

ZOOX

## Automotive

Architecture/Design/Packaging

### ALTEN ADDED VALUE

ALTEN Technology brings expertise in part development with OEMs and EV startups, from design concept to production

### KEY TOOLS & TECHNOLOGIES

CATIA 3DX

Slack

### KEY DATA

Team Size: 4 Engineers

Time: 2021–2022

Location: Greensboro, NC

Work Package

## DESIGN OF SENSOR ENCLOSURES ON AUTONOMOUS MULE FOR STREET MAPPING

### OVERVIEW

The Zook Toyota Highlander street-mapping mules have been on San Francisco's roads since the beginning of the Zook brand. Thanks to new funding, an additional 500 mules will hit the road equipped with a new roof capsule that prevents degradation of the equipment within and gives the vehicles a sleek look.

### PROJECT DETAILS

- Designed a complete **carbon fiber roof shell** that mimics the exact same placement of the sensor pods as in the future autonomous vehicle
- Performed **sensor integration, harness design, and air and water duct routing**
- Designed **brackets** to support all necessary items (pumps, compressor, PCB, sensors, microphones, speakers, lights, cameras, LIDARs)
- **Integrated 10 radars** around the vehicle with studio input on bracket and enclosure design
- Full design for manufacturing and design for assembly
- Designed **jigs** for bodywork and bumper modifications

