



Virtual Reality in the Real World: Transmedia, Planes, and Automobiles

Solomon Rogers – Rewind FX Ltd, Founder / CEO

VI7326

Virtual reality (VR) has been brought to the forefront recently with Oculus VR's Oculus Rift. In this class we will discuss how the emerging technologies around head-mounted displays have reignited VR for those of us in visualization, media, and marketing. We will showcase tips and techniques to use in VR projects, and we'll discuss how this technology can raise the bar in your own projects. We will base the class around profile projects, including the VR Red Bull Air Race experience and stand. This experience started with highly accurate LiDAR (light detection and ranging) scans of the racecourse. Following that, 3ds Max software was used to texturize the models, and then Unreal Engine 4 was used for creation. A physical stand was also designed and engineered by taking 3ds Max software plans back through AutoCAD software and straight to manufacture. The project was also released on mobile platforms, including the new 3D-printed Altergaze mobile-phone VR accessory. We will discuss this device and what it means for rapid prototyping and the open hardware revolution.

Learning Objectives

At the end of this class, you will be able to:

- Learn about the future of virtual reality and head-mounted displays
- Learn how to use 3ds Max software as a design-to-manufacture tool
- Understand the use of 3ds Max software to real-time renderers
- Gain an understanding of 3D printing and open hardware

About the Speaker

Solomon Rogers is passionate about animation, technology, gadgets, digital media, and the way these elements all have such a profound influence on creativity. Founding and running Rewind FX has given Solomon the ability to use all of these elements in striking projects for some amazing clients.

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VR SIMULATOR

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Red Bull AIR RACE

WORLD CHAMPIONSHIP



AUGUST 16-17TH 2014
COURSE



VR's dark past





1867



1939



2003

HISTORY OF STEREOSCOPY



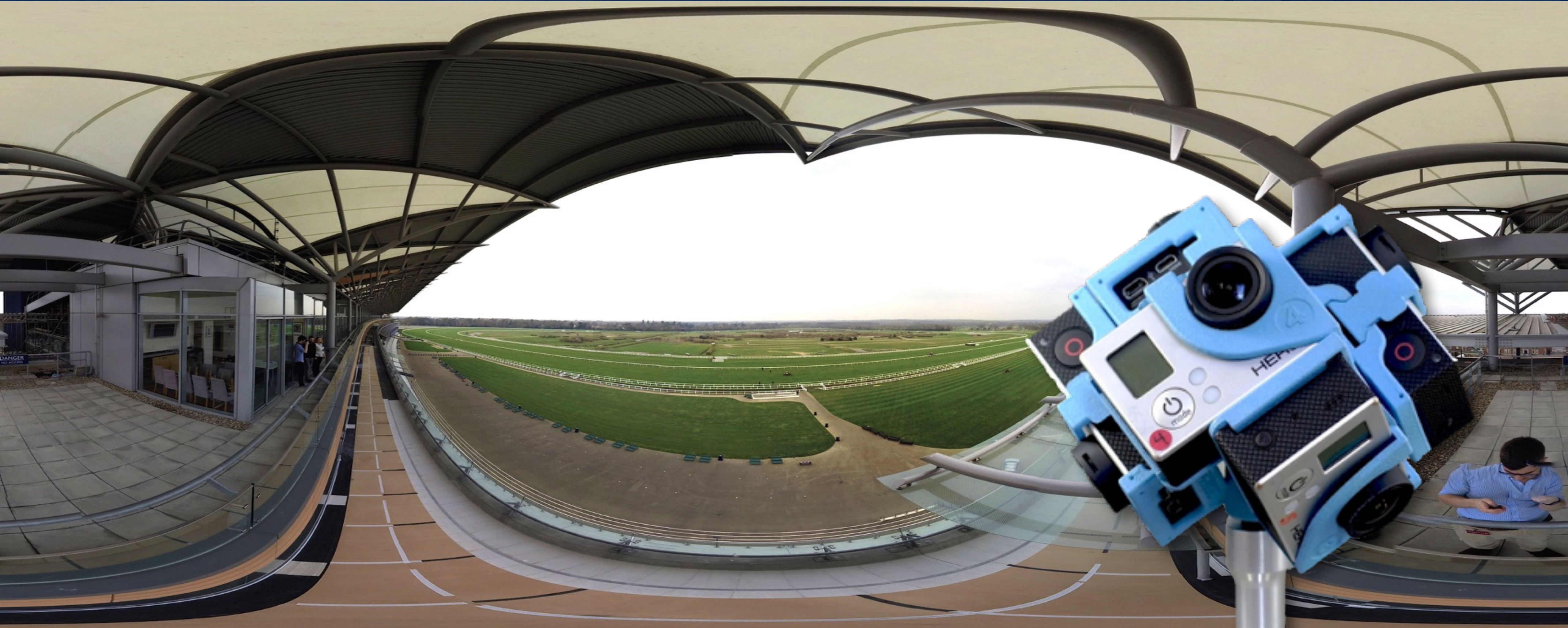


\$250,000 Kickstarter
\$2,500,000 Raised
\$2.5billion Sold to FB



VR Content

360° FILM



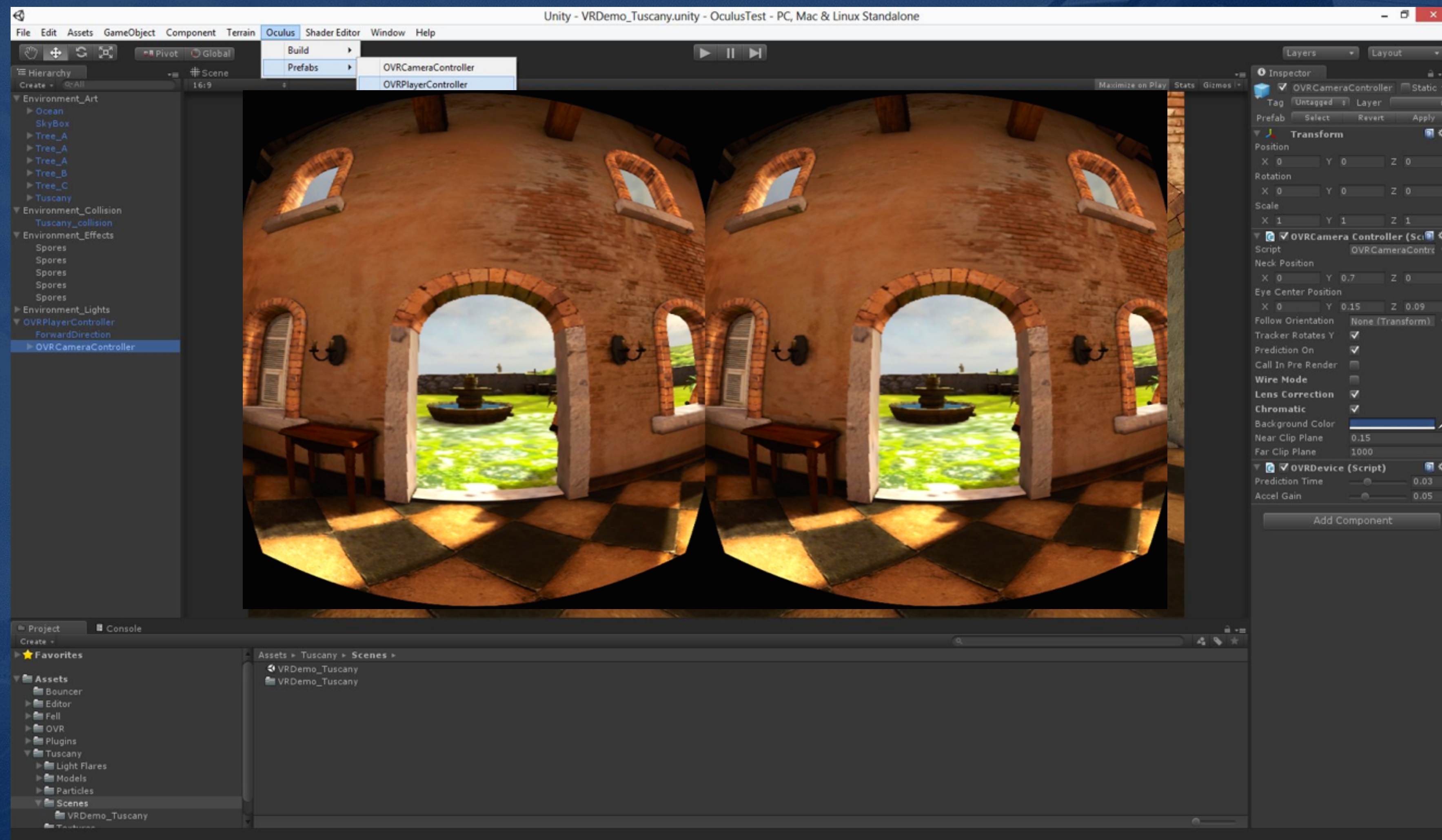
REWIND 



UNREAL
ENGINE



CRYENGINE®



REWIND
FX

REAL TIME ENGINES

Redbull & Rewind FX



Red Bull
AIR RACE

Red Bull
AIR RACE

LAS VEGAS, NV
10-11-12
HONOLULU, HI
10-12-12
PUTRAJAYA, MALAYSIA
10-13-12
EDINBURGH, SCOTLAND
10-14-12
JACKSON, MS
10-15-12
FORT WORTH, TX
10-16-12
LAS VEGAS, NV
10-17-12
EDINBURGH
10-18-12



