BOTELLA DE CASTIGOS

BY RAFAEL LOZANO-HEMMER

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GENERAL IMPORTANT INFORMATION

This short section must be read for proper operation.

BOTELLAS DE CASTIGOS (2022)

BY RAFAEL LOZANO-HEMMER

Technique

Raspberry Pi, square flat screen, aluminum frame.

Description

"Botella de Castigos" is an artwork where thousands of bottles are presented spinning slowly on a display, creating a clock that counts 59 seconds per minute. The bottles come from popular and elite "brands" of water from all over the world, as well as AI generated bottles of brands that do not exist.

The piece mixes chance, time, and product design to comment on drinking water scarcity which is becoming the issue of our time. According to scientists at the Institute of Global Health, drinking bottled water has a 3,500 times higher cost of resource extraction than tap water and 1,440 times higher impact on ecosystems.

Operation

Please refer to <u>Appendix I - Installation</u> for detailed system information and wiring diagram.

1. Connect the computer and the display to electrical power with the supplied power cables. When needed, this piece would require a power adapter that will allow cabling to be plugged into a local outlet. ***** An electrical timer might be of good use here if you want to control its power cycles in a more automated fashion. *****

2. The piece should start automatically after 2 minutes.

General Artwork Behaviors

The artwork shows thousands of bottles of water spinning slowly on a display. The bottles are both real brands and AI generated bottles of brands. The spinning corresponds to a clock that counts 59 seconds per minute.

Maintenance

To clean the display, use a lint-free cloth and LED screen liquid cleaner, such as Kensington Screen Guardian found in most computer stores. Avoid applying too much pressure onto its surface.

The metal frame can be cleaned with a regular all-purpose cleaner. Do not use harsh cleaners or rough sponges.

We recommend cleaning the piece at least every two months.

Placement Instructions

The artwork comes in two pieces: the display unit and a wall mount. Secure the wall mount into a wall using the appropriate screw type for the wall material. The mount's hook should face upwards. The center of the display should be 150 cm (59") above the ground.

After the wall mount is secured, carefully match the upward-facing hook of the mount to the downward-facing hook on the rear of the display. The length of the display's hook should evenly match the wall mount.

Adjust the screws protruding out of the bottom corners of the display unit until the frame is level with the wall.

DETAILED TECHNICAL INFORMATION

Normal Software Operation

After plugging in the power cables, the artwork should start automatically after an initial startup period lasting no longer than two minutes.

To ensure that the artwork runs without disruption, turn the switch on the rear of the supplied keyboard to the off position during exhibition.

Preliminary Troubleshooting Steps

Prior to troubleshooting, please ensure that all cables are plugged in according the wiring diagram (See: [Wiring Diagrams and Connections](#))

After plugging the cables in, nothing seems to happen.

While keeping the whole unit connected to a power source, put the display face-down on the floor with a thick cloth or padding under it to protect the surface. Refer to the [Description of Components](#) and look at the rear of the display:

First ensure the power source entering into the artwork is live.

Then, locate the USB power supply and ensure it is well powered. Do you see a LED light next to the USB ports and is it lit? If not, there could be an issue with the power supply: ensure it is well connected to its power outlet. If no LED is visible on the power supply, you might try to power on a different USB device to confirm it works well.

Then, locate the Raspberry Pi computer. Do you see a flashing amber light next to where the USB cable connects? If not, there is an issue with the USB cable: try unplugging and replugging each USB cable's connector. If this didn't help, try a different USB cable.

If the Raspberry Pi is still not powering on, its USB card could be corrupted or the Raspberry Pi could be dead. Continue to the next steps to ensure the problem isn't elsewhere.

Ensure that the video cable is plugged into the micro HDMI port that is closest to the power cable port and into the display's video input port: unplugging and plugging back the connectors should help here. Consider doing the same with any video adapter provided with the artwork.

Does the display show text that reads "No Signal Detected"? If not, there is an issue with the display's power cable. If yes, please reach out to the Antimodular Studio for further assistance.

The display shows a video, but there are pixelated digital artifacts.

Due to the nature of the work, new versions may produce this effect. If you encounter this issue, contact us.

The display shows the desktop interface.

Double-click the icon labeled *StartVideo.sh* and then turn the switch off on the rear of the supplied keyboard. If the problem persists, contact us.

Troubleshooting Assistance

Prior to contacting the Antimodular Studio with a problem about your artwork, please ensure that you went through the preliminary troubleshooting steps outlined in the previous section.

The troubleshooting process will vary depending on the problem. In order to make the process easier, it is recommended that you collect and send the following information to the studio:

- Date and time when the problem first happened;
- Description of the problem;
- Actions taken so far and conclusions;
- Detailed photographs (or videos) displaying the problem;
- Detailed photographs (or videos) of the suspected faulty component;
- Detailed photographs (or videos) of the whole artwork and its surroundings;
- Personnel involved.

