Projectile Motion Simulator Lorenzo Salgado 05/08/2018

Abstract:

The study of physics began as early as in ancient Greece where natural philosophes like Plato postulated justification for the motion of objects and their natural tendencies towards the Earth. Through hundreds of years of experimentation from people such as Galileo and Sir Isaac Newton, this study became more scientific and exact. Through careful calculation, it is possible to predict this motion given specific values on any given body in the universe.



Background

 Predicting projectile motion on different planets can help people understand the effect gravity has on objects



Technical Approach - 1

- Extract values from GUI
 - -Determine invalid inputs through physics
- Input values to kinematics formulas
 Formulas derived from physics
- While loop to plot motion of ball
 - Similar to Lab 4 Pong
 - Repeats until y value is 0





Youtube video: https://youtu.be/B27NnwXYNG4



Conclusions and Next Steps

 Simulate the motion of a projectile through air on any given planet





1. <u>https://www.grc.nasa.gov/www/k-</u> <u>12/airplane/flteqs.html</u>