ASCOT RACE COURSE

Red Bull
AIR RACE

Experiential Stand



Red Bull AIR RACE

WORLD CHAMPIONSHIP

ABU DHABI, UAE
28 - 01 FEB / MAR
ROVINJ, CROATIA
12 - 13 APR
PUTRAJAYA, MALAYSIA
17 - 18 MAY
GDYNIA, POLAND
26 - 27 JUL
ASCOT, UK
16 - 17 AUG
FORT WORTH, US
06 - 07 SEP
LAS VEGAS, US
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ASCOT RACECOURSE





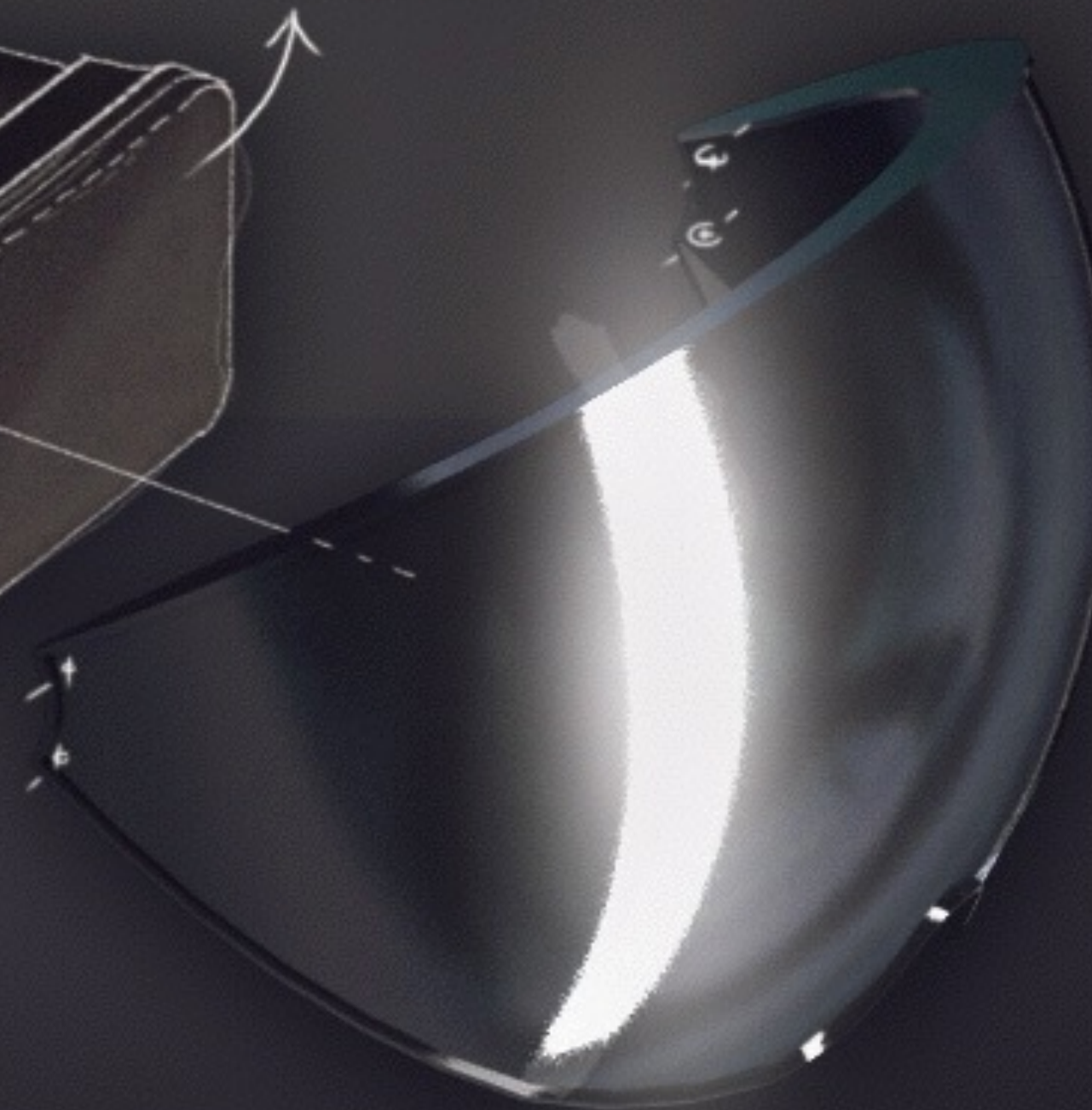
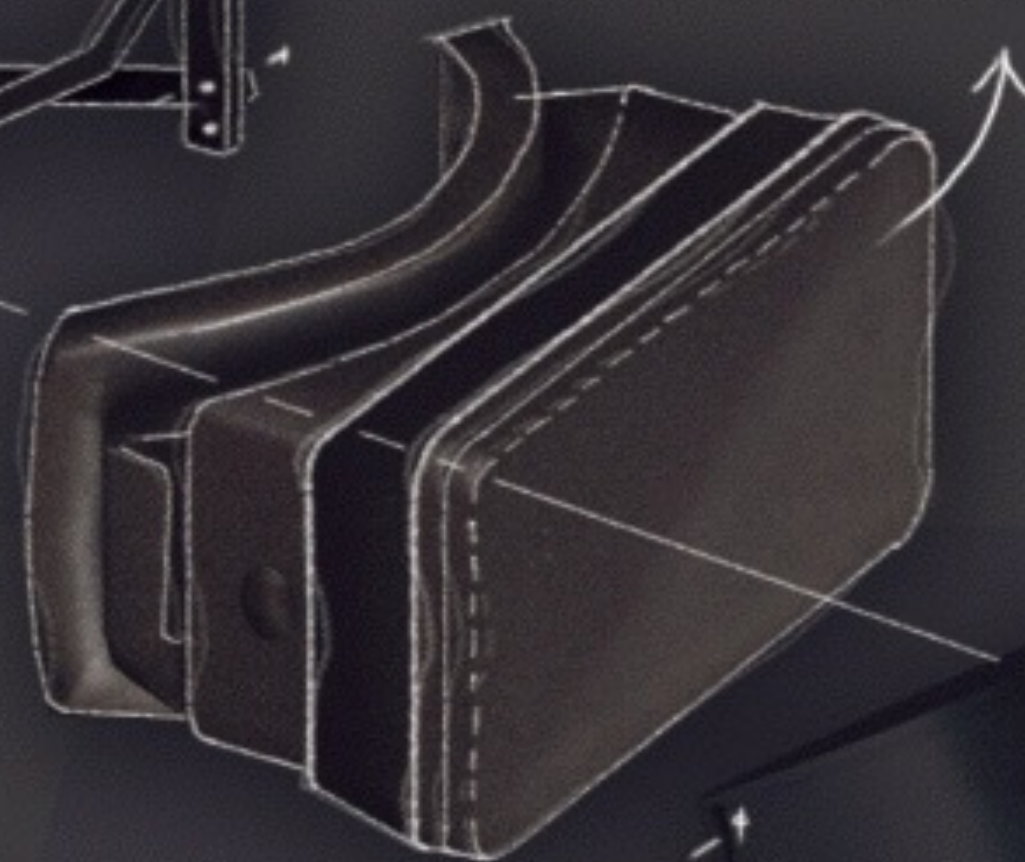
Retractable visor mechanism lifts the visor cover and oculus rift away from the users face for placing + removal.




