

# Parrot® BLUEGRASS

MULTIPURPOSE QUADCOPTER SOLUTION  
FOR AGRICULTURE

Powered by



COVERS UP TO 30HA  
AT 70M FLIGHT ALTITUDE  
PER BATTERY

PHOTO & VIDEO  
FULL HD 1080P - 14MP  
3-AXIS STABILIZATION

INCLUDES  
NDVI & ZONING MAPS SERVICE

**AIRINOV**<sup>FIRST+</sup>  
ONE YEAR LICENCE

PARROT SEQUOIA  
RGB & MULTISPECTRAL SENSOR

VIEW & DECIDE  
NDVI MAPS VIA  
CLOUD SERVICE

AUTONOMOUS FLIGHT  
NO NEED TO BE  
A SEASONED PILOT



ONE MONTH LICENCE





# PARROT BLUEGRASS

Parrot Bluegrass is a multipurpose quadcopter designed for agriculture that helps farmers improve their ROI, using its 2 embedded cameras; video camera and multispectral sensor.

With its front Full HD video camera, this solution helps farmers visually monitor the farm's infrastructure, the land and herds.

It also enables farmers to quickly get an overview and detect problem areas in all types of crop fields, thanks to its multispectral sensor designed for precision agriculture, Parrot Sequoia, and the easy-to-use processing cloud platform, AIRINOV FIRST+.

Parrot Bluegrass can automatically cover up to 30 hectares at 70 m / 230 ft. flight altitude per battery. It can also fly at low altitudes, optimizing it to scout fruit crops that require accurate mapping precision.

Parrot Bluegrass is a user friendly integrated solution for farmers: it is easy to set up, easy to fly with its autonomous flight capability, easy to process and easy to repair.

## FLY

With the Pix4Dcapture navigation app, Parrot Bluegrass will automatically fly over the selected area and return home to land when the flight is finished.

## CAPTURE

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

## PROCESS

The captured crop data is processed using the powerful and easy to use agriculture mapping cloud solution AIRINOV FIRST+. The crop's health is analyzed thanks to the actionable AIRINOV report with NDVI maps



**AIRINOV**FIRST+



**Visual scouting**  
Full HD Video camera  
Photo 14MP

**Crop mapping**  
Parrot Sequoia Multispectral sensor



# THE MULTIPURPOSE QUADCOPTER FOR THE FARM

**Visual scouting**  
Front camera



Monitor the farm's infrastructure

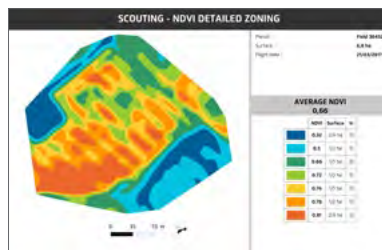
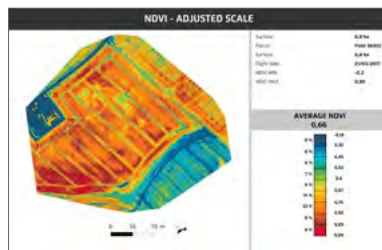


Monitor livestock



Visual crop scouting

**Crop mapping**  
Parrot Sequoia multispectral sensor



## Camera modes:

- Video: Full HD 1080p
- Photo: 14MP



FreeFlight Pro

## Features:

- 4 sensors to capture different wavelengths
- RGB camera for visible mapping

Powered by





# FLY

## PARROT BLUEGRASS



EASY TO SET UP

EASY TO FLY

EASY TO PROCESS

EASY TO REPAIR



Powered by



### AUTONOMOUS FLIGHTS

Pix4Dcapture is the easy-to-use flight planning mobile app that creates automatic and optimal flight plans to map defined areas.



FreeFlight Pro

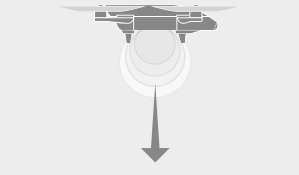
### MANUAL FLIGHTS

FreeFlight Pro is the app that enables you to manually pilot the drone

AREA COVERAGE:  
30HA (74AC) PER BATTERY  
AT 70M FLIGHT ALTITUDE (230FT)



AUTONOMOUS FLIGHT



RANGE:  
UP TO 2KM / 1.24 MILES\*



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



# PIX4DCAPTURE

Map resolution  
Ground Sampling  
Distance

Flight altitude selection

Surface size  
modification

Switch to front camera  
video streaming

Settings: overlap,  
speed...

