

3-PAC: GAME MANUAL

3-PAC is a Pac-Man lookalike developed by **ALGOSUP**, in assembly in Vierzon, France, more specifically by team 3 of the second project of the 2023-2024 cohort.

This game is intended for educational purposes only, not for commercial use, and any commercial use is prohibited by Bandai Namco Entertainment Inc.

Made by a group of 7 students who are beginners in assembly, the challenge was tough but all the stages of specifications, creation and development were a success.

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1 - Safety Precautions

1.1 - Regulations



The game is suitable for all age groups. The game does not contain any violence, bad language or fear.

1.2 - Safety

Caution: This game may feature rapid flashing lights and dynamic visual patterns that could potentially induce seizures in individuals with photosensitive epilepsy.

1.3 - Precautions

The arcade machine, made of wood, is delicate and susceptible to damage. It is therefore strictly forbidden to hit it or try to open it. It is also strongly recommended to avoid placing this machine near a source of heat.



2 - Installation

2.1 - Requirements

Running 3-Pac takes little resources. The game has been developed with four platforms in mind. Even if it will depend on other specifics, the game should run well with any computer with 512MB of RAM or more, a mouse and keyboard as well as a functional screen.

2.2 - Windows / MacOS/Linux with DOSBox

Running 3-Pac takes little resources. The game has been developed with four platforms in mind.

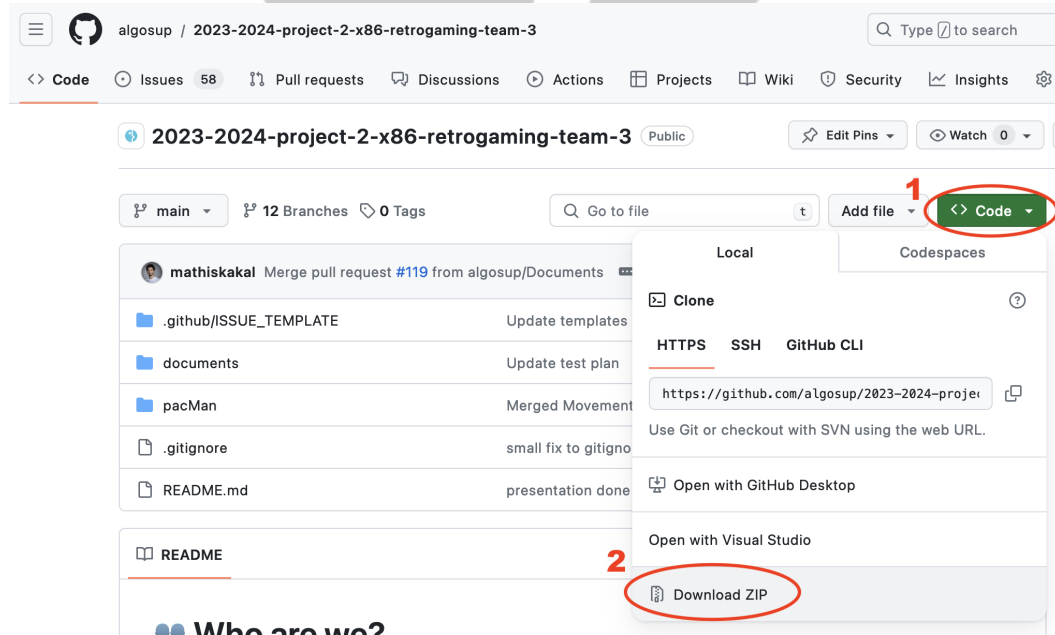
The game requires

Target OSes

- Windows 10/11
- Mac OS 10.13+
- Linux (Tested on Debian 12+)

Steps

- Have an installation of [DOSBox](#) (0.73-3)
- Have an installation of [NASM](#) (2.16.01)
- Download the game from the Git Repo:
<https://github.com/algosup/2023-2024-project-2-x86-retrogaming-team-3>



3-PAE:GAME MANUAL

- Once downloaded, unzip the archive in your desired directory
- Once unzipped, just click the file build-game.sh (if Mac or Linux) or build-game.cmd (Windows)
- This should launch DOSBox, launch the game and then automatically resize the window.
- WARNING: The global DOSBox config file is rewritten in this process, if you have a custom configuration please make sure to back it up. (Refer to DOSBox documentation to locate the config file)

2.3 - x86 DOS (Without DOSBox)

The game should work for most x86 DOS OSes, such as MS-DOS, 86-DOS and FreeDOS for instance.

