AI Clearing bots

# Gameplay Purpose

These bots can be controlled by the player by changing their pathing mode and their shoot mode

# System Design

|  |  |  |  |
| --- | --- | --- | --- |
| **Trigger** | **Action** | **Output** | **Sketch (where appropriate)** |
| *Start* | *Do input mapping created by fpbase* |  |  |
| *Shoot* | *Instantiate bullet object* | *Bullet appears and moves* |  |
| *Shot* | *Play death animation then destroy self* | *NOT IMPLEMENTED* |  |
| *Pathing mode changed* | *Switch path finding target depending on which mode Is selected* | *Change ui element* |  |
| *Shooting mode changed* | *Shoot targets or don’t shoot targets* | *Change ui element* |  |
| *FOLLOW MODE* |  | *Follow the player* |  |
| *HOLD MODE* |  | *Hold current position* |  |
| *SEARCH MODE* |  | *Spin around to search for targets* |  |

# Technical Functionality

|  |  |
| --- | --- |
| **Unreal Engine File or Function** | **Use/description** |
| Content/IsaacsStuff/man\_BP | Main blueprint class for the bot |
| Content/IsaacsStuff/man1 | The model used for the bot |
| Content/IsaacsStuff/BB\_MAN | The blackboard used to control the movement |
| Content/IsaacsStuff/man\_BT | The behaviour tree used to control the movement |
| Content/IsaacsStuff/NPCHud  Content/IsaacsStuff/HUD  Content/IsaacsStuff/IA\_NPCControl | The ui to show the player the controls and which state the bot is currently in and the input action to accompany it |

# Other things made

In All > Content > IsaacsStuff > models\_n\_shit there is a bunch of assets I made for this All the following were made for this in blender: Character for bots, Gun, Floodlight, Building parts (walls, doors floors), a safe, a character cutout for the targets. These were made because I didnt think we were allowed to download anything to use in the game.

To use the home made character I learned how to rig a character for unreal engine and how to weight paint so that the joints don’t fold incorrectly (I didn’t put the weight painted character in the game unfortunately)