

## 5.1 Rubrics

### 5.1.1 Project

	0-20%	20-40%	40-60%	60-80%	80-100%	Weight	Points
<b>View</b>	loads up a 3D scene;	loads up a 3D scene; scene is animated;	loads up a 3D scene; scene is animated; user can change view; no animation glitches;	loads up a 3D scene; scene is animated; user can change view; no animation glitches; avatar is animated in 3D;	loads up a 3D scene; scene is animated; user can change view; no animation glitches; avatar is animated in 3D; picture in picture views;	<b>10</b>	
<b>Control</b>	keyboard control; not simple or logical;	keyboard control; mouse control; not simple or logical; not smooth;	keyboard control; mouse control; simple and logical; smooth;	keyboard control; mouse control; simple and logical; smooth; control of avatar; OR control of scene;	keyboard control; mouse control; simple and logical; smooth; control of avatar; control of scene;	<b>10</b>	
<b>Play Ability</b>	game has no objective; player unable to win or loose;	game has objective; player able to win; OR player able to loose;	game has an objective; player able to win and loose; game is competitive and fun;	game has an objective; player able to win and loose; game is competitive and fun; OR game played in all three dimensions;	game has an objective; player able to win and loose; game is competitive and fun; game played in all three dimensions; has a physics model;	<b>10</b>	

	0-20%	20-40%	40-60%	60-80%	80-100%	Weight	Points
<b>3D Effects</b>	antialiasing; depth buffer; colour;	textures; OR materials; OR multiple light; OR shading;	textures; materials; multiple light; shading; curves and surfaces; OR static skybox;	textures; materials; multiple light; shading; curves and surfaces; dynamic skybox; OR shadows; OR reflections/ refractions;	textures; materials; multiple light; shading; dynamic skybox; curves and surfaces; shadows; reflections/ refractions;	<b>15</b>	
<b>Coding Style</b>	has no style;	uses code blocks and indentation; OR comments;	uses code blocks and indentation; comments;	uses code blocks and indentation; comments; uses functions extensively;	uses code blocks and indentation; comments; uses functions extensively; use of OOP where appropriate;	<b>10</b>	
<b>Design Style<sup>1</sup></b>	has not style; spaghetti code;	starting to use patterns taught in class <sup>2</sup> ; can articulate the ones used;	uses basic patterns taught in class; none of the high level patterns applied; can articulate the ones used;	uses most patterns taught in class; can articulate the ones used and why;	uses all patterns taught in class; can articulate the ones used and why;	<b>25</b>	
<b>Polish</b>	no polish; game cant restart or reset correctly;	game can restart; tried to at least add a UI, although not very functional; OR borrowed graphics from labs;	game can restart; functional UI; consistent colour scheme; added own graphics;	game can restart; functional UI; consistent colour scheme; has a consistent theme;	game can restart; functional UI; consistent colour scheme; has a consistent theme; bells and whistles;	<b>10</b>	

<sup>1</sup> An architectural pattern is a general, reusable solution to a commonly occurring problem in software architecture within a given context. Architectural patterns are similar to software design pattern but have a broader scope.

<sup>2</sup> eg. hierarchical modelling, explicit scene graph, transform stack, asynchronous loading, indexed face sets, ray casting, env mapping

	0-20%	20-40%	40-60%	60-80%	80-100%	Weight	Points
<b>Innovation</b>			no 3D innovation or effects beyond those taught in class;	3D innovation or effects beyond those taught in class; but didn't really add value;	3D innovation or effects beyond those taught in class; 3D innovation added value;	<b>10</b>	
					<b>Total</b>	100	

### 5.1.2 Lab Assignments

	0-20%	20-40%	40-60%	60-80%	80-100%	Weight	Points
<b>Functionality</b>	Attempted the lab;	Attempted all functionality; most are not working as expected;	All functionality as described in the lab is present; few may not be working 100% as expected;	All functionality as described in the lab is present; all are working 100% as expected;	All functionality as described in the lab is present; all are working as expected; optimal performance has been taken into account	<b>45</b>	
<b>Coding Style</b>	has no style;	uses code blocks and indentation;	previous; some comments present;	previous; uses functions extensively;	previous; use of OOP where appropriate; code is well commented;	<b>10</b>	
<b>Design Style<sup>3</sup></b>	has not style; spaghetti code;	starting to use patterns taught in class;	uses basic patterns taught in class; none of the high level patterns applied;	uses most patterns taught in class;	uses all patterns taught in class;	<b>25</b>	
<b>Polish</b>	no polish	tried to at least add a UI, although not very functional;	functional UI;	nice functional UI;	nice functional UI with bells and whistles;	<b>10</b>	
<b>Innovation</b>			no innovation	tried to be innovative but didn't really add value;	really cool innovative features	<b>10</b>	
					<b>Total</b>	100	