

Space Invaders Game - Enhanced Version

A feature-rich space shooting game built with HTML5 Canvas and JavaScript, including various power-ups, boss battles, particle effects, and more advanced features.

Game Features

Core Gameplay

- **Classic Space Shooter:** Control your ship to shoot incoming bees
- **Multi-level System:** Advance to the next level after defeating all enemies
- **Increasing Difficulty:** Enemy speed increases with each level
- **Score System:** Earn points for hitting enemies, with a combo system
- **Life System:** 3 lives, lose a life when colliding with enemies

Enhanced Features

- **Power-up System:** 4 different power-ups to boost your combat power
 - Rapid Fire: Increase shooting speed
 - Spread Shot: Fire 3 bullets at once
 - Laser Weapon: High-damage laser bullets
 - Shield: Temporary invincibility
- **Boss Battles:** Powerful bosses appear every 5 levels
- **Particle Effects:** Gorgeous explosion and hit effects
- **Sound Effects:** Shooting and hit sounds
- **Achievement System:** Achievements for reaching certain conditions
- **Pause Function:** Pause/resume the game at any time
- **Combo System:** Consecutive hits increase your combo count

Visual Effects

- **Modern UI:** Beautiful gradient backgrounds and game interface
- **Animation Effects:** Level-up and achievement animations
- **Engine Effects:** Engine flames when the ship moves
- **Health Bar System:** Health bars for bosses and strong enemies

Game Controls

Basic Controls

- **← → Arrow Keys:** Move the ship left and right
- **Spacebar:** Shoot bullets

Pause Function

- **P Key:** Pause/resume the game

- **Mouse Click:** Click the pause button at the top left

Pause Function Details

- **Full Pause:** Game screen, enemies, bullets, and power-ups all stop
- **Visual Feedback:** Pause button changes to **Resume** when paused
- **Safe Pause:** Pause at any time without affecting progress
- **Resume Anytime:** Press P or click the resume button to continue

How to Run

1. Make sure you have a modern web browser (Chrome, Firefox, Safari, Edge)
2. Download all files into the same folder
3. Open `index.html` in your browser
4. Start playing!

File Structure

```
project1/  
  index.html      # Main game page  
  game.js         # Game logic  
  README.md      # Documentation
```

Game Elements

Player System

- **Player Ship:** Green ship at the bottom of the screen
- **Engine Effects:** Engine flames when moving
- **Shield Effect:** Protective circle when shield is active

Enemy System

- **Bee Enemies:** Enemies in red, orange, and yellow
- **Health System:** Red enemies require 2 hits
- **Boss Enemies:** Large boss appears every 5 levels

Weapon System

- **Normal Bullets:** Yellow bullets, basic damage
- **Spread Shot:** Orange bullets, fires 3 at once
- **Laser:** Purple laser, high damage
- **Rapid Fire:** Increased shooting frequency

Power-up System

- **Random Drops:** 10% chance for enemies to drop power-ups
- **Duration:** Power-up effects last 5 seconds

- **Visual Indicator:** Current power-up shown at the top right

Score System

- **Base Score:** 10 points per enemy
- **Boss Score:** 20 points per boss hit, 500 points for defeating boss
- **Combo Bonus:** Consecutive hits increase combo count

Game Objectives

- Defeat all incoming bees
- Collect power-ups to boost your power
- Challenge bosses for high scores
- Avoid colliding with enemies
- Achieve the highest score and combo
- Reach higher levels

Game Tips

Combat Tips

1. **Prioritize Red Enemies:** They have more health, take them out first
2. **Collect Power-ups:** Power-ups greatly boost your combat ability
3. **Keep Moving:** Avoid being surrounded by enemies
4. **Use Shield:** Safely ram enemies while shielded
5. **Boss Strategy:** Bosses have high health, be patient

Pause Tips

6. **Pause Strategically:** Pause to think of strategies when in trouble
7. **Safe Pause:** Pause the game safely if you need to step away
8. **Quick Pause:** Press P for a quick pause, no need to use the mouse
9. **Pause to Observe:** Use pause to observe enemy and power-up positions

Enjoy the enhanced Space Invaders game!