**Rendering Invisibility**

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| Report Name | Outline Project Specification |
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| Module | CS39440 |
| Degree Scheme | G400 (Computer Science) |
|  |  |
| Date | February 2, 2015 |
| Revision | 0.1 |
| Status | Draft |

# Project description

- Modelling a cloak of  invisibility in WebGL/Opengl - currently looking at doing it in webgl as I have some previous knowledge I can build on.

- Looking at using current theory around how a cloak of invisibility can be created and applying that.

- Experimenting with this theory, what kind of fault does it have, can you see from within the cloak, how invisible is it etc.

- An optical flat cloak has been created and a spherical cloak has been theorised. Interesting to see if the spherical cloak could work. Looking at modelling it within a 3d environment is a good way of looking at it.

- End goal is to have created a working 3d model of the spherical invisibility cloak, test it's strengths and limitations, look and whether the theory works.

# Proposed tasks

- Research on invisibility, light refraction, metamaterials

- formulate a design of the cloak, object and the maths going into it

- decide programming language and illumination technique - currently going for Ray tracing

- implement lighting, ensure it work, implement cloak

- test cloak's capabilities

# Project deliverables

- THE SOFTWARE

- Design specification - Not sure how to do this we have to look at it

- Test specification

- Final report

- Progress tracking report - diary or something

# Initial annotated bibliography

The following is a simple list, i.e. not using EndNote. You could insert any citations as cross-references in Word [1][3][3][4].

1. Sylvia Duckworth. A picture of a kitten at Hellifield Peel. <http://www.geograph.org.uk/photo/640959>, 2007. Copyright Sylvia Duckworth and licensed for reuse under a Creative Commons Attribution-Share Alike 2.0 Generic Licence. Accessed August 2011.  
     
   *This is my annotation. I should add a description here.*
2. Mark Neal, Jan Feyereisl, Rosario Rascunà, and Xiaolei Wang. Don’t touch me, I’m fine: Robot autonomy using an artificial innate immune system. In *Proceedings of the 5th International Conference on Artificial Immune Systems*, pages 349–361. Springer, 2006.   
     
   *This is my annotation. I should add a description here.*
3. W.H. Press et al. *Numerical recipes in C*. Cambridge University Press Cambridge, 1992.  
     
   *This document…*
4. Various. Fail blog. <http://www.failblog.org/>, August 2011. Accessed August 2011.  
     
   *This is my annotation. I can add comments that are in* ***bold*** *as well as italics. It isn’t just the formatting – do mention what is useful about the resource.*