Team Number: 2

School Name: Portales High School

Area of Science: Physics

Project Title: Using Applied Physics to create a 2D Golf game

Problem Definition:

Physics are crucial in creating a sport based game. Using Applied Physics to make a realistic representation of golf requires being able to comprehend the basic principles of the Law of Physics. The entertainment aspect of the game partially relies on how precise the game is, compared to playing golf in real life.

Problem Solution:

In golf, many components of physics come into play. Components such as: lift, power, drag, spin, wind speed, and gravity. Making these elements work smoothly requires modifying formulas to fit our parameters. What makes our game unique is that we do not look up “How to make a golf game”. We are using our knowledge of physics and programming to make this game our own. In our project, we will use physics equations to make a precise and animated game of golf.

Progress to Date:

As of now, we have a working demo of the game. Animations are decent, but there is still work to be done on them. We also have a working main menu for the player. As for the code, there are a few minor bugs pertaining to the roll. The flight path of the ball is smooth, the bounce is working well, and the wind speed is good. Our main focus is perfecting the main code along with getting the animations completed and implemented.

Expected Results:

Our team expects to have a fully functioning golf game. We hope to expand the game into having different levels. We wanted to do a space themed golf game where the player “levels up” to different planets. The physics would not change as drastically. By changing “planets”, we can stress test our code and keep adjusting.

Team Members: Porter Newell, Jesus Castillo, Harley Bendzus, and Antonio Aldaz

Sponsoring Teacher: Jack Willis

Sources

http://www.golf-simulators.com/default.htm