Design and Fabrication of Robot Hands for Dexterous Tasks





Robotics Institute Carnegie Mellon University IIS-1637853 August 2016 - July 2020



Cornelia

Bauer



Bauer



Chang



Chris

Hazard

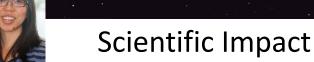


Jonathan

King



Nakamura



Effective strategies for robot hand design

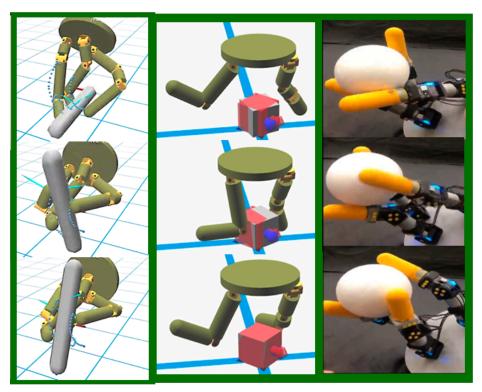
Nancy Pollard Stelian Coros

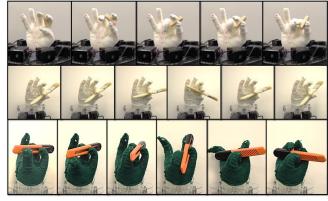
Challenge

Design robot hands for dexterous manipulation

Solution

- Optimize for custom task set.
- Optimize mechanism, control, materials, joint limits, actuation, etc...
- Fully soft hands with wholehand dexterity.





Broader Impact

- Improved understanding of human manipulation
- Applications for prosthetics
- Applications in agriculture

