



PROJECT  
PYGAME:

Space shooter

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## INTRODUCTION

General information about SPACE SHOOTER



## TECHNOLOGY STACK

Python

Pygame



## FEATURES

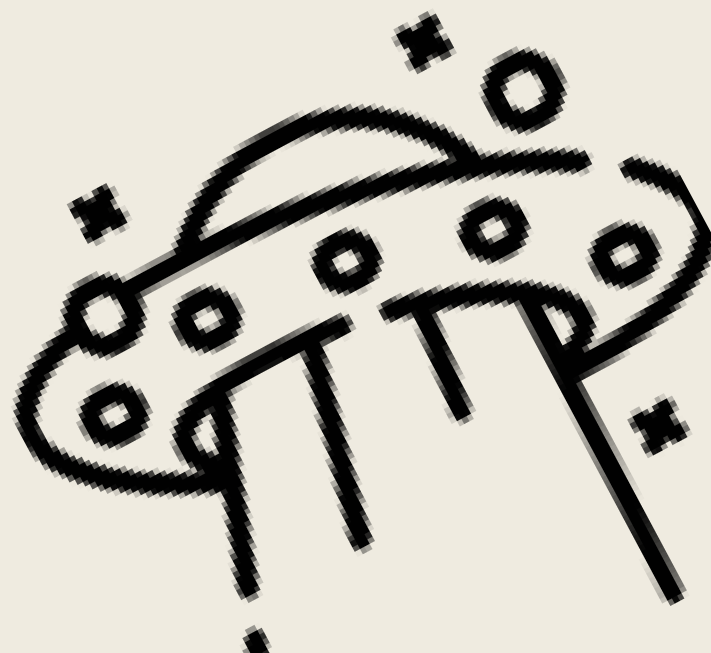
Ship, movement, Bullet, Enemy



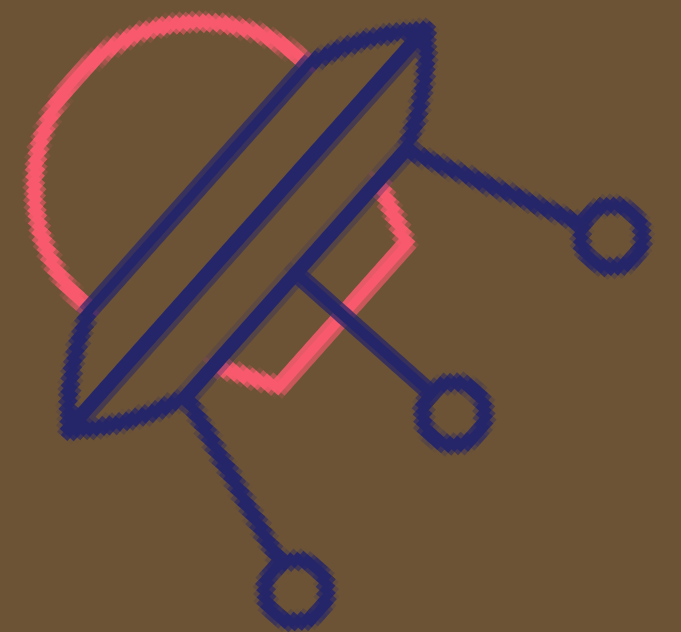
## APPROACH

General setup

