

CONTROLLER
CONCERN



USER MANUAL

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INTRODUCTION

Controller Concern is an air traffic controller game where your main aim is to prevent two planes from crashing, and to earn as many points as possible along the way!

You can control each plane's speed, altitude and direction to try and prevent crashes. You can also land one plane at a time in the airport to help manage all the different aircrafts.

Points can be earnt by:

- Preventing a crash for as long as possible
- Visiting waypoints
- Landing Planes

Points can also be deducted by failing to land an aircraft that has requested to land (is encircled by a blue ring).

INSTALLATION INSTRUCTIONS

- Visit the HOU website on the following link:
<http://sepr-hou.github.io/controller-concern/>
- Click on the “Download” on the left hand side below the main website title, which will download a .jar file.
- This will download the game on your computer.
- “Open the .jar file on your computer to start the game.”

SYSTEM REQUIREMENTS

- KEYBOARD, MOUSE
- WINDOWS/LINUX/MAC OS X
- SOUND CARD
- AT LEAST 11 MB OF FREE SPACE AVAILABLE ON HARD-DRIVE
- THE JAVA RUNTIME ENVIRONMENT

HOW TO PLAY

MENU SCREEN

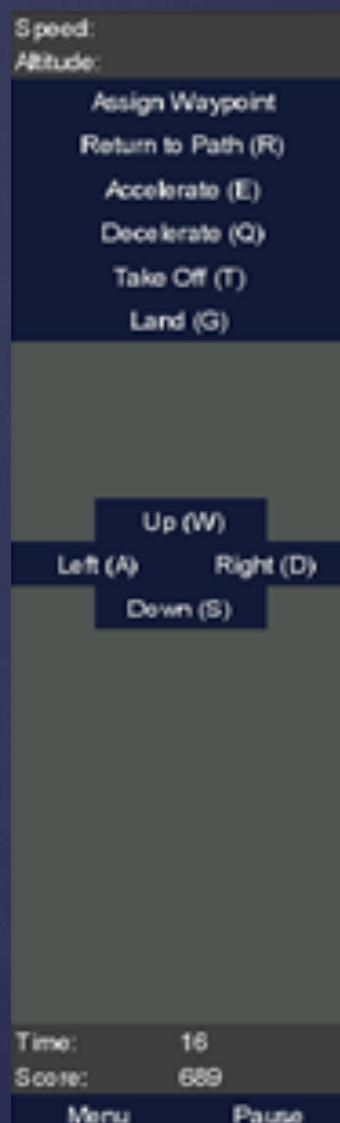
- Easy
 - Opens the game in easy difficulty
- Medium
 - Opens the game in medium difficulty
- Hard
 - Opens the game in hard difficulty.
- Exit
 - Closes the game



MAIN FEATURES

There are a few key features of the game that will be mentioned throughout the manual, and are essential to game play.

Control Panel:



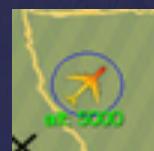
Key Symbols:



