

Airborne series

By Rafael Lozano-Hemmer



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General important information

Airborne series (2015)

By Rafael Lozano-Hemmer

Technique

Computer, Windows Kinect One, 4K monitor, optional anodized aluminium and steel frame.

Description

The Airborne series is a set of interactive installations designed to animate literary, scientific, and philosophical texts on the subjects of entropy, complexity, chance and non-linear dynamics. As a viewer stands in front of the work a sensor creates a “heat map” of his or her body and evaporates letters of the text that scroll on screen and which become “airborne”, generating turbulent movements. As the participant moves away the letters cool down and precipitate. The interaction fills the screen slowly, showing tens of thousands of letters, at which point the text fades out, and begins to scroll again from the beginning.

Operation

** Please refer to next pages for components emplacement. **

1. Connect the computer, the Kinect and the monitor to electrical power. Use the supplied power cables.
2. To turn the piece ON, press the power button of the computer for a second then release it. *Important note: Please do not push the button again as this will shut down the piece. Wait at least 2 minutes before pressing it again as the computer might take that long to boot. After 2 minutes (maybe faster), you should see the piece.*
3. To turn the piece OFF, press the computer's button all the way down until you've seen the “Shutting down...” screen appearing and fading to a black screen (shouldn't be more than 2 seconds).
4. If the piece doesn't start within 2 minutes, try to turn on the piece again. If it still doesn't turn on, then hold the power button all the way down for 10 seconds. Then, wait at least 3 seconds and press the power button all the way down for 1 second and you should be up and running again.

Cleaning

Please do not clean the display and Kinect surfaces with Windex or soap. Use a lint-free cloth and LCD screen liquid cleaner, such as Kensington Screen Guardian found in computer stores.

Placement Instructions

The piece should be installed in portrait mode; the vertical center of the monitor should be hung at 150 cm (59 inches) from the ground. The Kinect should be installed on the left, or right, of the monitor, centered on the edge between the black portion at the bottom of the monitor and the brighter area, allowing it to tilt towards the center of the monitor. Ensure that the Kinect is secured.

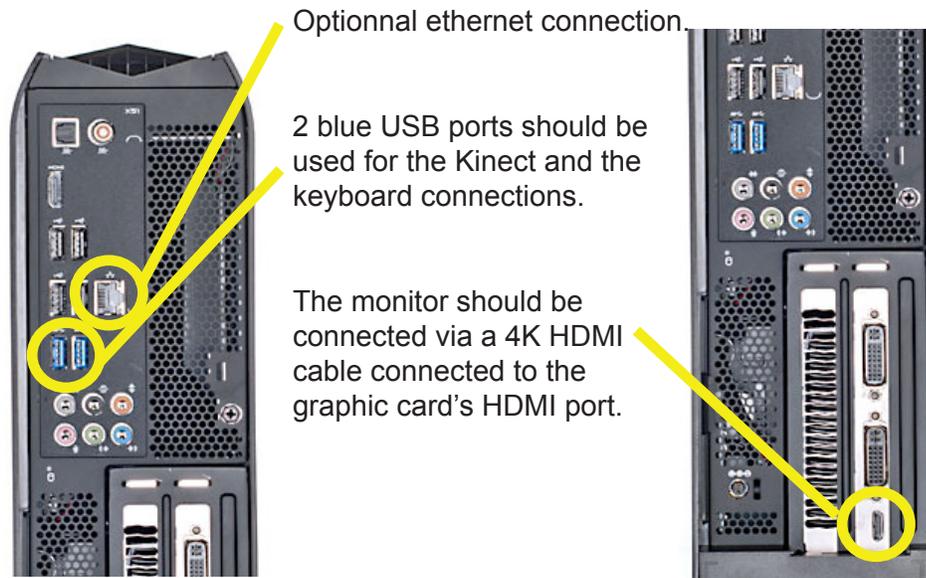
You should prevent the monitor to be installed too close to a perpendicular wall: otherwise, the wall will be visible into the camera view. The distance between the monitor edge and the closest wall should be at least 1 meter: if you want to have a good Kinect depth of field, the distance between the edge of the monitor and the wall should be increased to something around 2 meters.