When you click **START**  
a checklist will appear.  
If all the elements are  
green, a countdown will  
start for takeoff

Save the project to run it later  
Define the flight plan in the office where an internet  
connection is available and save it for the field



**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 such as flight altitudes depending on 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 proper mapping.



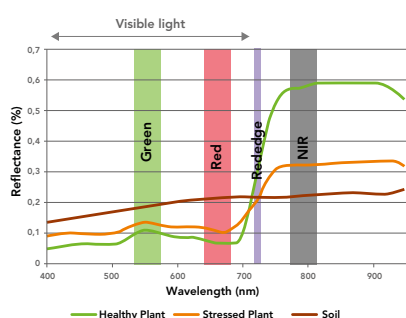


# CAPTURE

## PARROT SEQUOIA CAPTURES THE INVISIBLE

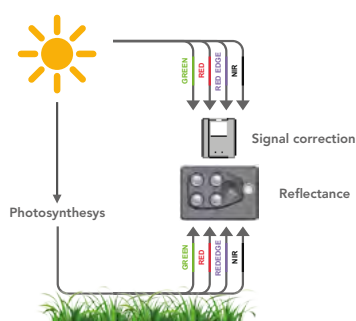
The Parrot Sequoia multispectral sensor automatically captures both visible and invisible images, providing advanced data to optimally monitor the health and vigor of your crops. In addition to the visible images, Parrot Sequoia captures wavelength, Green, Red, Red-Edge and Near Infrared to highlight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

### Green Vegetation Reflectance



The health of crops can be identified depending on how they reflect light in the different wavelengths

### Concept



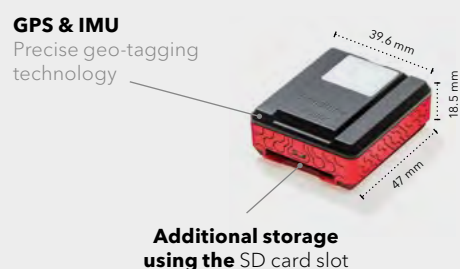
## The multispectral sensor 72 g/2.5 oz

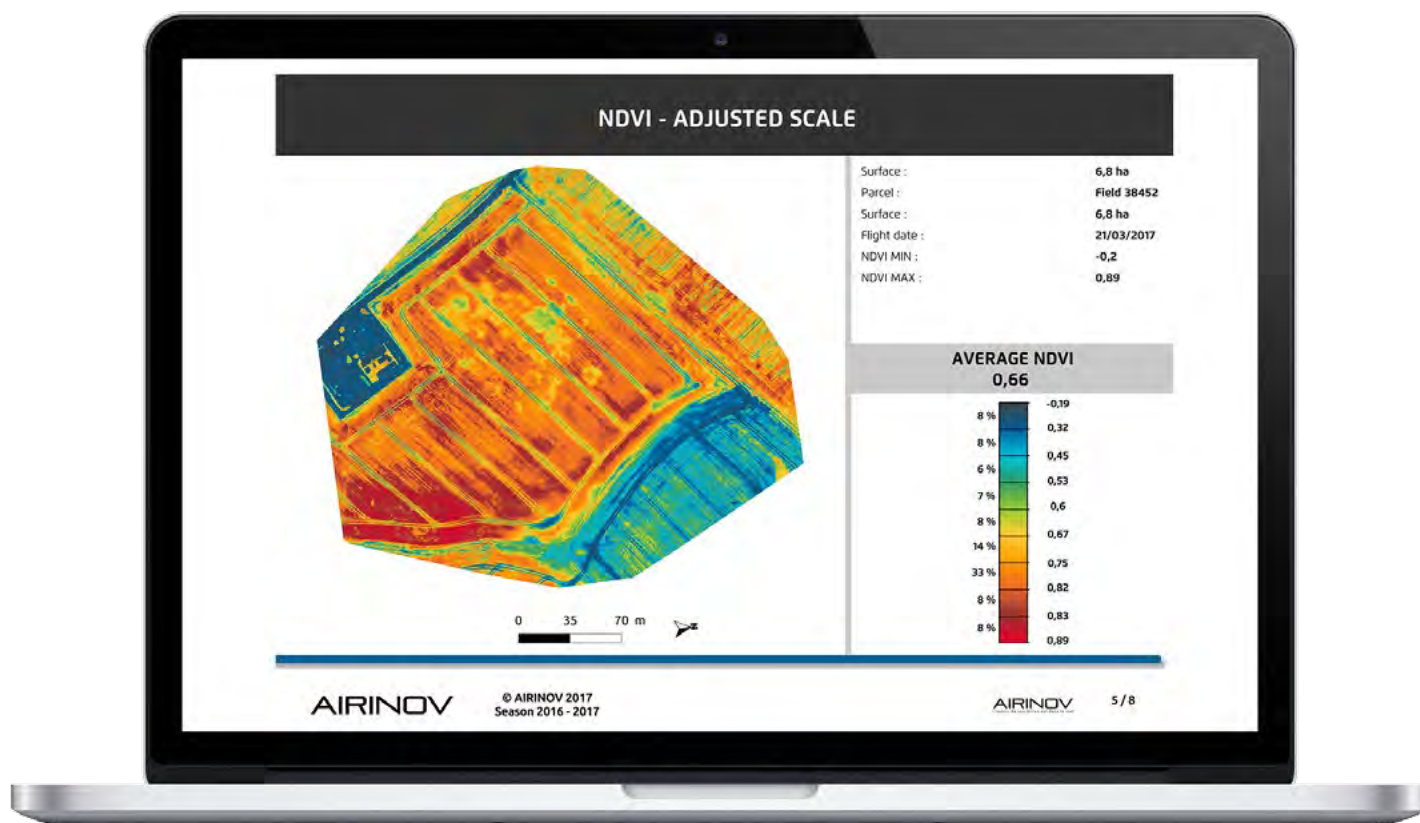
A synchronous global shutter sensor with four different bands and an RGB camera for mapping.



