**ENGINE PROOF (FALL 2015)**

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| **Team/Game: Total Score (75% Base):** |

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| **ARCHITECTURE** |  |  | **DEBUGGING TOOLS** |  |
| Major system not integrated into engine (-5% each) |  |  | No debugging tools at all | -10% |
| Configuration and tweaking data is not data-driven | -5% |  | Cannot display debug output to game screen | -2% |
| Game objects are not data-driven using factories | -5% |  | Debug drawing not used for collision/velocity info | -2% |
| Individual files have 2000+ lines of code in them | -2% |  | No performance data at all (not even FPS) | -2% |
| Project files/folders are poorly organized (no .pch) | -2% |  | Not using asserts at all | -2% |
| Lots of classes do not have a single purpose | -2% |  | Extensive debug drawing (not just boxes and lines) | +1% |
| No system for sharing objects (IDs, handles, etc.) | -2% |  | In-game/editor performance visualizer | +1% |
| No generic container solution (such as STL) | -2% |  | Sophisticated assertion system (with logging) | +1% |
| Multiple math libraries are being used | -2% |  | Extensive and powerful debug console | +1% |
| Architecture is component based (or better) | +1% |  | Advanced debugging tools (+1% each) |  |
| Archetype system for game objects | +1% |  | *This section doesn’t count for pre-built engines.* |  |
| Reflection/property viewing system | +1% |  | **PHYSICS** |  |
| Basic messaging system (function pointers, etc.) | +1% |  | No movement at all (unless none is needed) | -10% |
| Function binding or delegates | +1% |  | No collision detection (unless none is needed) | -5% |
| Scripting language integration | +1% |  | No forces at all (unless none are needed) | -2% |
| Advanced architecture features (+1% each) |  |  | Basic dynamic vs. static collision response | +1% |
| *This section doesn’t count for pre-built engines.* |  |  | Basic dynamic vs. dynamic collision response | +1% |
| **GRAPHICS and ART PIPELINE** |  |  | Advanced collision response (OOBB, stacking, etc.) | +1% |
| No graphical content can be displayed at all | -10% |  | Advanced collision detection (complex shapes) | +1% |
| No debug drawing capability demonstrated | -5% |  | Advanced force simulation (friction, springs, etc.) | +1% |
| Basic sprites/models not displayed | -2% |  | Character controller is working with physics | +1% |
| Basic background/terrain/skybox not displayed | -2% |  | Other advanced physics features (+1% each) |  |
| Basic animations not displayed | -2% |  | *This section doesn’t count for pre-built engines.* |  |
| 2D: Sprites can be scaled dynamically | +1% |  | **TEAM and PRESENTATION** |  |
| 2D: Sprites can be rotated dynamically | +1% |  | Appears fragmented and without confidence | -5% |
| 3D: Basic lighting model is working | +1% |  | Appears unrehearsed and unpolished | -2% |
| 3D: Advanced lighting features are working | +1% |  | Decent presentation, but could be a lot better | +0% |
| Complex sprites/models are displayed | +1% |  | Appears well rehearsed and very polished | +1% |
| Complex background/terrain/skybox is displayed | +1% |  | Did not assess risks at all | -5% |
| Multiple animations are shown on one object | +1% |  | Did not prioritize or only superficially assessed risks | -2% |
| Advanced graphics engine features (+1% each) |  |  | Prioritized risks and only missing a few major ones | +0% |
| Advanced art pipeline features (+1% each) |  |  | Accounted for and prioritized all major risks | +1% |
| *This section doesn’t count for pre-built engines.* |  |  | Has no plan at all, just a list of features | -5% |
| **GAME CONCEPTS and PROTOTYPES** |  |  | Has a basic plan with some major holes | -2% |
| No game concepts presented clearly | -10% |  | Has a decent plan with at most one major hole | +0% |
| Only one game concept presented clearly | -5% |  | A solid, realistic plan with no major holes | +1% |
| Only two game concepts presented clearly | -2% |  | Team structure not addressed at all | -5% |
| Several concepts presented have been abandoned | -2% |  | Team structure noted briefly, but not explained | -2% |
| None of the concepts are likely feasible | -2% |  | Team structure is well-explained and clear | +0% |
| Three concepts, at least one of them feasible | +0% |  | Team structure is very solid and fits the team well | +1% |
| Clearly feasible concepts (+1% each) |  |  | Additional team and presentation modifiers |  |
| One or more prototypes shown (+1% each) |  |  |  |  |
| Prototypes are in the game engine (+1% each) |  |  | **PROJECT MODIFIERS** |  |
| Really interesting concepts/prototypes (+1% each) |  |  | Team size (+10% or +15%, -2% per team member) |  |
| Best prototype has a lot of art and audio in it | +2% |  | 2D game (-5%) or 2.5D game (-2%) in GAM 300 |  |
| Best prototype is really a full vertical slice | +5% |  | Pre-made physics engine (GAM 300 only) | -5% |