Oculus rift built inside visor, wires are channeled inside helmet enclosure.



Immersive positional stereo audio, uses headtracking and surround algorithms to generate a truly breathtaking experience.





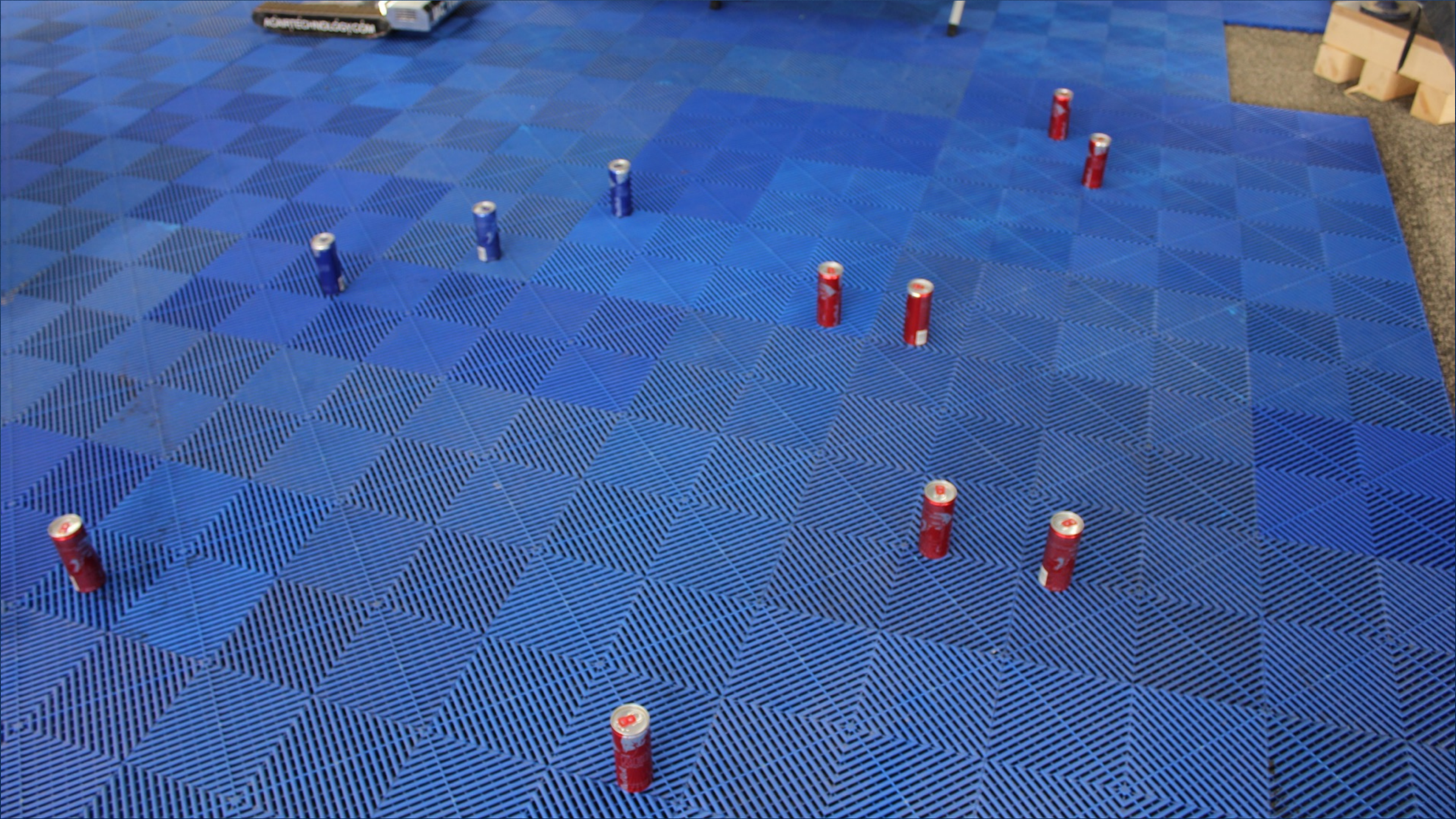
The background image is a VR simulation of a Red Bull Air Race track. It features a large, multi-tiered grandstand on the right side, with 'Red Bull AIR RACE' branding visible on its facade. A biplane is seen flying in the sky on the left. The track itself is a curved, paved surface with a white boundary line. The entire scene is overlaid with a dark blue tint.

