# **Unity Developer Test**

The goal of this test is to show various programming skills and will be evaluated on the following aspects:

- Ability create a simple game with various systems coming together in clean ways
- Knowledge of 3D programming within unity
- Ability to create stable, intuitive and extensible code.

The task is to create a simple tower defense game in which the user plays against increasingly difficult waves of enemies attempting to reach a goal. The user must place structures along the path these units will use to prevent them from reaching their destination.

#### Minimum Requirements (Failure to do these things constitutes a fail):

- At least 5 waves of enemies and at least 2 different enemy types
- ❖ At least 2 different tower types and at least 1 upgrade per tower
- Grid based tower placement
- Al pathing for enemies
- Victory / Defeat conditions
- ❖ Appropriate UI such as health bars and status messages

#### Bonus Points (Should aim to do at least 1 of these):

- Custom movement/pathing logic (no external plugin).
- Placement of units on path and have Al adapt
- Gameplay logic decoupled entirely from Unity (Ex. can run matches in commandline)
- Some form of pipeline for gameplay definitions / tweaking manipulation.
- Some major change / feature.

The test should be done using Unity and can use anything available on the asset store (Except code directly related to the points listed above). The result should contain the following:

- ❖ A list of 3rd party assets and tools used (Especially anything taken from asset store)
- The source project
- A pre-built executable
- A readme explaining anything you think important for us to check out and explain.
  - > The readme should also contain a rough estimate of the number of hours spent completing test

You have 1 week but most importantly...

Enjoy:D

## **Appendix**

### **Enemy variation suggestions:**

- -> Varying speed enemies (cycles between sprinting and walking)
- -> Splits into weaker smaller enemies when killed
- -> Immune or resistant to certain attack types or effects
- -> Flying enemies (only certain towers can attack).