DISCO-PRO AG

Powered by

ALL-IN-ONE DRONE SOLUTION
FOR PRECISION AGRICULTURE

80ha COVERAGE
AT 120M* FLIGHT
ALTITUDE (200AC @ 400FT)

PARROT SEQUOIA
RGB & MULTISPECTRAL
SENSOR

INCLUDES
ONE YEAR SUBSCRIPTION
TO CLOUD SERVICE

MULTI-PURPOSE TOOL
PHOTO 14MPX
VIDEO 1080P FULL HD

AIRINOV FIRST+

ANALYZE & DECIDE
NDVI MAPS VIA
CLOUD SERVICE

SAFE
EASY TO PILOT
RETURN HOME

NDVI & SMART ZONING MAPS

OVERVIEW

Parrot Disco-Pro Ag is the multi-purpose all-in-one precision agriculture solution for farmers that fits in their everyday tool box to help them improve ROI of their large crops.

This end to end multi-purpose solution allows farmers to have easily and quickly insights on their crops whenever they need to:

• Identify crop health, relative crop maturity and areas damaged thanks to the AIRINOV report based on NDVI maps

• Perform a quick overview of the crop and the farming infrastructures with the Parrot Disco-Pro front Full HD stabilized camera

Thanks to the automated flight of the Parrot Disco-Pro, the Parrot Sequoia multi-spectral sensor captures invisible data of your crop from the sky. Once processed in the easy to use and powerful agriculture mapping cloud platform AIRINOV First +, the AIRINOV report is generated presenting NDVI maps that gives actionable insights on the health of the crop.
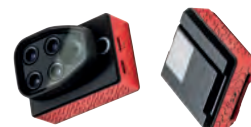
FLY

No need to be a professional pilot: Fly safe and easily the Parrot Disco-Pro with the Pix4Dcapture navigation app whenever you need to, the Parrot Disco-Pro will automatically fly over the selected area and return to home to land when the fly is finished

CAPTURE

Automatic capture of visible and invisible crop data from the sky thanks to the advanced Parrot Sequoia multi-spectral sensor

Powered by

PROCESS

Process your crop data with the powerful and easy to use agriculture mapping cloud solution AIRINOV First +.
Analyze your crop health thanks to the actionable AIRINOV report with NDVI maps
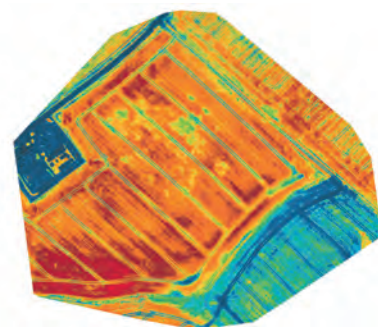
THE MULTI-PURPOSE TOOL FOR THE FARMER

Visual Scouting

Front Camera for visual inspection
of crops, farm infrastructure and livestock

Camera modes:
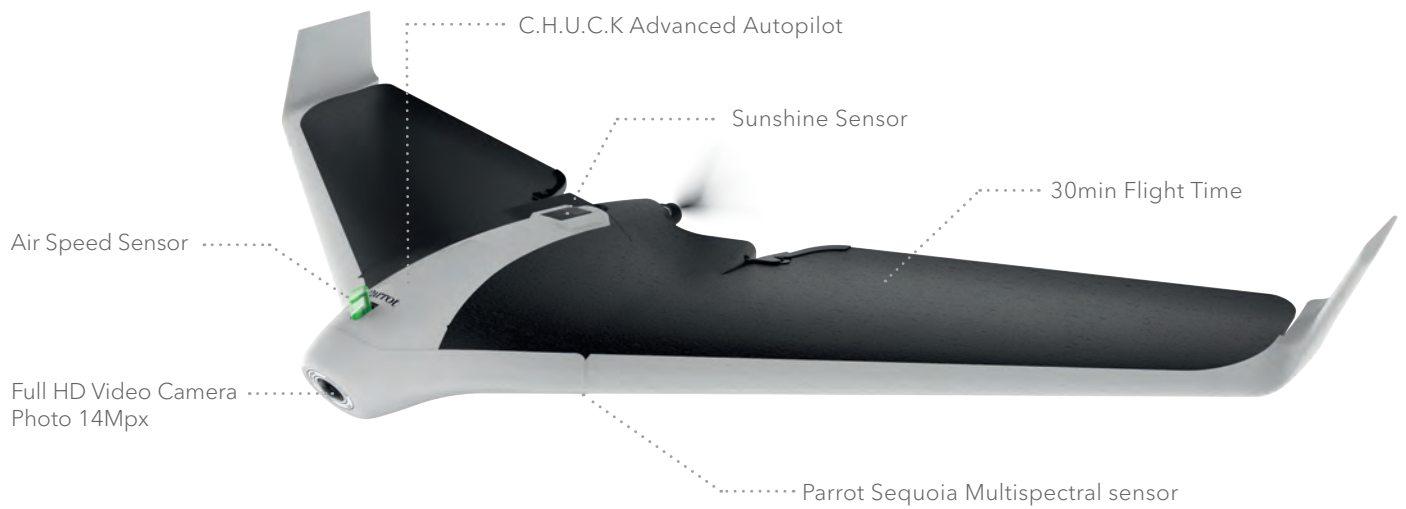
• Video: Full HD 1080p
• Photo: 14Mpx

