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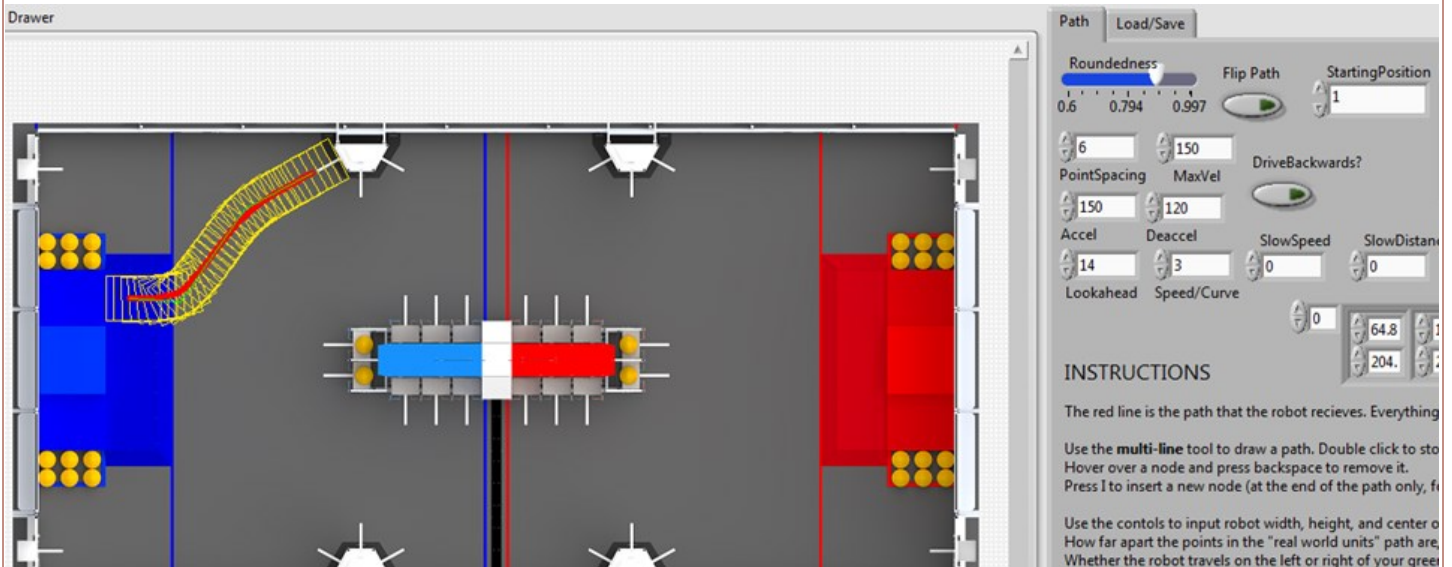
Flexible Autonomous Editor



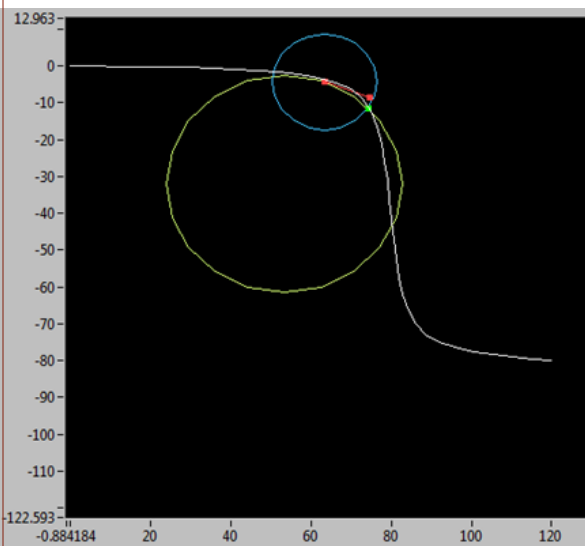
- Custom-built LabVIEW system for easy creation and editing of autonomous routines
- Point and click interface makes scripting autonomous commands easy
- Can run commands in sequence or in parallel
- Every routine stored in its own XML file
- Save/Load/Export files
- Changing auto no longer requires building down code
- Robot code chooses and parses correct file to run autonomous
- Custom program automates the creation of autonomous com-



Other Control Systems Features



- **Custom Path Drawer** application allows easy creation of autonomous paths
- **New Features:**
 - * Ability to draw multiple paths in one file
 - * Insert new points into paths
 - * Code simplified making it easier to change the drawer each year



- **Custom pure pursuit path following** code lets robot accurately and reliably follow paths
- **New Features:**
 - * More accurate look ahead point calculation
 - * New code automatically integrates with Path Drawer to set starting positions

- Automated hatch panel sensing and acquisition makes drivers job easier
- Motion profile controlled arm with preset heights for easy game piece scoring
- Vision assisted alignment helps drivers acquire and score game pieces
- Automated robot actions at start of sandstorm to secure hatch in grabber
- Custom dashboard for viewing sensor readings and selecting autonomous rou-