### **Pathfinding And Moveable Objects**

So far, we've used the location of 'collision tiles' on the collision tilemap to indicate unwalkable areas for the 'A Star' pathfinding when building paths for the enemies.

This works well where we have 'fixed' areas in the dungeon room tilemaps, like walls, where we don't want enemies to walk.

But what about objects that the player can push and move (such as tables)? We still don't want enemies to walk through tables – instead we want enemies to navigate around them.

To handle this we are going to maintain an array (2 dimensional integer array) of the position of obstacles for an instantiated room, called the 'aStarltemObstacles' array. The 'A Star' pathfinding algorithm will also check this array, as well as fixed collision tile positions, when it is looking for unwalkable areas.

Any items that are moveable will have a new class component attached called 'MoveItem.cs'. These moveable items will have a collider attached. When the player is colliding with an item, the 'MoveItem.cs' class will detect this collision. It will call a new method in the InstantiatedRoom class to update the 'aStarItemObstacles' array with the grid positions that overlap the moveable items collider bounds.









