

Parrot
AR.DRONE
YOUR REALITY BECOMES A VIDEO GAME

Press release

Parrot AR.Drone: Invasion begins...

The first quadricopter for video games and piloted by Wi-Fi will be available in the U.S. in September under \$300.



E3, Los Angeles – 15 June, 2010 - Parrot, leader in wireless peripherals for mobile phones, today unveils at E3 Expo in Los Angeles the final version of the Parrot AR.Drone, a quadricopter using augmented reality and piloted with an iPod touch®, an iPhone® or an iPad™.

With super intuitive handling, Parrot AR.Drone achieves spectacular flights and enables consumers to play video games in augmented reality.

You are piloting a one-of-a-kind quadricopter, where real and virtual worlds meet to offer unparalleled gaming experiences...

The front-camera broadcasts and streams what the drone is seeing onto the iPod touch or iPhone screen; and the image processing allows integrating real-time special effects of augmented reality...

Pattern Ergonomic piloting



With its shaped cockpit driven by four propellers with brushless motors, the Parrot AR.Drone offers excellent maneuverability and stability during piloting.

Parrot AR.Drone generates its own Wi-Fi network (no need for an Internet connection nor a router) at which you simply connect an iPod touch or iPhone. Once the “AR.FreeFlight” application has been downloaded, the iPod touch/iPhone turns into a true piloting station.

Two piloting modes are available:

- **Beginner:** two tactile piloting buttons to control the accelerometer / the direction of the drone and to maneuver ;
- **Ace:** expert mode with a single tactile button to pilot the AR.Drone.

Touch the take-off button on the screen of the iPod touch/iPhone and the Parrot AR.Drone starts its engine, takes-off, stabilizes a few feet from the ground and waits for the pilot's instructions.

The player needs to put his/her left thumb on the screen and a control button will position under it. The accelerometer of the iPod touch/iPhone is detecting movements. Parrot AR.Drone moves forward, back or sidewise depending on the inclinations of the iPod touch/iPhone.

Another command button on the right of the iPod touch/iPhone screen enables the pilot to make the AR.Drone rise, go down or rotate.

In Ace mode, a single button enables the pilot to fully control and pilot the AR.Drone.

Touch the landing button and the quadricopter will land and stop its engines.

A unique high-tech quadricopter

Parrot AR.Drone is made of carbon fiber and high resistance PA66 plastic.

The heart of the AR.Drone contains MEMS (Micro Electro Mechanicals Systems), three axes accelerometer, two gyrometers [one axe & two axes], one ultrasound sensor and **two cameras**:

- **The first camera**, located underneath, is connected to an Inertial Measurement Unit. Thanks to this unit, the AR.Drone is capable of measuring its horizontal speed and performing mind-blowing stationary flights. The system of images comparison enables it to compensate turbulences due to the wind during outside flights. These technologies are usually used for professional or military applications and have been adapted to gaming universe for the first time.



- **The second camera**, at the front of the quadricopter, broadcasts and streams on the iPod touch/iPhone screen what the drone is seeing as if the player was in the pilot's position.



This camera plays a major role for video gaming thanks to the use of form recognition: it enables augmented reality.

For example, the front camera will recognize another AR.Drone in the game battle between two quadricopters, or tags which will turn into obstacles, monsters or robots on the screen of the iPod touch/iPhone ...

Video streaming has been enhanced compared to the development version of AR.Drone introduced at CES. Also, the front of the hull has been strengthened to better protect the camera.

The players can choose the camera they prefer or display the two cameras simultaneously on the screen of the iPod touch/iPhone.

New rules for games

With the AR.Drone, Parrot is combining the worlds of video gaming and radio-controlled models.

This one-of-a-kind quadricopter enables consumers to recreate a large number of video games in the real world and also offers a multi-player possibility thanks to augmented reality.

To offer pilots unprecedented gaming experiences, three games will be available for download in the App StoreSM:

- **AR.FreeFlight**
 - Application that is mandatory to fly and pilot the AR.Drone.
 - Two piloting modes: beginner or expert.
 - Downloadable for free on App Store.
- **AR.Dronegate**
 - Solo game using augmented reality.
 - Requires the two tags provided in the box.
 - Story: After the successful downloading of photons, scientists try the same experience with matter. The first try is a catastrophe, a number of scientists disappear and a black hole forms accidentally. This is the "Grey Zone". Military-researchers create a radio-commanded device able to bear the extreme conditions of the Grey Zone. But since, unexplained attacks occur on the facilities.
 - Mission: Protect your military base and destroy "enemies".
 - \$2.99 USD on App Store.
- **AR.FlyingAce**
 - Story: For the first time, you will be able to use a radio-commanded quadricopter to conduct aerial battles of World War II aces proportions.
 - \$2.99 USD on App Store.



