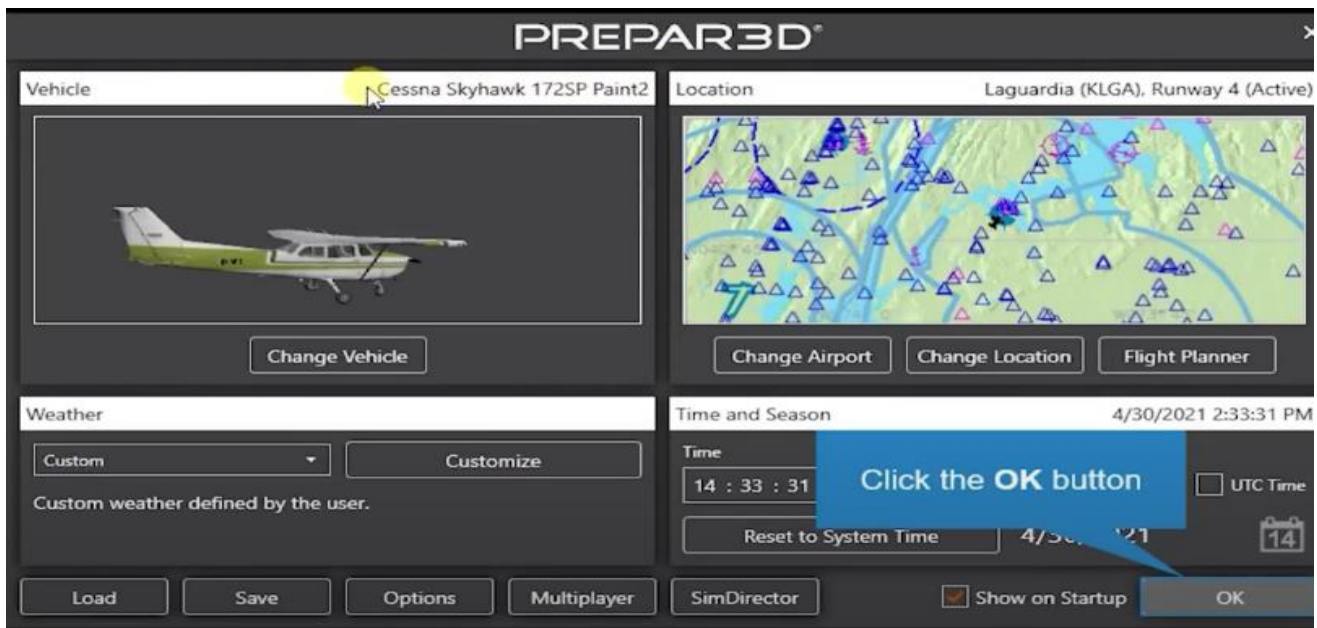


Prepar3D Lab: Get to know Controls and Computer Joystick

1. Turn on Computer
2. Attach the joystick to a USB slot.
3. Locate the Prepar3D icon on the desktop and double click this icon
4. Once it loads, you will get a screen that looks like this to the right. Look to the upper left and choose the plane you wish to fly. In our case it will be the Cessna 172, which is the typical trainer airplane.



5. Now look at the upper right corner and click on “Change Airport”. You can find just about any airport in the country and world with this menu. WE will choose Oxford CT. In the Search By column, type in KOXC in the top box that is under the ICAO ID. Click Ok.
6. Look at the lower left hand side titled Weather. Click on Clear Skies.
7. Look at the lower right-hand side titled “Time and Season” Click on “Reset to System Time”.
8. Before clicking on the “Ok” button, click on the box next to the “Ok” button where it says “Show on Startup”. This should save it for the next time you log in.
9. Now you should be in the airplane cockpit.