Crop Mapping

Parrot Sequoia for crop mapping
from the sky and creation of NDVI maps

Features:

• 4 sensors to capture different wavelengths
• RGB camera for visible color mapping

C.H.U.C.K Advanced Autopilot

Sunshine Sensor

30min Flight Time

Air Speed Sensor

Full HD Video Camera
Photo 14Mpx
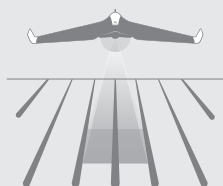
Parrot Sequoia Multispectral sensor

FLY

Parrot Disco-Pro is based on the consumer-proven flying wing Parrot Disco: reliable, safe and easy to pilot thanks to its advanced autopilot
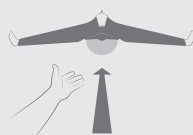
Pix4Dcapture is the easy to use flight planning mobile app that creates automatic and optimal flight plans to map a defined area.

AREA COVERAGE:
80HA (200AC) PER BATTERY
AT 120M FLIGHT ALTITUDE (400FT)

HAND LAUNCH
TAKE OFF

AUTOMATIC
& SAFE LANDING

RANGE:
UP TO 2KM / 1.24 MILES*

*with Parrot Skycontroller 2 in an interference free and unobstructed environment

Loiter point after take-off

Switch to front camera
video streaming

Surface orientation
modification

Landing point
selection and
approach path

Flight Altitude
selection

Surface size
modification

iPad   18:09   91%

START

110
100
90
m

100%

509 x 806 m
25 min : 42 s

RESET   START

END

PIX4D
CAPTURE

Download on the
App Store

GET IT ON
Google Play

When clicking start a check list will appear,
if all the elements are green
a countdown will start for take-off

Pix4Dcapture is the easy-to-use flight planning mobile app that creates automatic and optimized flight plans to map a defined area from your mobile device.
• Easily define flight missions to map areas at the tip of your fingers
• Customize mapping parameters like flight altitude according to your needs

OPTIMAL FLIGHT PATH

The optimal flight path is automatically
computed by the mobile app
to map the defined area.

OPTIMAL DATA CAPTURE

The solution will manage the photo
capture from Parrot Sequoia
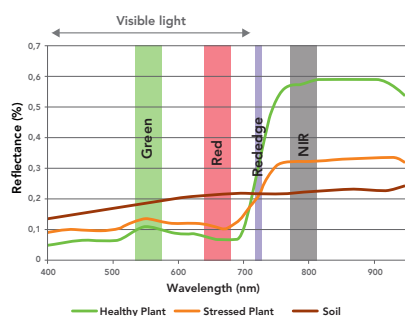to ensure a proper mapping.

CAPTURE

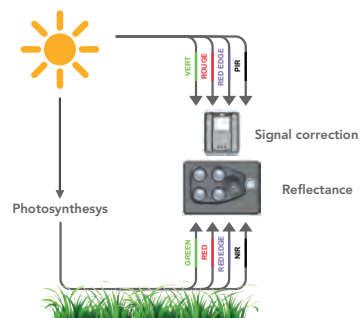## PARROT SEQUOIA CAPTURE THE INVISIBLE

The Parrot Sequoia multispectral sensor captures automatically both visible and invisible images, providing advanced data to optimally monitor the health and vigor of your crops. In addition to the visible images, Parrot Sequoia captures wavelength, Green, Red, Red-Edge and Near Infrared to highlight the health of plants.

