD) which are similar in their requirements. Odyssey Aura™ simulators meet or exceed all regulatory requirements, but instead of a one-size-fits-all approach like many other simulator manufacturers, TRU Simulation™ prides itself on customizing the training device to meet the customer's specific needs.

MOTION

TRU Simulation's™ REALCue™ motion system accurately replicates the simulated environment's motion characteristics utilizing a Six Degrees of Freedom (6DOF) electric motion system with 60-inch-stroke actuators. This state-of-the-art system combines easy to replace Commercial Off The Shelf (COTS) computer hardware with TRU's proprietary motion cueing software creating a realistic flight experience. Motion cues are correlated in position, velocity, and acceleration with respect to the visual system display, aural cues, and control forces to meet FFS Level D specifications: linear acceleration, synchronization, turnaround bump, step response, frequency response, damping, and smoothness. TRU Simulation's™ eMOTION™ Control Panel with intuitive Graphical User Interface (GUI) makes testing, running diagnostics, and manual operations easy and efficient.

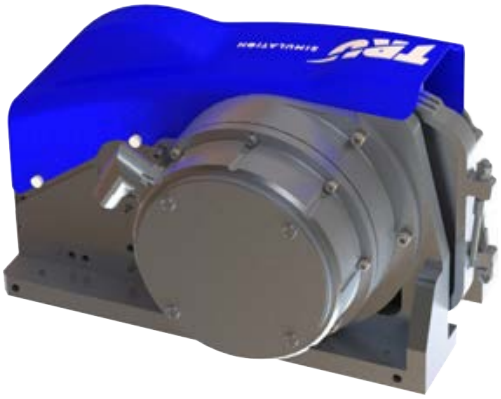
VISUAL

The visual system consists of a COTS PC-based Image Generator (IG) on a 200° x 40° field-of-view display. Three high-definition 4K-resolution projectors present a bright and clear visual scene with an IG capable of displaying many different scenes and special effects including:

- High definition airport models
- Full atmospheric and environmental effects such as clouds, fog and storms
- Various lighting conditions including day, dawn, dusk and night

FLIGHT CONTROLS

TRU Simulation™ has a long history of producing the most advanced Control Loading System (CLS) in the industry. Our latest generation digital electric CLS provides a high fidelity, realistic force-feel simulation exceeding all simulator regulatory requirements. The compact yet powerful system design is easy to maintain and utilizes COTS hardware.



TRU SIMULATION'S LOADING SYSTEM

Industry leading performance in force and dynamic response. Incorporates the latest in brushless AC motor and position feedback technology. Accomodates all fixed-wing, rotorcraft, and land based training vehicles. Linear loader fits all needs in one system.

INSTRUCTOR OPERATING STATION (IOS)

The TRU Simulation™ IOS combines powerful components and features with an intuitive user interface to enhance the instructor's ability to effectively manage the simulator. Two COTS touchscreen displays are used to control and navigate the IOS. The IOS also supports maintenance functions such as Qualification Test Guide (QTG) testing, operational readiness tests, and troubleshooting. A wireless tablet, known as the Remote Instructor Control Unit (RICU), allows the instructor to control the IOS from anywhere in the simulator.

SIMULATOR OPTIONS

In addition to the core components found in the Odyssey Aura™ simulator you can choose from a variety of options to enhance device capabilities based on unique requirements.

CUSTOM-MODELED AIRPORTS

Select any of the world's airfields included in the modeled airport database. Desired airports can be added on request.

CUSTOM VISUAL SCENES

Create unique scenes to address any number of scenarios. While the possibilities are nearly limitless, examples include:

- Off-airport landing on non-maintained surfaces, sloped terrain or confined area
- Search and rescue operations
- Smoke and fire scenes
- Emergency Medical Services (EMS)
- Oil and gas (Offshore)
- Tours
- Surveillance
- Night Vision Goggles (NVG)
- Nap of the Earth (NOE)
- Cargo/Long line vertical reference
- Military and defense

DEBRIEF SYSTEM (DBS)

The DBS makes simulator training session debriefing more effective. The system can capture and combine information from the avionics as well as audio and video of the actual session using mounted camera(s). When the training session is complete, the IOS-controlled system transfers video, audio, moving map, navigational charts, instrument displays and more to the debrief station outside of the simulator for playback.

