

## *Please Smile*

Medium: Artistic Robot / Technology: Face and Smile Detection / Date: 2011 Jan

*Please Smile* is an exhibit involving five robotic skeleton arms that change their gestures depending on a viewer's facial expressions. It consists of a microcontroller, a camera, a computer, five external power supplies, and five plastic skeleton arms, each with four motors. It incorporates elements from mechanical engineering and computer vision perception to create a more expressive robot. When people interact with the robotic arms, they encounter unexpected reactions.

Audiences interact with *Please Smile* in three different ways. When no human falls within the view of the camera, the five robotic skeleton arms choose the default position, which is bending their elbows and wrists towards the wall behind them. When a human steps within the view of the camera, the arms point at the human and follow his/her movements. Then when someone smiles in front of it, the five arms wave their hands. Through *Please Smile*, audiences foster positive behaviors such as smiling.

Pictures



Fig. 1 Front View

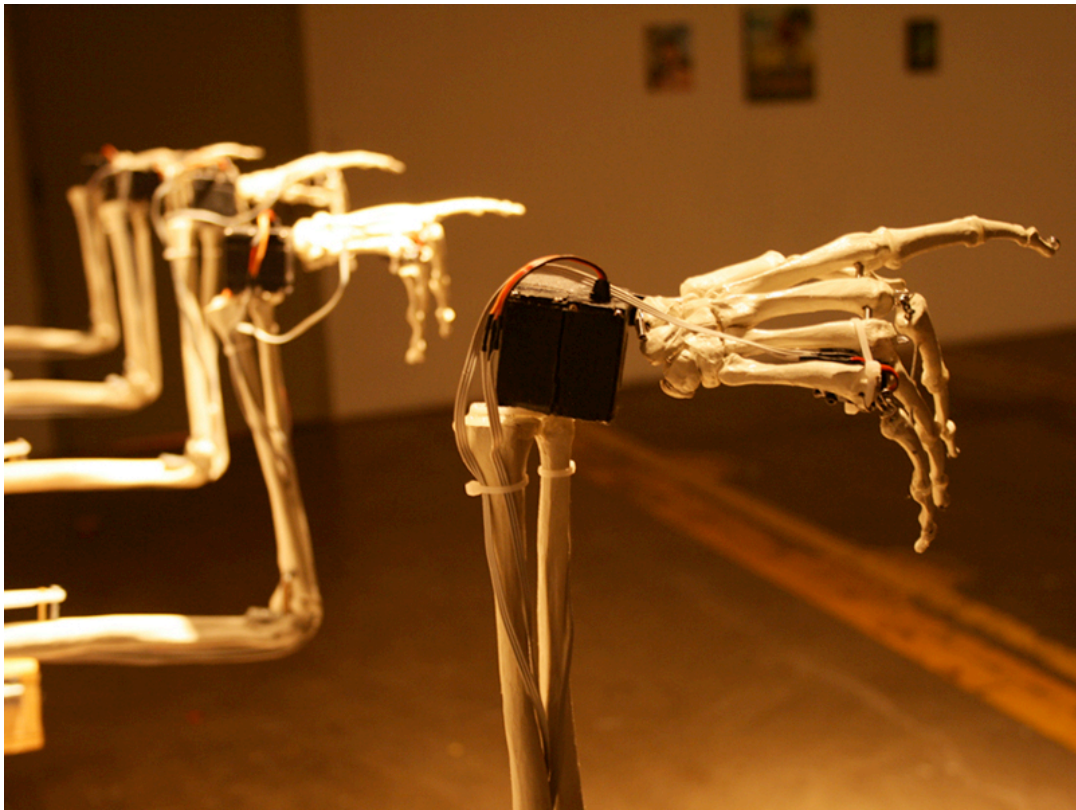


Fig. 2 Close-up





Fig. 3 Robot Arm's Changing Gesture

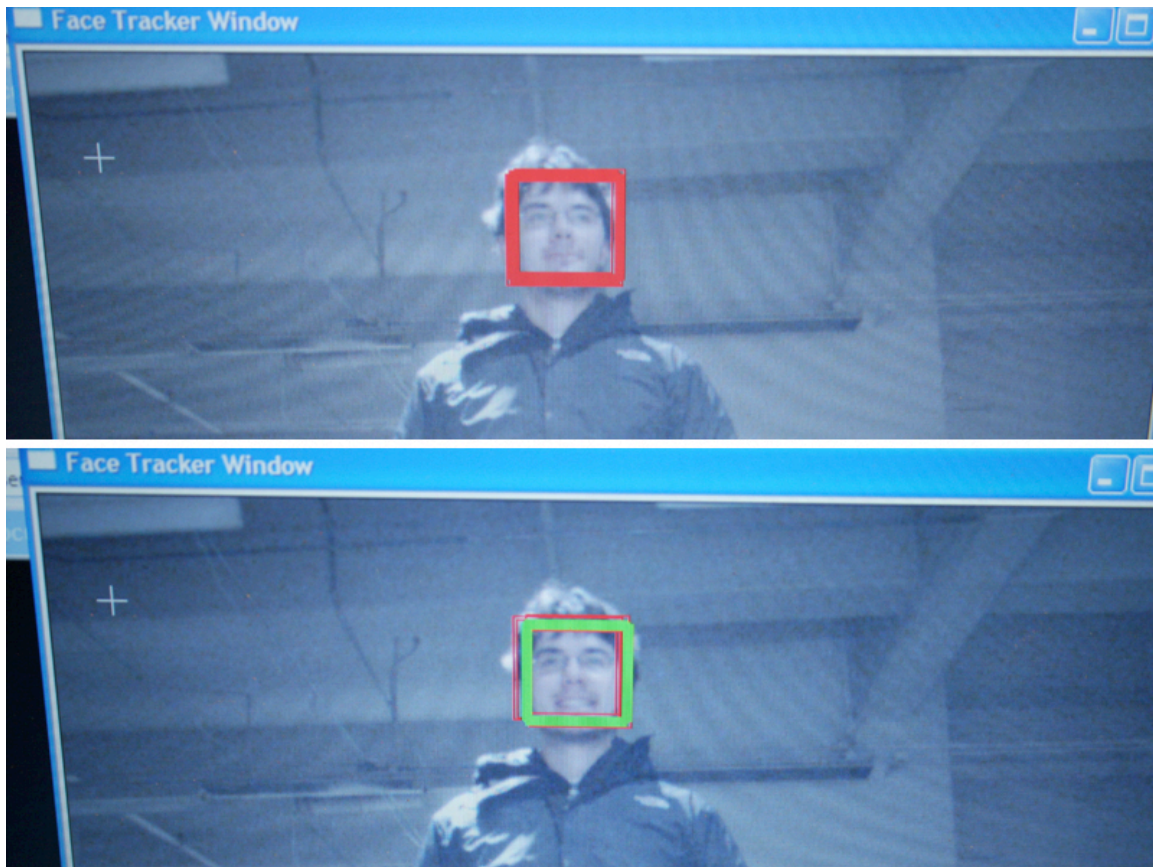
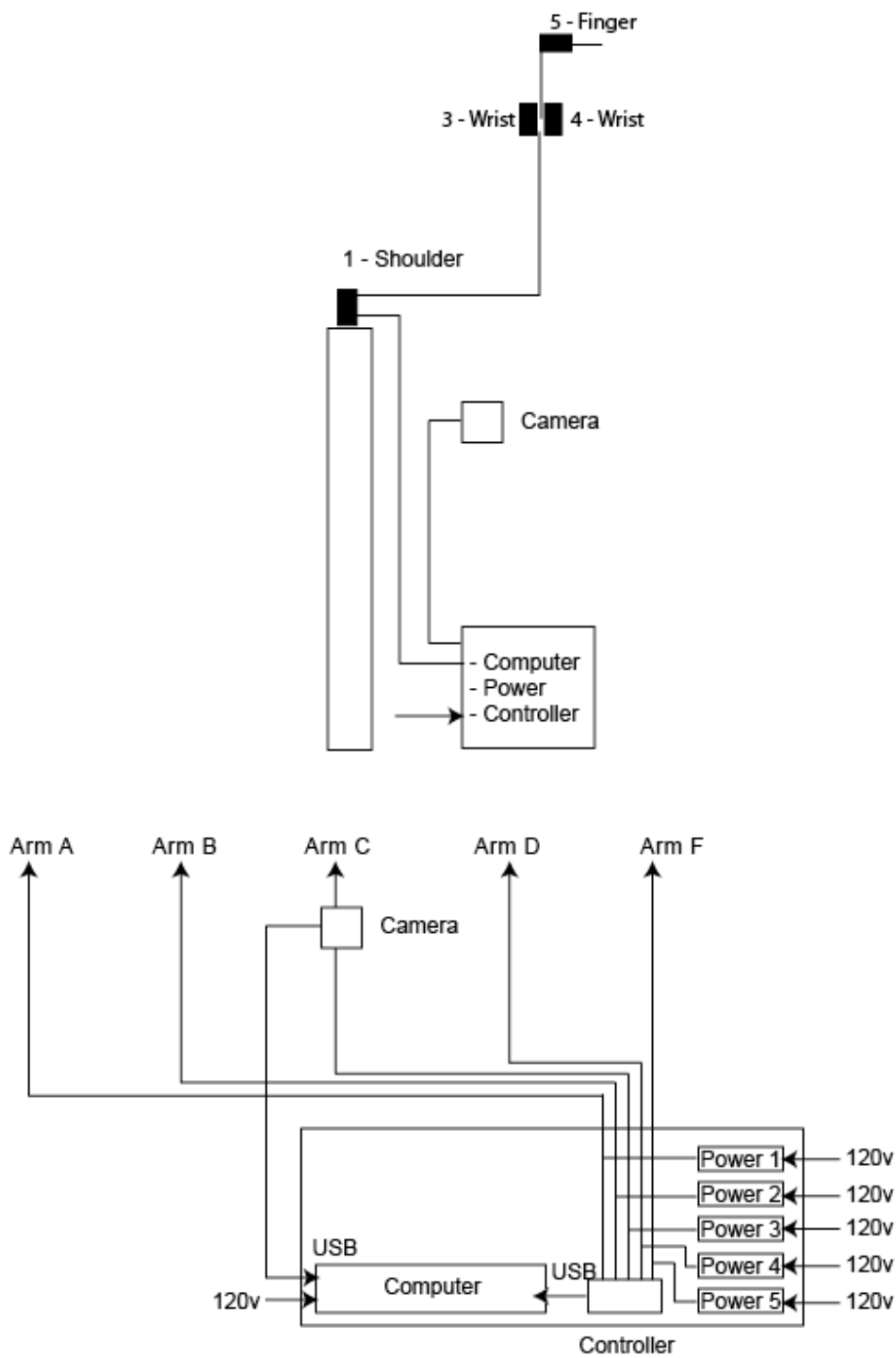


Fig. 4 Face and Smile Detection

Diagram



Video URL

<http://www.vimeo.com/18983497>

Exhibition History

2011 Jan, Buffalo Arts Studio, Buffalo, NY