The Airport



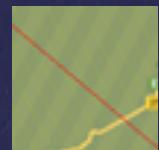
An Aircraft



An Aircraft suitable to land



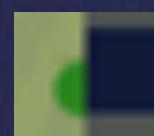
A Selected Aircraft



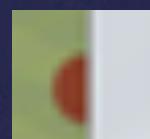
A Selected Aircraft's Flight path



A waypoint



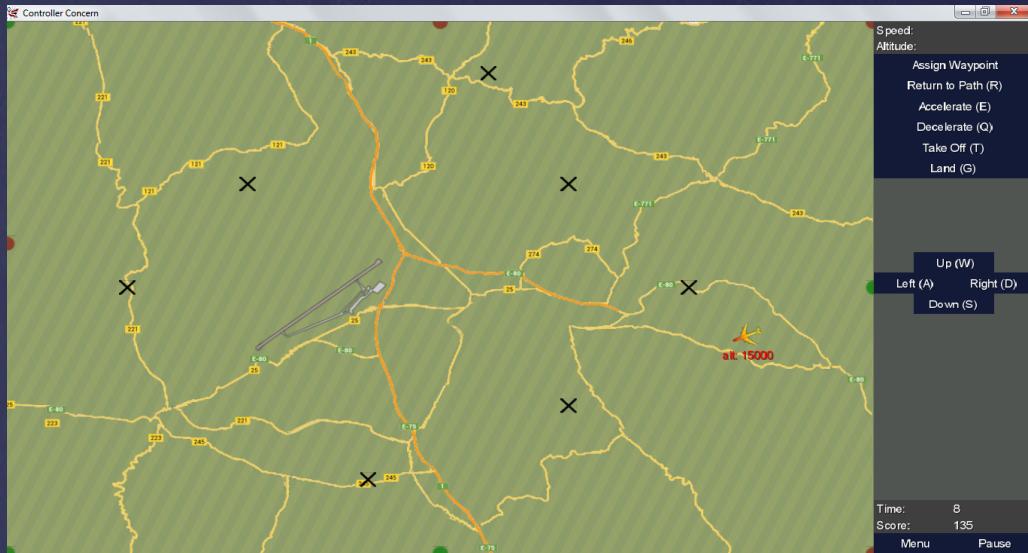
An Aircraft Entry Point



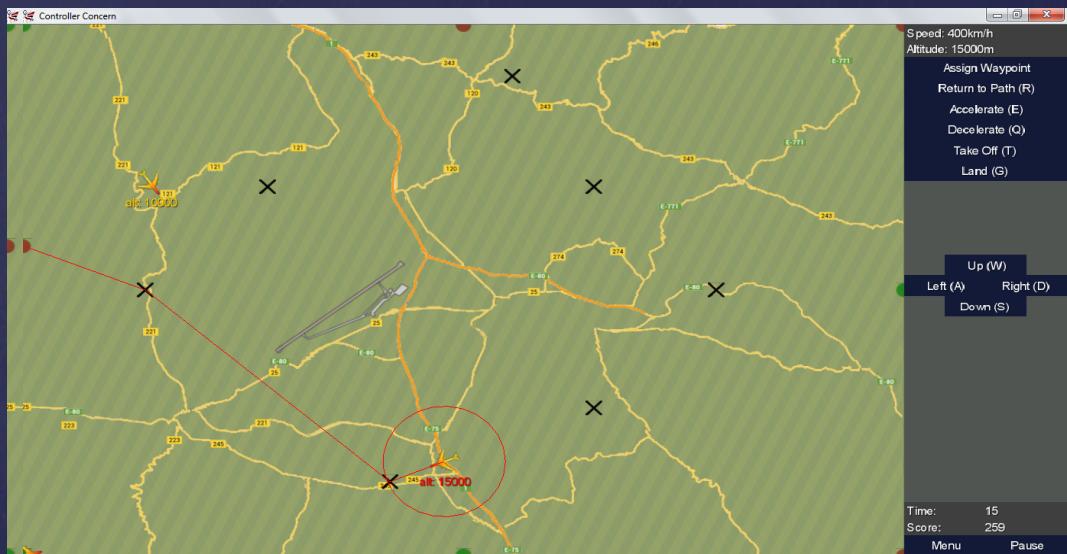
An Aircraft Exit Point

GAME SCREEN

- Clicking one of the options on the Menu Screen will open the game.



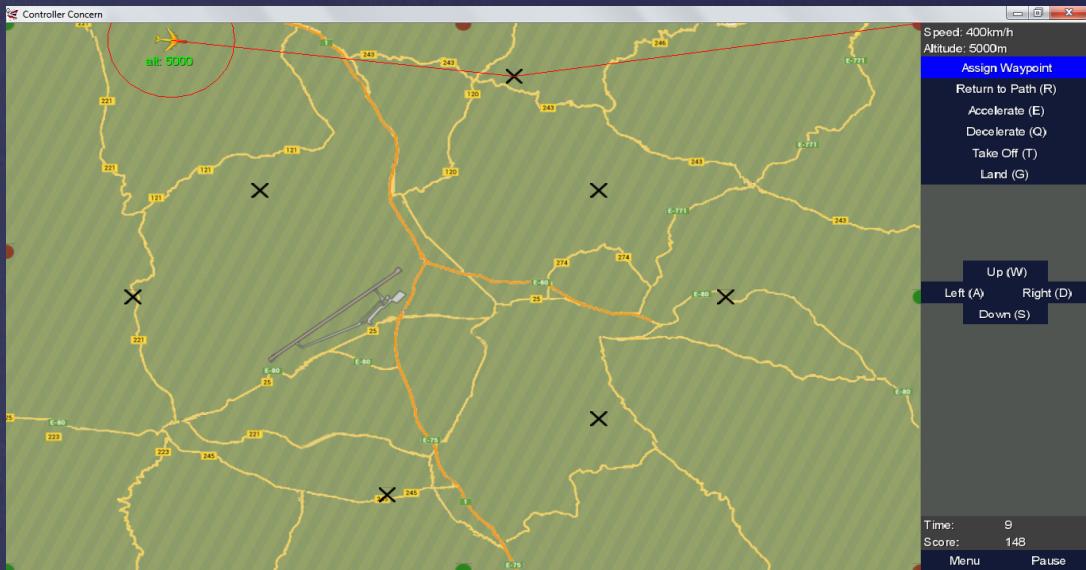
- The game begins with no aircraft selected. To select an aircraft, left click on it.



