# Lab 5

## Missile Command One

You are to create a research document for the game Missile Command One, a copy of which is in this folder. There will only ever be one incoming asteroid/missile and only one laser/missile to defend with. The longer you wait to fire your laser the higher (altitude not range) the laser will travel. You score 5 points per asteroid destroyed and the frequency of the incoming asteroids increases with your score. Once an incoming asteroid/missile strikes the ground the game is over. All movement, collisions and locations should be dealt with using MyVector2D casting to sf::vector2s as appropriate.

You should include a narrative description where the third incoming missile strikes the ground.

In your inner workings you should describe how each the sub-systems for the [power: bar], [laser], [explosion], [asteroid], [collisions] work. Mentioning constants (guessed at this stage) required variables and logic at a level of draw laser, check distance between, increment location by velocity.

This research document is due at the end of this class do not leave without giving it to Pete.

There is no need for a sketch as your game will look just like the sample.

Your coded version is due before Tuesday **5th of Decemberber**. Create a zip file on your M drive named LAB5yourName.zip that contains one copy of your project.

Anyone adding extra functionality before the basic version works fully will be deducted 25% automatically.

When you have the basic game working you should add extra functions accessible by pressing “T” during the game. These could include

* Textures,
* Sounds
* Advanced scoring
* Ramping up of speeds / difficulty
* Not multiple missiles or lasers or ground targets

# Marking Scheme:

Design Doc multiplier (50%, 70%, 80%, 90%, 100%)  
Basic Functionality 90%  
Extra functionality 10%  
Comments -25%  
Code quality & names -25%