Support (Contact Us)

If you would like support for the piece, please feel free to call Lozano-Hemmer's studio in Canada:

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APPENDIX I - INSTALLATION

Description of Components

This artwork requires the following components:

Component	Description
Square Display	A square resolution monitor: 1920 x 1920 pixels.
Raspberry Pi	Plays back the generated video file.
microSD card	Installed in the Raspberry Pi: holds the OS and video file to be played back. Needs to be 16GB minimum.
HDMI to micro-HDMI cable	Connects the Raspberry Pi (micro-HDMI) to a display.
HDMI-F to DVI-M adapter	Such an adapter might be needed depending on the display in use.

Wiring Diagrams and Connections

In order for the piece to run properly, the artwork should be connected according to the following diagrams.
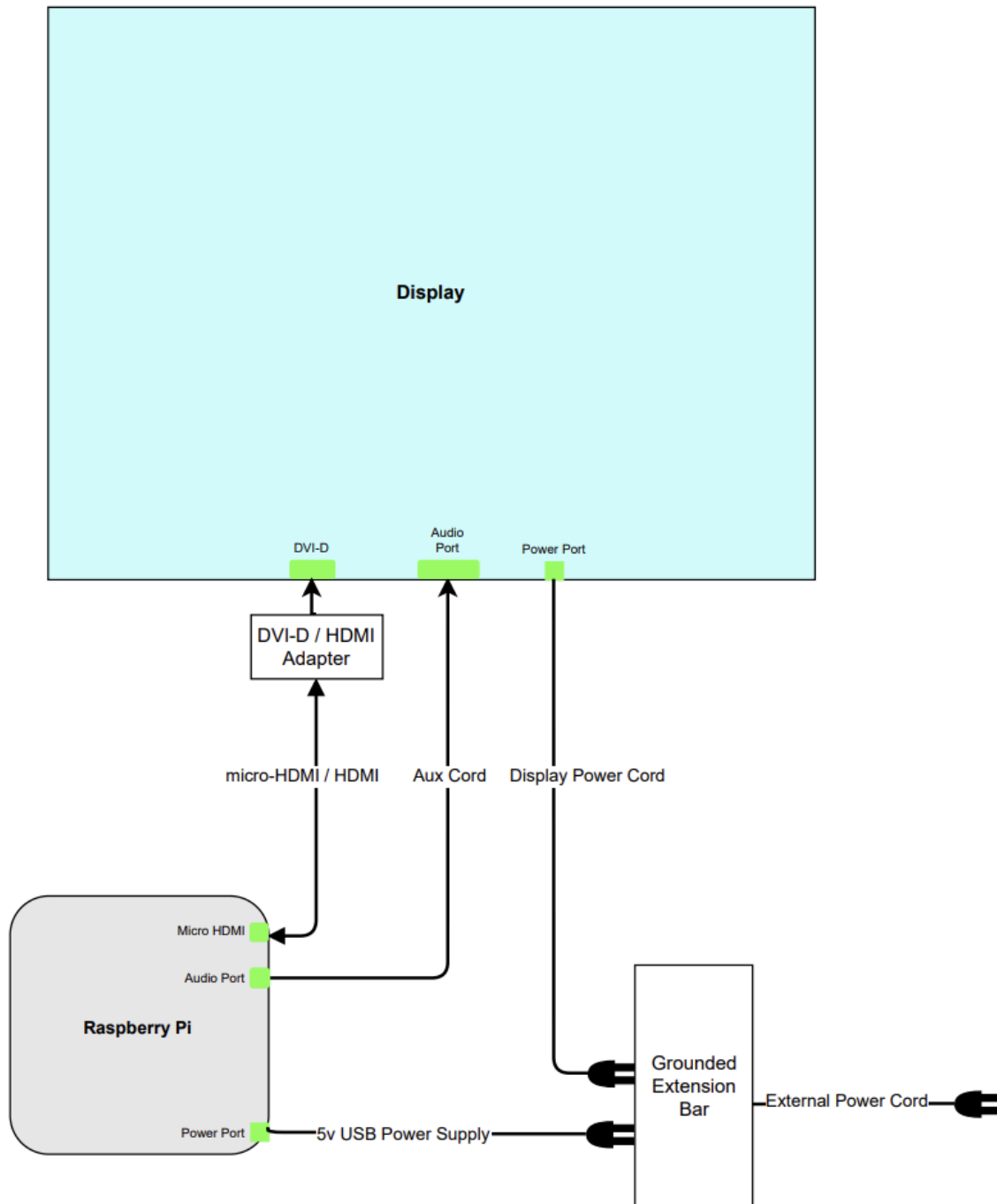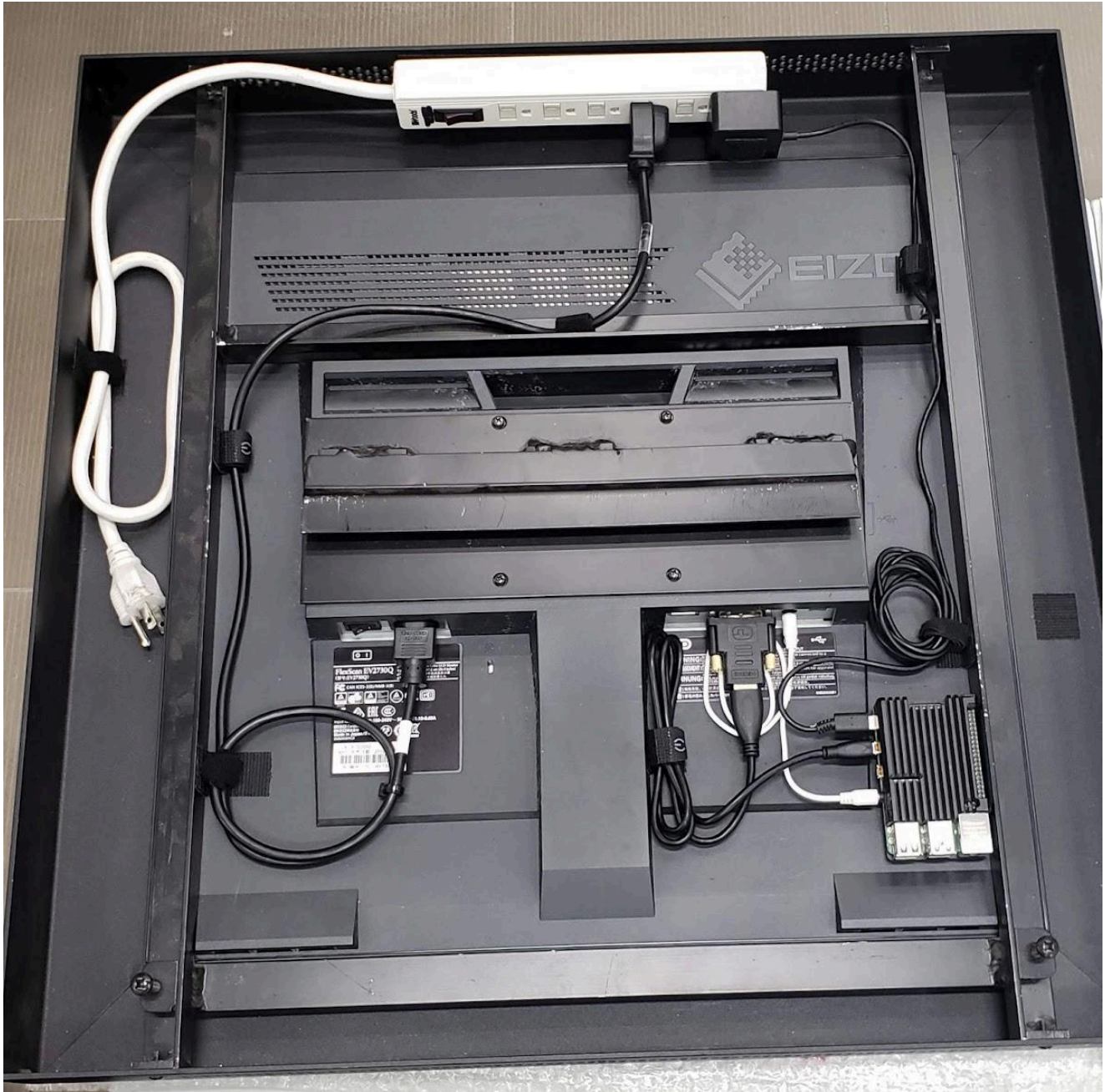
Layout of all the equipment. This version uses a built-in speaker in the display.

APPENDIX II - TECHNICAL DATA SHEETS

Square display

This artwork was first produced with the Eizo EV2730Q display. This display has been selected for the following properties.

While changing the display to a different model is feasible, it should be discussed and confirmed with Antimodular Studio in the first place and never degrade the quality of the current display specs.

Specification	Detail
Resolution	The artwork has been first produced with a display using a square resolution of 1920 x 1920 pixels. Future installations might use a higher resolution, while keeping the same form factor.
Dimensions	The original display has a tile with a 26.5" diagonal (475.7mm x 474.7mm). The display itself is 497mm wide and 501.5mm high.
Pixel Pitch	0.248 mm x 0.248mm
Viewing Angles (H / V)	178° x 178°
Brightness	300 cd/m2
Contrast Ratio	1000:1
Response Time	5 ms

Display enclosure / mounting system

The metal frame has been built specifically for the provided display: replacing the display for a similar model will probably require some adjustments in the frame to accommodate for different dimensions.

The metal frame is painted with matte black Sandtex powder coated paint.

The mounting parts are using the french cleat method, while some screws are installed in the inner frame closer to the bottom part of the display to help level the display against the wall.