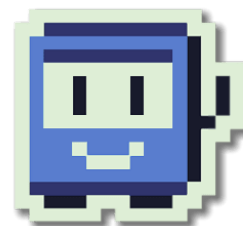


# TIC-80

Very similar and inspired by [Pico-8](#), TIC-80 is a fantasy console for playing tiny games inspired by the 8-bit consoles era. It has never been physically released, but runs as a [software on computers like Windows / Mac / Linux and web browsers](#). The main difference between Pico-8 and TIC-80, besides the fantasy hardware constraints, is that TIC-80 is fully free and opensource, with [its code available on Github](#). They also have a Pro version for faster development, if you like this project, [please support them](#), it's well worth it.



## Fantasy hardware constraints

- Display: 240×136 16 colors
- Cartridge: .tic file, max 64kB
- Sound: 4 channel chiptunes
- Code: Lua, Moonscript, Javascript, Wren or Fennel
- Sprites: 256 8×8 foreground sprites, and 256 8×8 background tiles

This system scrapes metadata for the "tic80" group and loads the tic80 set from the currently selected theme, if available.

## Quick reference

- **Accepted ROM formats:** .tic
- **Folder:** /userdata/roms/tic80

Emulators
<a href="#">TIC-80</a>
<a href="#">libretro: tic80</a>

## BIOS

No BIOS is required for TIC-80.

## ROMs

Place your TIC-80 ROMs in /userdata/roms/tic80.

## "Cartridges" and games format

TIC-80 games are distributed as text files (mostly) with the code, sprites and sounds embedded in

them. You can download hundreds of .tic games, music and programs from the [TIC-80 official website](#).

## Surf mode

If you create a file named `surf.tic` or `console.tic` in `/userdata/roms/tic80`, the standalone TIC-80 emulator will launch in **Surf mode** instead of loading the cartridge. Surf mode is a built-in game browser that lets you browse and play games directly from the TIC-80 website.

## Emulators

### TIC-80

The standalone [TIC-80](#) emulator runs TIC-80 natively using SDL2. It launches in fullscreen mode and supports the built-in Surf browser for downloading and playing games online.

### TIC-80 configuration

Standardized features available to all cores of this emulator: `tic80.videomode`, `tic80.decoration`

### TIC-80 hotkeys


The standalone TIC-80 emulator uses the following keyboard shortcuts:

- **Ctrl+Q** : Quit
- **Enter** : Open menu
- **Ctrl+R** : Reset

## RetroArch

[RetroArch](#) (formerly SSNES), is a ubiquitous frontend that can run multiple “cores”, which are essentially the emulators themselves. The most common cores use the [libretro](#) API, so that's why cores run in RetroArch in Batocera are referred to as “libretro: (core name)”. RetroArch aims to unify the feature set of all libretro cores and offer a universal, familiar interface independent of platform.

### RetroArch configuration

RetroArch offers a **Quick Menu** accessed by pressing `[HOTKEY] + ` which can be used to alter various things like [RetroArch and core options](#), and [controller mapping](#). Most RetroArch related settings can be altered from Batocera's EmulationStation.

Standardized features available to all libretro cores: `tic80.videomode`, `tic80.ratio`,

tic80.smooth, tic80.shaders, tic80.pixel\_perfect, tic80.decoration,  
tic80.game\_translation

ES setting name batocera.conf_key	Description ⇒ ES option key_value
<b>Settings that apply to all cores of this emulator</b>	
<b>GRAPHICS BACKEND tic80.gfxbackend</b>	Choose your graphics rendering ⇒ OpenGL opengl, Vulkan vulkan.
<b>AUDIO LATENCY tic80.audio_latency</b>	Audio latency in milliseconds, turn it up if you hear crackles ⇒ 256 256, 192 192, 128 128, 64 64, 32 32, 16 16, 8 8.
<b>THREADED VIDEO tic80.video_threaded</b>	Improves performance at the cost of latency and more video stuttering. Use only if full speed cannot be obtained otherwise. ⇒ On true, Off false.

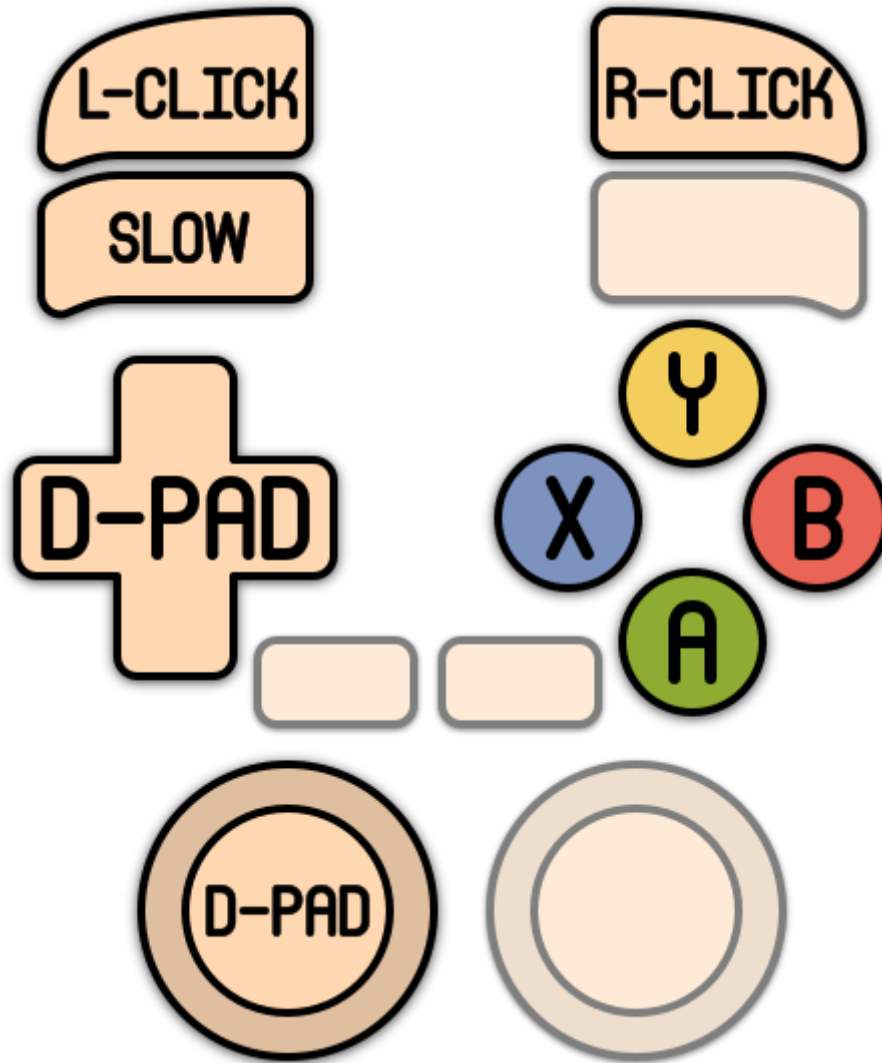
### libretro: tic80

The libretro core also supports the **pad to keyboard** feature, allowing you to map gamepad buttons to keyboard keys.

### libretro: tic80 configuration

## Controls

Here are the default TIC-80's controls shown on a [Batocera Retropad](#):



## Troubleshooting

### Further troubleshooting

For further troubleshooting, refer to the [generic support pages](#).

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