VR Simulation As close to the real thing

CROATIA









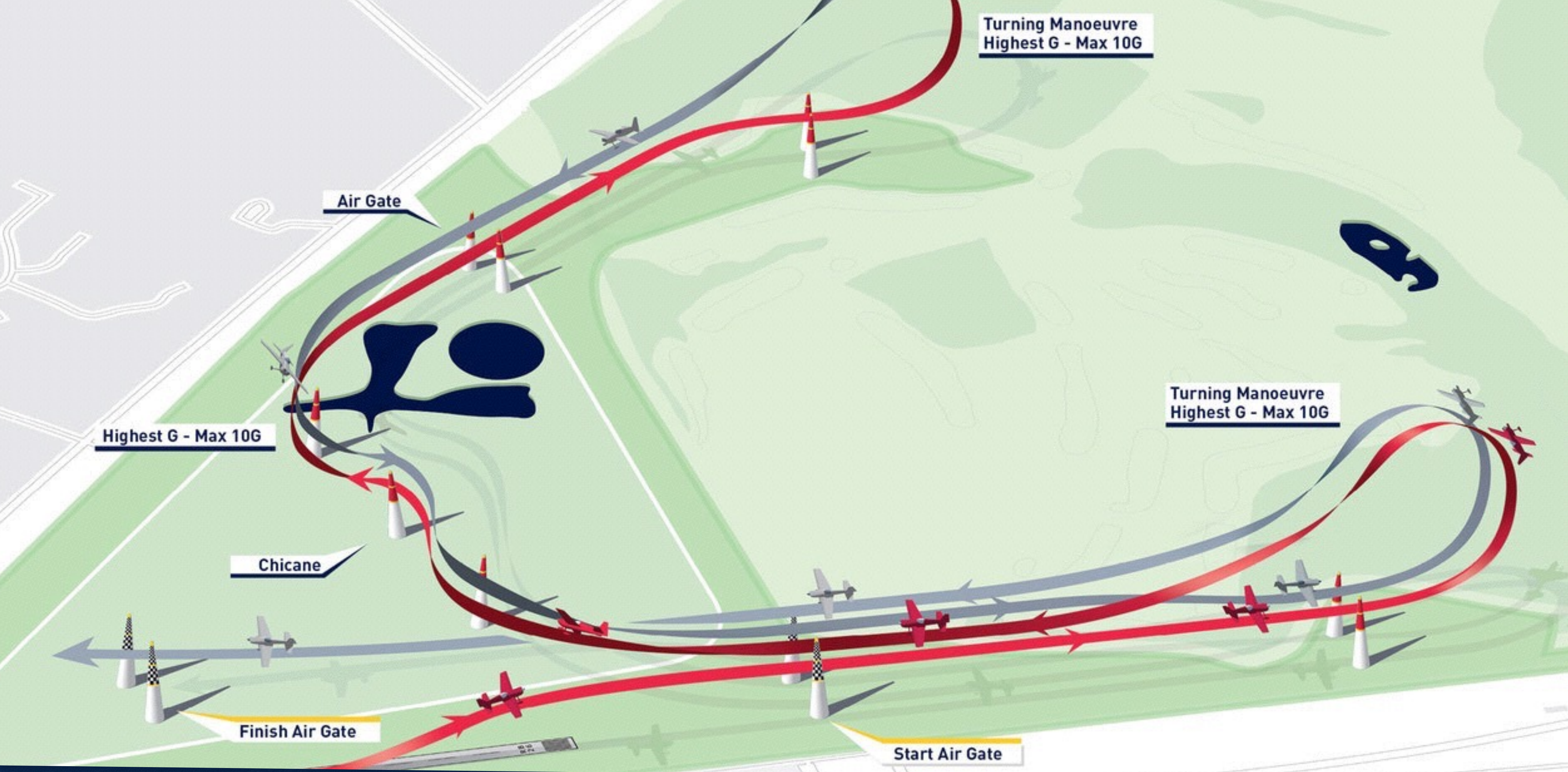


The Track

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PAUL BONHOMME



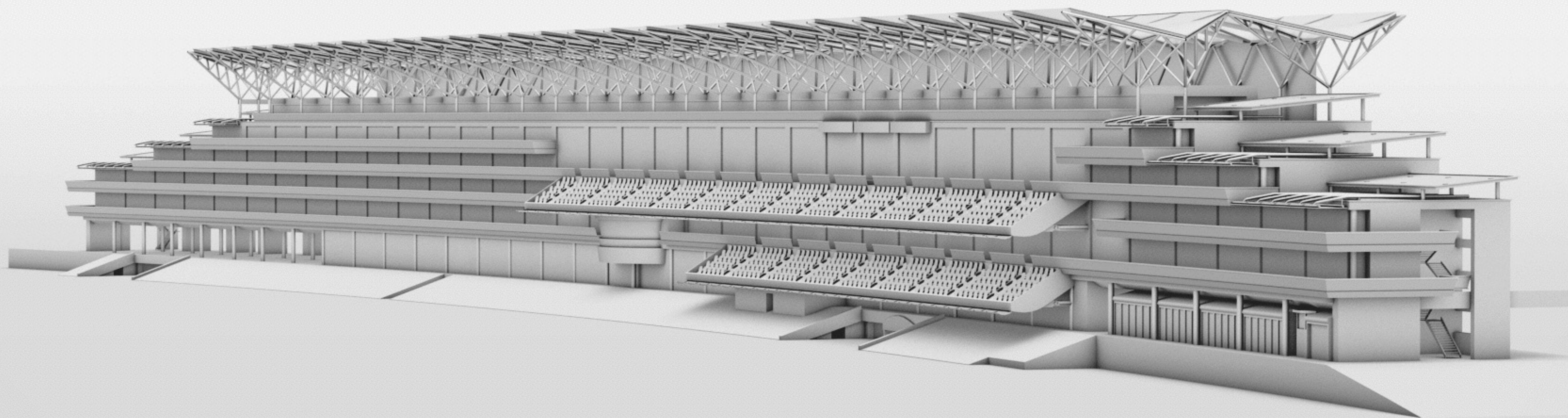