The piece should be then installed similar to the following:

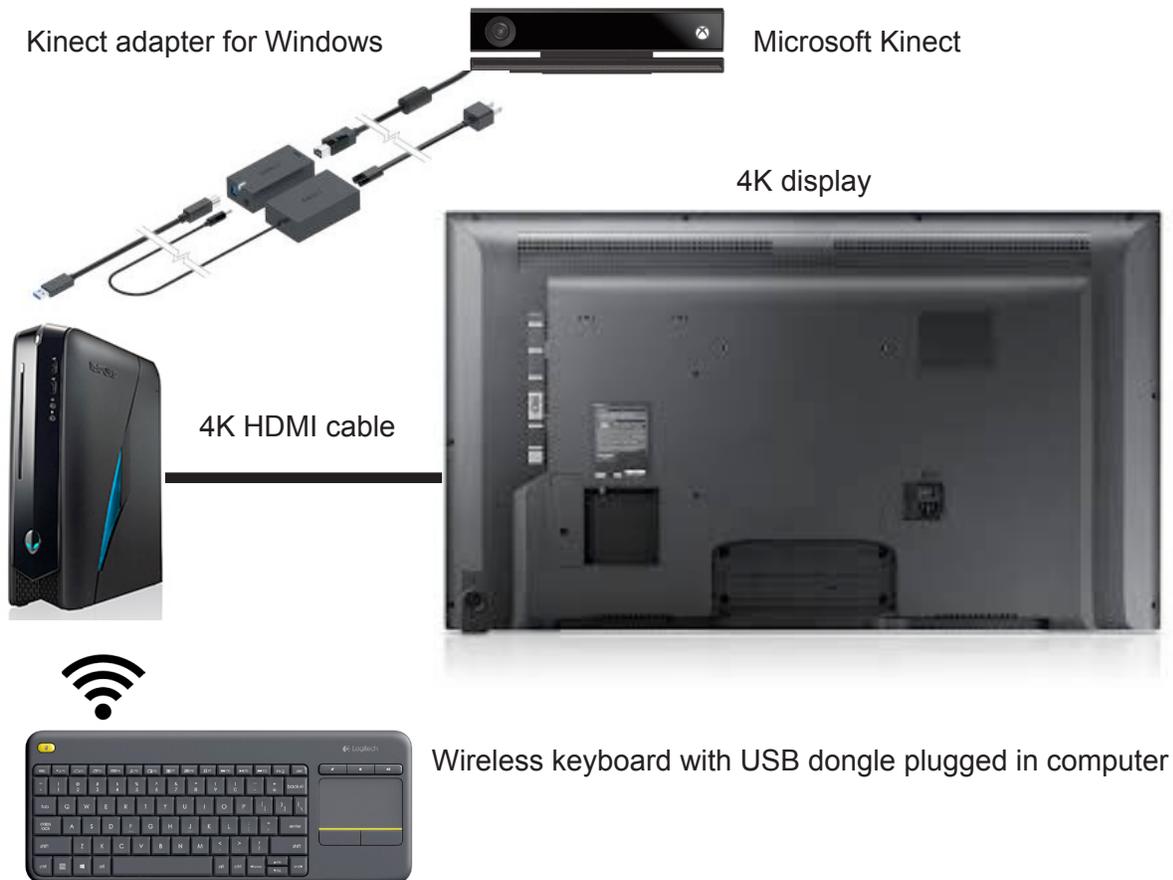


Wiring diagrams and connections

In order to have the piece running properly, the computer should be connected as per following diagrams.



All the components should be connected together as per the following:

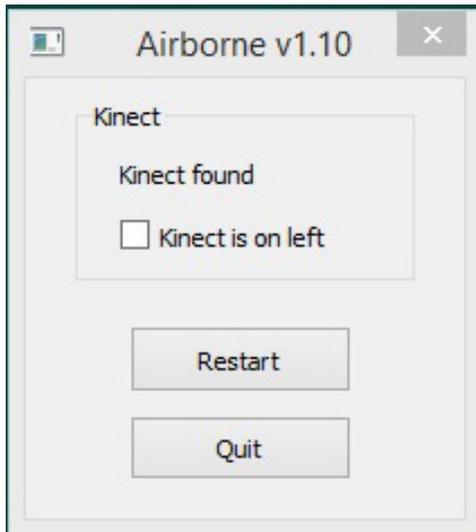


Detailed technical information

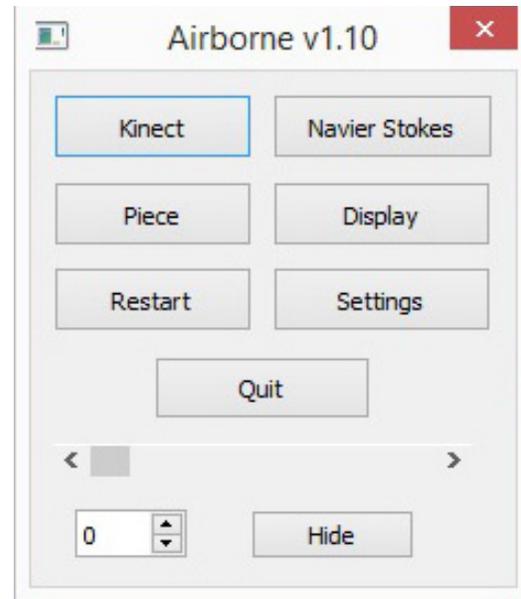
Software

Accessing the piece's menu

To access the menu, you have 2 options: right-click anywhere in the screen to get the standard menu, or do a CTRL + right click in order to access the advanced menu.



