## **Plunge Interactive**

## Unity3D programming test Evaluation

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Area	Max.	Obtained
Breadth-First Search algorithm	1.5	1.25
Inheritance in Enemy classes	1.5	0.5
Inheritance in Tower classes	1.5	1.5
Easy of configuration for non-programmer	1.0	0.5
Grid logic	1.0	0.7
Readability	1.0	0.5
Scalability	1.0	0.4
Camera Controls	0.5	0.5
English level	0.5	0.5
Stability	0.5	0.0
	10	6.35

## **Additional Notes:**

- Certain turrets placement layouts makes the game freeze. This seems related to the absence of
  valid routes to reach the crystals. This shouldn't happen, as a game shouldn't become freeze, less
  so on purpose.
- BFS depends on searching GameObjects in the scene being properly setup with neighbours. That's
  not necessary, as knowing the position of the grid, and the width and height of cells, any grid
  position can be translated to a world position.
- Unnecessary variables being shown in the inspector. Using [HideInInspector] makes a public variable to be hidden in the inspector (like currentCell in the enemy class).
- Search for managers by name. That's terrible, as changing the name of one object in the scene breaks the whole game. There are two possible solutions: using tags, or using singleton managers (there is usually only one game manager anyway).