Green Vegetation Reflectance

The health of plants can be identified according to how they reflect light in the different wavelengths
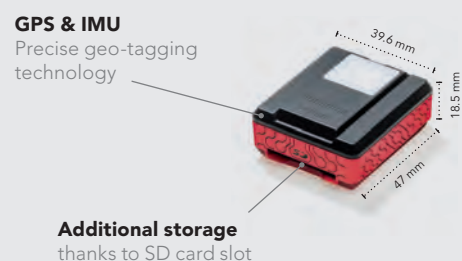
Concept

The multispectral sensor   72 g / 2.5 oz

A synchronous, global shutter drone sensor with four different bands and an RGB camera for visual scouting.
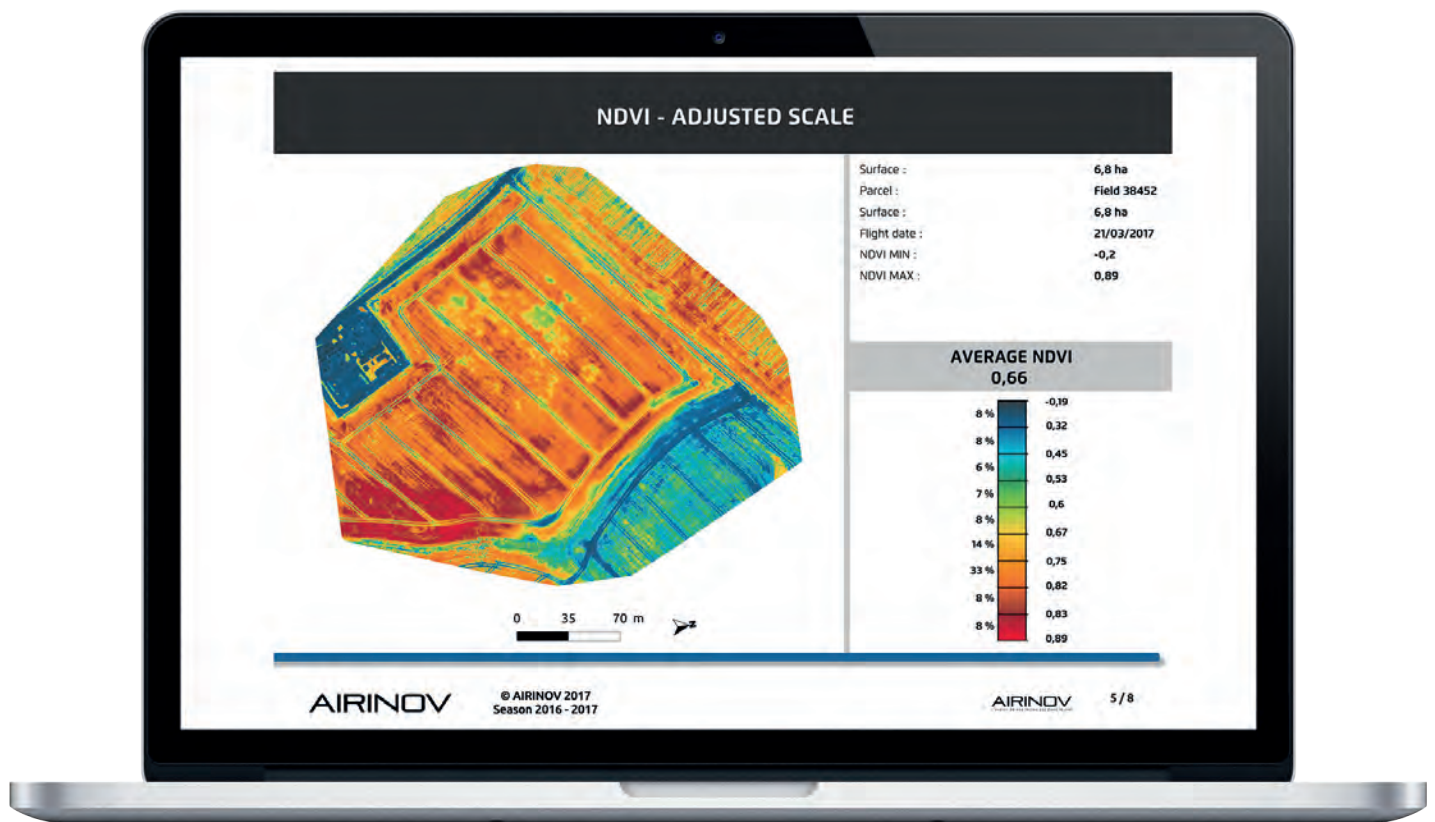
Red
Wavelength 660nm
Bandwidth 40 nm
Definition : 1.2 Mpx

Green
Wavelength 550nm
Bandwidth 40 nm
Definition : 1.2 Mpx

Red edge
Wavelength 735nm
Bandwidth 10 nm
Definition : 1.2 Mpx

Near infrared
Wavelength 790nm
Bandwidth 40 nm
Definition : 1.2 Mpx

Lens protector
strong and durable

RGB camera :
Definition : 16.0 Mpx

Internal storage
64 GB

Easy and fast access
via Wi-Fi and USB

The sunshine sensor   36 g / 1.3 oz

A fully-integrated sunshine sensor captures and logs the current lighting conditions

GPS & IMU
Precise geo-tagging technology

Additional storage
thanks to SD card slot

PROCESS

AIRINOV First+ is the powerful and easy to use agriculture mapping cloud solution dedicated to Parrot Disco-Pro AG.