## The sunshine sensor 36 g/1.3 oz

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





**AIRINOV**FIRST+

## PROCESS

AIRINOV FIRST+ is the powerful and easy to use agriculture mapping cloud solution dedicated to Parrot Bluegrass.

AIRINOV FIRST+ automatically processes the crop data captured by the Parrot Sequoia sensor and generates an actionable report.

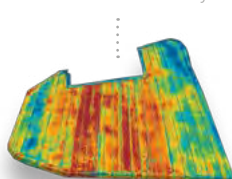
The AIRINOV report can be analyzed to identify intra-field variability:

- 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 via email
- Up to 150ha (370ac) per week

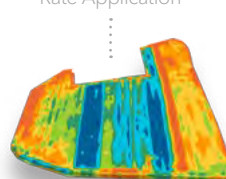
NDVI map, the easiest way to measure intra-field variability



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](http://Parrot.airinov.com)



Upload the crop data on the AIRINOV FIRST+ cloud platform



Get an AIRINOV report directly via email and analyze your crops

# TECHNICAL SPECIFICATIONS

## PARROT BLUEGRASS

### OPERATION OVERVIEW

- Area coverage : 30ha (74ac) in a single flight at 70m flight altitude (230ft)
- Range: Up to 2 Km / 1.2 mi with Parrot Skycontroller 2, in an unobstructed area free of interferences
- Ground resolution: 7.4cm/px (2.7in/px) at 70m (230ft) flight altitude
- Automatic flight plan powered by Pix4Dcapture mobile app
- Vertical take-off and landing

### GENERAL

- Weight: 1850g | 4lb
- Size : 50 x 44 x 12 cm / 20 x 17 x 5 in.
- Removable propellers for transport

### PHOTO & VIDEO

- Photo: 14MP wide angle camera
- Video: 1080p Full HD
- Video streaming: 360p / 720p
- Internal video memory: 32GB

### WI-FI AND TRANSMISSIONS

- Range: Up to 2 Km / 1.2 mi with Parrot Skycontroller 2, in an unobstructed area free of interferences
- WiFi AC-type, 2 bi-band antennas (2,4 and 5GHz)

### HIGH CAPACITY BATTERY

- Battery life : 25 mins
- 6700 mAh Lipo Battery

### SENSORS

- Built-in GPS + GLONASS
- Inertial Navigation System
- Altimeter
- Ultrasound
- Optical flow vertical camera

## PARROT SEQUOIA

### RGB CAMERA

- Resolution: 16 MP, 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 +/- 40nm
- Red: 660nm +/- 40nm
- Red Edge: 735nm +/- 10nm
- Near Infrared: 790nm +/- 40nm

### GENERAL CHARACTERISTICS

- Dimensions: 59x41x28mm (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 Bluegrass, 1 Parrot Sequoia (Sunshine & Multispectral sensors), 1 Parrot Skycontroller 2, 3 Batteries, 1 Backpack, 1 Year subscription to AIRINOV FIRST+ and 1 month access to Pix4Dag