Assessment Submission Coversheet:  
Physics for Games   
Task 3 – Create an Advanced Physics Demonstration

|  |  |
| --- | --- |
| **Student Name:** | Connor Mills |
| **Student Number:** | 12563179 |
| **Student Email** | s182214@students.aie.edu.au |
| **Course Stream:** | 10702NAT – Advanced Diploma of Professional Game Development |
| **Assessment Name:** | Physics for Games |
| **Units Covered:** | ICTGAM556 – Develop and implement physics in 3-D digital games |
| **Teacher/s:** | Jesse James Donlevy |
| **Due Date:** | As defined by your teacher/s. |
| **Date of Submission:** | *Will be automatically recorded on Canvas* |
| **Assessment Work Location** | Canvas/Drive location/file path |

*For more information on these parts, please click on the* [***Subject and Assessment Guide***](https://aie.instructure.com/courses/1027/files/723141?wrap=1) *link in the course* ***Game Programming Year 2*** *under the subject* ***Physics for Games*** *on* [*https://aie.instructure.com*](https://aie.instructure.com) *and read the* ***2023 Subject & Assessment Guide – Physics for Games***

*and go to* ***Assessment Tasks – Create an Advanced Physics Demonstration.***

**Naming Convention**

* Yourname\_PfG\_Unity\_SourceFiles.zip
* Yourname\_PfG\_Unity\_ReleaseBuild.zip

**Declaration**

By submitting this work under my name, I declare that my submission is my own work with respect to plagiarism and does not violate any copyright laws. I have retained a copy of this assessment material that I can produce if requested.

Tick to acknowledge you have read and agree with this declaration.

Name: **Please enter you name.** Date: **Please enter the date**

Assessment Submission Coversheet:  
Physics for Games  
Task 3 – Create an Advanced Physics Demonstration

**Work Submitted:***Tick to acknowledge you have submitted this part of the assessment*

1. Advanced Physics Simulation:   
   Create a simulation or game that demonstrate the use of advanced physics systems within a non-trivial, real-time application. The application executable can run external from any IDE without errors or crashing:  
     
   In a few short sentences or dot points, please explain what you submitted for this part of the assessment.  
   * Physics Joints:   
     In a few short sentences or dot points, please explain what you submitted for this part of the assessment.
   * Ragdoll Physics:   
     In a few short sentences or dot points, please explain what you submitted for this part of the assessment.
   * Raycast into simulation's scene for picking purposes:   
     In a few short sentences or dot points, please explain what you submitted for this part of the assessment.
   * Trigger systems with callback functions that impact the simulation in a meaningful way:   
     In a few short sentences or dot points, please explain what you submitted for this part of the assessment.
   * Use of Character Controller physics bodies supporting dynamic and kinematic rigid bodies:   
     In a few short sentences or dot points, please explain what you submitted for this part of the assessment.

Name: **Please enter you name.** Date: **Please enter the date**