

# UE4 Developer Challenge

Implement a game within UE4 with the following feature set

- A surface or open container  $S$  in 3D
- A button which spawns a sphere/marble  $m$  which drops onto  $S$
- User interaction—dragging finger and/or mouse—which applies a force to  $m$
- A 3D object  $o$ , which is the intended target of  $m$
- If  $m$  collides with  $o$ , an event is triggered, causing some sort of feedback to the user
- $m$  should be destroyed
  - upon/after impact with  $o$
  - after time  $t$  post-user interaction
  - or when the button is pressed (spawning a new ball)
- Simulated physics for  $S$ ,  $m$ , and  $o$
- A suitable camera to view the map
- Appropriate comments/documentation

The aim of the game is to flick marbles at the target.

## Notes

You may use Blueprints and UMG for UI. However, C++ is expected for everything else, e.g. spawning  $m$  and collision detection of  $m$  and  $o$ .

The challenge should take a few hours. We absolutely do not expect a polished product. If the task is taking much longer than the estimated time, do not feel it needs to be completely finished. We will be looking at your use of recommended UE4 practices, your coding style, the solutions you use for the various problems, and the style of the game.

Please submit your solution in the form of a code repository (Git, Perforce). If the repository is private, please provide access to the email addresses of your recruitment contacts at Dovetail. [If possible, please commit regularly to the repository.](#)