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Master of Engineering

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Image created with Michael (Rory) Dawson, Jaden Travnik, and Patrick Pilarski in the BLINC Lab, University of Alberta

Self Portrait in 2045

First Prize (Tie)

The image depicts a robotic hand expressing its identity through self-portraiture, challenging the viewer to reconsider the role of a prosthetic hand as simply a crude replacement. While this level of dexterity and intelligence is still beyond the capabilities of prosthetic limbs, it is entirely possible that in the distant future such a picture may not seem so far-fetched. The Bionic Limbs for Improved Natural Control (BLINC) Lab is dedicated to restoring lost limb function to amputee patients — not only physical movement, but also sensations of touch, proprioception, and kinesthesia. In order to help facilitate this ends, my research is focused on creating and evaluating devices such as the featured hand that change the way people think about prosthetic limbs. By including non-physiological features such as onboard cameras, telescoping limbs, or interchangeable tools, I am exploring the possibilities of what is possible when we do not restrict ourselves to humanoid forms. I designed this hand with a camera integrated into the palm as a foray into the realm of non-physiological prostheses.