LESSON PLAN SYSTEM (LPS)

Consistently manage a training session's various scenarios with its LPS. Using the lesson plan builder, instructors can easily create lesson plans for each training session that include a predetermined sequence of events and activities, making training session management easier than ever.

SIMULATOR LINEUP

TRU Simulation™ offers a wide-ranging lineup of simulators, ensuring we will meet the unique needs of any customer.

TRU'S FIXED-WING PRODUCT LINEUP

		INTEGRA AURA		ODYSSEY AURA
	FAA FTD 5 EASA FNPT II	FAA FTD 6 EASA FTD 2	FAA FTD 7 EASA FTD 2	FAA/EASA FFS Level D
Price	$	$$	$$$	$$$$
Field of View	Three 60" HD Televisions	220° X 40°	220° X 50°	200° X 40°
Motion	None	None	6 DOF Mini-Motion	6 DOF 60" actuators
Control Landing	Passive or Active	Active	Active	Active
Enclosed Cockpit	No	Yes	Yes	Yes
Simulator Room Size (L x W x H)	10ft x 12ft x 10ft (3.1m x 3.7m x 3.1m)	16ft x 20ft x 13ft (4.9m x 6.1m x 4.0m)	33ft x 27ft x 15ft (10.1m x 8.3m x 4.6m)	41ft x 41ft x 29.5ft (12.5m x 12.5m x 9.0m)
Typical Training Purpose	Procedural Training	Initial/Recurrent Training	Initial/Recurrent Training	Initial/Recurrent Training & Checking

SIMULATOR DETAILS

The price range for the Odyssey Aura™ simulator varies based on the complexity and configuration. While simulator components such as the addition of a motion system or enhanced visual system make up much of the cost variations, the type of avionics and certification level of the device can also affect price. Other factors that drive pricing include optional avionics, software and/or hardware.

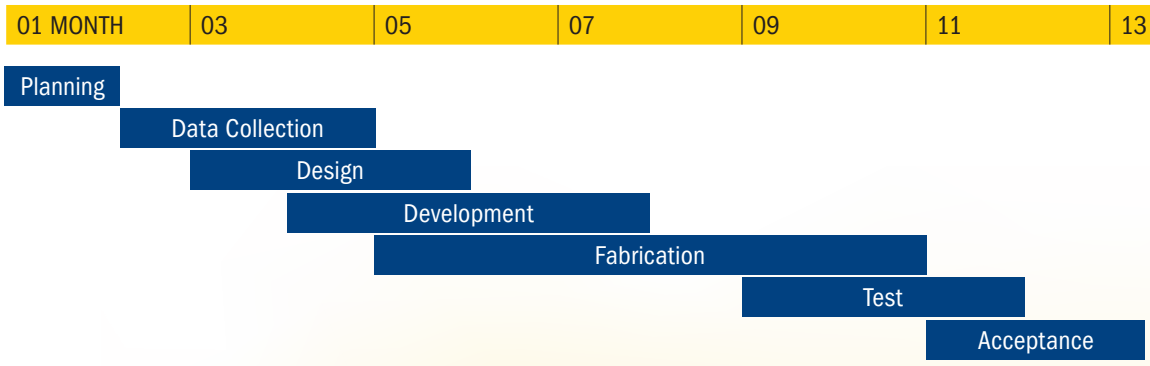
SIMULATOR ROOM

The simulator room requires a minimum horizontal clear area of 41ft (12.5m) x 41ft (12.5m) and a clear height of 29.5ft (9.0m). In addition, a minimum opening width of 20ft (6.1m) x height of 20ft (6.1m) is required to fit the device into the simulator room. If the computer equipment will be stored in a separate room, the minimum horizontal clear area is 14ft (4.3m) x 25ft (7.6m) and a clear height of 8ft (2.5m).

SIMULATOR PAD

Due to the high motion system forces of the simulator, reinforced concrete pads are recommended for the three base pads. The anchoring bolts supplied with the motion system require a minimum pad depth of 12.38in (31.45cm) and concrete floor strength of 2,000psi.

PROJECT TIMELINE



LET'S WORK TOGETHER

TRU Simulation™ collaborates with you to select the right simulator solution – or combination of solutions – to fit your organization.

240+

QUALIFIED, SUPPORTED DEVICES

120+

CUSTOMERS WORLDWIDE

TRU SIMULATION™