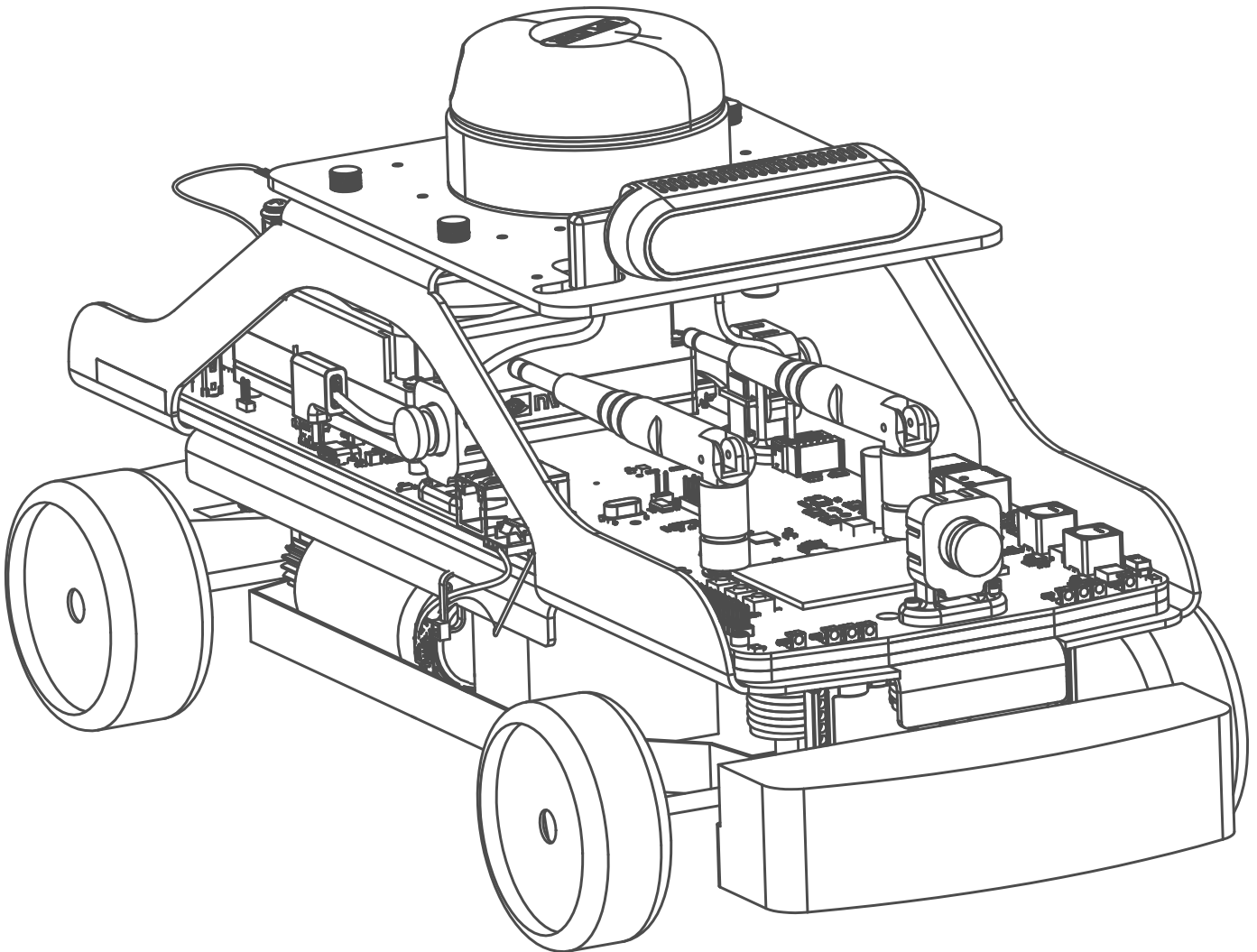


INTEGRATED CAPSTONE PROJECTS AND RESEARCH EXAMPLE

INDUSTRY-RELEVANT, PROJECT-BASED EXPERIENCES
IN AUTONOMOUS SYSTEMS AND APPLIED AI



INTEGRATED CAPSTONE PROJECTS AND RESEARCH EXAMPLES

Application

AUTONOMOUS SYSTEMS

360° Vision

Point Cloud Generation

RGB-D Imaging

Autonomous Navigation and Driving Examples

Vehicle to Vehicle Communications

Vehicle to Infrastructure Communications

Accessing and Visualizing LIDAR Data

Applying Steering and Drive Commands

Lane Following

Localization via LIDAR with SLAM

Localization via April Tags



APPLIED AI

Human Action Recognition using Deep Learning (ActionNet)

Hand and Body Pose Estimation with Neural Networks (PoseNet)

Monocular Depth Estimation via Deep Learning (DepthNet)

Image Classification using Convolutional Neural Networks (ImageNet)

Semantic Image Segmentation with Deep Learning (SegNet)

Deep Learning-Based Lane Detection (LaneNet)

Object Detection and Segmentation with YOLOv8 (YOLOv8Seg)

