European Engineers Unveil the World's Smallest Flying Robots

Engineers in Belgium and Norway have developed the worlds smallest and lightest autonomous and remotely operated flying robots.

BRUSSELS, Belgium and OSLO, Norway, December 17, 2003. After many years of development in technology, concepts and materials, it has for the first time been possible to build micro flying robots weighing less than 7 grams. Unlike other micro flying robots, these recently unveiled robots operate fully autonomously without any cables to transfer power or control signals. The power comes from onboard batteries and they are operated by infra-red or radio based control devices. The micro flying robots were announced today, on the 100 year anniversary of the first powered flight by the Wright Brothers.

In Brussels, Alexander Van de Rostyne together with leading suppliers of micro robotic components, has developed the Pixelito, a 6.9 grams helicopter-like flying robot with a full 4-axis control similar to larger helicopters. Its two-bladed rotor has a diameter of 148 mm and can be controlled by an infra-red control device that enables the pilot to have full control over it in all the dimensions of space.

In Oslo, Petter Muren in close contact with the same team of component suppliers, has developed the Proxflyer Micron, a 6.9 grams totally silent and aerodynamically stable coaxial rotor flying robot that has a rotor diameter of 128 mm. It is controlled via a 2 channel radio transmitter and an onboard FM radio receiver.

Both the Pixelito and the Proxflyer Micron are battery powered, utilizing onboard state of the art lithium polymer batteries, micro electronics and coreless motors. Space age material technology including carbon fiber and Kevlar is used in the rotors and in the mechanical structures. Both robots rely on new and patented, but totally different ideas to radically simplify the necessary control mechanisms. They are built, and unveiled to the public as proof of concepts and as a demonstration of what is possible to achieve in this field of technology using current commercially available materials and components.

The robots are believed to be the lightest and the smallest flying robots or helicopters ever built anywhere in the world and they open a whole new area of possible applications, including indoor surveillance using onboard micro video cameras, military operations as well as other applications in the hobby and toy market. According to the engineers behind this latest achievement, it is possible to build even smaller and lighter flying robots with today's technology, and as the development of motors and batteries moves on, the flight time and capabilities of such robots will further increase.

For more information about the Pixelito please contact Alexander Van de Rostyne,
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For more information about the Proxflyer Micron please contact Petter Muren,
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