

The Future of the Wunderbot



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Objectives

- Research
- Collect information
- Analyze findings
- Report conclusions





Existing Features and Capabilities

- Several intricate sub-systems
 - Path Planning Algorithms (GPS capability)
 - Complex Vision Systems
 - Joint Architecture for Unmanned Systems (JAUS)
 - Image Processing and Pattern Recognition
 - Combinational Logic Based Collision Detection System
 - Short-range Proximity Detection
- LabVIEW



IGVC Modifications and Updates

- Full subsystem integration
- Mechanical changes
 - Replace castors with spherical wheels
- Possible vision system changes
- JAUS 3 implementation





Virtual Touring and Environmental Sampling

■ Virtual Touring

- Senior Project by President of Wunderbot club, Mike Patrick
- <http://www.etown.edu/docs/Public/Etown%20College%20Campus%20Map.pdf>

■ Environmental Sampling

- Idea being entertained as possible Senior Project



Goals for Spring 2011

- Possible complete system overhaul
 - Reduce learning curve
 - Encourage new members
 - Interdisciplinary possibilities
- Body and mechanical changes
- New code



Thank you for your time

<http://www2.etown.edu/wunderbot/>



PHOENIX CONTACT

INNOVATION IN INTERFACE



COGNEX

RoboteQ

Trimble

OmniSTAR
The Global Positioning System

TIMKEN

TEAM DELTA

P i x e L I N K



NATIONAL INSTRUMENTS

