

Ars Electronica received 1,861 entries from 54 countries

STARTS Prize 2016 to “Magnetic Motion” and “Artificial Skins and Bones”

(Linz, June 23, 2016) Ars Electronica Linz was selected to conduct the competition to determine the first two recipients of an award launched this year by the European Commission that is as prestigious as it is highly endowed. The STARTS Prize, each accompanied by a €20,000 stipend, honors innovative projects at the interface of science, technology and the arts in two categories: one for artistic research, and thus projects with the potential to influence or change the way technology is deployed, developed or perceived, and one for innovative cooperative ventures teaming up industry/technology and art/culture in ways that open up new paths for innovation. A total of 1,861 entries from 54 countries were submitted in response to an open call that ran from February 1 to March 16, 2016. A committee then shortlisted 30 projects, which were presented to the STARTS jurors for their consideration. Following extensive deliberations, they decided on “Magnetic Motion” by Iris van Herpen (NL) and “Artificial Skins and Bones,” a project seminar staged jointly by Berlin Weißensee Academy of Art, Ottobock and Fab Lab Berlin. Both prizewinning projects will be on display at this year’s Ars Electronica Festival (September 8-12, 2016) in Linz, where the artists as well as the respective project partners will make appearances. Plus, a major STARTS show will highlight the next BOZAR Electronic Arts Festival (September 22-24, 2016) in Brussels. Additional STARTS presentations are scheduled for autumn in Tokyo and London.

“Artificial Skins and Bones” Wins the STARTS Prize in the Category Innovative Cooperation between Industry/Technology and Art

The idea that led to “Artificial Skins and Bones” emerged over the course of a series of workshops staged jointly by the Berlin Weißensee Academy of Art and Ottobock. The direct impetus was delivered by conversations with technicians and physiotherapists on the staff of the world’s leading producer of prostheses, as well as people who, as a result of accident or disease, had lost one or more limbs. In conjunction with what was eventually entitled the “Artificial Skins and Bones” project seminar, faculty members and students at Weißensee experimented with materials and, in doing so, drew their inspiration from nature and its patterns, structures and modes of functioning. The individual research projects focused on the language of the senses, interaction with artificial limbs, and the aesthetics of artificial body parts in contrast to the aesthetics of the human body.

Inspiration for “Visible Strength” was provided by the octopus. The flexible textile surfaces by Lisa Stohn and Jhu-Ting Yang change their color and pattern depending on the wearer’s muscle activity. “Trans.fur,” on the other hand, was inspired by the human body’s most

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versatile organ, the skin. Karina Wirth and Natalie Peter developed textiles with variable mesh sizes that, like human skin pores, can reduce moisture permeability through guided contractions. "Technology, Temperature and Textiles" by Stephanie Natrass is an experiment with textiles that can detect even minute changes in ambient temperature and, if need be, generate heat. In "Naturanslations," Babette Wiezorek explores the character and potential of organically inspired material architecture with the help of algorithmic shape sculpting and 3-D printing. "Audio Gait" by Agnes Rosengren and Bernardo Aviles-Busch is an easy learning aid for shin-prosthesis training. The portable system "translates" walking motion into audio feedback to support a wearer's sense of balance when walking. "Active" by Hans Illiger supports the rehabilitation process of lower limb amputees with a digital service concept. For independent training, the patient is provided with sensor-detected movement data and video recordings. In turn, this training continuously delivers current data to therapists and prosthesis technicians in order for them to adjust the training plan and prosthesis. "Shortcut" was developed by David Kaltenbach, Maximilian Mahal and Lucas Rex to benefit people whose hand or arm was amputated. These people, despite their prostheses, are limited in their use of digital hardware: mouse, keyboard and touchscreen aren't built to match their needs. Here, "Shortcut" can help. The adjustable human interface device (HID), a bracelet, picks up sensory muscle impulses of the phantom limb and translates them into commands for contactless, intuitive computer controlling. For example, tapping of the thumb and fore/middle finger causes a left or right click, and snapping closes the active window. In "Tactile Communication," Nina Rossow explores two different means of information display by means of tactile feedback. Sens_mat allows passive tactile recognition of materials when direct contact is not possible. Sens_dia simplifies descriptions in pain diagnostics. Dull pressure, pulsating, or hammering are translated into tactile sensations that can be reported to physicians. One of the most heated discussions during the concept development phase had to do with the so-called Uncanny Valley phenomenon. Applied to prostheses, this hypothesis states that the more human-like they look, the more appealing they are, but too much likeness to real human limbs elicits a negative reception. "The Aesthetics of the Uncanny" by Carmina Blank and Sandra Stark investigates the fragile balance between prosthesis design standards and the Uncanny Valley phenomenon, and looks into how specific material design strategies can be used to understand this phenomenon, control it, and take it into consideration in the design process.

