Title: Space Wars
Assignment Name: Phase 2 Report
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Comments: All art, music, and sound effects made by myself. Key press '9' restarts the game at any point (mostly for testing purposes).

Space Wars
Phase 2

The spaceships and missiles created fly and follow Newton's laws for accelerating and conservation. The spaceships are pull orthogonally into the sun after accelerating in one direction and then accelerating in the exact opposite direction for the same time amount. Both ships also orbit the sun when given a velocity and are pulled in when the force of the sun is greater. When the "down arrow" or "S" key is pressed, the corresponding spaceship fires a missile if the firing delay condition is met. The missile travels in the direction the spaceship was facing when it was fired and is also affected by the sun's gravity. Firing a missile close to the sun results in the missile being pulled in very fast and farther away the missile travels usually across the screen several times. Both the spaceship and rockets have screen wrapping functionality. The missiles disappear after 300 frames (or 5 seconds if game is running at set 60fps). Additionally, a start screen was added. Simply press the spacebar to start the game. Included is also a game restart button (keypress '9'). All art and music made by myself.

The development process included just subtracting the force of gravity in the x and y direction for any object that needed it. Other effects and sounds and animation timing was then all tested and refined through play. Strength constants to help quick change the effect of gravity were also tuned through gameplay. A sound controller object was added to help better manage the tracks playing between different rooms. Next steps for implementation will be the stats, warp drive (which the sprite and animation have been made for in this Deliverable already), and basic menu options for scoring, pausing, and restarting the game.

CONTROLS:

Player1:
W: thrust
A: turn left
D: turn right
S: fire missile

Player 2:
Up arrow: thrust
Left arrow: turn left
Right arrow: turn right
Down arrow: fire missile

Mechanics:
Key press 9: restart