

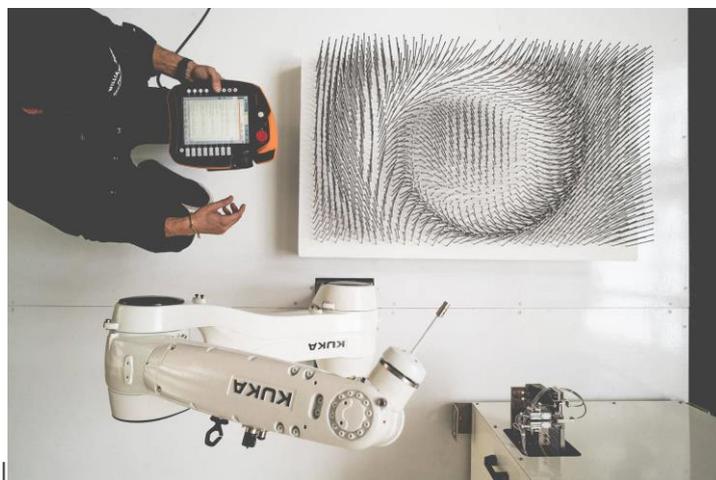
# AUTHENTICATION IN ART

AiA Art News-service



## ROBOT — A NEW TOOL FOR ARTISTS

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I have explored the digital trends and challenges of the art world in [my previous blog post](#) and while exploring this subject online, I discovered a very interesting artist — [Charles Aweida](#). He is a young innovator who creates impressive artworks with the help of... robots.

Charles calls himself artist & roboticist, exploring the intersection of science, engineering, visual arts and film. He works in a lab in Oakland (California) and researches new ways of leveraging robotics as a creative medium. I found it

extremely interesting and decided to do an interview with him and share our virtual conversation about art and robotics.

### **How did you have the idea of using robots in a creative process?**

I have always been fascinated with emerging tools and their ability to aid in the creative process. I think this is common place in the architecture community where I previously studied and practiced. While in Graduate School at Carnegie Mellon University, I had access to an amazing network of robots. Utilising these machines to create fine art has always felt intuitive to me considering that robots have a wondrous ability to bridge the digital and physical worlds.

### **What kind of objects do you create and what technique do you use?**

I produce three-dimensional objects inspired by the natural world, fabricated by robots. Most often, I reproduce elements, rule-systems, and patterns from the natural world in a digital environment by way of physics simulations and generative algorithms. After reproducing these elements I digitally abstract and simplify them. I then bring them back into the real world through robotics and custom actuated machines. There's always this loop from the real-world, to the digital world, then back to the real world.



*"Prototile 0" is the second in a series of robot machined projection sculptures from artists Philip Reyneri and Charles Aweida.*

### **What was your most ambitious, or most successful project?**

My most ambitious project is centred around a cinematic effect produced by stop-motion animation techniques executed by robots. How it works: the robot places objects on a surface, it then talks to a camera rig which captures a photo of the

objects, it then moves the objects to their next location or frame. When the images or frames are combined it creates a visual effect as if the physical objects are moving and animating. I captured this process in a 5 second clip which is the result of over 40,000 robotic movements and 6 hours of elapsed time. If you look closely, you can see the sun setting. Once the creative direction is defined this process is fully automated.

### **Are your artworks unique, or do you multiply them?**

All of my artworks are unique. There are similar aspects/parameters throughout my work, however, I will never produce the same piece more than once. This is an important aspect to me. In addition, there are too many concepts I am dying to create, there's no need for duplication.

### **Do you participate in exhibitions and art fairs?**

I am very much in the infancy of my art career. I have spent the last 3 years designing and building the engineering component (which ultimately facilitates the creative component). That said, I have had a few exhibits in Los Angeles and San Francisco. I have a few completed commissions and am in the process of conceptualising new commissions. I have not participated in any art fairs but hope to do so at some point. For now, I am hyper focusing on producing the work.

### **Have you ever faced an opinion, that things you create are not art, because they lack human touch?**

Absolutely. When art is brought up, the common reaction is to think painting, drawing, and sculpting — in the classical sense. It is sort of what we've been trained to think. I think about it a bit differently. If we were to consider sculpting for a moment — a chisel is a tool that allows artists to create what's in their mind. That tool is an extension of them — it enables them to produce something they couldn't previously produce. I see robots and other digital tools in the same light — these contemporary tools enable me to produce my works. At one point in time a chisel was a contemporary tool, today we have a myriad of new tools and mediums to explore. To me this is where it's exciting to be — in this emergent space of exploration.

### **What do you think about the future — how technology will change the art and the art market?**

I think the future of the art market lies in the hands of the viewers. If artists can leverage technology to captivate viewers, I think the future will be very exciting.

**What kind of project are you working on at the moment?**

I think of my work as "seasons". Right now I'm creating "Season 1" which will include a series of works with a process that includes my robotic arm, custom fabricated nails, closed cell high-density foam and a custom engineered vibratory nail feeder. Season 2 will expand upon the same principles but with new techniques and materials.

Alongside the production of fine art, I am also experimenting film and cinematography in relation to my work as it is a component of the experience. This process is also driven by robotic systems and emerging tools. It is this mixture of the visual arts, robotics, engineering and film that I find the most exciting.

**Thank you, wishing you all the best in your creative journey.**

More information about Charles Aweida and his work <http://cka.co>