A new look for inside and outside flights

Parrot AR.Drone is designed for flying inside and outside.



For a flight outside, a shaped hull reduces the area to the wind and offers an extreme maneuverability of the quadricopter.

Three hulls are available:

- orange and yellow
- orange and green
- orange and blue

These vivid colors enable the pilot to easily follow the movements of his/her AR.Drone. They are also easily recognized by the front-camera of the AR.Drone, which enables the AR.Drone to identify a competitor for two-player battles.

For indoor flight, a specific hull –with a white, gray and black cockpit- surrounds and protects the propellers if the AR.Drone hits an obstacle. Stickers, with colors similar to the shaped hull, can be fixed on each arch to enable drone battles inside.



Finally, electroluminescent diodes (green at front, red on the back), are positioned on the landing gear and enable the pilot to easily position his/her AR.Drone for piloting. These diodes also activate and react according to the action from the game.

A community of pilots

Available via www.ardrone.com, AR.Drone-Pilot Academy will be a website dedicated to Parrot AR.Drone users and fans.

This website will showcase approximately 20 videos and detailed information on the AR.Drone.

- **Training Zone**

This area of the website accompanies the pilot, from the first encounter of the AR.Drone to tips for piloting.

How to **prepare your AR.Drone** (*installation of the battery, configuration Wi-Fi / iPod touch - iPhone...*), **pilot** (*control of the accelerometer...*), do **sophisticated maneuvers** (*circles, figure-eight, half-turn, slalom, obstacles race...*), practice **aerial battle** (*offensive and defensive maneuvers, indoor and outdoor battles...*).

- **Community Zone**

Here pilots will be able to post their videos, share and discuss on forums, follow AR.Drone news (via Facebook, Twitter...).

An open development platform

Since the introduction at CES 2010, the Software Development Kit, which was updated in May 2010, is available for developers to create games for the AR.Drone. Source code porting on other platforms is also feasible from the SDK.

To date, more than 450 developers around the world have registered on Parrot AR.Drone platform.

The only bounds of the forthcoming games for the AR.Drone are the imagination and ingenuity of the fans of Parrot's quadricopter.

To download the SDK or get more information, visit <http://projects.ardrone.org>.

Parrot AR.Drone: a technological first

The development of the AR.Drone required more than four years and the creation of about 20 patents.

For the first time, a consumer product encompasses:

- A quadricopter made of carbon fiber and high resistance PA66 plastic, with 4 brushless engines embedded;
- An inertial unit with MEMS (Micro-Electro-Mechanical Systems) combining video processing with an automatic piloting software to ensure a very intuitive piloting of a radio controlled object;
- Wi-Fi and video streaming for a modern gaming interface with an iPod touch/iPhone;
- Images processing software for augmented reality.

Parrot has worked for 15 years on wireless technologies. Engineering is the keystone of the work of Parrot and the R&D department of the company consists of 150 engineers.

Parrot concentrates on the maintenance of its investments in R&D to a high level, with an important focus on the software and the signal processing. Parrot develops complete products in taking care of their use; because of this, software, electronics, design and also manufacturing costs are the daily work of the research department.

Parrot AR.Drone Invasion Plan

Parrot AR.Drone will be available for purchase at selected retailers* in September in the United States for \$299 MSRP.

Availability in Europe and Asia will be announced in the following weeks.

**For more information, please go to www.parrot.com*

For more information, visit www.parrot.com or contact:

PARROT

Vanessa Loury / Fabien Laxague

vanessa.loury@parrot.com / fabien.laxague@parrot.com

Tel. +33 (0)1 48 03 60 58 / 89 83

Tel. +33 (0)6 8656 8133 / 8090 9759

AIRFOIL for Parrot

Tim Wieland

parrot@airfoilpr.com

Tel. 248.304.1414



About Parrot

Parrot, a global leader in wireless devices for mobile phones, stands on the cutting edge of innovation. The company was founded in 1994 by Henri Seydoux as part of his determination to drive the inevitable breakthrough of mobile phones into everyday life by creating high-quality, user-friendly wireless devices for easy living. Parrot has developed the most extensive range of hands-free systems on the market for cars, motorbikes and scooters, including wireless multimedia products geared towards audiovisual applications. In 2008, Parrot launched a new prestige line of high-end products bearing the hallmark of renowned artists. Parrot, headquartered in Paris, currently employs 450 people worldwide and generates 85% of its sales overseas.

www.parrot.com

Euronext Paris – FR0004038263 – PARRO

iPhone and iPod touch are registered trademarks of Apple Inc., registered in the U.S. and other countries. iPad is a trademark of Apple Inc. App Store is a service mark of Apple Inc.