

# Incorporating Gaze into Social Navigation

Justin Hart, Reuth Mirsky, Xuesu Xiao, Peter Stone

RSS 2021 Workshop on Social Navigation  
July 2021

## Building-Wide Intelligence (BWI)

Fleet of 5 **autonomous** service robots

Tasks

- Object delivery
- Providing directions
- Messages

**Real-world** deployment

Run **constantly** during workday



## Summarized Work



Fernandez, R., John, N., Kirmani, S., Hart, J., Sinapov, J., & Stone, P. *Passive demonstrations of light-based robot signals for improved human interpretability*. ROMAN 2018



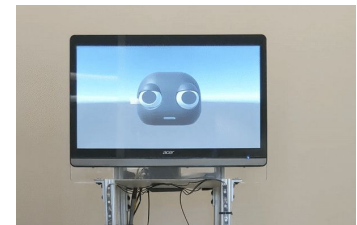
Hart, J., Mirsky, R., Xiao, X., Tejeda, S., Mahajan, B., Goo, J., Baldauf, K., Owen, S. & Stone, P. *Using human-inspired signals to disambiguate navigational intentions*. ICRA 2020



Holman, B., Anwar, A., Singh, A., Tec, M., Hart, J., & Stone, P. *Watch Where You're Going! Gaze and Head Orientation as Predictors for Social Robot Navigation*. ICRA 2021

## Open Challenges

- Close up deconflicting interactions
- Context understanding
- Cultural differences



Contact: Reuth Mirsky (reuthde@gmail.com)