Import separated files



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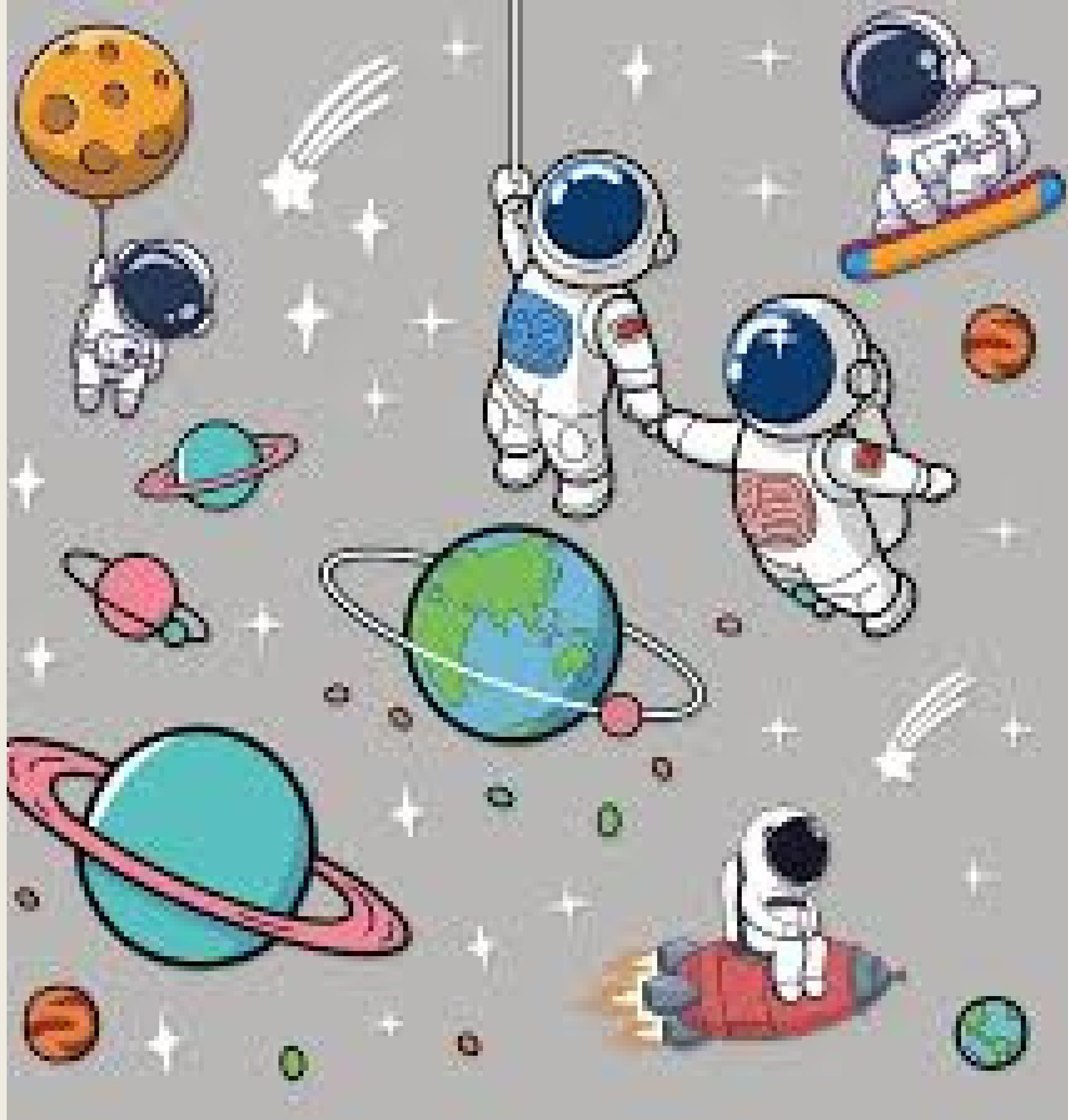
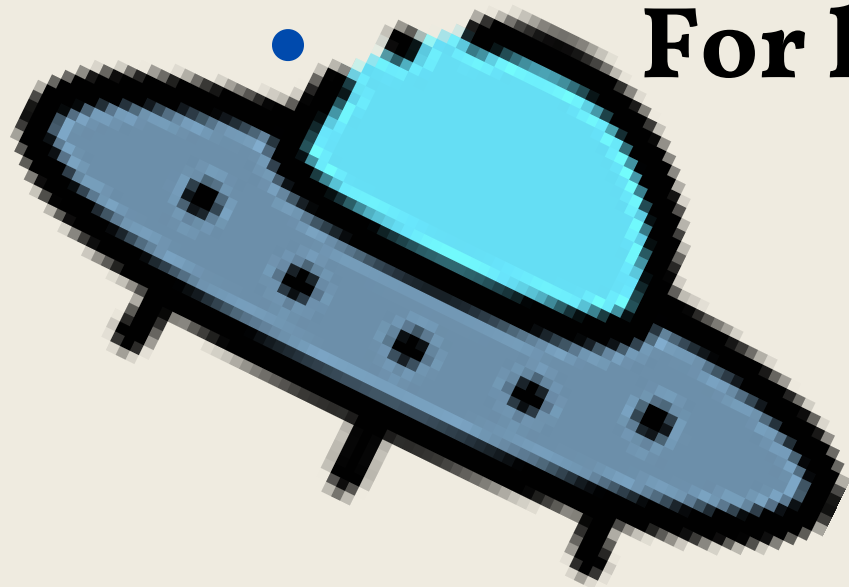
# INTRODUCTION

The space beyond Earth, also known as the Universe, is a place that hides countless mysteries and attracts everyone's attention. A fleet of alien monsters is coming to invade Earth.

