

## Fly, Film & Photograph Like a Pro!



*Parrot, expert and pioneer in consumer drones, unveils the final version of **Bebop Drone**, a third-generation quadricopter designed for leisure.*

*Equipped with a Full HD 14 megapixel camera stabilized on a 3-axis framework, the **Parrot Bebop Drone** takes video and pictures of the world in a 180° field with remarkable image quality.*

*A powerful aerial achievement, it combines numerous sensors that give the **Bebop Drone** impressive stability and easy-to-use piloting via Wi-Fi with a smartphone or a tablet.*

***Parrot Bebop Drone** is also compatible with a Wi-Fi extender, the **Parrot Skycontroller**, which can be used to pilot Bebop and provides an extended flight range.*

*Whether you are interested in the sole pleasure of flying, capturing amazing images of landscapes or filming sport performances, the **Parrot Bebop Drone** offers a unique perspective of the world...*

## The flying action camera!



Parrot Bebop Drone is equipped with a **14 megapixels “fisheye-lens”** front-facing camera that records video in Full HD (1080p x 1920p).

Exclusively developed for the **Bebop**, it streams live an immersive view of the flight on the screen of the piloting smartphone or tablet. The pilot can control the angle of the camera simply with their thumb, through the piloting app, to transition the angle of the view on an 180° angle. Then, it can film or take pictures vertically.

For remarkable, stable images without distortion, the **Parrot Bebop Drone** integrates ingenious mechanical and digital systems:

- **Four shock absorbers** that cushion engine vibrations
- **Algorithms** for an exclusive 3-axis image stabilization. The angle of the view remains fixed, without distortion, regardless of the inclination of the drone and movement caused by turbulence
- Images are **digitally treated** thanks to the Parrot P7 Dual core processor, its graphics processing unit (GPU) and a proprietary Image Signal Processor

In addition, the pilot or “videographer ” can access several image settings from the application to achieve sharper results: format (16:9, 4:3, fisheye), white balance, saturation, etc.

Landscapes are captured on the **8GB flash memory** of the **Parrot Bebop Drone**. Videos and photos can then be transferred onto the piloting device or a computer.

## Ultra stable, robust, for high sensation flights

Light (390g without its hull, 410g with its hull) and easy to pilot, the **Parrot Bebop Drone** is a high-performance drone, regardless of indoor or outdoor flights.

The **Bebop Drone** fuses numerous sensors, and benefits from high performing materials:

**A Mother board** fixed on a magnesium shelf that provides electromagnetic shielding and acts as a radiator

**3-axis accelerometer.**

**3-axis gyroscope.**

**3-axis magnetometer.**

**An ultrasound sensor** analyzes the flight altitude up to 5 meters, completed by a **pressure sensor** up to that level.

**A vertical stabilization camera** takes an image of the ground every 16 milliseconds and compares it to the previous one to determine the speed of the Bebop Drone.

**Global navigation satellite system (GNSS) Chipset** associates the GPS and GLONASS data and helps stabilize the drone in high altitudes.



**Four three-blade polycarbonate propellers** with easy disassembly and exclusive shape offer an emergency cut-out feature in case of contact while in flight.

**Glass fiber reinforced (15%) ABS structure.**

**Four brushless outrunner engines** offer high output (3 phases and six pairs of poles).

**A Removable hull in EPP** provides propellers protection against potential bumps and can be removed to reduce wind factor.

The **Parrot Bebop Drone** is equipped with two band Wi-Fi antennas and can operate in **2.4 GHz** and **5 GHz** frequencies in MIMO (Multiple Inputs Multiple Outputs) format. Depending on network interference, the pilot can select the frequency of his choice and benefit from a perfectly stable Bebop Drone/smartphone connection for 250m.

## FreeFlight 3.0: The ultra-intuitive application

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The Parrot Bebop Drone comes with a free piloting application, FreeFlight 3.0, for iOS, Android and Windows Phone smartphones and tablets.

The ergonomics of the application have been developed to offer ease-of-use and allows the pilot to focus on the pleasure of flying.

On the welcome screen, the pilot accesses the ground functionalities: Piloting, photos/videos, flight plan, Cloud 'Pilot Academy'.

Touch the 'take off' button and the Parrot Bebop Drone starts its engines, takes off, stabilizes and awaits the pilot's instructions.

The left thumb activates a virtual joystick that enables control of the drone's altitude as well as its rotation. Tilting the smartphone/tablet indicates the direction: forward, backward, left, right.

The right thumb controls the angle of tilt of the front camera while flying.



If needed, pressing the 'Return Home' button makes the Bebop Drone automatically come back to its take-off position, guided by GPS.

When the 'landing' button is touched, the Parrot Bebop Drone automatically lands smoothly.

In addition to high speed flights and precise maneuvers, expert pilots and beginners can master acrobatic tricks in a flash! By pressing the app interface, the Bebop Drone will perform a loop. Data gathered during a flight (duration, position, etc.) can be viewed in 3D on the Pilot Academy map and shared with the community of pilots.

