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Tumblin

EECS 351

Project A: Star Wars Imperial Shuttle and Turbolaser

Goals:

Welcome to the Galactic Empire, trooper. Your exceptional performance at the Imperial Academy has earned you the honor of piloting the Lambda-class T-4a shuttle, one of the finest craft in the entire galaxy, and the Emperor's own personal craft of choice. This program aims to allow you to pilot an Imperial Shuttle as well as an accompanying Turbolaser. This simulation grants you control of the primary features of the shuttle, including folding the tri-wings, toggling the wing-mounted Auto-Turrets, shifting the craft position, as well as rotating the craft. In addition, you are also able to control the rotation speed of an accompanying auto-turret. For an explanation of terms, refer to figure 1. With you at the helm of this ship, the Rebellion will be done for in no time.

User's Guide:

1. Starting your Lambda Shuttle. (Opening the Program)

To commence primary ignition of the shuttle. Simply **click** on the HTML file labeled "ZhaoLuoLei_projA.html". You will open a webpage and see the imperial shuttle slowly translate on screen.

2. Piloting your Imperial Shuttle (Moving and rotating the Shuttle)

All movement functionalities are made with the mouse. Simply **click** on any position in the canvas, and the twin SFS-204 ion engines will allow the craft to hover to whatever position you desire (figure 2). **Click and drag** to change the orientation of the craft. Try not to drag off the screen, or the drag function will get stuck (Figure 3). To get unstuck, click anywhere on the screen again. Be careful though, the Empire would not look kindly upon any destroyed vessels. All instructions are written underneath the Canvas screen.

3. Adjusting the Tri-Wings

One of the most distinctive features of the Shuttle are the foldable Tri-wings and their wing-mounted heavy blaster cannons.

Press **up** on the keyboard to bring the tri-wings to landing position. Press **down** to bring them back to flying position. The wing mounted turrets are currently locked in auto-scan mode. To

stop them from rotating, simply click the button located underneath the Canvas labeled “Press this to Toggle Auto Turrets”.

4. Controlling the Turbolaser Battery.

We placed a rotating twin turbo-laser battery to guard you while you are training.

If you want the turret to rotate faster clockwise, press **right**.

To make the turret rotate faster counterclockwise, press **left**.

Results:

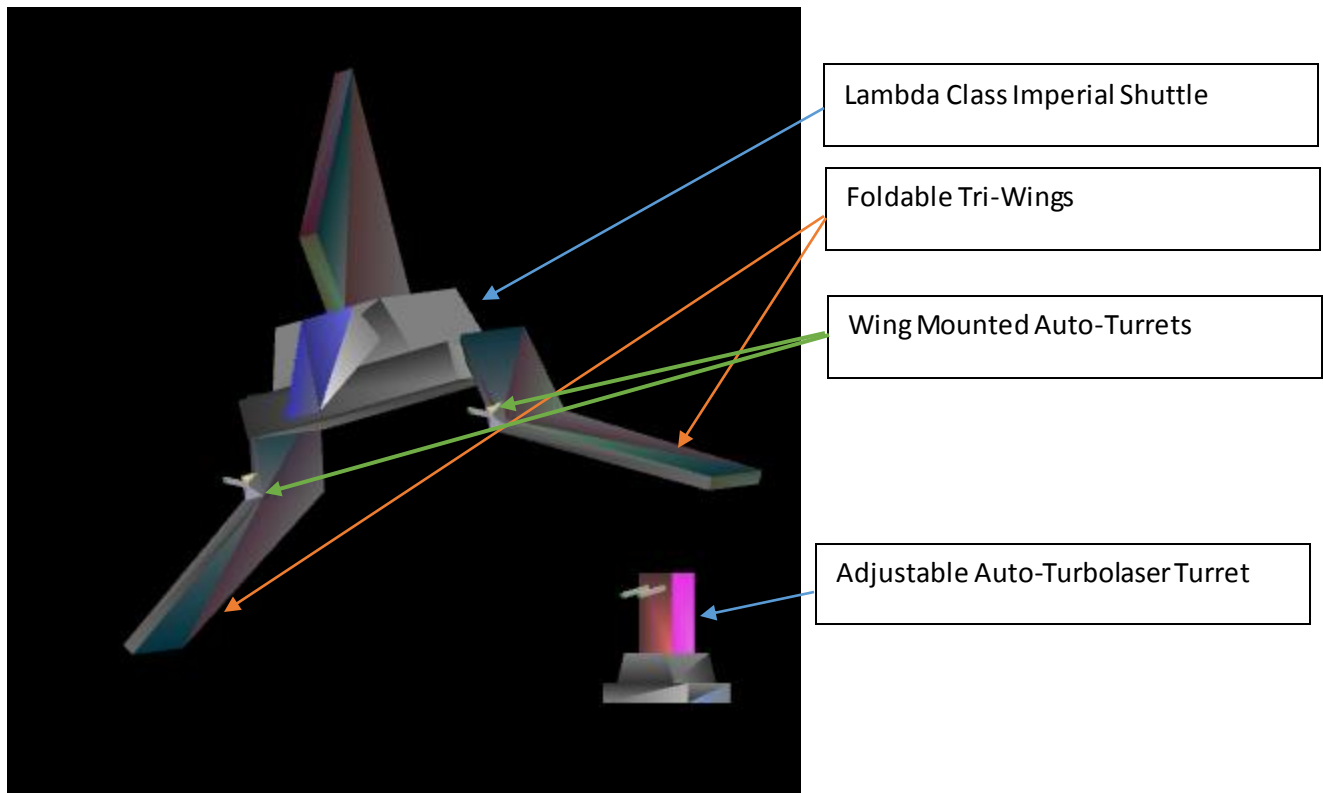


Figure 1: An overview of the parts of the Lambda Shuttle System.

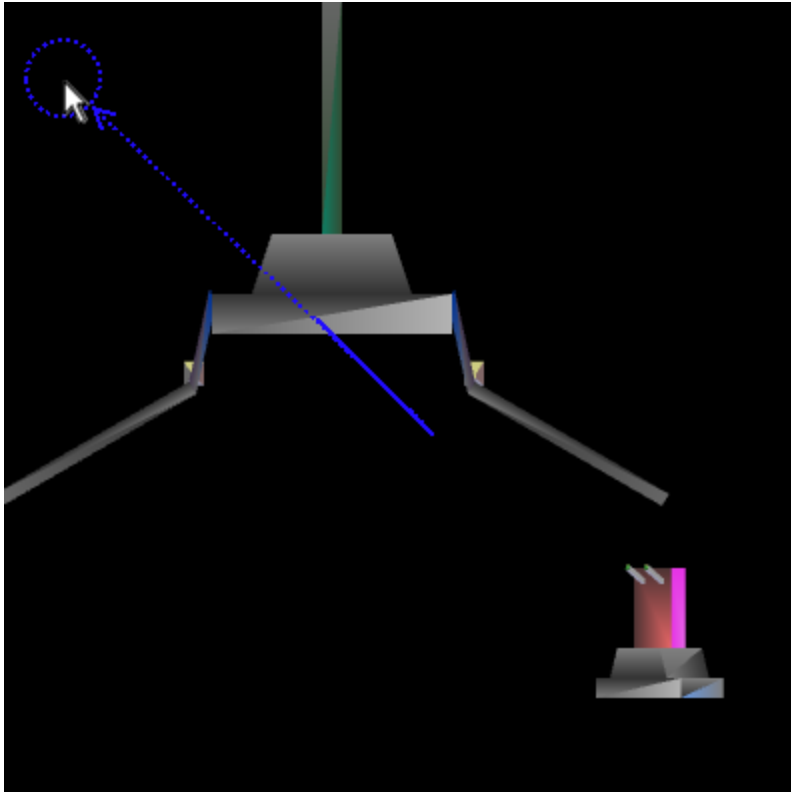


Figure 2: Example of using the click functionality to move the shuttle to a different location through a direct translation along the XY plane.