Statement of the STARTS Jury (excerpt)

"Artificial Skins and Bones" is a project that entails collaboration among science, technology and business. We were delighted by its refreshing spirit and correspondingly inspiring results. In conjunction with their stints as visiting professor at the Berlin Weißensee Academy of Art, Wolf Jeschonnek, founder of Fab Lab Berlin, and Mika Satomi, together with their students, met with experts on the staff of Ottobock. This process of exchange got the ball rolling, and the first prototypes soon ensued. The way that this occurred is an outstanding example of how companies can make a commitment to innovation and thereby achieve success in the future.

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Projects like “Artificial Skins and Bones” also provide inspiration and motivation for small start-ups to try out new methods and forms of collaboration that transcends the boundaries of discrete disciplines and genres, and to implement these approaches in everyday practice.”

Magnetic Motion by Iris van Herpen (NL) Wins the STARTS Prize in the Artistic Research Category

Björk, Lady Gaga and Beyoncé have worn her outfits on stage, and one of her 3-D printed dresses made TIME Magazine’s list of the 50 best inventions of the year 2011. Iris van Herpen’s collections are both fashion statements and future studies. The designer regularly seeks contact and exchange with scientists, and visits universities and research facilities. And it was a stay at CERN that inspired her to create the Magnetic Motion collection for which she’s now being singled out for recognition by the European Commission with a STARTS Prize.

“Magnetic Motion” is the inspiring result of her collaboration with Canadian architect Philip Beesley and Dutch artist Jolan van der Wiel. Beesley is a pioneer in responsive, “living” sculpture, whose poetic works combine advanced computation, synthetic biology and mechatronics engineering. Van der Wiel is an artist and craftsman who experiments with dynamic sculptures and installations full of magnetic tension. Using techniques like injection molding and laser cutting, they jointly created maze-like structures and intricate architectural handwork on dresses, jackets, slacks, skirts and blouses to give them dynamic shapes and surfaces that reflect the body’s movement. The controlled structure of the clothes is offset by the chaotic structure of the accessories, among which, due to the nature of magnetic growth, no two items are alike. The shoes, belts, necklaces and clutches were “grown” using magnetic fields.

Statement of the STARTS Jury (excerpt)

“Iris van Herpen is one of the first fashion designers in whose work 3-D printing and other cutting-edge technologies play an essential role. She began her career working for Alexander McQueen in London and Claudy Jongstra in Amsterdam before launching her own label in 2007. Characteristic of Iris van Herpen’s artistic-creative process is collaboration among the members of a large, interdisciplinary team who bring a wide array of skills to the table—from traditional crafts to state-of-the-art technologies. Iris van Herpen’s work also demonstrates her strong interest in the development of new materials as well as extraordinary new strategies for deploying certain materials to create innovative garments.”

Science + Technology + Arts = STARTS

“In the Digital Age, art and engineering no longer represent mutually contradictory ways of thinking,” maintains G.H. Oettinger, EU Commissioner for Digital Economy and Society. Science, technology and the arts (STARTS for short) constitute a nexus at which insightful observers have identified extraordinarily high potential for innovation. Accordingly,

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Commissioner Oettinger foresees digital transformations in industry, culture and society providing the main impetus for interdisciplinary and inter-genre collaboration when innovation is the desired result. Moreover, he emphasizes that the link-up of technology and artistic practice is a win-win situation for both European innovation policymaking as well as the world of art, which is precisely why STARTS focuses on both artistic relevance and a project's significance/utility for industry and society. In this context, Commissioner Oettinger emphasizes that this should by no means be construed as restricting artistic latitude for experimentation. This is said to be utterly counterproductive since creativity on the part of artists is, after all, first and foremost an upshot of their independence.

