Two main options to program a bot:

* Machine Learning driven

<https://www.youtube.com/watch?v=2Js4KiDwiyU>

* Could use machine learning within a map to simulate a new player vs an experienced player that knows the map's routes, enemies, etc (logarithmic learning)
* 100% coded right-away

Two main options in relation to the objective:

* Escape the level
* Multiple options: escape, kill all enemies, capture objectives, a lurker player could try to complete the level without being seen/heard (always keeps distance with enemies, which could patrol)

Options regarding stimulus that it can perceive:

* Color
* Sound
* Have a vision frustrum based in attention theories and generate a heatmap of what the controller looks at any time (use some raycasts inside that frustrum?)

Options regarding weapons:

* Can pick up?
* Melee and ranged?
* Can swap?

Options regarding fights:

* Simulate real fight with enemy AI (similar to bot but simplified)
* Simulate turn-based approximation
* Simulate according to player skill, n enemies, strength, etc (automatic)

Options regarding IA count:

* Player vs other monsters/players
* team vs team: in this case there could be an analysis of how balanced the map is for both sides (bomb plant, capture flag etc)
* Both

Reference:

<https://humanbenchmark.com/>

Use sliders for the controller’s:

* Reaction time, once it sees an enemy
* Aim, so it isn’t the best player in the world (lol)
* Memory? To try to keep track of “last seen” enemy locations