



If you are interested in the Lidar Ground Satellite, please contact Nancy Saucier, Director of New Venture Development at Nancy_Saucier@uml.edu or 978-934-3212.

Lidar Ground Satellite

Environmental Monitoring

Status: Beta Prototype Complete; Exploring Limited Production Opportunity

The faculty founder of Lidar Ground Satellite is Supriya Chakrabarti, from the department of Physics and Applied Physics at UMass Lowell. This Lidar Ground Satellite sits on the ground and sends out pulses of light that creates a 360-degree, 3-D picture. These pictures are used to measure the effects of radiation, erosion, and carbon in the environment. In addition, this device takes ground level scans which allow industrialists to detect how much radiation is making it down to the ground, how much carbon is in the surrounding area, how many gaps there are in a forest of trees, bushes and shrubs and how much biomass is in a certain spot.

Lidar Ground Satellite would revolutionize several industries including but not limited to science, environmental monitoring, lumber, and mining. Dr. Chakrabarti's colleague Professor Crystal Schaaf stated "when you're worrying about carbon and how much the trees are processing and how much they are holding in their timber, and realize that every time you cut down a forest, you are releasing that carbon into the Earths system, then it is important to figure out how much biomass is in that particular site."

New Venture Initiative is supporting and assisting the Lidar Ground Satellite through:

- Identification of early adopter markets and commercial applications
- Pricing and small scale manufacturing facilitation for market testing
- Forming an institutional partnership
- Defining an early test market strategy utilizing an early adopter research market for product testing and user feedback for follow-on commercial product development
- Further market analysis is required