APPLICATION
PROPERTY DEVELOPMENT

REDTAIL
LiDAR SYSTEMS

Flight Specifications: altitude 200', speed 22mph

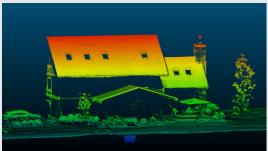**High Resolution Images** • **Superior Range** • **High Point Density**

High-Resolution Point Cloud
Flight Specifications: altitude 100', speed 13mph

The RedTail LiDAR System – incorporating LiDAR technology licensed from the U.S. Army Research Laboratory – is designed to provide high-resolution imaging from multicopters, hybrid, and fixed-wing UAVs.

Designed specifically for small unmanned aerial vehicles, the RedTail LiDAR System is a superior point cloud generation tool that can help you manage all stages of property development by creating high-resolution, highly accurate 3D point clouds of your property development area.
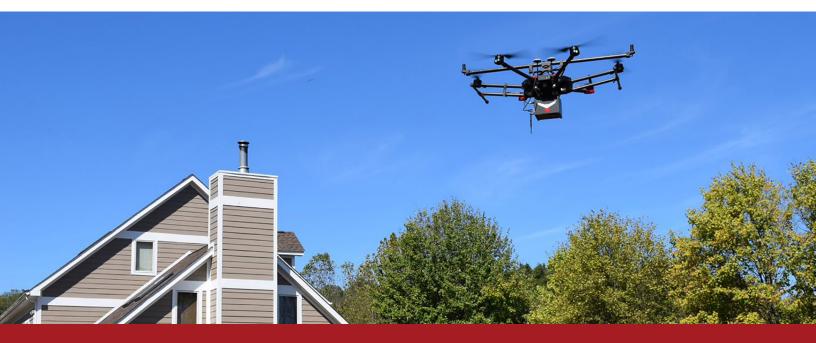
The power of LiDAR imaging for property development is the creation of point clouds that can be rotated, zoomed, and used to accurately measure distances and volumes. High-resolution data can be acquired rapidly and efficiently with the RedTail LiDAR System. The data collected can be imported directly into construction and architectural software solutions, allowing for detailed simulations of the property development projects.

From small to large property development projects, there are many uses for LiDAR data including: 1) analyzing property sight lines, 2) assessing environmental impacts on surrounding areas, 3) evaluating a site's hydrology, 4) estimating costs for earth moving and for tree or vegetation removal, and 5) planning infrastructure such as power and gas lines.

The RedTail LiDAR System is the optimal solution for construction project planning, mapping, and monitoring. With a pulse repetition rate of 400,000 pulses per second, even ground-point distribution, superior ranging capability, and optimized scan angles, the RedTail LiDAR System simplifies even the most challenging construction projects.

Learn more at redtaillidar.com

Phone **304.306.2396**   Email **sales@redtaillidar.com**

About the **RedTail LiDAR System**

The RedTail LiDAR System was designed to meet the market demand for high-quality, high-resolution point clouds from unmanned aerial vehicles. The microelectromechanical (MEMS) mirror-based technology was developed at the Army Research Laboratory (ARL) with the goal of generating accurate, high resolution point clouds over areas of interest on a single drone flight. At RedTail LiDAR Systems, our mission is to provide the optimal tool to rapidly and efficiently create superior point clouds for a broad range of commercial, academic and government customers.

The RedTail LiDAR System – Scanning the way it was meant to be.™

HIGH RESOLUTION
The RedTail LiDAR System's small beam divergence angle yields high-resolution point clouds.

EASE OF USE
The RedTail LiDAR System has been designed by a team of professionals that understands how important it is to provide a system that is easy to use and simple to integrate onto UAV platforms.

RANGE
The RedTail LiDAR System was designed with range being a critical performance attribute. Our system operates effectively against 15% reflective targets at a height of 250 feet, and 400 feet against 80% reflective targets, thereby ensuring mapping flights can be performed in a wide variety of operating environments (e.g., tall trees, buildings).

SCAN PATTERN
The RedTail LiDAR System transmits all laser pulses to the ground to optimize point cloud density. LiDAR points are evenly spaced to provide superior mapping capability.

LINE SCAN FREQUENCY AND PULSE REPETITION RATE (PRR)
The RedTail LiDAR System has a line scan frequency of 400 scans per second and a PRR of up to 400,000 pulses per second. This rapid side to side scan pattern, coupled with the high PRR, allows operators to fly faster and cover more area.

SCAN ANGLE AND SCAN TYPE
The RedTail LiDAR System was designed with an optimum scan angle of 30 degrees which enhances accuracy and data quality. In addition to side-to-side scanning, the RedTail LiDAR System can operate in a 30 x 30-degree raster scan mode which lets you focus precisely on areas of interest.

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