MSc Project Proposal

Developing a physics based game engine for use on further game development on the android platform.

# Introduction:

## History of video game engines

The use of Video game engines has been an integral part of video game development since the 1990s during the growth of 3D games. As time progressed, Video games where able to reach a higher degree of realism as the technology and programming of physics engines improved. This can be demonstrated with the introduction of projectile ballistics in more recent video games that is slowly replacing the older ray-casting model that used to be used for video games.   
As a result of the accessibility to game engines for computer’s and games consoles alike, the recent growth in indie game development was aided heavily by focussing on the mechanics of the video game rather than having to write a library to build the video game on from scratch.

This trend has been demonstrated the most on the mobile platform as more and more people have access to video games as a result of the explosive growth in mobile phone performance and the customer base surrounding mobile phones. Becoming the new big gaming platform.

## History of android app development

(talk about how java was and is one of the main programming languages for android. Talk about how java is becoming more and more outdated. Talk about the rise of kotlin as a platform for mobile apps. Talk about the pros and cons of kotlin over java. Talk about why kotlin is used overall) (also add how google had announced kotlin as the defacto programming language for mobile app development)

## Observed shortcomings in Mobile Physics engines

(talk about how the vast majority of physics engines are using languages like c# and c++