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| **Task** | **Risk** | **Solution** |
| Flow diagrams | The flow of each chart could be incorrect as our knowledge base of DirectX is limited. | Extensive research into unknown areas e.g. labs, internet and books. |
| Requirements | Don’t know if all requirements are achievable before deadlines. | Adding additional implementation phase for advanced tasks |
| User stories | Missed some stories, due to lack of communication with target audience. | Collect more information from users, clients, stakeholders and programmers. |
| WBS | Unknown amount of workload and time needed to complete each task. | Research into how to estimate, different task workloads and time management estimations. |
| Gantt chart | Relies heavily on WBS and user stories to be correct. | Research into how to estimate, different task workloads and time management estimations. |
| Testing plan | Will not fully cover everything to be tested in the final release. | Ensure full testing is completed at the end via adequate time management. |
| Menu setup | Buttons don’t perform correctly. | Test. |
| Cameras | Loads every object within the game, leading to slow performance. | Implement code that only allows objects in view to be rendered. (Unknown solution) |
| Lighting | No knowledge base. | Research from labs, internet and books.(Unknown solution) |
|  | Graphical errors. | Unknown solution. |
| Character Creation | Model doesn’t fit the purpose of original design. | More research into the models to get a better model.(Unknown solution) |
|  | Controls don’t work correctly. | Test. |
|  | Collision detection. | Test. |
| Enemies | AI is too easy/hard to play against. | Test then balance skill level. |
|  | Collision. | Test. |
|  | Damage equation is unbalanced. | Test then balance. |
| Asteroids | Algorithm procedurally spawns them incorrectly. | Test. |
|  | Collision detection. | Test. |
| Sounds & Music | Pauses game. | Set up threads correctly. |
|  | Plays incorrect sound/SFX. | Test. |
| Shadow Mapping | Incorrect shadow placement. | Test. (Unknown solution) |
|  | No knowledge base. | Research from labs, internet and books. (Unknown solution) |
| Settings | Changing screen size might stretch images. | Test. |
|  | Sound/SFX controls work incorrectly. | Test. (Unknown solution) |
| Advanced Shaders | No knowledge base. | Research from labs, internet and books. (Unknown solution) |
| Score | Doesn’t save correctly. | Test. |
| Textures | Don’t load correctly. | Test. (Unknown solution) |
|  | Bump maps don’t work. | Test. (Unknown solution) |
| Skybox | Textures too big. | Compress and test different versions. (Unknown solution) |
| Dialog boxes | Alignment incorrect. | Test. (Unknown solution) |
|  | Font size too big/small. | Test. (Unknown solution) |
| Fonts | Fonts pixilated. | Get font letter sizes, then set the container size to be the same size as all of the letters combined. (Unknown solution) |
| Currency | Money balancing. | Black box test then balance. |

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|  |  | Severity | | |
|  |  | 1 | 2 | 3 |
| Likelihood | 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |

Note: Need to revaluate at a later date.