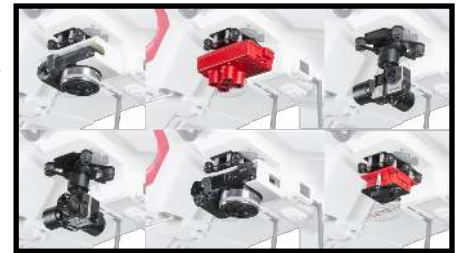# FireFLY 6 Pro Mapping Solution

The FireFLY 6 Pro is a unique UAV design which allows for vertical takeoffs and landings. This feature, coupled with its fixed wing design which allows coverage of up to 450 acres per flight make the FireFLY 6 an ideal Forestry mapping UAV.

The FireFly 6 is easily customized with a wide variety of sensor types depending on the mission required.

- Sony A6000—High Resolution True Color Imagery

- SLANTRANCE 2p—Customizable Narrowband Measurements for specific information products

- MicaSense RedEdge—Multispectral camera for multiband data for Ag. and Forestry Data

- Parrot Sequoia—Multispectral camera captures both visible and invisible images to monitor crop health and vigor

- Gimbaled GoPro—Ideal for real-time aerial assessment and aerial videography

- Gimbaled FLIR Vue—Ideal for Thermal imagery, search & rescue, fire fighting

- NicaDrone OpenGrab EPM—Grab and drop cargo with a simple zap of electricity

Unlike other "Fixed wing" UAVs, the FireFly 6 only requires a 10 x 10 foot launch/recovery area. In addition to the much smaller area required, the FireFLY 6 lands on a set of actual landing gear, unlike most "Fixed wing" UAVs, this allows for much "softer" takeoffs and landings compared to the traditional catapult systems and glide ("crash") landings. We feel this will greatly increase the lifespan of the FireFLY 6 and its components.

Video Links:

FireFLY 6 Overview

Fixed Wing vs FireFLY 6 Landing

FireFLY 6 200th Mission

Specs:
- Wingspan: 60" (1524mm)
- Length: 37.4" (950mm)
- Weight: 8.4-9.9lbs (3.8-4.5kg)
- Range, Physical: 24+ Miles
- Range, Wireless: 3+ Miles
- Payload Capacity" 1.5 lbs.

- Cruise Speed: 30-35 kts
- Coverage: App. 500 acres
- Durable EPO foam body
- Carbon fiber frame with aircraft grade plywood supports
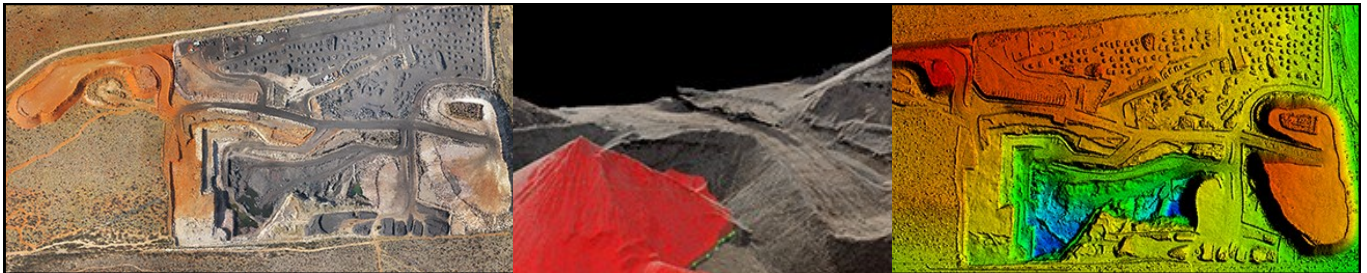- Flight Time: 43-50min with payload

UAV Mapping Software

LandMark Spatial Solutions offers both Agisoft Photoscan and Pix4Dmapper Pro software to process UAV data collected with either the DJI Phantom 4 or the FireFLY 6 Pro.   While we feel both programs will do the job of processing your UAV data, there are a few things to consider before making a decision on which one is right for you.

	Pix4Dmapper	**Agisoft Photoscan**
Pricing	$8700 Perpetual License $3500 Yearly License $350 Monthly License	$3499 Perpetual License
Support	Extensive Online Video Collection 12 Month Email Support (for Perpetual License, included with Yearly and Monthly License)	Limited Online Video Collection 12 Month Email Support

Pix4Dmapper

Converts images taken by the UAV into highly precise, georeferenced 2D maps and 3D models. Processing can be done in the cloud as soon as the mission is finished or for more detail, back in the office on the desktop PC. A simple wizard walks you step by step though the process of importing the images and selecting the desired outputs.

Orthomosaic   **Volume Calculation**   **Digital Surface & Terrain Model**

Agisoft Photoscan

Offers an multitude of outputs and allows for easy implementation of Ground Control Points to help increase the accuracy of the UAV imagery. All processing is done back in the office, either on the PC or a network setup.

For more information, contact Johnny Thompson (662)769-5344/ jthompson@lmssmail.com or Darian Yawn 886-395-5440, x2/ dyawn@lmssmail.com.