ECAL/UNIVERSITY OF ART AND DESIGN LAUSANNE

ECAL is regularly ranked among the top 10 art and design schools in the world. The school’s influence is attested to by the success of its graduates, countless press articles and awards, important collaborations with institutions and brands and a large number of exhibitions in prestigious venues. ECAL offers a Foundation course, six Bachelor programmes and seven Master programmes in Fine Arts, Film Studies, Graphic Design, Media & Interaction Design, Photography, Industrial & Product Design, Type Design, Design for Luxury & Craftsmanship and Design Research for Digital Innovation (with the EPFL-ECAL Lab).

www.ecal.ch

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ASSOCIATION MEC-ART

The purpose of the Mec-Art Association, created in Switzerland in the town of Sainte Croix, is to preserve ancestral traditions, to advance them technologically and artistically, and to establish a bridge between the art and technology of mechanics. This initiative, born in 2017, includes automatons, all mechanical musical objects, singing birds, handmade clocks and watches, animated sculptures or paintings and other mechanical artistic objects.

www.mec-art.ch

Watchmaker
Denis Flageollet

Automaton Maker
François Jodoin

Watchmaker
Nicolas Court

Mechanical Technician
Boris Mauzur

Wood Marquetry Maker
Bastien Chevalier

Cabinetmaker
Luigi Mondia

ASSOCIATION MEC-ART

Craftsmanship in Movement: Celebrating Design and the Heritage of Switzerland’s Masters of Mechanical Art

For a number of years, the Master of Advanced Studies in Design for Luxury & Craftsmanship programme at ECAL/University of Art and Design Lausanne has enabled its students to work in close collaboration with prestigious maisons to further their design education in numerous areas of excellence.

The university’s partnership with Association Mec-Art (pour la Mécanique d’Art) is fully in line with this approach, creating the opportunity for students to collaborate with artisans based in Sainte-Croix, the town in the French Swiss Jura which is home to all the know-how involved in the creation of art mechanics. Here, artisans perpetuate their time-honoured expertise in the mechanical arts, including music boxes and automatons—traditions recently added to UNESCO’s List of the Intangible Cultural Heritage of Humanity. This ambitious project has brought together international students and world-renowned artisans in order to combine design, innovation and engineering.

“Mechanical Marvels” features five interactive installations that mix visual and sound effects and enables visitors to operate the mechanical masterpieces by winding a crank, thereby bringing the various automatons to life.
This automaton features a mechanical arm trying to touch a small bird. The bird’s shape and finish are reminiscent of the automata inside clocks and music boxes made in the region. Whenever the arm gets too close, the bird moves out of reach and immediately hides under a trap, only to reappear for this game of hide-and-seek to begin again. This interaction between the two figures, which have been 3D-printed in titanium, is made possible simply by a series of cams: parts which transmit and transform the movement of a mechanism. The specific, asymmetrical shape of the metal figures produces a completely random rhythmic pattern which makes the scene all the more realistic and amusing.

On one side of this two-part installation, three transparent cylinders enclose pistons that move up and down, much like the pistons in a car engine. The air displaced by this movement is propelled directly into steel tubes. On the other side, nine flax paper discs, balanced on metal rods, are set inside a second structure. The air produced by the mechanical movement travels through metal pipes and is released directly beneath the paper circles. Their various shapes and sizes impart a different rhythm to each one, bringing the scene to life with moving forms.

This sound installation consists of a cylinder made from maple, a local wood used by luthiers and harpists in Sainte-Croix. It moves towards then away from the music box fixed above it. This movement, and the music, are made possible by a double mechanism driven by a weight. When the two parts come into contact, the wooden surface becomes a sound box, amplifying and allowing the melody to be clearly heard.

This mobile pays tribute to the ballerinas and animated automata that often featured in traditional music boxes. The installation’s mechanism moves a carbon structure. Suspended from this structure are stained glass rods, themselves held in place by machined metal joints. These engineered parts enable random rotations or flips, thus creating ever-changing movements. The resulting scene can be likened to a choreographed work, performed to the sound of rods knocked together by puppets and symbolised by materials that are both rigid and technical, but also fragile and almost transparent.

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