# Components:

* Cannon (player) = 1
* Cannon laser = a short line
* If laser misses it turns into a red explosion at the end of the screen
* Shields = 4
* Alien types = 4
* Rows of Aliens = 5
* Score at top of the screen
* # of lives at the bottom of the screen
* Randomly generated spaceship

## CONSTANTS

ALIEN\_POINTS = 10

SPACESHIP\_POINTS = 100

LIVES = 3

# Structure

ArcadeMachine

* run the overall program
* Set up gui and graphics pane
* Include buttons to start/reset
* Display score at top (and high score)
* Show lives at the bottom of screen

AlienFleet

* Class responsible for creating and managing all of the aliens attacking the player
* set up like cloud for snowscene
* controls alien image movement

Aliens

* Class responsible for creating and animating a single alien
* 4 types of aliens with two pictures for each for animation
* Set up like snowflakes from cloud in snowscene but with controlled movements
  + Left, right, down
  + Right, left, down
  + Speed increases a percentage each time aliens move down a row

PlayerShip

* Green canon that player can move to the left or right
* Constructed using two rectangles and two lines
* Color = 34,204,0
* Scrolls left to right based on keyboard input by user

AlienShip

* holds red ufo which either scrolls from left or right to the other edge of screen
* Color 255,25,0

ImageLoader

* Loads any images like the ShowSnowflake class

Image of gameplay:



