

# Project 1.2 Group 19 Phase 1 User Manual

## How to execute the application?

In order to run the code, please unzip the file and keep the "res" folder in the same directory and the jar-file. Then, just double click the jar-file. This should execute the code. Please note that on Mac this might be a little bit more difficult (Thank you Gatekeeper), so we recommend Window for an easy installation.

## Code Attached

The code that was attached is the code of the latest version of the application (also the one in the .jar-file)

## Controls

Once you launch the application, go to the course designer screen to start designing your course! You can enter mathematical expressions which will be parsed with our self-made parsing algorithm that works even with functions like sin, cos and tan and the number e. Please make sure to write your expression as clearly as possible. For example, "-2x" should be written as "-2\*x".

Once you've designed your course play the game! You can select your desired game mode. Once the game has loaded, you can use the following controls:

Key	Action
UP	Increases the velocity of the shot
DOWN	Decreases the velocity of the shot
SPACE	Shoot the ball!
MOUSE LEFT CLICK + MOUSE MOVEMENT	Rotates the camera around the ball, changing the direction of your shot

The ball will be shot in the direction that the camera is pointing with your desired velocity. Once the ball is in the target range, the game will return to the main menu.

## Battling the bot

In order to play against the bot player or test the bot, select the "Player vs Bot" game mode. This will create a game in which you have to battle the bot! You are "Player 1", which uses normal player controls and the bot is "Player 2".

In order to let the bot shoot, you need to press the spacebar once you see "Player 2 turn ..." show up in the top-right corner of the screen. Earlier doesn't work, since it's still the other person's turn. Then wait up to 7 seconds in order to let the bot do its magic. We decided 7 seconds most was a reasonable time for the bot, since real people would also take around this time to think about their turn.

Enjoy the game 😊