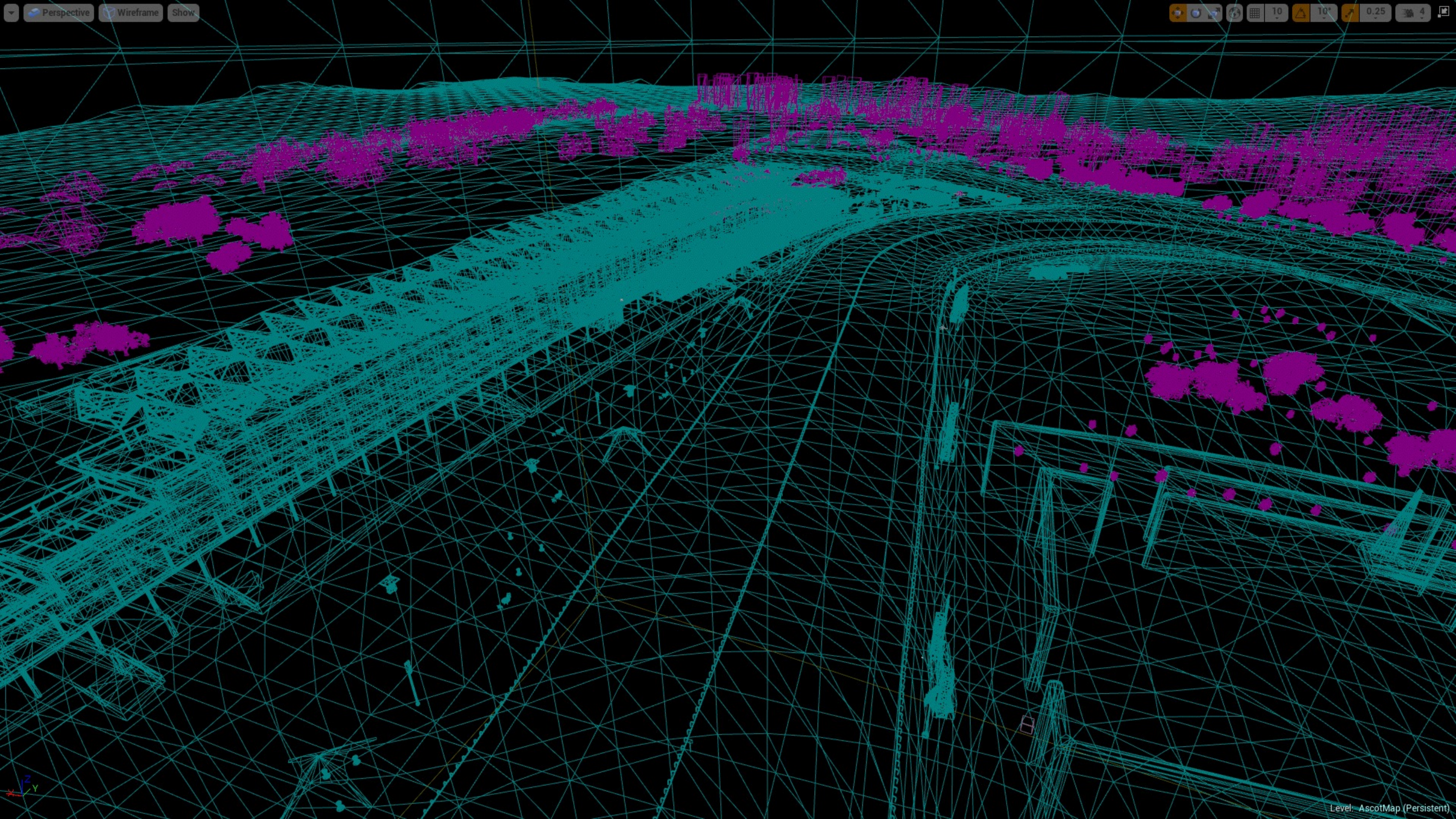
LIDAR HEIGHT MAP



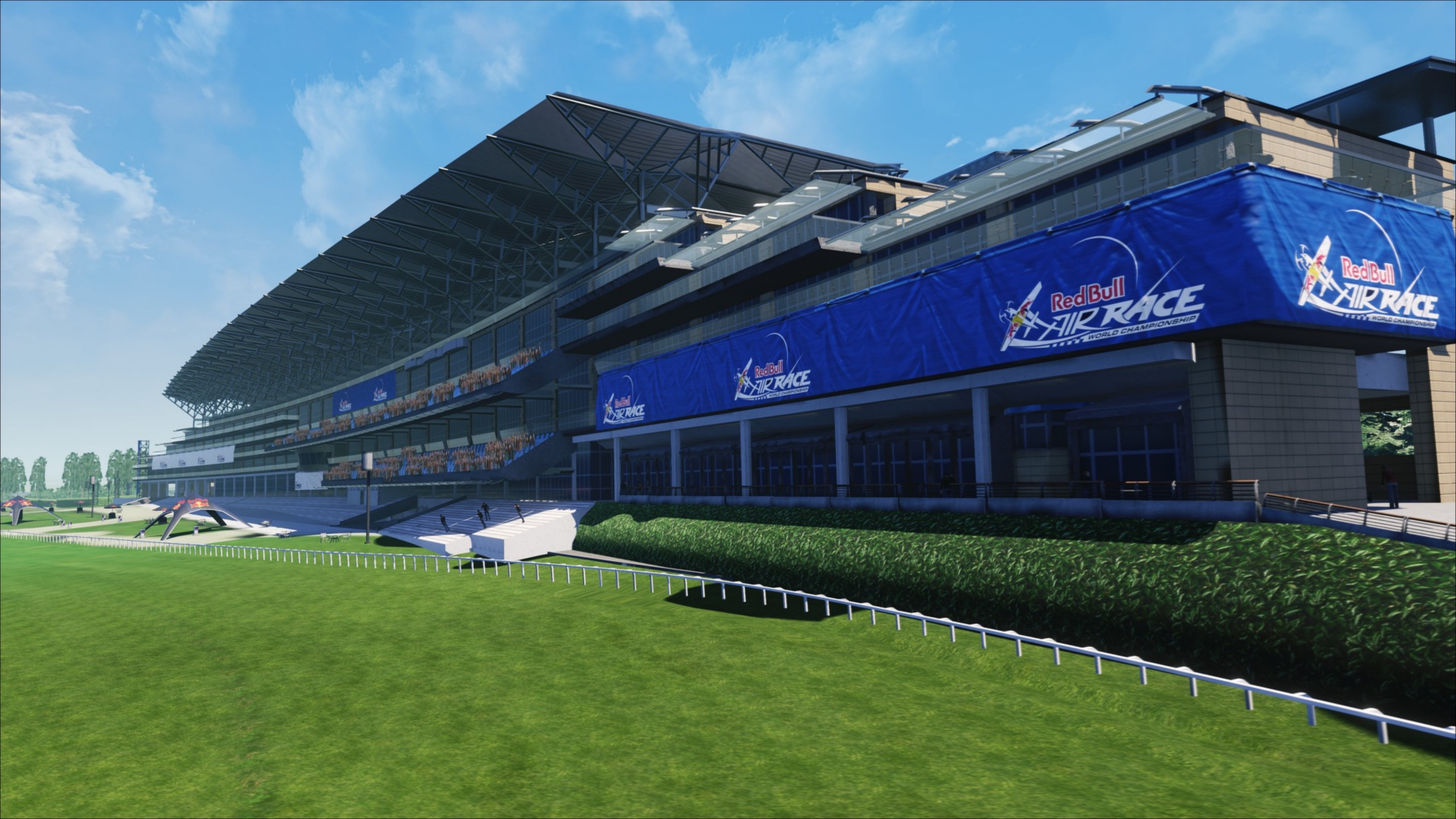








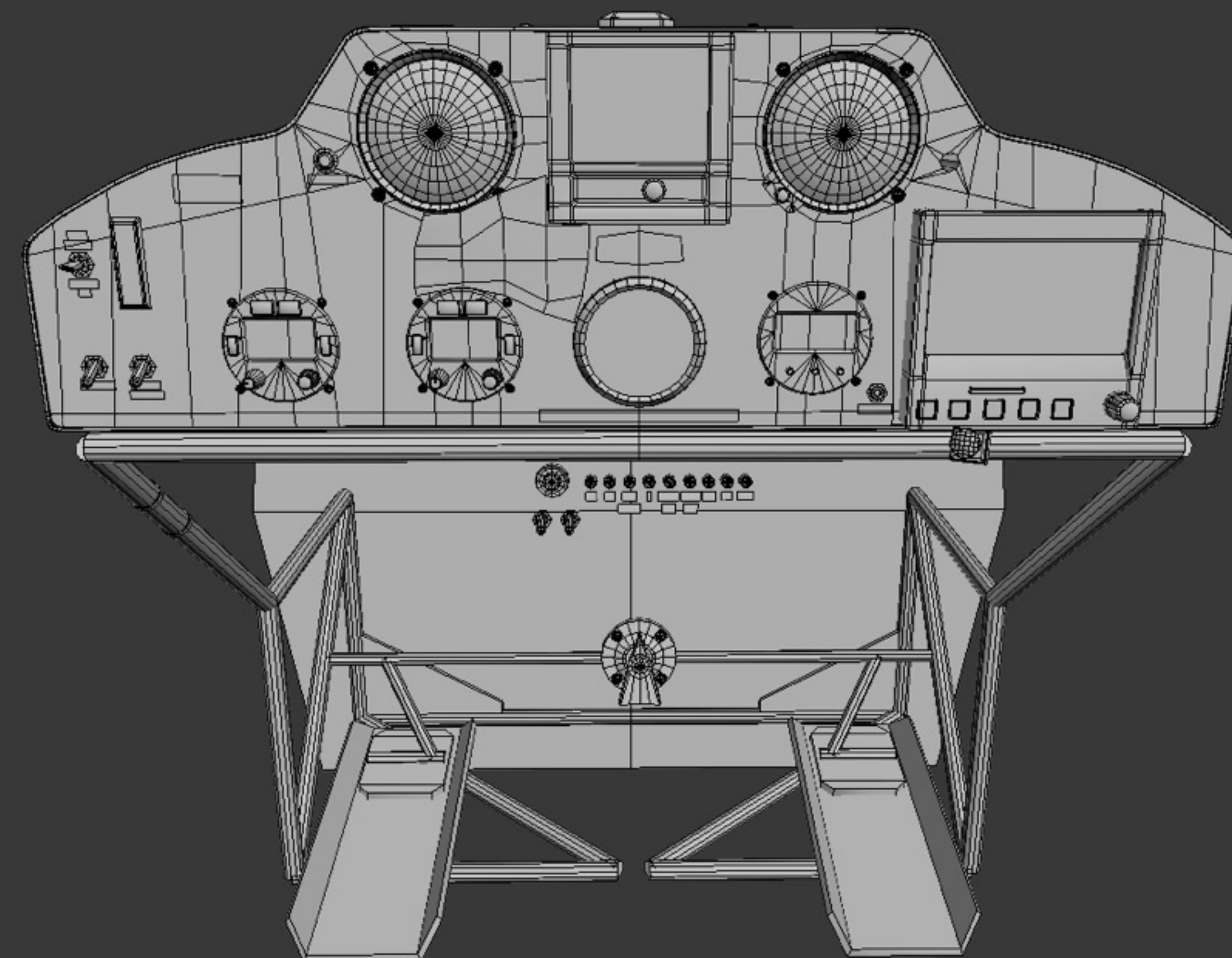
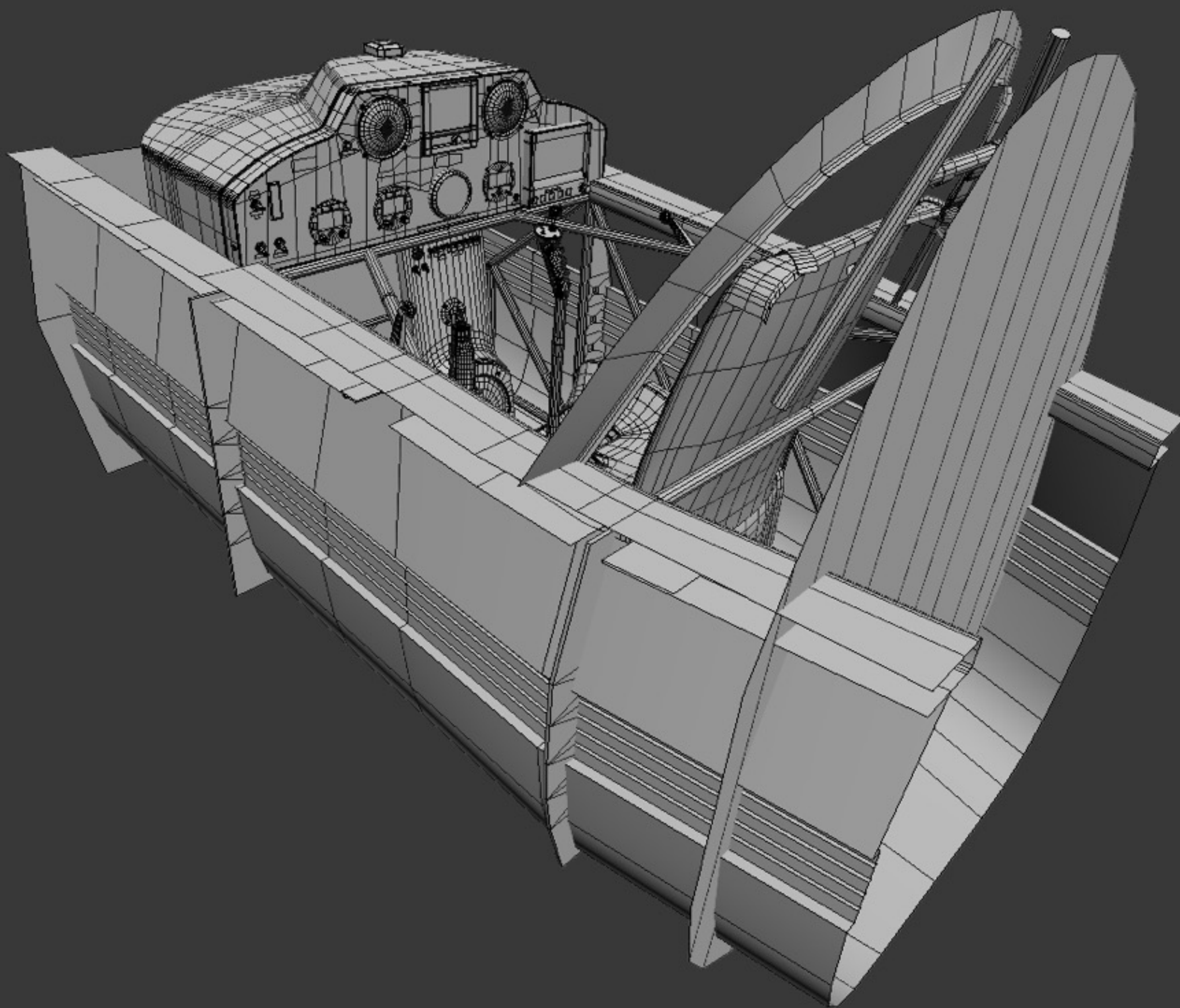




