Robot “Creatures” from Poppy Project Utilize 3D Printing

BY EVAN CHAVEZ ON THU, DECEMBER 4, 2014 · 3D PRINTING, ART & SCULPTURE, DESIGN, INDUSTRY NEWS, VIDEOS
As our world rapidly surpasses visions of the future from the past, 3D printing becomes an integral part of a new reality involving robotics evidenced by ventures like the Poppy Project. The Poppy Project presents a space and forum for a comprehensive investigation into modern robotics. Poppy is comprehensive because it aims to answer questions and provide an open source library (Python library) that runs the gamut from research and education to art and robotic enthusiasts. One key component to Poppy’s endeavor is 3DP allowing rapid production thereby stimulating theories and subsequent testing of those theories.
The spirit of Poppy is made apparent by their lexicon. Robots are called creatures. Each creature begins with equal parts function and creativity. These elements are innate in 3D printing and it is that process that enables Poppy to provide its service. As promoted by the site, “Poppy tools are designed to be modular, easy to use, and easy to integrate – providing a set of building blocks that can easily be assembled and reconfigured.”
3D printing lends itself to Poppy's means and ends due to its process and results. 3D printed models are easily reproduced and can be customized and printed locally at the discretion of the person or group printing. One caveat that adds to Poppy's space is the forum with its exchange of ideas coupled with open source software and distributed under GPLv3 licenses. Those curious about “creature actuation” will see that Poppy creatures are based on modular smart-actuators call Robotis Dynamixel. They embed in a small form factor several features such as high-level control and a communication bus. Though often used in robotics and available with multiple actuation power, the project is open to new contribution for robot actuation.

By calling the robots “creatures,” Poppy has shifted the paradigm concerning their products. Using the term creature imbues a sense of life and animation. While movement has long been associated with robotics, it normally remains within the confines of identity by function. Yet Poppy has given a new perception to innovation and creation in robotics by simply using a loaded word. Oh, and 3D printing helps too.
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<td>Mcor’s Vision for Accessible 3D Printing is One Step Closer — with Staples’ First 3D Printing ‘Experience Centre’</td>
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<td><img src="image3" alt="3D Printers of the World Unite – PrintToPeer's Giant 3DP Sculpture in the Making" /></td>
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### About the Author

Evan Chavez

Evan Chavez currently lives in Temple City, CA. Between bouts of teaching and attempts at athleticism, he writes, paints, and draws upon inspiration and request. Dreams of digging for dinosaur bones flitted in childhood reveries, but stints at UC Irvine and CalArts, where he received his B.A. and M.F.A respectively, allowed the arts and writing in particular to abscond with his heart and mind. He co-edits for In-Process-Inventory, a literary journal, and periodically updates his blog.

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