Physics II

CITM

Project: Apollo

Overview

- To test our knowledge on fundamental game physics we will create a space game emulating the Apollo missions: launch a spaceship from Earth, land (safely) on the Moon, return (safely) to Earth. Variations of the mission scenario are allowed.

- The project will be done in groups of 2/3 people.

Submission rules

- The delivery must be a **zip** containing:
  - The executable compiled in *Release* with all DLL and data needed to run the game.
  - There must be a text file called "README" containing the list on controls, the goal of the game and the guide to finish it. Add name of the students involved and a link to the source in GitHub.
  - In the GitHub page there must be the zip also published in the release section.
- The file must be named **Lastname1Name1_Lastname2Name2_etc** after each student's names and last names. It should be located in the folder "**Apollo**".
- The file must be submitted before **15 Jan 2021**. No delivery will be accepted that does not follow these guidelines. You can deliver many times, only the last entry will be evaluated.

Grading Criteria

To accept a submission for grading, it must comply with:

- It follows the submission rules stated above.

- The game did not crash while testing.

- The physics engine implements at least four of the following forces: impulsive, gravity, lift, drag, buoyancy, elastic (springs).

- The physics engine resolves collisions (regardless of complexity).

- The game has a clear WIN and LOSE condition with an optional set of intermediate bonus objectives (if any).

Grading Criteria

Once accepted the criteria is as follows:

- Code quality 50%

  - Code is clear and well structured.

  - No memory leaks.

  - The focus will be on physics code.

- Game polish 50%

  - The game has a clear win/lose condition.

  - The game is fun and easy to play with well defined rules.

  - Creativity will be rewarded.