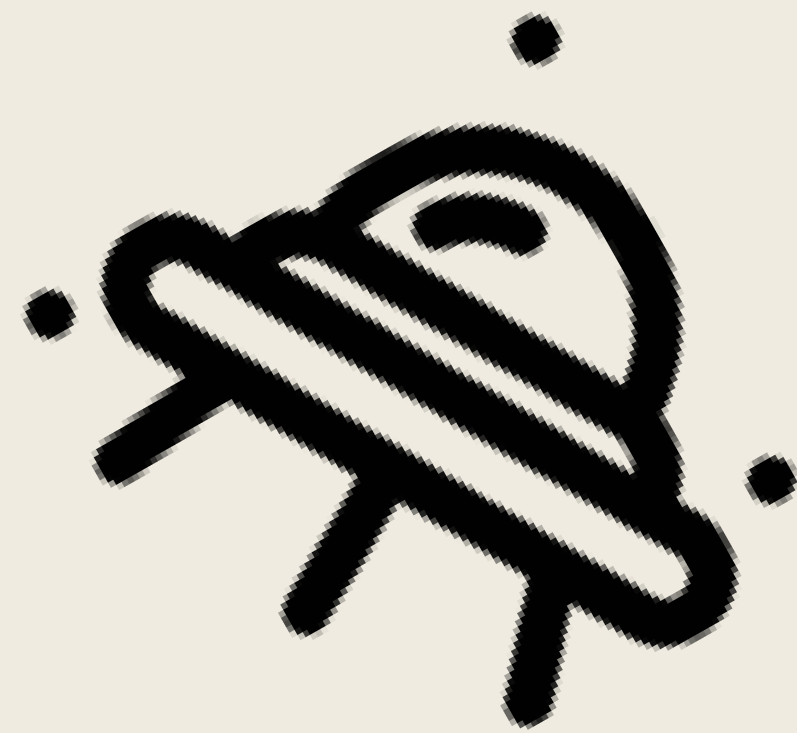
Only you, the last hero of Earth, carry the mission of protecting the Galaxy from aliens. The fate of all creatures on Earth is in your hands. Space Shooter takes you into the fierce battle in space.

# PYTHON

- **Variables**
- **Functions**
- **Classes**
- **For loop**







# PYGAME

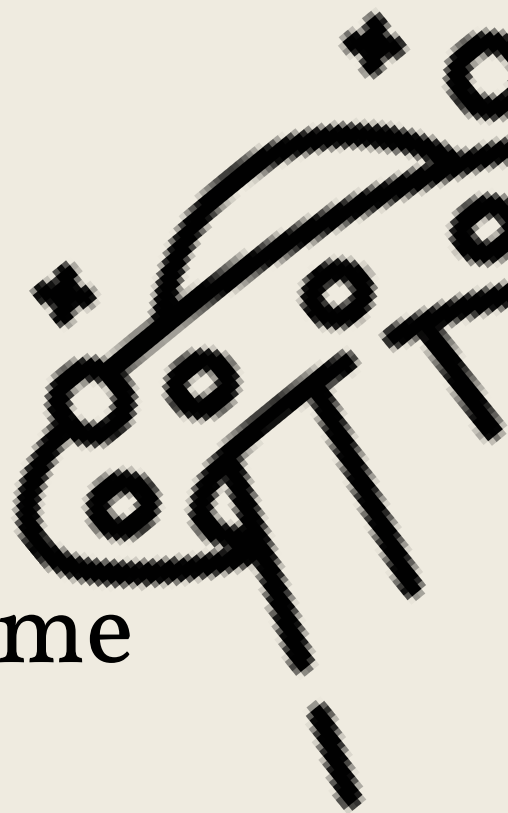


## Install

The best way to install pygame is with the pip tool (which is what python uses to install packages). This comes with python in recent versions. We use the --user flag to tell it to install into the home directory, rather than globally.

```
Python3 -m pip install -U pygame --user
```

After installation, you can import pygame

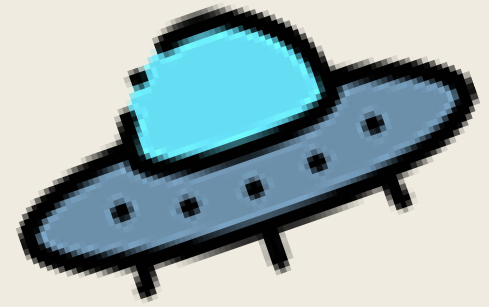


1. `pygame.display`: Configure the display surface

`pygame.display.set_mode()`: Initialize a window or screen for display

`pygame.display.set_caption()`: Set the current window caption

`pygame.display.set_icon()`: Change the system image for the display window



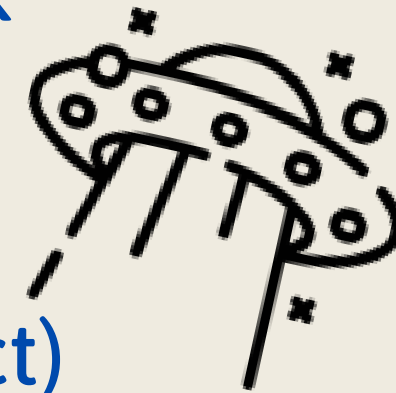
2. `pygame.event`: Manage the incoming events from various input devices and the windowing platform.

