

Applications of AI: Games

- Deterministic, turn-taking, two-player, zero-sum games of perfect information
 - minimax, alpha-beta pruning
 - E.g. Tic-tac-toe, Checkers, Othello, Backgammon, Chess, Go
- Physical games: more complicated descriptions, larger range of possible actions, imprecise rules
 - E.g. Soccer, Croquet, Ice Hockey

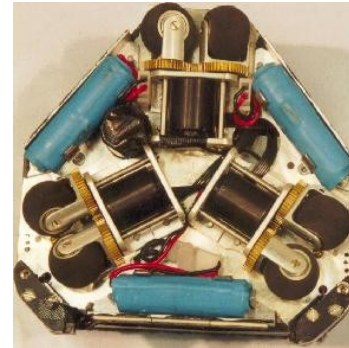


- ***By the year 2050, develop a team of fully autonomous humanoid robots that can win against the human world soccer champion team.***

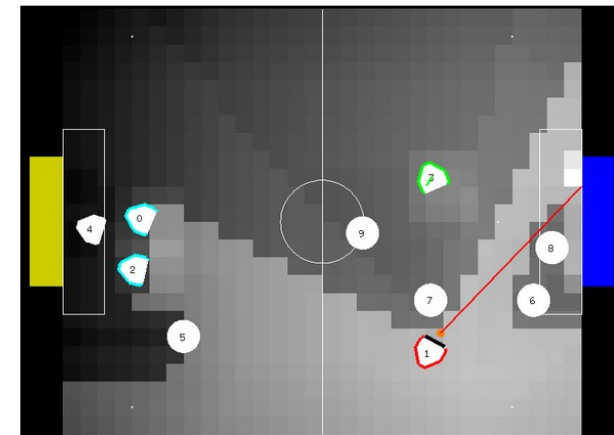
Guroo



The RoboRoos: UQ's Robot Soccer Team



- Omni-Directional Drive
- Crossbow Kicker
- Ball Control Mechanism (dribble ball)
- Wireless communication (to central PC)
- Vision (overhead camera)
- AI system
 - MAPS (multi-agent planning system)
 - AES (action execution system)
 - NAV (navigation system)
 - MOTION (motion control system)



RoboCup

- www.robocup2011.org





- Queensland Championships, 20-21 August 2011, UQ Centre
- Soccer
- Rescue
- Dance
- www.robocupjunior.org.au/qld