

ARM

HARRISON CULLEN, ALYSSA DAVIS AND JENNIFER TASHMAN BSE '15
ADVISOR: TOBY CUMBERBATCH

Arm is a life-sized endoskeletal structure that mimics the movement of a human arm. Computer-controlled linear and rotary actuators are used to operate Arm, and the automaton is programmed to perform and communicate its human-like features. Freud's theory of the Uncanny was employed in order to contextualize aspects of a biomimetic robot based on the response evoked from a human audience. Arm's main endoskeletal structure is made entirely of brass, and is manufactured in a manner that seeks to manipulate simple motor functions to subsequently produce a more nuanced and believable representation of human motion. All moving parts are exposed in order to provide an easily understandable, and ultimately more inviting, mechanically performative experience.