`pygame.event.get()`: get events from the queue

3. `pygame.mixer`: module contains classes for loading Sound objects and controlling playback

`pygame.mixer.music.load(filename)`: load a music file for playback

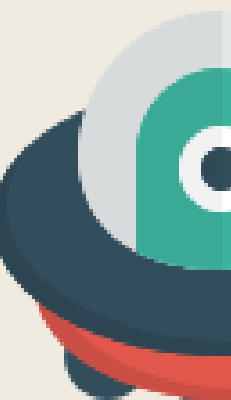
`pygame.mixer.music.play()`: start the playback of the music stream

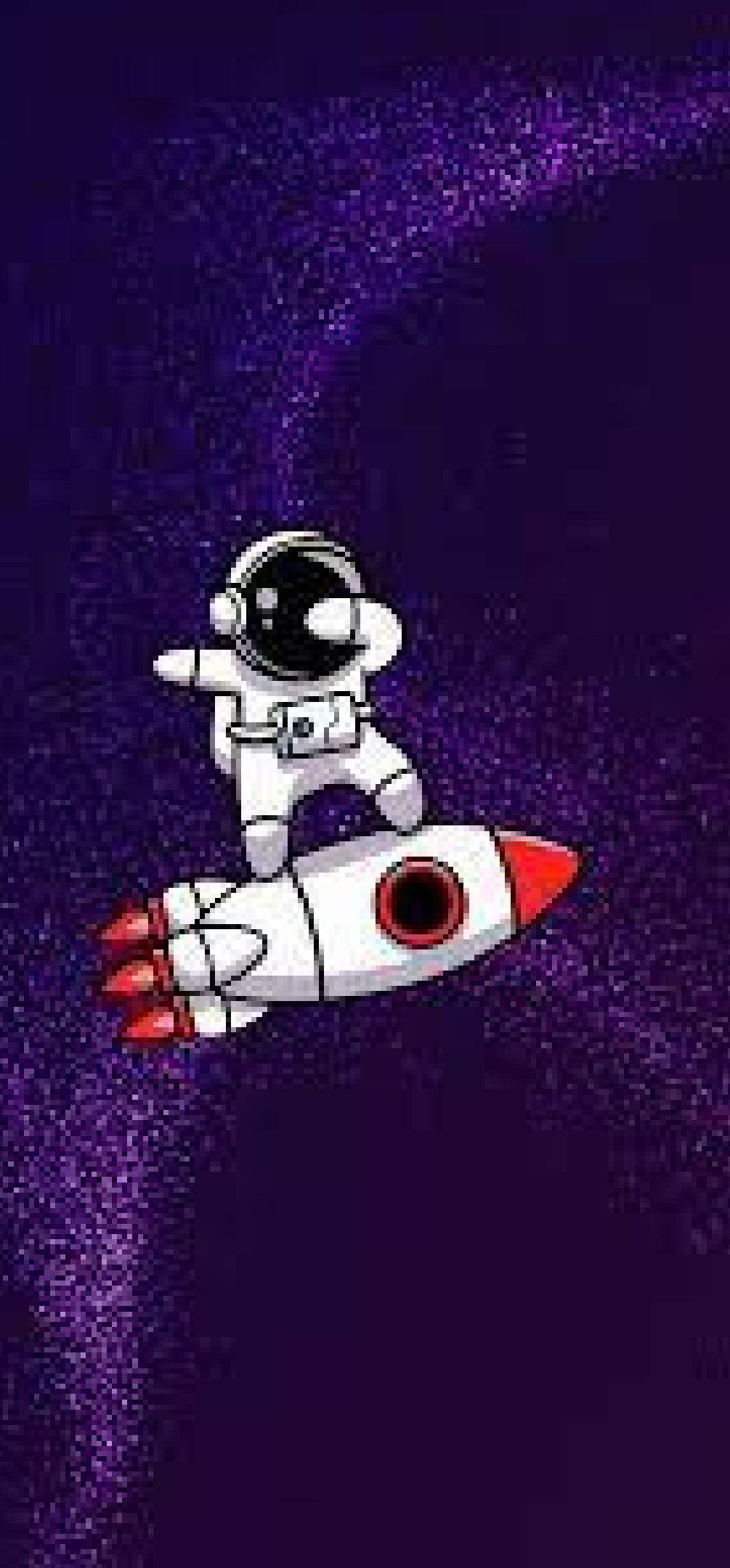


4. `pygame.image.load()`: load new image from a file (or file-like object)

