

ADVANCED NAVIGATION'S CERTUS EVO HELPS NEXTCORE'S UAV LIDAR FLY TO NEW HEIGHTS



THE RN100 FROM NEXTCORE

Nextcore is an Australian-based company who specialise in making UAV-mounted LiDAR systems. Established in 2012, Nextcore's solutions have been used in the mining industry, by surveyors and environmental specialists all over the world.

If there's one thing that defines the Nextcore team it's their passion to continually improve the technology of UAV LiDAR in order to make cost-effective, reliable equipment that is easy to use. This led to the RN80 project, a UAV-mounted LiDAR payload that could be flown higher in the air and still deliver a survey-grade dataset.

THE CHALLENGE: CREATING AUV-MOUNTED LIDAR THAT CAN FLY AT 80 METERS ABOVE GROUND LEVEL.

Previously Nextcore's UAV-mounted LiDAR could only fly at 50 metres above the ground, which ran the risk of colliding with vegetation. To avoid this, the team set the goal of increasing their altitude to 80 metres above the ground.

Operation at this altitude not only reduces the risk of collisions with trees, it also enables surveyors to cover larger areas, greatly improving the solution's efficiency. However, this ambition came with increasing risk.

"The problem with flying a UAV LiDAR payload higher off the ground is the higher you fly the more inaccuracies you build into the LiDAR dataset" says Ashley Cox, COO and Co-Founder at Nextcore.

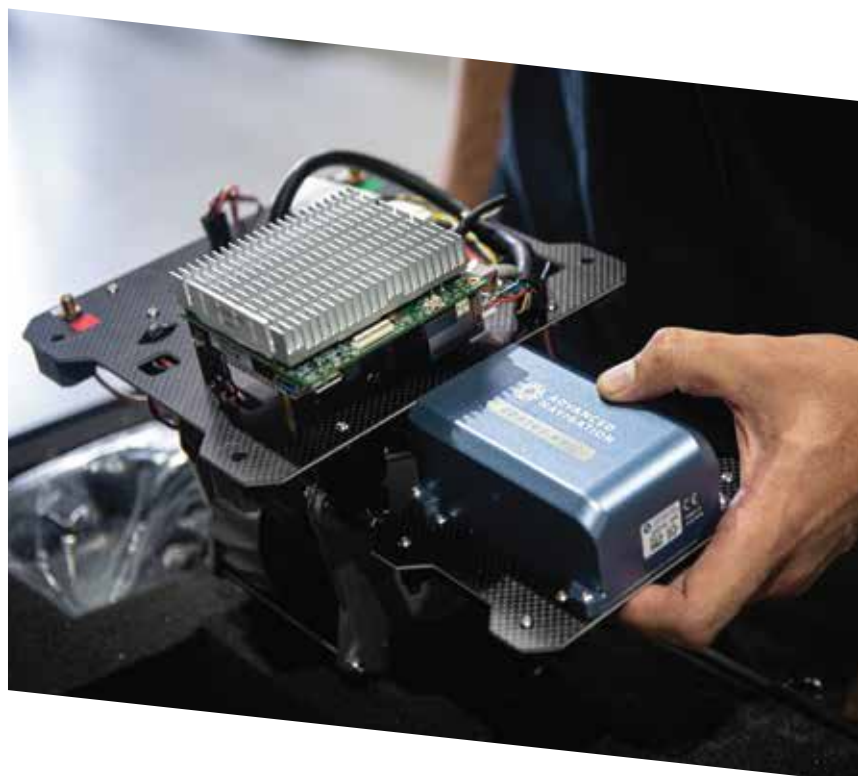
"The challenge was finding hardware we could put into the system that would allow us to achieve a survey-grade outcome even though we were flying our drones higher".

THE SOLUTION: CERTUS EVO

After reviewing the different inertial navigation systems available on the market, Ashley and the Nextcore team selected Advanced Navigation's Certus Evo to be used in the RN80 payload.

The Certus Evo was chosen because:

- It was highly accurate, reducing any angular errors from flying higher.
- It was easy to integrate into Nextcore's existing systems.
- It was cost effective, allowing Nextcore to pass their savings on to their customers.



THE OUTCOME: SOARING ABOVE EXPECTATIONS

"When we had done our calculations we expected we'd be able to fly 80 metres above ground level" says Ashley. Instead, the Certus Evo performed so well it enabled Nextcore to produce a UAV-mounted LiDAR that operates at 100 metres above the ground, exceeding their initial goal. This became the RN100 UAV LiDAR, which allows Nextcore's customers to fly more safely, cover a larger area and still achieve a survey-grade outcome.

"We are excited to have partnered with Nextcore on this very strategic initiative to expand their capabilities and exceed their expectations for delivering on their business objectives," says John Colvin, Chief Revenue Officer at Advanced Navigation. John continued, *"Nextcore has always been on the forefront and cutting edge by pushing the boundaries with their UAV-mounted LiDAR systems. This has driven us to produce our next generation of navigation solutions, like the Certus Evo, which will provide the highest performance results in the industry. We are looking forward to our continued partnership with Nextcore and accelerating their success as they pursue their global expansion."*



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