Project Overview

This project will develop a multi-cue person tracking system that will integrate stereo range processing with other visual processing modalities for robust performance in active environments.

Goals:
• Low-cost
• Easily configurable
• Multiple vision cues
• Robust person tracking

Implementation using commercially available stereo head and laptop computer
Current focus: stereo range modality

New methods for fast and robust range estimation.
• Predictive disparity search
• Homogenous foreground region correspondence
• Long-term background acquisition: variable aperture and illumination

Part of system for integrated person tracking
• Integration of 3-D foreground data
• Trajectory estimation in plan view representation
Research Plan for the Next Six Months

• Implement real-time predictive disparity estimation
• Develop optimal aperture schedule
• Integrate flesh color tracking