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# COMP3421 Week 1

— Welcome to graphics! —

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# What will we be doing this term?

- Building a graphics project using a game engine (Unity or Unreal).
- You will first build a 3D project, and then convert that project to VR in the second half of the course.
  - You can also build a 2D project if you really want to.
- VR headsets are available in the lab, which you should have access to outside of class hours.
- Before you build the project, you will need to complete a proposal.
  - More info can be found on the project spec page.
- The project does not necessarily need to be a “game”.

# More info/advice

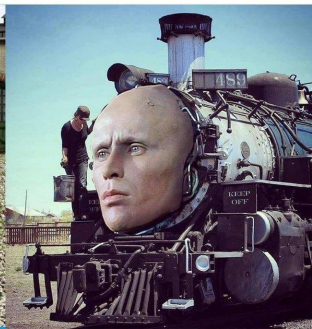
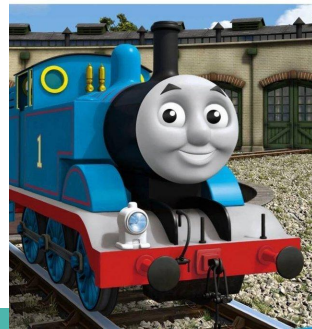
- The course generally recommends that you use Unreal Engine with Blueprints for the project.
  - This is because Unreal Engine is generally better for 3D/VR development.
  - Blueprints are a visual scripting language that we want to introduce you to.
- However, using cpp with Unreal or using Unity is also okay. Note that Unity will *\*not\** be covered in the lectures until week 7, however, I may be able to cover Unity + C# in the tutorials if there is enough demand for it.
  - C# is an OO language that is essentially “nicer Java”.



unity



UNREAL  
ENGINE



# Why game engines and not OpenGL?

- We are trying to make the course more applicable to jobs that you could find in industry.
- OpenGL is somewhat low-level, so it takes a long time to create what is, by modern standards, a very basic renderer.
- We want the course to be as fun as possible!
- (Hopefully) a course that teaches OpenGL and/or other comparatively low-level graphics API will return in the future.

# What do you need for this course?

- Epic Games account
- Steam account
- Unity account
  - (to follow along in later weeks or to work on the project if you choose Unity).
- You need to attend 80% of tutorials...
- You do NOT need to buy a VR headset, although it will be useful if you have access to one.

## By the end of this tutorial..

- Form a group of 4-5 people.
- Groups must be in the same tutorial.
- The project group form on Moodle should be open soon; one person will need to create a group for everyone else to join.

# Intros

- Name
- Degree + Year
- Fun Fact?
- Have you used Unreal or Unity before?
- What do you hope to get out of the course?
  - I might alter tutorial content slightly based on answers to this question, so please let me know!!!



Okay, let's look at Unreal...

Unreal Engine 4



Unity



Roblox Studio



This settles the debate about engines.