Standard menu



Advanced menu

Within the Standard menu

You have 2 options:

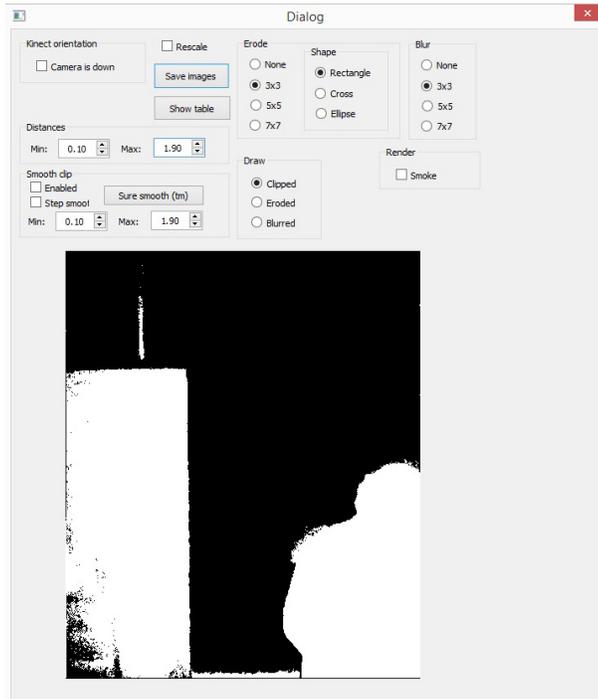
- the first one is the "Kinect is on left" checkbox. Depending on how the Kinect is installed and on which side of the display the Kinect is located, you will want this option to be checked or not;
- the second option is to click on the Quit button, which will stop the software.

Within the Advanced menu

You have 3 important buttons in there:

- The Kinect button;
- The Display button;
- The Quit button.

The Kinect button



In this window, you will retrieve 3 important zones:

1. Kinect orientation:

Depending on which side and which orientation you set the Kinect compared to the monitor, you will check or uncheck this checkbox.

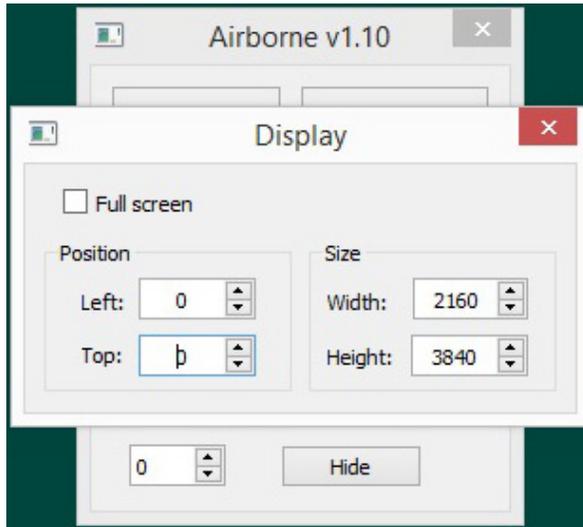
2. Distances:

The Min value should be 0.1 while you will set the Max value to the distance in meter where you want the interaction zone to end.

3. Smooth clip:

You will want this panel Enabled setting to be checked. Its Min value should be set at 0.1. The max value will be either equal or close to the Distances Max value: increasing this value will make the silhouette darker, while decreasing it will make the silhouette lighter.

The Display button



In this window, only 2 settings are important:

1. Width:
Should be set to the width of your monitor (lower than Height). Will either be a value of 2160 or 1080.
2. Height:
Should be set to the height of your monitor (higher than width). Will either be a value of 3840 or 1920.

The Quit button

Clicking this button will stop the software.

Troubleshooting

After pressing the button, nothing seems to happen.

Do you hear any sound coming from the computer? If so, the computer is running and the monitor should display the piece shortly. If not, check if the monitor is well powered and try to turn it on with its remote control, also, check that the monitor's source is set to the same port where the cable is plugged in.

The piece doesn't react when passing in front of the monitor.

Ensure than the Kinect is well connected to its set of two power adapters and to the computer.

The image displayed isn't in the right orientation.

First of all, ensure that the computer resolution is matching the monitor's resolution. In Windows Screen resolution, it should be using a resolution of 3840 x 2160.

- To access Windows Screen resolution: right-click a blank part of your desktop and choose Screen Resolution.
- To change the screen resolution, click the Resolution drop-down list and select 3840 x 2160.
- Once you have the right resolution set, click on Apply then click on Keep Changes.
- The Screen resolution in Windows should be set to portrait or portrait (flipped) mode;
 1. Right-click a blank part of your desktop and choose Screen Resolution.
 2. Click the Orientation drop-down list and select one of the above options.
- Depending on the Kinect positioning and orientation, check or uncheck the software's "Kinect is on left" setting, located in the Standard menu.

Support

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

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