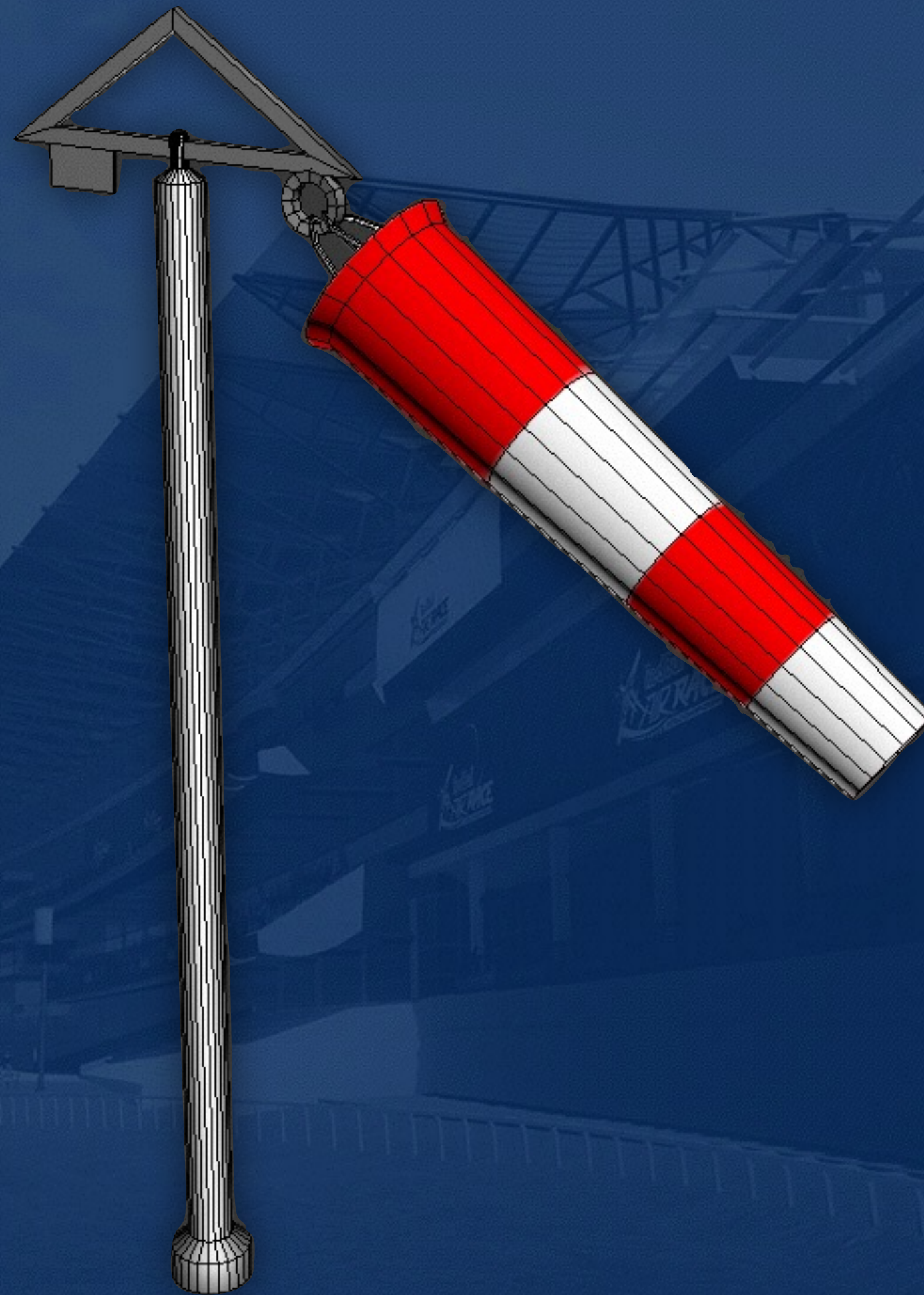


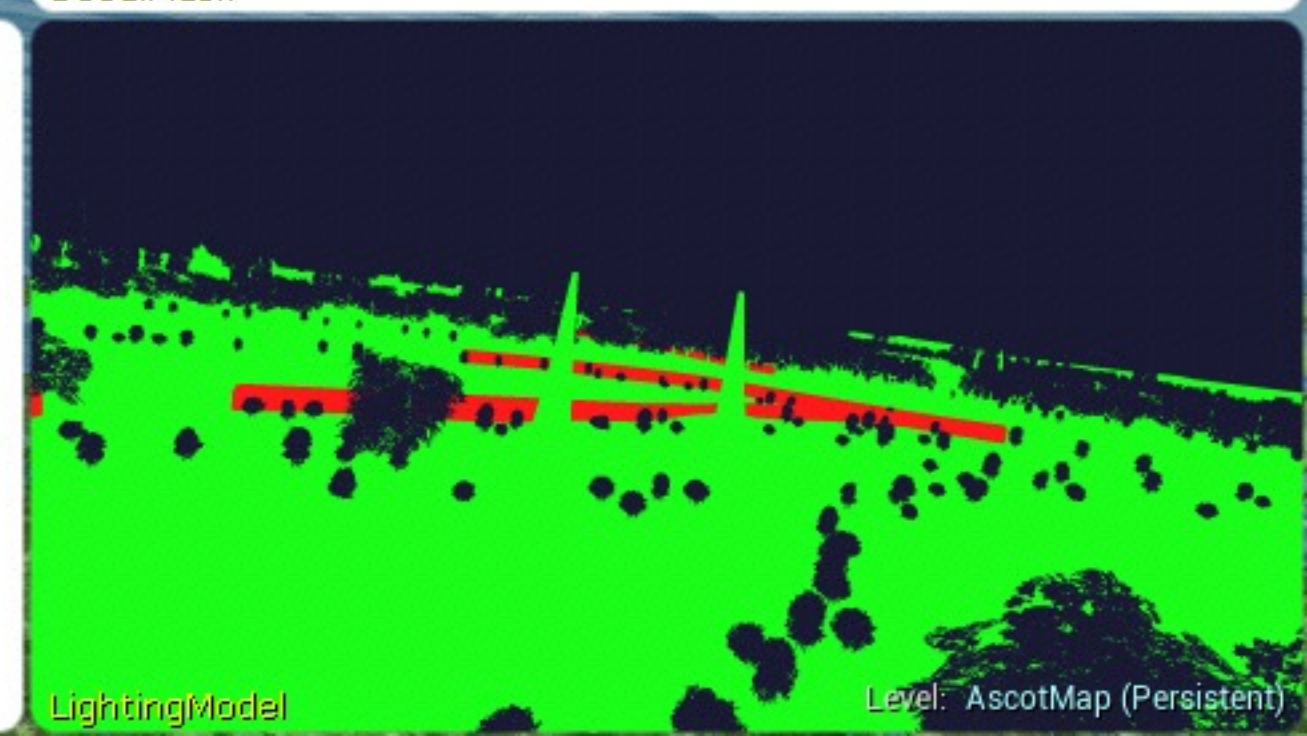
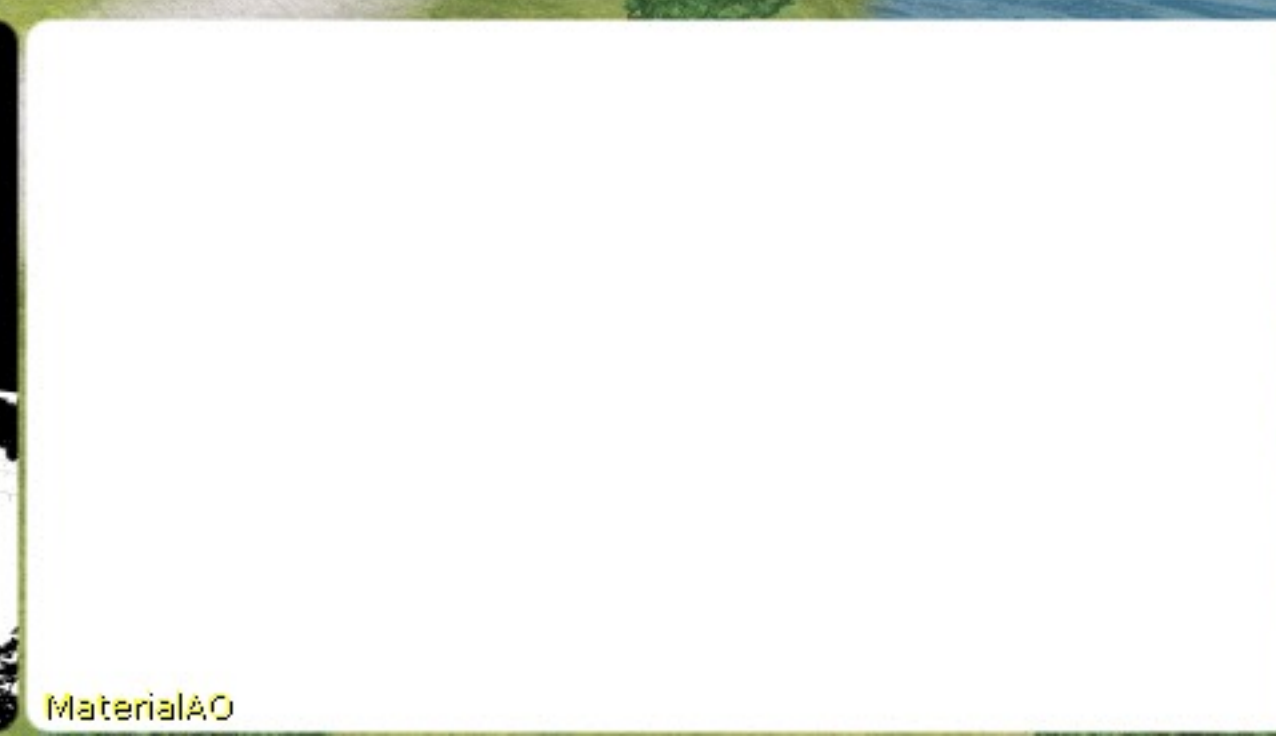
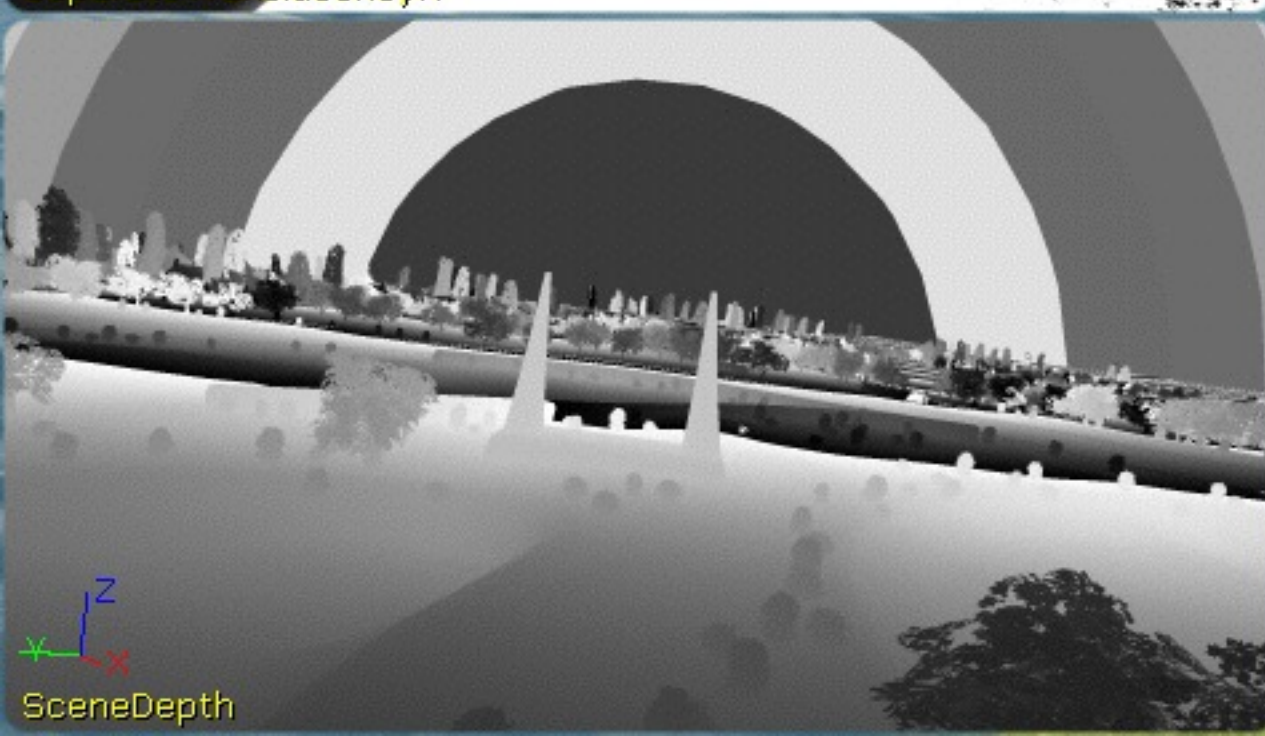