## Fly Further and Higher with Bebop Drone Skycontroller

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The Bebop Drone Skycontroller, an RC-like remote control equipped with a Wi-Fi amplifier, provides an even more powerful Wi-Fi connection.

The piloting smartphone or tablet is fixed on the control dock and streams what the Bebop Drone is seeing on its screen.

Thanks to its amplified Wi-Fi radio and its four antennas, the Parrot Skycontroller extends the Wi-Fi range up to 2km<sup>1</sup>.

The pilot takes the helm of the drone via two hand controllers equipped with joysticks. Two ministicks are positioned on each side of the handles to control the angle of the camera and browse within the menus.

Running on Android, the Skycontroller embeds FreeFlight 3.0 piloting application, making it possible to pilot the Parrot Bebop Drone by sight even without a tablet or smartphone, a feature designed for RC enthusiasts.

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<sup>1</sup> Theory reach, but must be flown in accordance with national regulations.

## Immersive flight

For extreme visual experiences, the Parrot Skycontroller is compatible with numerous first person view (FPV) glasses. Once connected via HDMI, they offer an immersive view of the flight. When using FPV glasses equipped with a gyroscope, the pilot controls the **Bebop Drone** with the joysticks while the angle of the camera follows the movements of his or her head.

In addition to the view from the camera, telemetry information is shown, such as artificial horizon, battery level, speed, altimeter and distance..

A list of compatible glasses is available on [www.parrot.com](http://www.parrot.com).



*“The Bebop Drone masters several challenges: performs amazingly while flying and films in 1080p in a stabilized manner; all of this with a size reduction of 25 percent compared to the AR.Drone,”* said Henri Seydoux, CEO of Parrot. *“To achieve these results, our engineers worked for more than three years. The Bebop Drone embeds high-performance processors, a graphics co-processor with professional-grade camera capabilities. With Skycontroller, we enter a new dimension, one of immersive and high precision piloting.”*

*Expert pilots and beginners should take the helm of leisure drones in a responsible manner and with respect for the local rules and regulations.*

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**Parrot Bebop Drone**

**Colors: Blue, Red or Yellow**

**MSRP: \$499USD** (with two batteries included)

Available December 2014 from Apple and Best Buy (online and instores)



**Pack Parrot Bebop Drone Extended Range with Skycontroller**

**MSRP: \$899USD**

Available December 2014 from Apple and Best Buy online

## Parrot Bebop Drone technical data

- CPU Dual core A9
- Linux
- Open source SDK
- Wi-Fi:
  - . Wi-Fi 802.11 a/b/g/n/ac
  - . Wi-Fi MIMO 2.4 et 5GHz
  - . 26dBm
- GNSS: GPS+GLONASS
- Inertial unit: Gyroscope, Accelerometer, Magnetometer, Altimeter, Ultrasound, Vertical camera
- Battery: Lithium Polymer 1200mAh
- Flight time per battery: about 11 minutes (2 batteries included)
- Compatibility: iOS, Android and Windows Phone smartphones/tablets
- Weight: 390 g without hull – 410 g with hull
- Dimensions: 33x38x3.6 cm with hull  
28x32x3, 6cm without hull
- 8 Gb flash memory
- Photos:
  - 4096 x 3072
  - Format jpeg, RAW, DNG
- Video:
  - 1920 x 1080 (30fps)
  - Format H.264 (MPEG 4)

## Parrot Skycontroller technical data

- Processor ARM dual-core, 8 Gb memory
- Android 4.2
- Wi-Fi:
  - . Wi-Fi 802.11 a/b/g/n up to 36dBm
  - . Antennas directive range up to 2km (Range in theory, depending on national regulations)
  - . Wi-Fi MIMO 2.4 and 5GHz
  - . Second chipset Wi-Fi to connect to a tablet
- GPS
- USB, HDMI connectors
- Sun-visor and strap included
- Weight: 1550g
- Dimensions: 37 x 23 x 19cm
- Autonomy: about 1h40

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For more information, visit [www.parrot.com](http://www.parrot.com) or contact:

### PARROT

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## ABOUT PARROT

Founded in 1994 by Henri Seydoux, Parrot creates, develops and markets technologically advanced consumer products for smartphones and tablets.

Parrot offers the most extensive range of hands-free communication systems for vehicles on the market. Its globally recognized expertise in the fields of mobile connectivity and multimedia centered on smartphones has positioned Parrot as a key player of in-car infotainment. Additionally, Parrot designs high end wireless multimedia products dedicated to sound, and explores new possibilities in Bluetooth Smart technology.

Finally, Parrot is expanding on the UAV market with the Parrot AR.Drone, the first quadricopter piloted via Wi-Fi, and new solutions to address the UAV market for professional use.

Parrot, headquartered in Paris, currently employs more than 850 people worldwide and generates the majority of its sales overseas.

Parrot has been listed on NYSE Euronext Paris since 2006. (FR0004038263 – PARRO)

For more information: [www.parrot.com](http://www.parrot.com)