CS 309
Autonomous Intelligent Robotics

Guest Instructor: Justin W. Hart
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Something Fun to Start

- In 2010, at Yale I and my co-authors programmed my robot to play rock-paper-scissors

- With some participants, it cheated at the game

C++ Tutorial

Nico, a Humanoid Infant
Rock-Paper-Scissors
Three Conditions

- Control – The robot plays rock-paper-scissors for 20 rounds
- Verbal Cheat – On 3 rounds, the robot announces itself the winner when it has lost or tied
- Action Cheat – On 3 rounds, the robot announces itself the winner, and changes the symbol its hand displays to the winning symbol, when it has lost or tied
Videos
Results Summary

- Control participants were bored
- Verbal cheat was perceived as a malfunction
- Action cheat
  - Was perceived as cheating
  - Resulted in higher participant engagement
  - Participants attributed greater agency to the robot
The Wizard of Oz Technique

• “Pay no attention to that man behind the curtain.”

• In this case it was a one of our co-authors driving the robot

• Wizard of Oz refers to robot teleoperation in HRI experiments rather than autonomous operation on the part of the robot
Back to C++

- A simpler, quick example that covers the essentials
A quick intro to ROS

- ROS Tutorials