

# Block Boarding

The skateboarding game that will rock your blocks!

## 3GC3 Final Project Documentation



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## Summary

This is 3D runner game made with OpenGL and GLUT. The basis of this game is a person attempting to escape a world. This game will allow the player to control a skateboarder who has to skate through an array of both good and bad blocks in their way. They have to avoid all black blocks which decrease their health, while collecting the green blocks to increase it.

## Game Description

Control a skateboarder who must avoid the black boxes that take away their health, but try and collect the green boxes to increase the player's health. Aim for a high score! Play up to three different difficulty levels.

## Base Features

- Lighting that emulates a sun
- Animated character
- Textures
- Alpha blending - when the character's health goes below 20, they become transparent
- Advanced Camera Control - use keys 1,2, and 3 to change camera view
- Picking

## Additional Features

- On screen text displaying the player's health and score (interface)
- Realistic physics (player's acceleration from one side to another)
- Smooth character control animations
- Infinite gameplay with incrementing difficulty
- Collision detection

## Compilation Instructions

Clone or download the code repository. Enter in the command line:

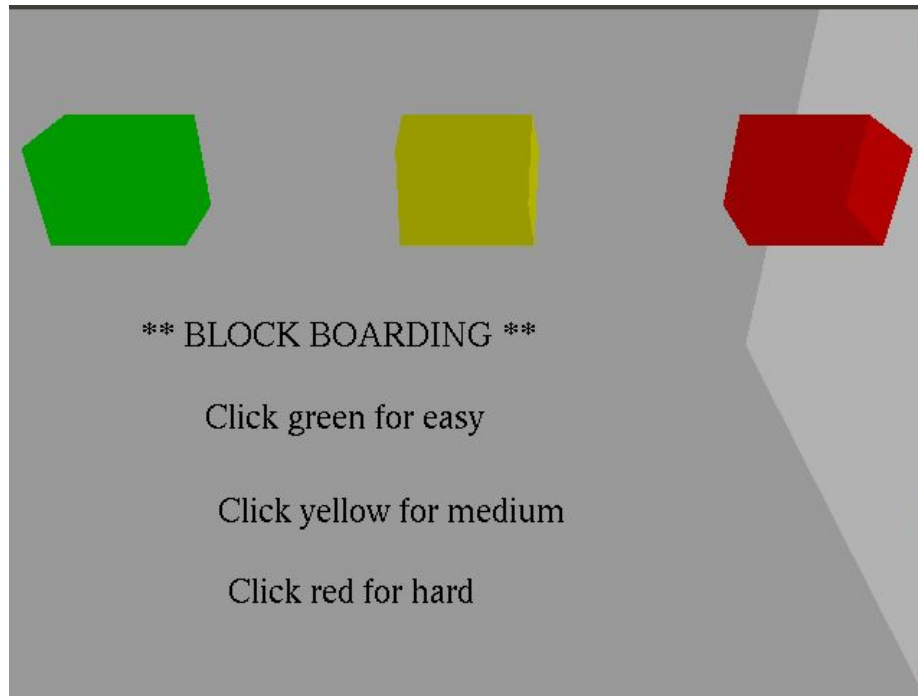
```
make
```

Or simply click the precompiled executable block\_boarding.x.

This will create the scene. To play, follow the game instructions below.

## Game Instructions

Select a difficulty by clicking the green, yellow, or red boxes for easy, medium, or hard difficulties respectively.



- Use the arrow keys or the A and D keys to move the character left and right. Avoid black boxes and collect green boxes.
- Your score is based on the distance you are able to go.
- The green boxes give you health while the black ones take away health.
- Press the spacebar to pause and unpause the game.
- Use the 1, 2 and 3 keys to change the camera modes.
  - 1 = Normal view
  - 2 = First person
  - 3 = Bird's eye view
- The r key can be used to restart the game at any time.
- The m key can be used to return to the main menu at any time.
- The game is over when your health reaches 0%.