Computer Science & Interdisciplinary Computing Capstone
Cybersecurity Design

University of Kansas

Ro-Board (Team 19)

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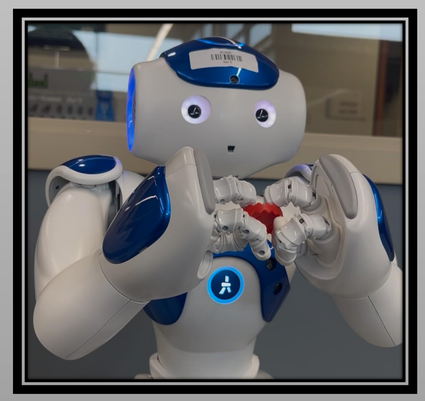
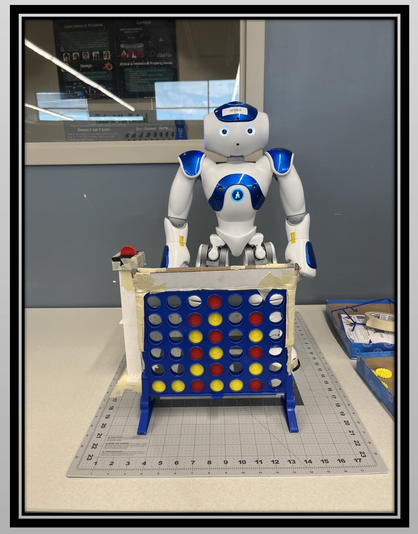
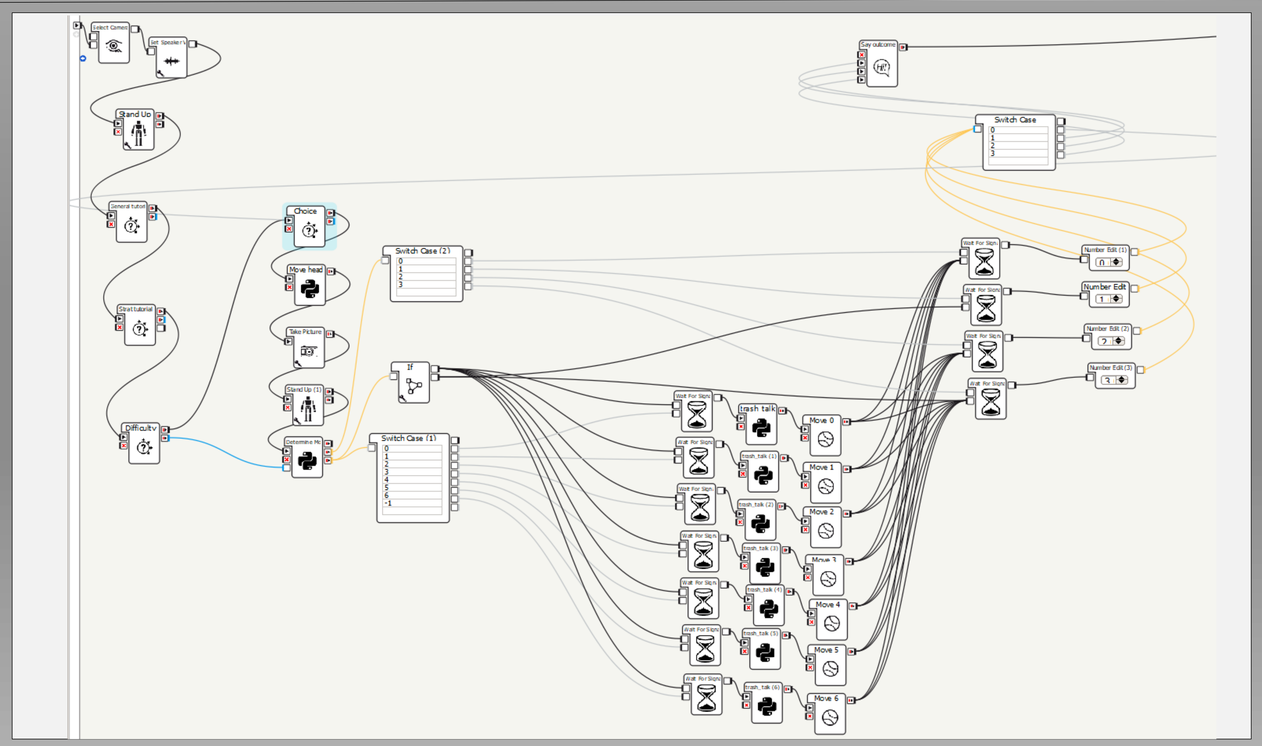
Overview

- We used our expertise in software, machine learning, and electric systems to design a system to play a four in a row matching game with a human player using the Nao robot.
- Our goal is to bring old-fashioned board games into the **modern age** by incorporating robotics.
- We successfully designed the Ro-Board to play with multiple difficulty levels, tutorials, and user interactions. The Ro-Board can place a game piece into any slot in the board, swap hands, and implement strategies.

roboflow







Design, Ethics, and Intellectual Property

- Games start with an explanation of game rules and tutorial, then proceed with user and Ro-Board turns until the game is complete.
- The Ro-Board has some negative interactions with the user which could be considered poor sportsmanship. These should be toggled off if a user would be offended.
- The Ro-Board uses a game set designed for Connect 4 which is trademarked through Hasbro with registration number 1009552. We would need permission from Hasbro to use their design if we were to trademark the Ro-Board.