Everything you need to know about Alien Invaders:

Logo

Description automatically generated

This is you. You are humanities last hope to stop the alien invasion. You are completely outnumbered and out matched. Take down as many aliens as you can before losing your ship. You can move your ship by placing your finger on the screen. The ship will follow the movements of your finger if it is on the screen. Your ship will also continually shoot while your finger remains on the screen. Remove your finger and you become a defenseless sitting duck. Your ship can take three hits before being destroyed, but life can be prolonged by picking up repair kits. Be on the lookout for those and other power ups.

Firepower:

Icon

Description automatically generated

This is your standard missile. Standard missiles will do one damage to any enemy ship. As long as your finger is on the screen your ship will continually shoot your standard missiles. Be on the lookout for power ups that can increase your rate of fire.

Icon

Description automatically generated

This is your heavy missile. Heavy missiles will do two damage to any enemy ship and fire in the same way as your standard missile. Be on the lookout for power ups that allow you to switch to heavy missiles. Heavy missiles will also be affected by rate of fire power ups.

Power Ups:

Shape

Description automatically generated

This is a repair kit. Pick one of these up to increase the number of hits the ship can take. Be careful though, they move quick.

Logo

Description automatically generated

This is a rate of fire increase. Pick up one of these and you will be able to shoot missiles quicker for 10 seconds.

A picture containing text, transport, aircraft, vector graphics

Description automatically generated

This is a damage boost. Pick one of these up and you will be shooting heavy missile for 10 seconds. Heavy missiles will do two damage to any enemy versus the one damage that the standard missiles do.

Shape, arrow

Description automatically generated

Be careful. Not all power ups are good. This is a de buff. When picking this up, it will have a random effect. You may either start shooting slower or it’s even possible that the ship grows making it harder to avoid the enemies. Avoid these at all costs.

Icon

Description automatically generatedEnemies:

This is a level one enemy. They don’t move fast, and they don’t take a lot to kill. They only have one health. Hit them with one missile and they shouldn’t bother you anymore.

Icon

Description automatically generated

This is a level two enemy. They can move a bit quicker and are slightly stronger. They have two health. Two hits from a normal missile or one hit from a heavy missile should take care of these guys.

Icon

Description automatically generated

This is a level 3 enemy. They have the ability to move incredibly fast and are quite strong. They have three health. This enemy will require three hits from a normal missile or two hits from a heavy missile to kill.

Gameplay Loop:

When the game starts you are on level 1. This will only spawn level one emeries and they will only spawn every 3.5 seconds. Once the score reaches 5 you will move into Level 2. This will randomly spawn level one or level two enemies every two seconds. Level two enemies will have a chance to have more of an impulse and have two health. Once the score reaches 20 you will be moved to Level 3. Level 3 will randomly spawn level one, level two, or level three enemies every second. Level three enemies have three health and have the chance to receive the largest impulse. Each power up has a chance to spawn every 20 – 75 seconds and the de buff has a chance to spawn every 20 – 55 seconds.

The scores are kept low for grading purposes. I didn’t want the grader to have to play very long to experience each level.

**Known Issues:**

* Sometimes the enemy ships will not receive enough of an impulse and will get stuck against the bottom wall not moving.
* If the player is mover with enough velocity in any directions, they will leave the play area. I’m not sure how to fix this as a slight bump will keep the player in the correct area but a quick movement will allow them to leave.
* Occasionally enemies are killed before they enter the scene causing the score to increase without ever seeing an enemy.
* I did not know they best way to bring the enemies into the play area, because of this they kind of just appear at the top of screen.