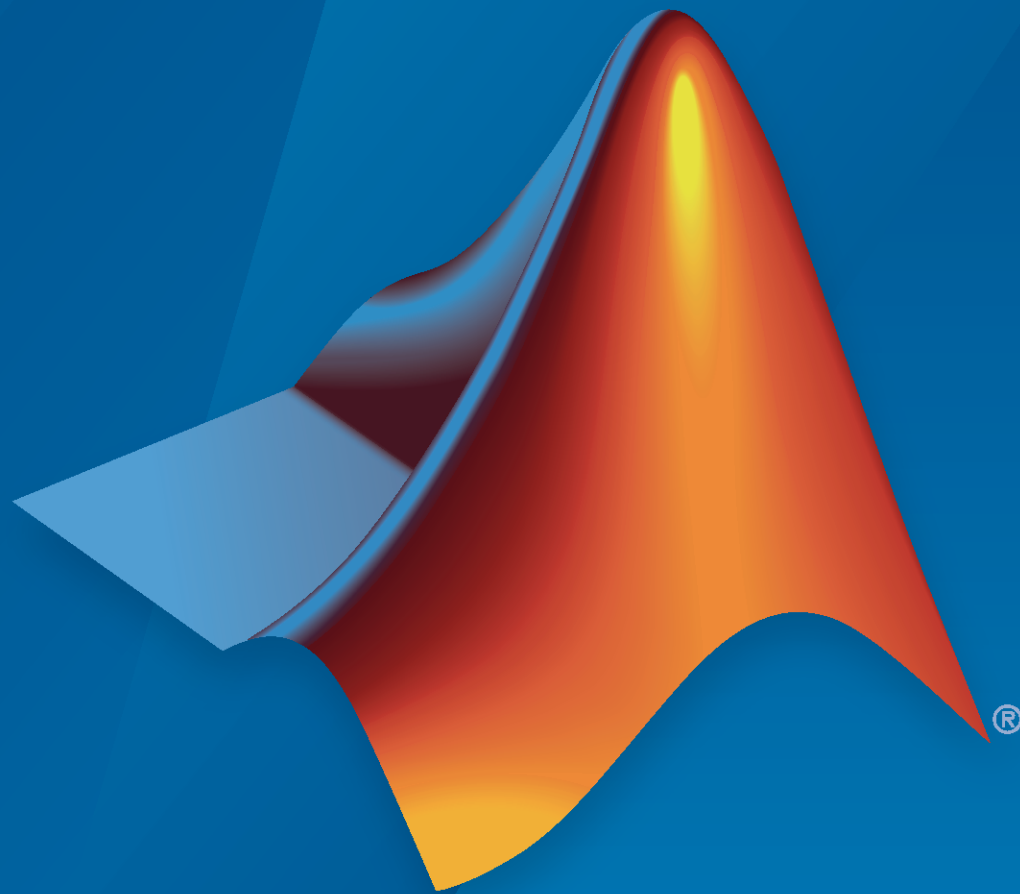


# Lidar Toolbox™

## Getting Started Guide



# MATLAB®

R2021b



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September 2021	Online only	Revised for Version 2.0 (R2021b)

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# Introduction to Lidar Toolbox

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## **Lidar Toolbox Product Description**

### **Design, analyze, and test lidar processing systems**

Lidar Toolbox™ provides algorithms, functions, and apps for designing, analyzing, and testing lidar processing systems. You can perform object detection and tracking, semantic segmentation, shape fitting, lidar registration, and obstacle detection. The toolbox provides workflows and an app for lidar-camera cross-calibration.

The toolbox lets you stream data from Velodyne® lidars and read data recorded by Velodyne and IBEO lidar sensors. The Lidar Viewer App enables interactive visualization and analysis of lidar point clouds. You can train detection, semantic segmentation, and classification models using machine learning and deep learning algorithms such as PointPillars, SqueezeSegV2, and PointNet++. The Lidar Labeler App supports manual and semi-automated labeling of lidar point clouds for training deep learning and machine learning models.

Lidar Toolbox provides lidar processing reference examples for perception and navigation workflows. Most toolbox algorithms support C/C++ code generation for integrating with existing code, desktop prototyping, and deployment.