3D COLLISION DETECTION INVESTIGATION ON UNITY 3D

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DECLARATION

I hereby enunciate that the work in this thesis report is my own except for citations that have been duly acknowledged.

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The last, this thesis is far from being perfect, but it is expected that this thesis will be useful not only for the researcher, but also the readers. For this reason, constructive thought full suggestion and critics are well come to make this thesis better.

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Author

ABSTRACT

In the real world, solid object could collide with another object, But in a virtual world, object don't do anything unless we tell them to do something, and programmers must make an explicit effort to ensure that object do not pass through another one. This is the role of one of the central components of any game engine—the collision detection system. Thus, collision detection is a form as a result of the simulation physics, the topic talk about how to determine whether objectshave collide each other.

Unity is an application that is used to develop multi-platform game that is designed for easy use. Graphic on the unity created by the high-level graphics for OpenGL and DirectX, Unity is a 3D game engine which comes with built-in physics PhysX by NVidia. Physics simulations are applied to game objects having rigid body attachment. Mostly it is used in collision detection.

The focus of this thesis is to provide analyze about *collision detection system.* Collision detection is a form as a result of the*physics Engine* simulation, a topic that talks about how to determine whether objects have collide each other. In this thesis, the author will explain about collision detection itself and also explain how to collision detection working on *unity 3D*.

Keywords : *Collision Detection, Unity3D, Physics Engine.*

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