Ars Electronica Linz Meets STARTS

Since 1979, Ars Electronica has been exploring the multifarious impacts that digitization and networking are making on our world. In going about this, art, technology and society are never scrutinized as discrete domains; instead, they're considered as interrelated elements of a unified vision. Ars Electronica's process of artistic reflection on explosive developments, its ongoing inquiry into alternative future scenarios and the framework circumstances, strategies and protagonists necessary for their emergence, as well as the ways and means inherent in all of these activities to encourage people to get actively involved in configuring our shared future are what make Ars Electronica the ideal partner of the STARTS program. The Ars Electronica Festival, a platform and showcase that has been making a name for itself worldwide since 1979, the Prix Ars Electronica competition that has honored excellence in media art annually since 1987, the Ars Electronica Center that premiered in 1996 as a Museum of the Future and educational facility, the Ars Electronica Futurelab founded the same year as an in-house R&D lab/atelier, and Ars Electronica Solutions, the division responsible for an impressive array of joint ventures with partners in industry and commerce, also contribute mightily to this effort.

STARTS Prize 2016: <https://starts-prize.aec.at/en/>

Iris Van Herpen: <http://www.irisvanherpen.com/>

Artificial Skins and Bones Group: <http://skinsandbones.de>

Weißensee Academy of Art Berlin: <http://www.kh-berlin.de/>

Ottobock: <http://www.ottobock.com/en/>

Fab Lab Berlin: <https://fablab.berlin/en/>

European Commission: http://ec.europa.eu/index_en.htm

BOZAR: <http://www.bozar.be/en>

Ars Electronica Linz: <http://www.aec.at/news/en/>

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STARTS Prize 2016

Innovation at the nexus of science, technology and the arts

Grand prize of the European Commission honoring innovation in technology, industry and society stimulated by the arts

Grand Prize – Innovative Collaboration

Awarded for innovative collaboration between industry or technology and the arts (and the cultural and creative sectors in general) that opens new pathways for innovation

Artificial Skins and Bones / Artificial Skins and Bones Group (DE)

<http://skinsandbones.de/>

Project credits:

Artificial Skins and Bones Group; course instructors: Prof. Wolf Jeschonnek, Prof. Mika Satomi

Participating students:

Bernardo Aviles-Busch, Carmina Blank, Hans Illiger, David Kaltenbach, Maximilian Mahal, Stephanie Nattrass, Natalie Peter, Lucas Rex, Agnes Rosengren, Nina Rossow, Sandra Stark, Lisa Stohn, Babette Wieszorek, Karina Wirth, Jhuting Yang

Main project partners:

Weißensee Academy of Art Berlin, Fab Lab Berlin, Ottobock Healthcare GmbH, Makea Industries GmbH

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Grand Prize – Artistic Exploration

Awarded for artistic exploration and artworks in which appropriation by the arts has a strong potential to influence or alter the use, deployment or perception of technology

Magnetic Motion (2014) / Iris van Herpen (BE)

<http://www.irisvanherpen.com>

Project credits:

Magnetic Motion Collection in collaboration with the following artists: Philip Beesley, Niccolo Casas, Jolan van der Wiel

Photo credits:

Frontstage photos: Yannis Vlamos; backstage / details photos: Morgan O'Donovan; Lookbook photos: Frederik Heyman; collection shoot (black & white) photos: Mathieu Cesar

STATEMENTS

Linz Deputy Mayor Bernhard Baier, Chairman of the Board of Directors of Ars Electronica Linz GmbH

“Conducting such a prestigious and highly-endowed competition on behalf of the European Commission and then hosting the prizewinners here in Linz is, of course, a great honor. This expansion of Ars Electronica’s global network is a huge enhancement of its worldwide reputation. And, of course, it’s also great advertising for the City of Linz and how we’re truly living up to our UNESCO City of Media Arts title.”

Stefan Giegler, Vice-chairman of the Board of Directors of Ars Electronica Linz GmbH

“The STARTS Prize totally focuses on innovation—innovation fed by positive friction generated at the interface of science, technology and art; innovation that will be utterly indispensable if we’re to successfully respond to the challenges we’ll be facing in the near

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future. Initiatives like STARTS are a perfect fit at Ars Electronica, and Linz is an ideal setting for them for several reasons: Linz is a UNESCO City of Media Arts; Linz is a center of heavy industry and high-tech; and because Linz doesn't lose sight of tradition and history while staying intensely focused on the future."

Ralph Dum, director of STARTS at the European Commission

"Unfortunately, a so-called silo mentality is still very widespread in Europe, and this also applies to certain parts of the technology sector as well as the art & culture scene. The STARTS Prize is part of an effort to bridge this divide and to demonstrate to those active on both sides how taking advantage of synergies can give rise to a win-win situation."

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