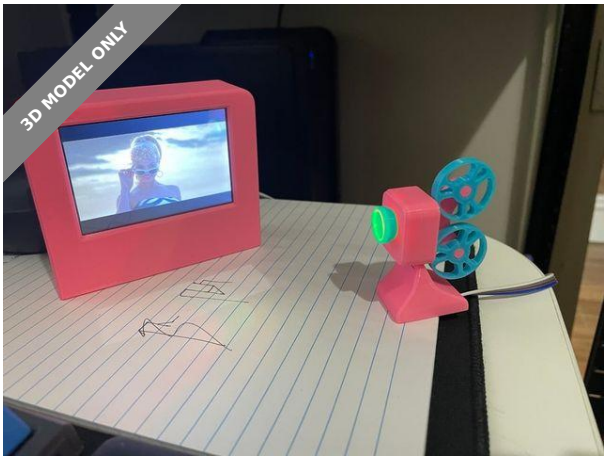

Barbie Drive-In

jsinkers

VIEW IN BROWSER

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Summary

Barbie Drive-In Make your own Barbie style diorama with the drive-in screen and projector.

Hobby & Makers > Electronics

Tags: display led ledmount raspberrypi barbie ledlight diorama raspberrypizero thingiverse lcddisplay

Barbie Drive-In

Make your own Barbie style diorama with the drive-in screen and projector. Video

The screen houses a 3.5in LCD display and a raspberry pi zero. The projector houses an RGB LED. You can use the display enclosure or projector in other projects.

Web interface and rpi setup info is here.

NB not suitable for children due to small parts which may be a choking hazard.

Hardware

- Raspberry Pi Zero 2W
- Waveshare 3.5in LCD display
- duinotech RGB LED module
- 4x M2x4 screws for the display enclosure
- 4x M2x6 screws for the projector

Assembly - projector

- install cable for LED module (NB I desoldered the header pins and soldered wires directly to the module)
- push reels onto reel holder
- push reel holder into projector rear
- install lens in projector front
- locate LED module in the projector front
- screw projector rear onto projector front
- route cable through the projector base
- push projector assembly into the base

Assembly - Screen

- orient the display with the header at the top of the case - the other orientation will not work as the screen is off-centre.
- hot glue screen in place
- insert SD card and cable for projector into rpi header. NB I used a 4-pin JST connector instead of Dupont for clearance between the rpi and display.
- install rpi on top of display
- screw in the rear of the case

Print Settings

Printer Brand:

Creality

Printer:

CR-10

Rafts:

No

Supports:

No

Resolution:

0.2mm

Infill:

25%

Filament: eSun PLA+ Pink and Blue

Notes:

See images for printing orientations - please note some parts have been modified slightly but printing orientation is still the same. Fairly straightforward to print, should be able to print without support.

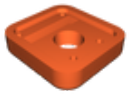
Category: Electronics

Model files

display-enc-rear.stl

projector-base.stl

projector-reelx2.stl

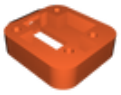


projector-body_front.stl

projector-lens.stl

projector-reel__holder.stl

display-enc-front.stl



projector-body_rear.stl

Find source .stl files on Thingiverse.com

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