Rationale

My idea for the extended project is to explore how 3D computer graphics work and as a result program 3D object editor software.

Recently I became interested in 3D computer graphics. I have been amazed at how computers can model 3D objects and display them in a 2D format with an accurate sense of perspective. Modelled 3D objects can be found everywhere in modern technology, including games and simulations. I think this topic would therefore be very interesting to research as it has so many different uses.

In addition, I take Art, Double Maths, Physics and Computing at As-level. This topic would tie in nicely with all of my subjects.

What would it look like? It would allow you to add objects onto a canvas and edit them.

Upon doing some preliminary research, the programming language I will use to write the software will be C#. C# is a programming language based on .Net framework. It is a compiled language as make a software essentially I need to draw and create objects I really like problem solving and programing. In the future I would like to go on and study software development or engineering. I am interested in finding a way to combine art and computing together. I have done some programing before however I have not touched computer graphics. What’s more, the AS course does not cover computer graphics therefore it would be a great subject to explore.

Upon doing some preliminary research found out which language would be the most appropriate for my project. I found that C# combined with DirectX would be the most appropriate. C# is a .NET Microsoft language… DirectX is an application programming interface (API) and it has libraries which are designed to model 3D objects and editing them. This will be a development of computing skills which are not covered in the A-Level computing course.

As resources I intend to use books and internet which will guide me through learning the syntax of the language. I will also be asking a professional programmer for help (my dad and others as well).

The final product will be very basic software that will enable you to edit 3D objects