- When selected the aircraft will have a red circle around it. You will now be able to issue commands to the selected aircraft, and see the selected aircraft's flight path.

GAME SCREEN - WAYPOINTS

- All planes in the game will have set landmarks they have to visit, called waypoints. As well as the set waypoints, you can also assign new waypoints to help prevent crashes and earn extra points!



- To assign an aircraft to a waypoint, click on the 'Assign Waypoint' button. Then select an aircraft and left click on the waypoint you wish to assign it to. You can assign new waypoints to landed or active aircrafts.
- Once assigned a new waypoint, the selected aircraft will immediately alter its flight path to visit the new waypoint first, before continuing with the original path.
- If you choose a waypoint that is already in the selected aircraft's flight path, it will discard all waypoints before the selected waypoint, and continue the flight path from there.

GAME SCREEN – SPEED & ALTITUDE

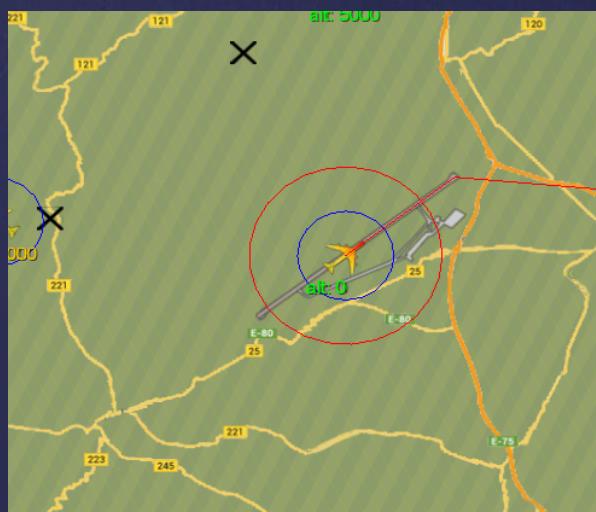
- All control buttons can be found on the Control Panel on the right hand side of the game screen (see Main Features).
- ACCELERATION
 - Select an aircraft and click on the ‘Accelerate’ button on the sidebar. The new speed will be shown at the top of the control panel.
- DECELERATION
 - Select an aircraft and click on the ‘Decelerate’ button on the sidebar.
- INCREASING ALTITUDE
 - Select an aircraft and click on the ‘Up’ button on the sidebar. The altitude will increase by 5000 ft; a high altitude will be indicated with a red number below the selected aircraft.
- DECREASING ALTITUDE
 - Select an aircraft and click on the ‘Down’ button on the sidebar. The altitude will decrease by 5000 ft; a low altitude will be indicated with a green number below the selected aircraft.

GAME SCREEN – TURNING

- In the game, turning an aircraft puts it under your complete control - i.e. it will not continue with its flight path. This can be used if a collision is imminent. There are three commands that affect turning: Left, Right and Return to Path.
- TURNING LEFT
 - Once an aircraft is selected, press the “Left” button on the control panel. The aircraft will rotate anti-clockwise until the “Left” button is clicked again or the “Right” or “Return to Path” buttons are clicked
- TURNING RIGHT
 - Once an aircraft is selected, press the “Right” button on the control panel. This will give the same result as the “Left” button but will turn clockwise
- RETURN TO PATH
 - Clicking the “Return to Path” button will stop any manual control over the aircraft and it will continue to automatically follow its Flight Path.