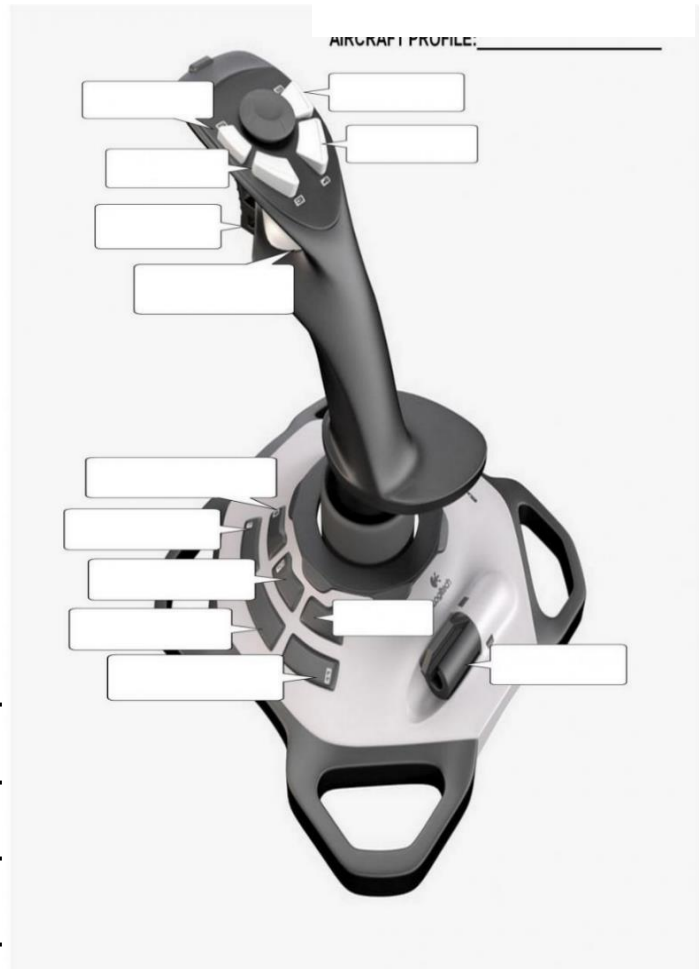
Joystick Lever, move it around and see what happens

Getting to Know the Joystick!

10. Look at your Joy Stick, the toggle lever at the top of the Joy Stick is able to move forward and back, give it a try. Depending on which way you move this lever, changes your view.

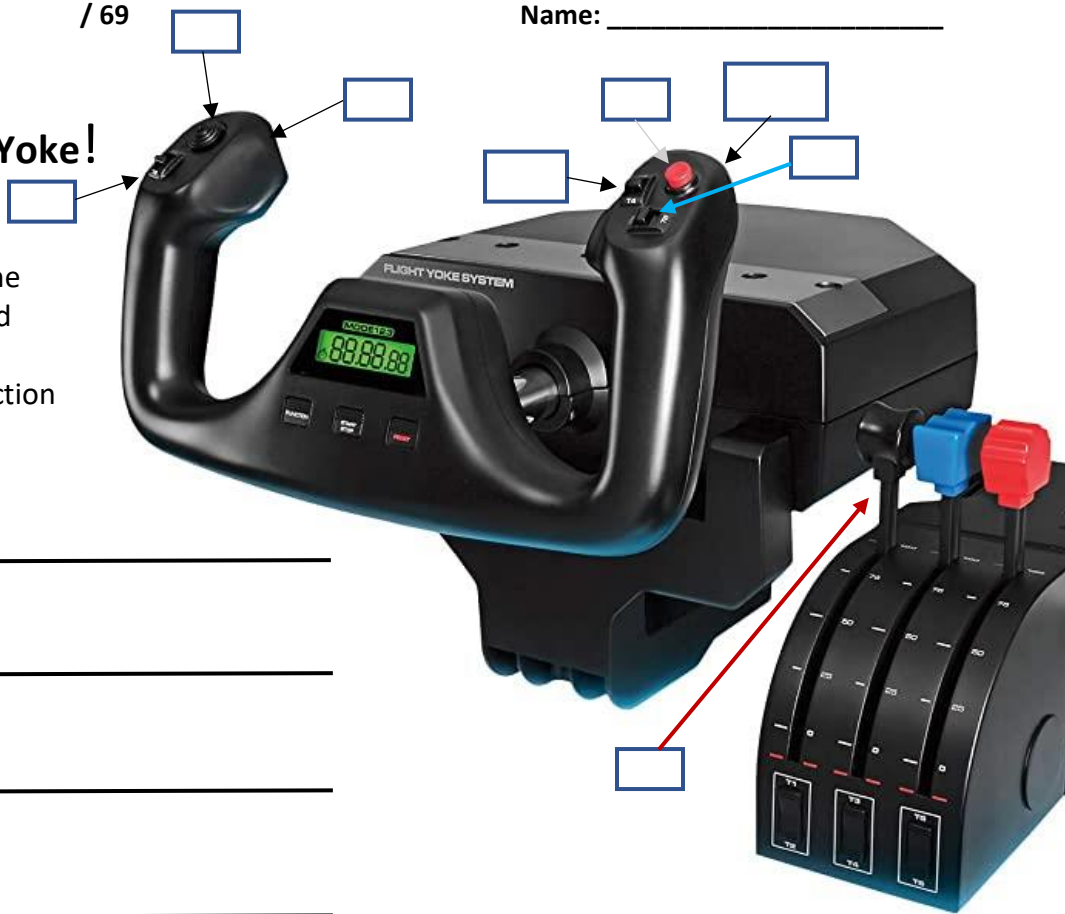
11. At this point I want you to play with the buttons on the Joystick and figure out what each can and cannot do. (Some may be inactive) In the space below I want you to describe each of the buttons labeled.

