

Challenge 1 - Enemy Navigation

Refer to “About the Challenges and Solutions” in this Session for more information about readings of this type.

Scenario

Before getting into the other aspects of the Stealth game, we should set up the patrol system for the enemy robot (the ACS-17 robot by [Vladimir Tim](#), available on the Unity Asset Store but included here for free in the project starter package). This will involve setting up a NavMesh in Unity and implementing the robot as a NavMeshAgent. There are also some additional subtleties of the movement that will require us to handle rotation at Waypoints ourselves.

Challenge

In the starter project, you will find the Navigation Test scene, which contains everything you will need to get started. This includes three Waypoints that have already been positioned and rotated for you.

Tasks to Complete

- Bake a NavMesh from the Hallways.
- Add a NavMeshAgent to the Enemy.
- Write a Waypoint script that makes it easy for other scripts to access the position and orientation of the waypoint and includes a public field for the number of seconds that the Enemy should pause at that Waypoint before moving on.
- The EnemyBot should move sequentially between Waypoints in an order defined by a List in the Inspector.
- Implement the following movement sequence for the EnemyBot:
 1. The EnemyBot should rotate to face the next Waypoint (without changing position)
 2. The EnemyBot should walk to the next Waypoint
 3. Upon reaching the next Waypoint, the EnemyBot should rotate to match the orientation of the Waypoint (without changing position).
 4. The EnemyBot Should wait at the Waypoint for the specified duration
 5. Return to Step 1.

Start by downloading the Unity project files for this Challenge available in the Session Resources. Download the zipped file, unzip it to a local folder, and open the project using Unity version 2017.4 LTS.

When you're finished, complete the Self-Evaluation coursework before continuing to the instructor's solution.