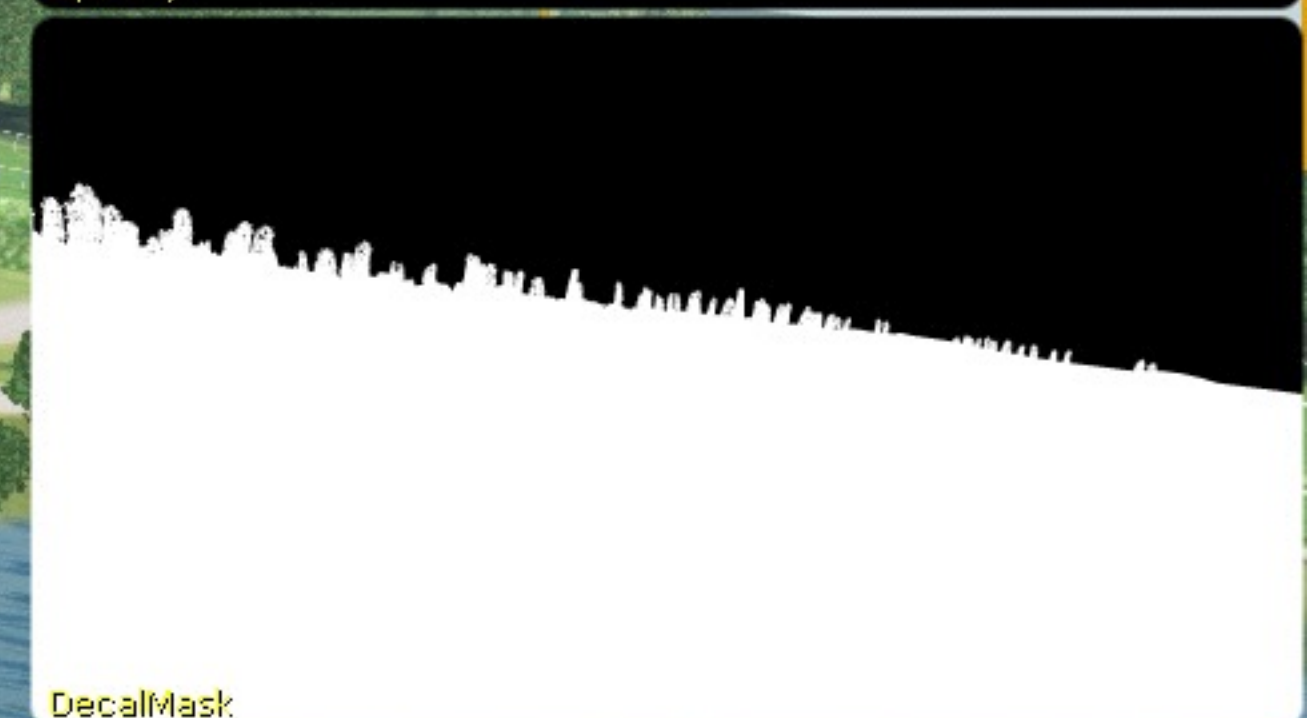
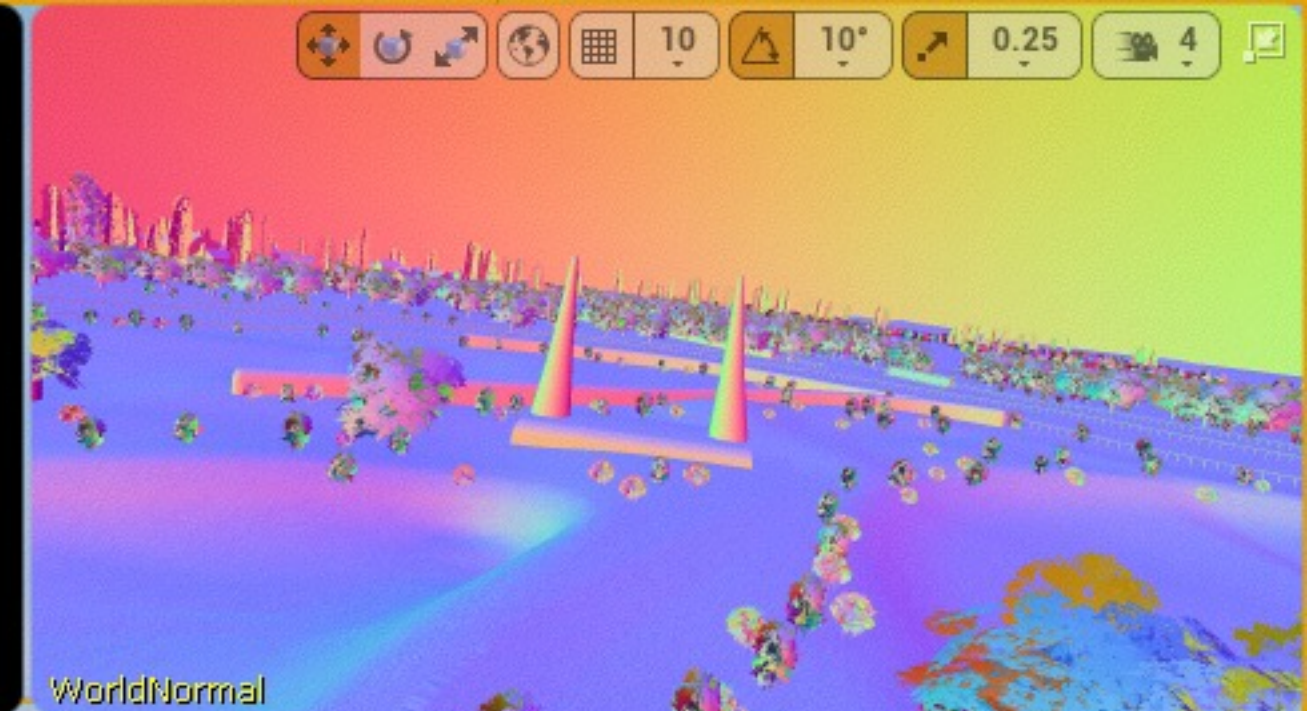
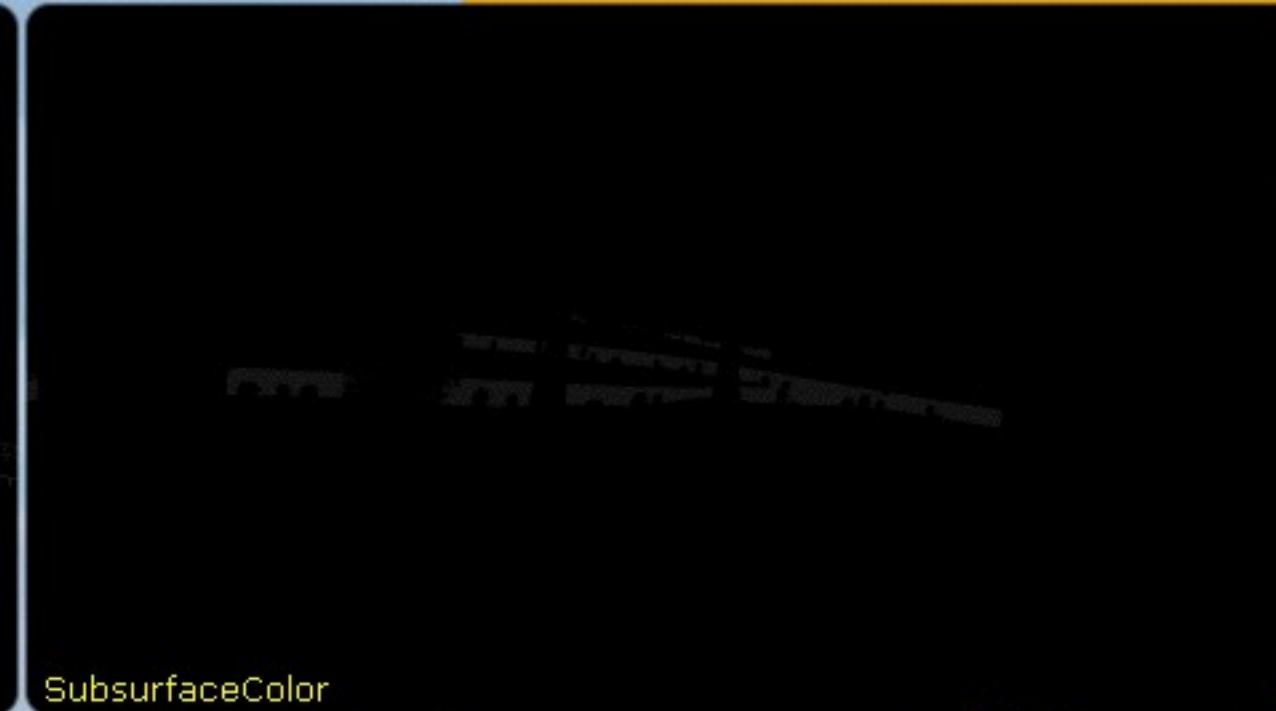