AIRINOV First+ automatically processes the crop data captured by the Parrot Sequoia sensor and generates an actionable report.
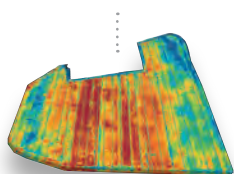
The AIRINOV report can be analyzed to identify intra-field variability:
• Crop health
• Relative crop maturity
• Problem areas in a crop field

Key features:
• 1 year subscription to the AIRINOV First+ cloud service
• Easy to use and quick generation of the AIRINOV report sent directly to your email address
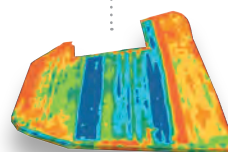• Up to 150ha (370ac) per week

NDVI map, the easiest way to measure intra-field variability

Simple zoning map for quick analysis

Detailed zoning map to help do Variable Rate Application

Get insights with the AIRINOV report in 3 simple steps

Create your account on Parrot.airinov.com

Upload the crop data on the AIRINOV First+ cloud platform

Get your AIRINOV report directly on your email accpunt and analyze your crop

TECHNICAL SPECIFICATIONS

PARROT DISCO-PRO

OPERATION OVERVIEW

- Area Coverage: 80ha (200ac) in a single flight at 120m flight altitude (400ft)
- Ground resolution: 14.8cm/px (5.5in/px) at 120m (400ft) flight altitude
- Automatic flight plan powered by Pix4Dcapture app
- Hand launch for take-off
- Automatic landing

GENERAL

- Weight : 780 g without Parrot Sequoia
- Take-off weight : 940 g with Parrot Sequoia & mounts
- Size : 1150x580x120mm (45x22x5in)
- Wingspan : 1150 mm (45 in)
- Removable wings for transport

PHOTO & VIDEO

- Photo: 14Mpx wide angle camera
- Video: 1080p Full HD
- Video streaming : 480p / 720p
- Internal Memory: 32GB

WI-FI AND TRANSMISSIONS

- Range: Up to 2km with Parrot Skycontroller 2, in an unobstructed area free of interferences
- WiFi AC-type, 2 bi-band antennas (2,4 and 5GHz)

REMOVABLE BATTERY

- Battery life : 30min with Parrot Sequoia
- 2700 mAh / 25A 3 cells Lipo Battery

SENSORS

- Airspeed sensor (Pitot tube)
- Built-in GPS + GLONASS
- Inertial Navigation System
- Altimeter
- Ultrasound
- Optical flow camera

PARROT SEQUOIA

RGB CAMERA :

- Resolution: 16 Mpx, 4608x3456 pixels
- HFOV: 63.9°
- VFOV: 50.1°
- DFOV: 73.5°

4 GLOBAL SHUTTER SINGLE-BAND CAMERAS :

- Resolution: 1.2 Mpx, 1280x960 pixels
- HFOV: 61.9°
- VFOV: 48.5°
- DFOV: 73.7°

4 SEPARATE BANDS :

- Green (550nm BP 40nm)
- Red (660nm BP 40nm)
- Red Edge (735nm BP 10nm)
- Near infrared (790nm BP 40nm)

GENERAL CHARATERISTICS :

- Dimensions: 59x41x 28mm (2.3x1.6x1.1in)
- Weight: 72 g (2.5 oz)
- Photo mode: Up to 1 fps
- Internal storage: 64 GB built-in storage
- Inertial measurement unit & magnetometer
- Power: 5 W (~12 W peak)

SUNSHINE SENSOR (INCL. IN PARROT SEQUOIA) :

- Dimensions: 47x39.6x18.5mm (1.8x1.5x0.7in)
- Weight: 35 g (1.2 oz)
- 4 spectral sensors (same filters as body)
- GPS
- Inertial measurement unit & magnetometer
- SD Card slot
- Power: 1 W

IN THE KIT : 1 Parrot DISCO-PRO, 1 Parrot Sequoia (Sunshine & Multispectral sensors), 1 Parrot Skycontroller 2, 3 Batteries, 1 Backpack, 1 Year subscription to AIRINOV First+

Available from: **Southern Cross Drones Pty Ltd**
101 Miller Street, L32, North Sydney, NSW 2060, Australia
T: +61 2 9953 8366   E: info@southerncrossdrones.com   W: www.southerncrossdrones.com