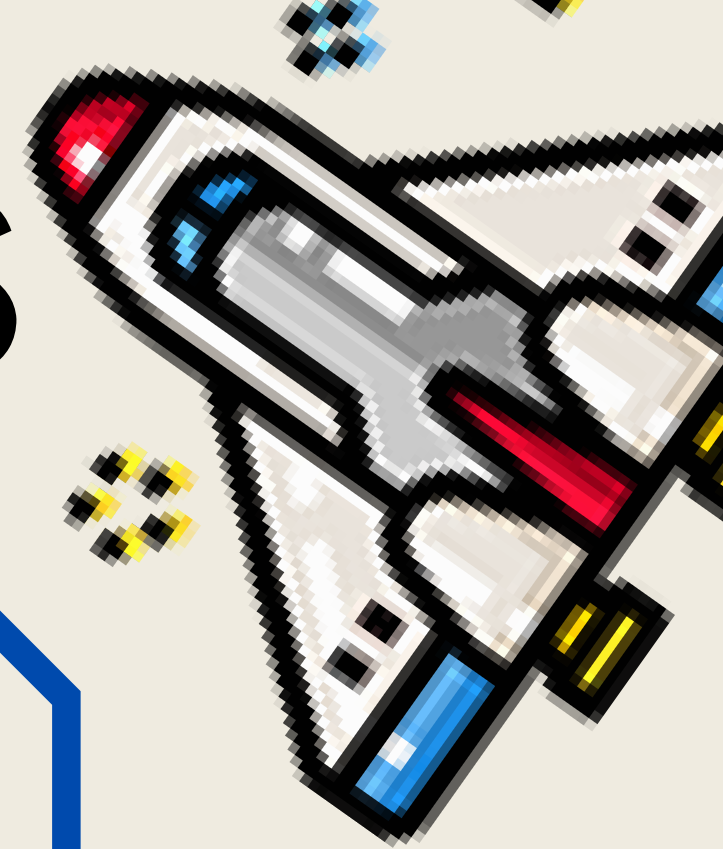
5. `pygame.time.get_ticks()`: Manage timing and framerate, get the time in milliseconds

6. `pygame.Rect(left, top, width, height)`: pygame object for storing rectangular coordinates



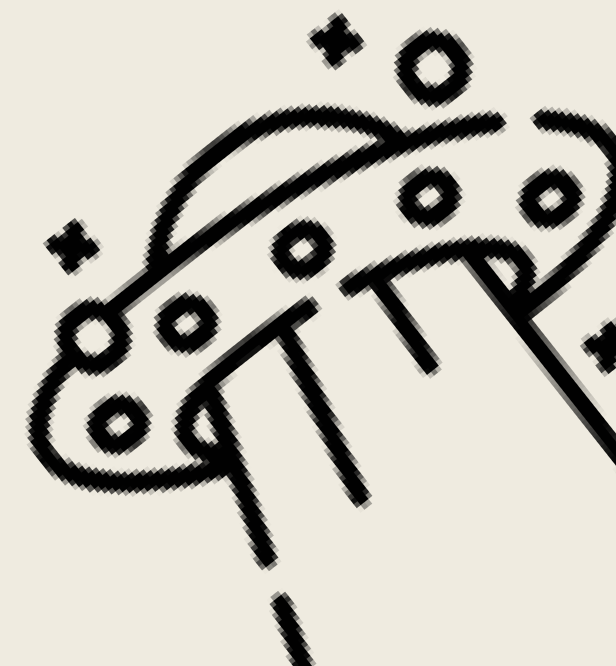


# FEATURES



**Movement: left, right, up,  
down**

**Shoot: space**



# APPROACH

1

## MENU

'Play' button

'Instruction' button

2

## MOVE

Bullet move , enemy move

3

## START

Allow users to enter names

'Next' button

4

## GAME OVER

- When time's up (80s) or 1 of characters runs out of energy
- game overs



# MENU

1. 'Instruction' button: Show people how to use our demo game



2. 'Play' button: If player has the rule of Street Fighter, they can skip 'Instruction' and 'Next'