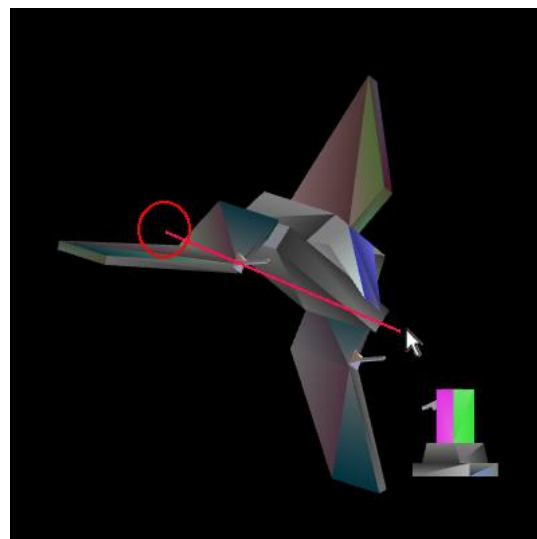
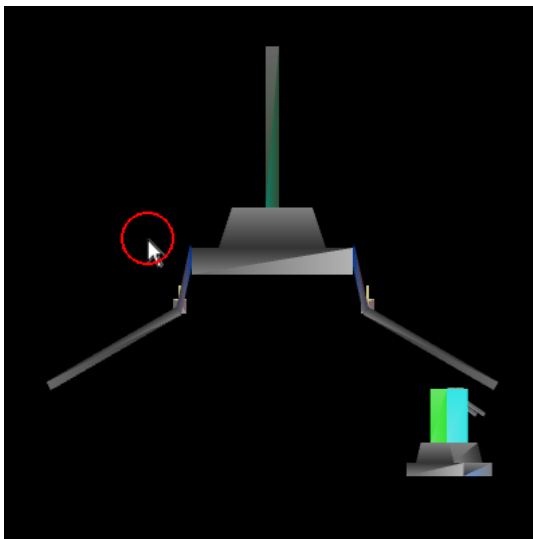
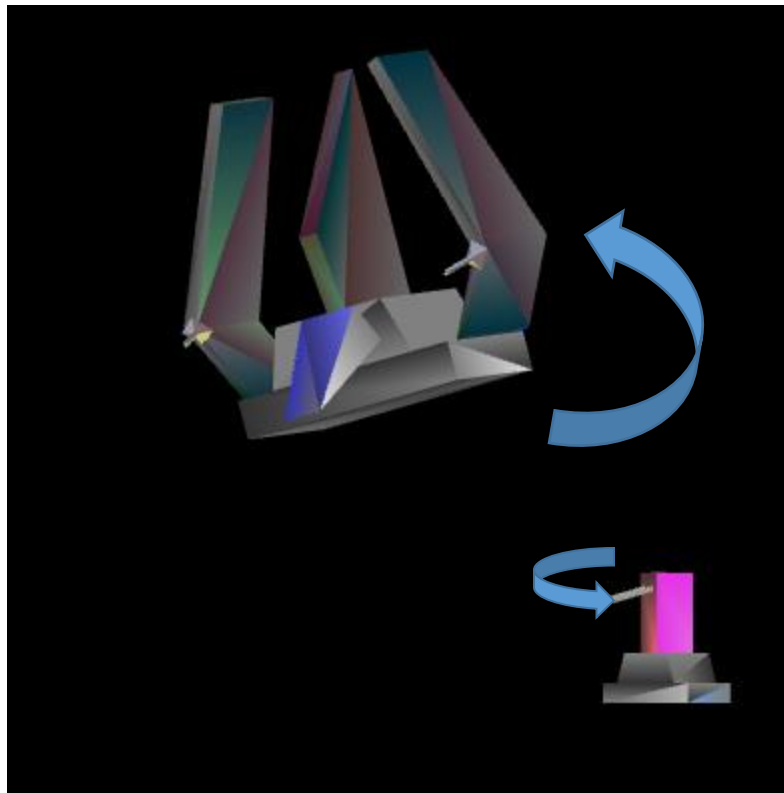


Figure 2: Example of using the drag functionality to move the rotate the shuttle to a different orientation and get a different view of the shuttle



UP/Down Arrow Keys:

You can use the up key to move the tri-wings to folded position. You can use the down key to move the wings back to unfolded positions.

Left/Right Arrow Keys:

You can use the right arrow key to make the rotation of the Turbolaser clockwise. Pressing left will make the Turbolaser rotate more Counter-Clockwise.

Figure 4: An overview of all keyboard functionality on the Shuttle



Bonus Figure: The Imperial Shuttles in the Star Wars Movies