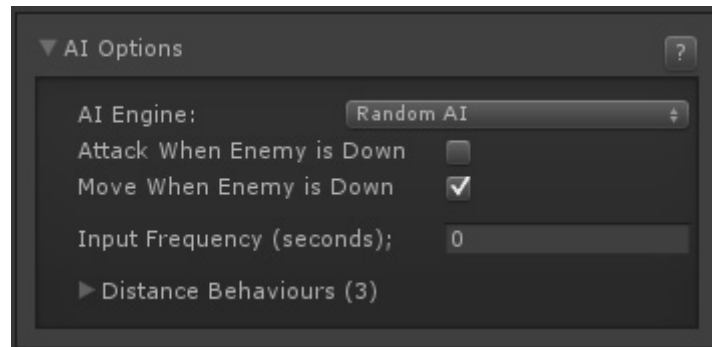


# AI Options

Set which AI engine your game will use as well as its global behaviour options.



**AI Engine:** Choose between Random AI or Fuzzy AI (if installed).

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## Random AI

▼ AI Options

AI Engine: Random AI

Attack When Enemy is Down ☐

Move When Enemy is Down ☒

Input Frequency (seconds): 0

▼ Distance Behaviours (3)

Opponent Distance: Close

Proximity between 0 and 30

Move Forward Probability: 0

Move Back Probability: 0.3

Jump Probability: 0.6

Crouch Probability: 0.5

Attack Probability: 0.9

Opponent Distance: Mid

Proximity between 31 and 70

Move Forward Probability: 0.6

Move Back Probability: 0.3

Jump Probability: 0.5

Crouch Probability: 0.5

Attack Probability: 0.1

Opponent Distance: Far

Proximity between 71 and 100

Move Forward Probability: 0.9

Move Back Probability: 0

Jump Probability: 0.6

Crouch Probability: 0.5

Attack Probability: 0

New Distance Behaviour

Based on distance, Random AI uses weight values to determine which direction/button has the highest chances of being pressed

**Attack When Enemy is Down:** Do we attack when the enemy is down?

**Move When Enemy is Down:** Do we move when the enemy is down?

**Input Frequency (seconds):** How often (per second) the AI does an input.

**Distance Behaviours:** Expand to set distance dependent behaviours.

- **Opponent Distance:** Choose one of 7 presets. Note: Proximity range will change dependent on preset chosen.
  - **Move Forward Probability:** Chance of moving forward (0.0-1.0)
  - **Move Back Probability:** Chance of moving back (0.0-1.0)
  - **Jump Probability:** Chance of jumping (0.0-1.0)
  - **Crouch Probability:** Chance of crouching (0.0-1.0)
  - **Attack Probability:** Chance of attacking (0.0-1.0)
- 

## Fuzzy AI

(Not available on UFE 2 Lite)

The screenshot displays the 'AI Options' menu. At the top, 'AI Engine' is set to 'Fuzzy AI'. Below it, 'Multi Core Support' is checked, 'Persistent Behavior' is unchecked, and 'Default Difficulty' is 'Normal'. A section titled 'Difficulty Settings (3)' contains three sub-sections for 'Easy', 'Normal', and 'Hard' difficulty levels. Each sub-section has a 'Difficulty Level' dropdown, an 'Override Instructions' header, and a 'Startup Behavior' dropdown. Below these are five settings: 'Time Between Decisions', 'Time Between Actions', 'Rule Compliance', 'Aggressiveness', and 'Combo Efficiency', each with a checkbox and a numerical value.

Difficulty Level	Startup Behavior	Time Between Decisions	Time Between Actions	Rule Compliance	Aggressiveness	Combo Efficiency
Easy	Defensive	<input checked="" type="checkbox"/> 0.3	<input checked="" type="checkbox"/> 0.1	<input type="checkbox"/> 0.9	<input checked="" type="checkbox"/> 0.2	<input checked="" type="checkbox"/> 0.2
Normal	Balanced	<input type="checkbox"/> 0	<input type="checkbox"/> 0.05	<input type="checkbox"/> 0.9	<input type="checkbox"/> 0.4	<input type="checkbox"/> 1
Hard	Aggressive	<input checked="" type="checkbox"/> 0	<input checked="" type="checkbox"/> 0	<input type="checkbox"/> 0.9	<input type="checkbox"/> 0.5	<input checked="" type="checkbox"/> 1

A 'New Difficulty Setup' button is located at the bottom of the menu.

Fuzzy AI allows for robust decision sets that can have some of its [instructions](#) overridden depending on the difficulty settings chosen.

**Multi Core Support:** Tells UFE to run decision making process in its own thread. Multicore reduces CPU usage significantly, but makes the weight calculation slightly slower. Multicore puts the weight calculation into the Update() function, which makes the CPU run the process separately.

**Persistent Behavior:** When toggle the AI will remain on the same instruction behaviour they were in on the round before. Untoggle to reset it back to default after each round.

**Default Difficulty:** Choose from 6 difficulty settings. Each can be detailed in the below Difficulty Settings.

**Difficulty Settings:** Expand to edit each difficulty setting. Click New Difficulty Setup to add a new setup.

- Difficulty Level: Which difficulty level you're setting up
- Override Instructions: Toggle which variable this difficulty settings will override.
  - Startup Behavior: Sets the initial [behavior](#) characters will starts from.
  - Time Between Decisions: Overrides the loaded instruction's value for [time between decisions](#).
  - Time Between Actions: Overrides the loaded instruction's value for [time between actions](#).
  - Rule Compliance: Overrides the loaded instruction's value for [rule compliance](#).
  - Aggressiveness: Overrides the loaded instruction's value for [aggressiveness](#).
  - Combo Efficiency: Overrides the loaded instruction's value for [combo efficiency](#).

For more on Fuzzy A.I. [click here](#).

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[< Back to Global Editor](#)

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