Future

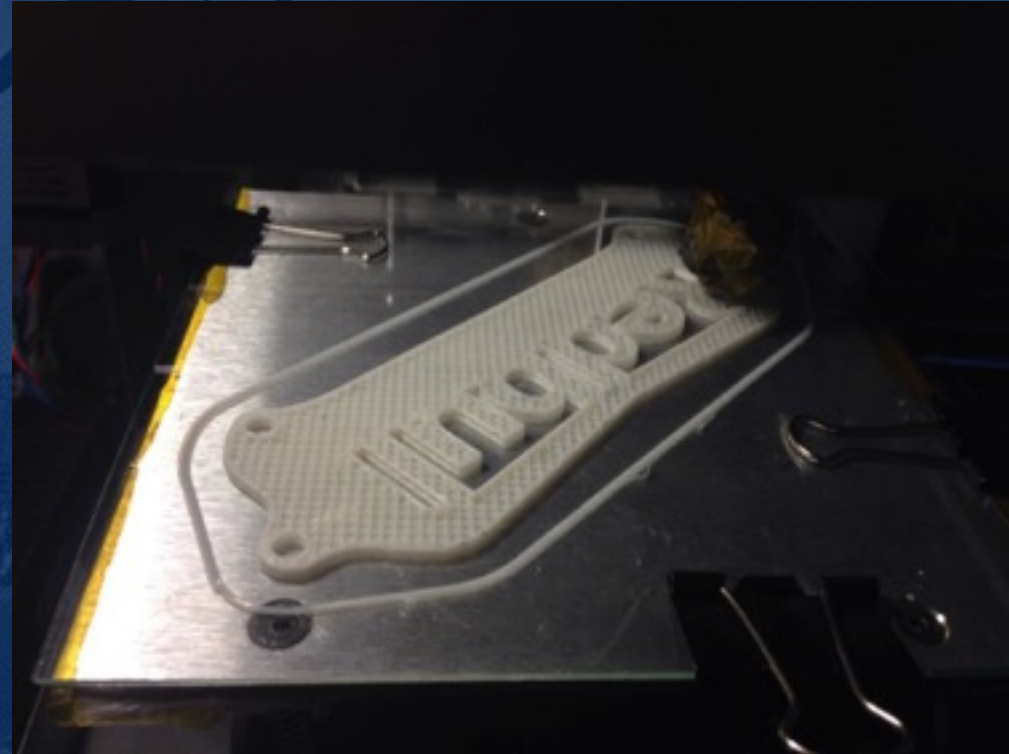


VRCADE





ALTERGAZE



GOOGLE CARDBOARD



SAMSUNG PROJECT
MOONLIGHT



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