

# Logistics Arena Bot Concept

Basic Idea: Since combat is automated there are no specific behaviors necessary for attacking, dodging etc. Like a player the bot only needs to "click" where on the map he wants to go. Moving is all he does. The bot also does not need to plan much in advance, except when it comes to item spawns.

If you want to think of the bot as a FSM there are only 2 states (moving, staying). His movement is solved via A\* path-finding just like player movement. Every tick the bot makes his decision to move based on a hierarchy of conditional goals. If upcoming items are properly considered every tick this should lead to the bot behaving as if he was executing multi-tick plans, when really he is "re-deciding" every tick.

## Goal Hierarchy

### 1. Avoid Death

*if death is not imminent:*

### 2. Get Items

*if no item to collect soon or stack very high:*

### 3. Frag Opponent

## Decision Making Factors

- currentTime
- spawnTimes for all items (set to -1 if unknown)
- Distances to all items (always known)
- Distance to opponent (-1 if unknown)
- Health, armor, ammo
- Approximate health, armor of opponent
- Weapons
- Approximate weapons of opponent
- ?

Main inspiration: [http://alumni.media.mit.edu/~jorkin/gdc2006\\_orkin\\_jeff\\_fear.pdf](http://alumni.media.mit.edu/~jorkin/gdc2006_orkin_jeff_fear.pdf)