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The Estimator is basically a geo-tagging unit. It contains a professional grade u-blox 10<sup>th</sup> generation GNSS, and an accelerometer serving as a trigger source.



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## **Patents**

- A harvesting tool with data acquisition capability for oil palm trees and the like: MYPI2021006033 (pending), IDP00202210866 (pending).
- An apparatus for guiding harvester(s) to trees with matured fruits: MYPI2022005530 (pending), ID - to be filed.

## Contact

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### aero-Palm<sup>®</sup> Estimator



AERO-PERSISTENCE RESEARCH



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# Fruit Counting and Harvesting Map Generation

Malaysia is known as the second largest producer of palm oil in the world after Indonesia. Harvesting oil palm fruit bunches at the right stage of ripeness is critical to ensuring optimum quality, and quantity of oil production. The harvesting cycle for a palm tree is around 14 days. First step in the harvesting process is to search for fruit bunches with optimum ripeness. Traditionally, harvesters move from tree to tree, without prior information on the exact locations of trees having ripe bunches. This step can be made more efficient if the harvesters are equipped with a harvesting map. The Estimator is designed to estimate the number of palms pruned or harvested. An app generates the harvesting maps based on the collected data.

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# Data to a Cloud Server

At the end of a harvesting day when the Estimator is taken back into an office and placed on its charging station to recharge, its main processor will activate its Wi-Fi module.

This allows the transfer of data from the unit to a cloud server.