DreamVu

PAL Person & Object Detection Starter Kit

Release notes v3.0

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Summary

This version of the PAL Person & Object Detection Starter Kit with software v3.0 has improvements over the detection performance for persons with higher accuracy of depth measurements. This software supports detection of persons in varied poses (standing, sitting, crouching, occluded). This also includes detection support for many classes other than person, bug fixes and other minor changes in the package to provide robust performance.

Improvements

1. The software has lower FP rate < 1%, improved detection latency of 300ms on Jetson NX, can capture a maximum of 100 detections.
2. The depth estimation of the persons and objects is done by calculating at multiple positions of the bounding box.
3. The depth and point cloud can now be retrieved at a maximum of 20 FPS.

New Features

1. The software includes various applications which are specifically developed for the users to kick-start the development and integration which uses person/ object detection API. This includes depth estimation of persons, object detection, 3D location estimation of persons/ objects, social distancing, safe zoning and occupancy mapping. These applications are available in Code Samples and ROS.

Changes

1. Different resolution support is removed from the software.
2. Software provides both 2.5D and 3D Point Cloud.
3. Software provides a multi-floor 2.5D point cloud.

Bug Fixes

1. Crashes due to SelectTimeout() errors are fixed in this version.

Future Releases

1. We will be releasing more applications as code samples which use person/ object detection as an API. This includes silhouette detection, palette detection, people following and object tracking.