“Birdly” flight simulator with haptic feedback

Visually immersed through a Head Mounted Display you are embedded in a high resolution virtual landscape.You command your flight with arms and hands which directly correlates to the wings (flapping) and the primary feathers of the bird (navigation). This input is reflected in the flight model of the bird and returned as a physical feedback by the simulator through nick, roll and heave movements.To evoke an intense and immersive flying adventure SOMNIACS vigorously relies on precise sensory-motor coupling and strong visual impact. Additionally Birdly® includes sonic, and wind feedback: according to the speed the simulator regulates the headwind from a fan mounted in front of you.

Key Features

- Top of the line head mounted display (HMD) – HTC Vive
- High quality headphones
- Wired remote control with mountable stand
- Haptic feedback
- Integrates all technical components (simulation actuators and sensors, high performance rendering computer etc.) in one robust and well-designed metal body
- Mobile remote control app (Android)

Possible Applications

- Development of new immersive drone control strategies
- Virtual reality experiments
- Study of the human-robot interaction
- Study of the alteration of human perception with realistic flying experience

Access information

Corresponding infrastructure	École Polytechnique Fédérale de Lausanne Laboratory of Intelligent Systems
Location	Route Cantonale, 1015 Lausanne, Switzerland
Unit of access	Working day

Technical specifications

Max user weight	150 kg
Heave	-15cm – +15cm
Roll	-30° – +30°
Pitch	-30° – +30°
Degrees of freedom	3
Machine weight	132 kg

Additional information

http://www.somniacs.co/