

Product

- Human Detection and Tracking System for Humanoid Robots that can identify and follow humans in real time.
- Provides situational awareness for robots, enabling them to interact safely and efficiently in dynamic environments.

Stakeholders

- The stake holder for this project is the Acme Humanoid Robotics Development Group (HRDG) and the company's CEO
- Other end users include healthcare professionals, hospitality professionals, retail where robots assist humans, etc.

Capabilities

- The system can detect humans in the robot's field of view using a pre-trained YOLO model.
- Uses computer vision techniques for tracking, providing continuous updates on the humans' positions.
- Capable of working with a monocular camera setup, making it lightweight and easier to integrate.
- Real-time processing ensures responsiveness in dynamic environments, even with multiple moving humans.

Measure of Success

- The system should accurately detect humans in various lighting and environmental conditions.
- The tracking system should maintain a consistent update rate, allowing the robot to follow or avoid humans effectively.