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Kudan Inc.

Kudan 3D-Lidar SLAM (KdLidar) new demo: Sharp point cloud with a Lidar without external GNSS nor IMU - Part 2

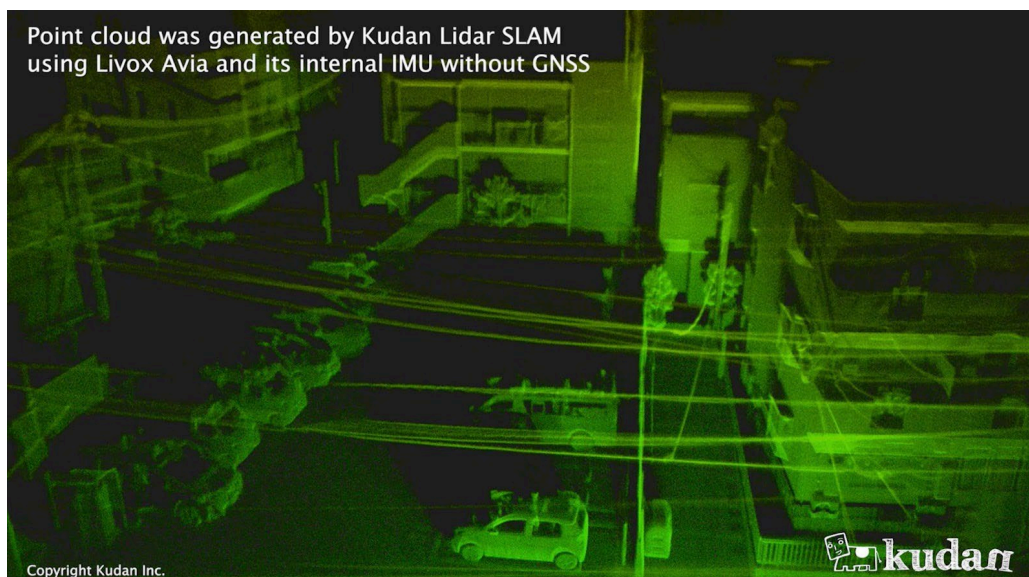
As we continue to enhance our Lidar SLAM capabilities without relying on external sensors, we took a Livox Avia, and put it through the test. Unlike the rotating 360 degree FOV [Ouster OS1-64](#) from our previous demonstration, the [Livox Avia](#) is a 70 degree directional Lidar with a built-in IMU, and we tested the Avia in a handheld configuration. The results were positively stunning.

For tracking and creating point clouds with Lidar SLAM, the following 2 factors create the biggest challenges

- No external GNSS or IMU
- Limited field of view (FOV) - not 360 degrees

We configured this demonstration with both conditions to see how well our Lidar SLAM performs in creating a crisp point cloud. As you can see from the video below, using only the Lidar and the internal IMU, the details are fantastic without any ghosting - even down to the individual powerlines.

Given that the Livox Avia is one of the most affordable 3D-Lidars, paired with Kudan's Lidar SLAM, you won't need to make the trade-off between cost, point cloud quality, and still have a very cost-effective and efficient mapping tool to produce the crisp and accurate high-quality point clouds your projects demand.



As with [our previous demo](#), this demonstration highlights KdLidar's fundamental performance without any external sensors, and we can further fuse GNSS and external IMU, INS and other external references to increase the performance and quality of point clouds created from Lidar based scanners.

Please see the demo here: <https://youtu.be/BtuyeZShZH4>

About Kudan Inc.

Kudan (Tokyo Stock Exchange securities code: 4425) is a deep tech research and development company specializing in algorithms for artificial perception (AP). As a complement to artificial intelligence (AI), AP functions allow machines to develop autonomy. Currently, Kudan is using its high-level technical innovation to explore business areas based on its own milestone models established for deep tech which provide wide-ranging impact on several major industrial fields.

For more information, please refer to Kudan's website at <https://www.kudan.io/>.

■ Company Details

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■ For more details, please contact us from [here](#).

