A robotic move specification language

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Abstract

This document describes the move specification language *RobotMove* used in the *Rhoban* project.

1 Miscellaneous ideas

An efficient robot move controller requires:

1. reference target trajectories to guide the move (target splines)

2. interpretation of sensors values as errors (compute distance to splines)

3. real-time corrections based on errors (fit the splines)

4. state-based emergency transitions (horse fall management)

5. state-based regular transitions (finite automata and control splines)

6. parallel composition of moves

7. hierarchical composition of moves, with variable time scales

2 Syntax

3 Semantic

4 Embedded Scheduling