

CAPTURE THE FLAG

HacDC NARG

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The Playing Field

- Two teams of 10 players compete, Red and Blue.
- The playing field is a 50 by 50 unit plane centered on the origin, (0, 0, 0).
- Blue home-side is the negative side of the X-axis.
- Red home-side is on the positive side of the X-axis.

Gameplay

- If a player is tagged offside, the player is sent to jail.
- If a player tags the jail on the other team's side, all of the jailed teammates are freed. The freed teammates are automatically zapped back to random locations on their home-side ("Free Walkbacks"). The agent that tagged the jail does not automatically return home.
- Agents cannot move their team's own flag.
- When the game starts, each flag is surrounded by a "safe zone" in which offside players cannot be tagged. This zone is static and vanishes once the flag is removed from the zone.
- The game is over when one of the following conditions has been met:
 - One team's flag has been carried to the other team's side.
 - All players from one team have been captured.
 - 500 time units have elapsed.
- The winning team is the team that:
 - Captures the other team's flag.
 - Captures all of the other team's players.

Tournament

- There are five games in a tournament.
- The winner of a tournament is the team that has won the most individual games in the tournament.

Agents

- Agents have a maximum speed of 1.0 distance units per unit time.
- The agent's sensor range is 20 distance units.

Technical Details

This part will come when I start messing with some security precautions and auto-tournament codes.