

Oribotics Matthew Gardiner, Australia www.oribotics.net

Explore the beauty of origami in the digital era, and the connections between nature, art and future technology. Highly-sensitive proximity sensors cause each oribot to open its folds in blossom in response to micro interactions, activating the entire network of oribots to a ripple effect of sympathetic movements throughout the installation. It's both a stunningly complex moving image and a profound commentary on the use of mathematical code to close the gap between the physical and the digital worlds.

Q: What is Oribotics?

Q&A

The work on display here is the result of eight years of research looking at the intersection of origami and technology, or folding (ori) and robotics (botics). It is a kinetic sculpture that looks like a flower – and as you come close, it opens up in one movement that causes 1,050 reactions throughout the folding system, one action with complicated sideeffects.

Q: What message or provocation do you hope to share with visitors?

It raises questions about the relationship between nature and folding, how nature uses folding as a design strategy, and how we use folding in art, in mathematics, robotics, architecture, even space technology. When you get close to the work, it starts to react to you, you can almost see a piece of nature magnified and exposed in a very simple way. This is the structural language of nature, these beautiful and elegant folding systems.

Q: What does the future look like?

The biggest game-changing technology for me is the programmability of nature. This is connected to folding in proteins and in DNA, affecting our ability to understand and design nature from the ground up. As soon as the positive effects become apparent, like a genetic therapy to cure cold viruses or cancer, or the ability to create designer parts of ourselves, the technology will gather momentum and our poor understanding of the outcomes will no longer matter.