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# The Swiss flying machine

“Birdly” is a virtual reality system that allows users to experience the same sensations as birds. Invented at the Zurich University of the Arts, it is now being marketed by the start-up company Somniacs.

BY GENEVIÈVE RUIZ

“Inventing an aeroplane is straightforward enough. Constructing one is an entirely different matter. But flying surpasses the lot.” Max Rheiner, who created Birdly, opened his speech at the World.Minds symposium in Zurich in 2014 with this quotation by Otto von Lilienthal, the aeronautics pioneer. This professor at the Zurich University of the Arts told the audience that he had dreamed of flying since childhood and had produced a machine that enabled users to virtually transform themselves into birds.

Birdly is currently considered to be one of the most promising virtual-reality systems on the market and is being marketed by the start-up company Somniacs. But it started life as an artistic research



Fly like a bird: The Swiss invention “Birdly” gives people wings.

Photo: Keystone

project at the Zurich University of the Arts. “The aim was to explore the total immersion of the body in virtual reality,” explains Nathalie Enderle, the Communications Manager at Somniacs. “We focused on the experience of bird flight from a sensual and emotional perspective. We worked closely with a bird protection organisation.” This explains why users were so enthusiastic following a session on Birdly. They experience a full-body sensation of flying. Isn’t that everyone’s dream?

## A flight over New York

To achieve their goal, Max Rheiner and his team designed a system that looks more like an operating table than a golden eagle. Birdly users are strapped to the machine with their arms placed in wooden wings which they can move to soar through the air. They then put on virtual-reality glasses and a headset. A fan in front of their head blows

air to simulate the sensation of speed. Incredibly realistic aerial images based on photographs taken by aeroplane then pass before their eyes. The scenery was designed to reflect a bird’s viewpoint. Users soar through the skies and shave past the skyscrapers of New York or the ridges of the Matterhorn. They determine their direction by swivelling on the wings or by moving their body. If they glance towards their arms, feathered wings appear in their field of vision, further enhancing this immersive experience.

Birdly caused a stir from the moment it was publicly unveiled. It attracted attention at Swissnex 2014 in San Francisco, the Laval Virtual new technology trade fair in France in 2015 and at the South by Southwest festival in Austin, Texas, last March. The US press described it in glowing terms, hailing it as a fantastic and futurist virtual reality experience.

## Not for use at home

On the back of this success, the creators of Birdly decided to found the start-up company Somniacs in 2015. Based in Zurich, it currently employs eight people. Its order books are full but there is no point in ordering Birdly for home use: “Birdly is not designed for use at home,” Nathalie Enderle points out. “It is too technical and too big. We opted for a high-end solution. Birdly is expensive and costs as much as a luxury car.” Somniacs’ customers are museums, amusement parks and science centres.

Despite their success, Max Rheiner and his team are not resting on their laurels. They are continuing to work on improvements to their flying machine, particularly in terms of the quality of the landscapes projected. “Users can currently only fly over New York and the Matterhorn,” Nathalie Enderle explains. “We aim to make more landscapes available which are both realistic and extraordinary. We also want to add a fun dimension with features such as Easter eggs that have to be found in the countryside.”

The creators of Birdly are also considering other future applications for their machine in the urban planning and healthcare sectors.

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