ROAR Racing Competition
Hardware

- Jetson Nano – Xavier based GPU with ARM x57 processor 4GB RAM
- Arduino Nano – adds capability to add sensors to vehicle
- Mipi Camera – Acts as Rear View Mirror
- Arudino Nano Break out Board
- Intel RealSense D435i
- DC to DC Step Down
- SD Card
- USB Splitter Board
- 7.4 Volt Lipo
Traxxas 4 Tec

- Simple to modify and add chassis plate to make car autonomous.
- Length: 379mm
- Height: 129mm
- Front and rear differential drive train
- Wheelbase: 10.1 inches
- Wheel diameter: 53mm
Optimal Racing Platform

- Easier to use hardware interface.
- Robust Platform for integrating control law and machine learning algorithms.
- Easy to add hardware modifications.
Simple clean aesthetic.
Optional Parts

- Rear View Camera
- Heatsink Fan
- Optional Dual RealSense Camera Mount (D435i and T265 Mount)
Main Goal

Complete a project using the car platform. (hardware or software)
Potentially participate in Autonomous Racing competition in May.