GAME SCREEN – LANDING AND TAKE OFF

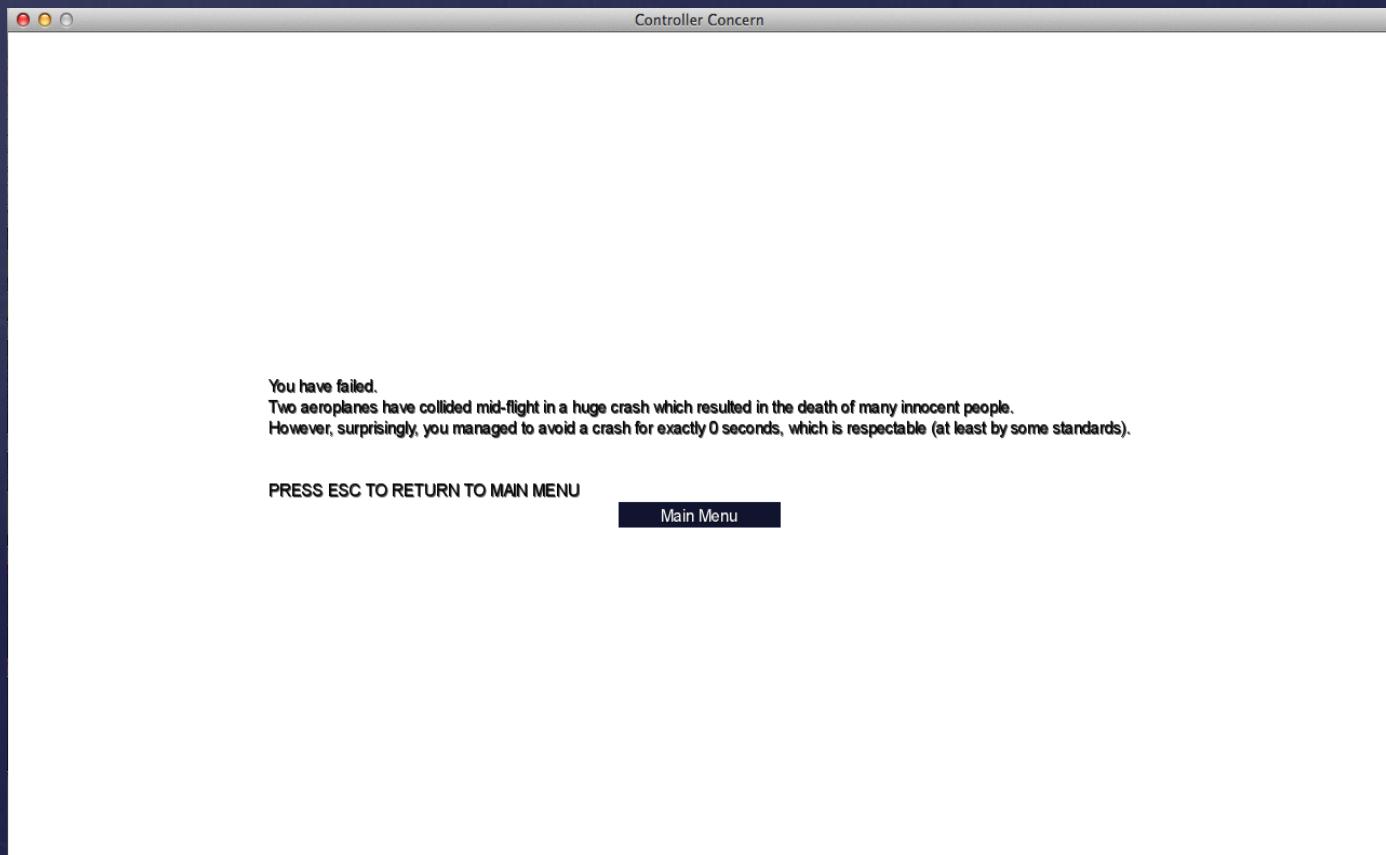
- Certain aircraft can land in the airport, to increase points and help manage a busy airspace! Suitable aircraft are highlighted with a blue circle.
- LANDING
 - Select a suitable aircraft, and adjust the altitude to 5000ft and speed to 400km/h (the default speed).
 - Then click the “Land” button. The aircraft will automatically adjust its Flight Path, and decrease its altitude and speed, until it rests on the runway.
- TAKE OFF
 - Select the landed aircraft and press the “Take Off” button. The aircraft will resume flight, and gradually increase in altitude to 5000ft while continuing to its next waypoint.



- REMEMBER: Only one aircraft can be on the runway at any one time!

GAME SCREEN – PAUSE, MENU & END

- PAUSE
 - Click on the ‘Pause’ button on the sidebar. Click on the same button to resume.
- MENU
 - Click on the ‘Menu’ button to go back to the main menu at any time.
- END
 - When 2 aircraft breach the separation rules, there will be red circles around both to notify a chance of collision. The game ends when 2 aircrafts collide. Upon collision you will be directed to the end screen that would allow you to go to the main menu.



KEYBOARD SHORTCUTS

- Accelerate E
- Decelerate Q
- Increase Altitude W or ↑
- Decrease Altitude S or ↓
- Turn Left A or ←
- Turn Right D or →
- Take Off T
- Land G
- Return to Flight Plan R
- Pause Space bar
- Return to Menu ESC