

Moro Game Console Specification

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The key words “MUST”, “MUST NOT”, “REQUIRED”, “SHALL”, “SHALL NOT”, “SHOULD”, “SHOULD NOT”, “RECOMMENDED”, “MAY”, and “OPTIONAL” in this document are to be interpreted as described in RFC 2119.

Software

Implementations of this specification **MUST** use GNU/Linux.

It is **RECOMMENDED** to use a Debian-based distribution, but most distributions will work.

Implementations **MUST** also use X11. It is **RECOMMENDED** to use XOrg.

Implementations **SHOULD** have a very basic window manager, configured such that normal applications will be displayed fullscreen and with no window decorators. The reference implementation will use DWM (<http://dwm.suckless.org/>).

When started, the OS **SHOULD** automatically mount any mass storage drives that are connected.

The mass storage drives **SHOULD** be mounted according to their filesystem labels following the pattern “/media/”.

The filesystem containing the main executable **MUST** be labeled “app”. Additional mass storage drives **SHOULD** be labeled with meaningful names, but they will not be used directly.

The auxilliary drives **MAY** be used for cached data files, cartridge-local game saves, or other application data.

After mounting, the OS **MUST** attempt to execute “/media/app/launcher”.

The file **MUST** be executable.

Its current/working directory **SHOULD** be “~”.

Hardware

Cartridge

There **MAY** be only one mass storage drive in the cartridge. Any additional drives in the cartridge **SHOULD** be used by the application itself, and will not be automatically used by the operating system.

Console

Slot The Slot is the opening that receives game cartridges.

The Slot **MUST** be at least, 10cm long, 2cm wide, with a minimum depth of 2cm, and a maximum depth of 4cm.

The connectors between the console and the cartridge **SHOULD** be out of sight during normal usage.

Cartridge Connectors There are two connectors supported for connecting cartridges.

USB There **MUST** be two female USB connectors on either end of the area immediately below the slot.

They **MUST** be offset toward the center of the slot by 1cm from either side.

They **MUST** also be aligned vertically, with the long edge of the USB connector aligned with the short edge of the slot.

GPIO In the dead center of the area immediately below the slot, there **SHOULD** be a bank of 26 (2x13) female pin headers. If present, they **MUST** be 0.1"-spaced.

There **MAY** be more than 26 female pin headers, but they must be the same spacing and extend on either side as an addition to the primary bank of 26. If present, the additional banks **MUST NOT** have any space between it and the primary bank of headers.