Refer to the compilation instructions above if you wish to compile the game on your own, otherwise:

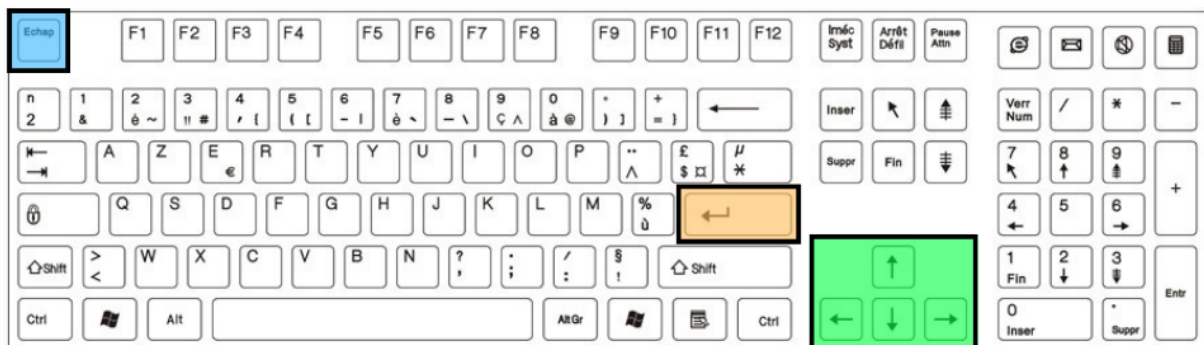
Just execute the .com file located in the /bin folder of the repo (links above)!

Enjoy!

3 - Controls

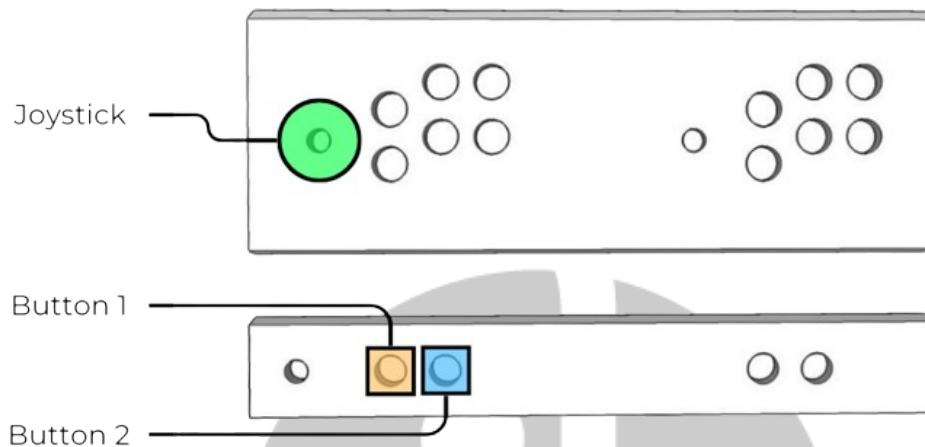
3.1 - Keyboard

To control your character, use the arrow keys on your keyboard. To start a game press the enter key (in orange), or pause the game by pressing the escape key (in blue).



3.2 - Arcade

Use the joystick to control your character. To start a game, press the button 1 (in orange), or pause the game by pressing the button 2 (in blue) in the image below.



4 - Rules



The rules of the game are simple. You have to eat all the gums and fruits without getting caught by the ghosts. If you eat super gum, the ghosts will turn blue and you will be able to eat them. If you eat a fruit, you will earn points. If you eat a ghost, you will earn points and the ghost will return to its starting position. If you eat all the gums and fruits, you will go to the next level. If you lose all your lives, the game is over.



5 - Scoring system





5.1 - Gums





Gums are everywhere on the board, so when you've eaten them all you move on to the next level. When you eat a super gum, the ghosts will be afraid of you and you can eat them.

Gum	Number of points
	10
	50

5.2 - Fruits

Fruits will appear at random times in the game but always at the same place, you'll earn points depending on which fruit you eat (refer to the table below).

Fruit	Number of points
	100
	300
	500
	700

Fruit	Number of points
	1 000
	2 000
	3 000
	5 000



5.3 - Ghosts

The points accumulated by eating ghosts depend on the number of ghosts you manage to eat in a single series.

The first will be worth 200 points, the second 400, the third 800 and the last 1600.

6 - Arcade

The arcade machine offers a seamless, user-friendly experience thanks to its plug-and-play functionality. Simply connect it to a power source and flip the switch to immerse yourself in the game action. When you're done, simply switch off the connected power strip.