- 1. _____
- 2. _____
- 3. _____
- 4. _____
- 5. _____
- 6. _____
- 7. _____
- 8. _____
- 9. _____
- 10. _____
- 11. _____
- 12. _____
- 13. _____



Getting to Know the Yoke!

12. Looking at the Yoke to the right, identify the labeled parts, naming each and describing what the function is for each button.



1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____



13. For this activity, I want you to describe how to change the image from the cockpit to the outside of the airplane and what buttons or switches you need to use to you can see all around the airplane and above the airplane. Use the space below list the steps to accomplish this goal. 5 pts

14. Now you will need to know the anatomy (parts) of the airplane. Before completing the next section, obtain either from the website of from you teacher the worksheet that outlines the main parts of the airplane, complete the worksheet before attempting to go onto the next section.

COMPLETE THE "PARTS OF AN AIRPLANE WORKSHEET" BEFORE CONTINUING TO COMPLETE THE BELOW SECTIONS. *Mr. G*



14. Now from an “**arial or outside view**”, move the Yoke/Joystick forward and back and from side to side. Describe below what you see happening to the airplane. 2 pts each

Yoke or Joystick: move both forward (push forward)-

Yoke or Joystick: move both Backward (back pressure)-

Yoke or Joystick: Turn Yoke to the Right or lean Joystick to the right (Banking)-
(Describe Aileron movement?)

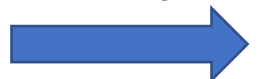
Yoke or Joystick: Turn Yoke to the Left or lean Joystick to the Left (Banking)-
(Describe Aileron movement?)

Joystick: twist to the right (clockwise)-

Yoke with foot pedals: push on right foot pedal with your heel (not your toes):

Joystick: twist to the left (counter clockwise)-

Yoke with foot pedals: push on the left foot pedal with your heel (not your toes)-



16. This time you will have to navigate to the “cockpit” view.



14. Now you will have to watch what happens to each flight control (a-f). Use these terms. (Forward Pressure, Back Pressure, Right, Left, in, out) (1 pt per blank)

- Moving the Joystick forward is the same as moving the Yoke _____
- Moving the Joystick backward is the same as moving the Yoke _____
- Moving (leaning) the Joystick to the right is the same as turning the Yoke _____
- Moving (leaning) the Joystick to the left is the same as turning the Yoke _____
- Twisting the Joystick right moves the foot pedals, right one _____ left one _____
- Twisting the Joystick left moves the foot pedals, right one _____ left one _____
- Move the Level labeled “13” on the Joystick controller and describe what it does. 1 pt.



15. Now return to an outside of the airplane in an aerial view from behind and slightly elevated. This time push the "3" and "4" buttons on the Joystick and describe below: 2 pts each.

The "3" Button moves:

The "4" Button moves:

16. This time navigate to the cockpit and look down towards the floor, now describe what happens when Buttons "3" and "4" are used like in the previous question. Change the view to verify what is happening. 2 pts each.

The Button "3" moves:

The Button "4" moves:

17. The next task is to learn to use the Joystick as if they were pedals on the floor of the airplane. Look at the actual simulator and find the pedals. In this exercise we will learn to use the Joystick as if they were pedals in the airplane. Go to an outside view of the airplane and view as if from behind and slightly elevated. Twist the Joystick, first to the right and to the left. Record what you find. 1 pt per blank.

Twisting the Joystick right moves the rudder to the _____

Twisting the Joystick left moves the rudder to the _____

Now sit in the simulator and do the same thing with the pedals.

Pushing on the right pedal (with your heel) moves the rudder to the _____

Pushing on the left pedal (with your heel) moves the rudder to the _____



18. The final task is to start the simulation and try to taxi SLOWLY down the runway and steer it straight down the runway. You may use the yoke/joystick and/or your foot pedals / joystick.

a. Describe how you were able to control the airplane as it was taxiing down the runway. 2pts

b. Where you able to keep it straight? Why or why not. 2pts

c. How would you describe to someone learning how to “drive”/taxi a plane on a runway properly. 2pts