nialli™

HARDWARE CONSIDERATIONS

Building your collaboration space

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Why invest in your physical space?

One of the biggest challenges facing modern construction projects is communication siloes. The average project has numerous organizations involved, dozens of decision makers and multiple applications getting used, making it easy for teams to lose sight of the big picture.

The best way to address these barriers is to bring everyone together in a dedicated space for collaboration - a **Big Room** (or Obeya). People work more effectively if they can be up in front of a schedule rather than huddled around a laptop.

For this reason, Nialli Visual Planner is purpose-built to be used on interactive displays. While the application also works on standard devices, touch displays provide the optimal experience for group collaboration.

Won't this be...pricey?

Good news! The hardware costs for interactive displays have become significantly more affordable in the last decade, putting this type of collaboration in reach for construction projects of all sizes.

There is a wide array of solutions tailored to every budget and use case. You'll just need to choose what's best for your situation.

Choosing the right interactive display

Choosing the right display ensures smooth performance, intuitive interaction and a productive planning session. While Nialli Visual Planner will run on almost any touch display that can launch a web browser, not all touchscreens are made to the same size and specifications.

Here are some key factors to consider when choosing your interactive display:

How big of a digital planning wall do you want to create?

The wider you go on display screens, the more weeks in your schedule will be visible and the more users you can have interacting at once.
- Nialli Visual Planner supports linking together up to 3 interactive displays to create one extended planning wall running off one computer.
- Because the application is cloud-based, you can have an unlimited number of separate instances of the application running (laptops, mobile devices, secondary locations, etc.)
- Common display widths include **65", 75", 85", 92"** and **105"** displays
- We recommend displays with a minimum **resolution of 4K** (3840 x 2160 pixels), **350 nits or higher** in brightness and a **contrast ratio of 1000:1** for optimal performance.

What type of touch works best for your scenario?

- **Infra-red (IR) touch technology** is the most economical option available, using a grid of sensors to detect when an object or hand is close. The downside is that these displays can sometimes be prone to picking up accidental touches and tend to have a wider bezel around the perimeter of the display. If dirt or dust gets trapped in this bezel, it can affect screen performance.
- **Projected capacitive (PCAP)** touch technology is what is used in modern smartphones, using a conductive grid underneath the screen. While more expensive, PCAP offers highly accurate and responsive touch. The grid sits behind glass, which makes the display bezel smaller and lighter than an equivalent IR screen. PCAP generally offers more points of touch, making it ideal for collaborative meetings.

How important is durability and ruggedness?

Consider the type of environment you will be putting your display(s) in. If your jobsite is particularly prone to dust, you may want to consider an IP rating of **IP65 or higher.**

You will also need to factor in display ruggedness if your display is going into a jobsite where heavy vibration is a concern (or where users may be rough with handling). **Ruggedized models** have features like reinforced glass and/or shock resistant mounting.

Finally, consider the length of time you would like for your display(s) to last. It may be worth paying more for **extended warranty** and ensuring you buy from a reputable vendor to extend the lifespan of your display.

What else should you consider?

After you decide on your display configuration, there are a few other technology elements to consider for your space:

- Dedicated computer with adequate graphics and processing power to run your display setup.
- Stands or wall mounting units for each display.
- High performance AV cables. Use what is recommended by the display manufacturer.
- Stable and secure internet connection.
- Wireless keyboard and mouse.

If you intend to use the space to host remote meetings, you will also need to invest in the following:

- **Quality web camera(s)** – 4k resolution, consider setups with zoom functionality to show different areas of the room.
- **High quality audio coverage** – dedicated microphone/speakers to ensure all participants can be heard.
- **Conferencing platform** – Consider configuring your space as a Microsoft Teams® Room or Zoom® Room so participants can quickly join and share information.

For more information on technical considerations and specifications, please visit the Nialli knowledge hub.
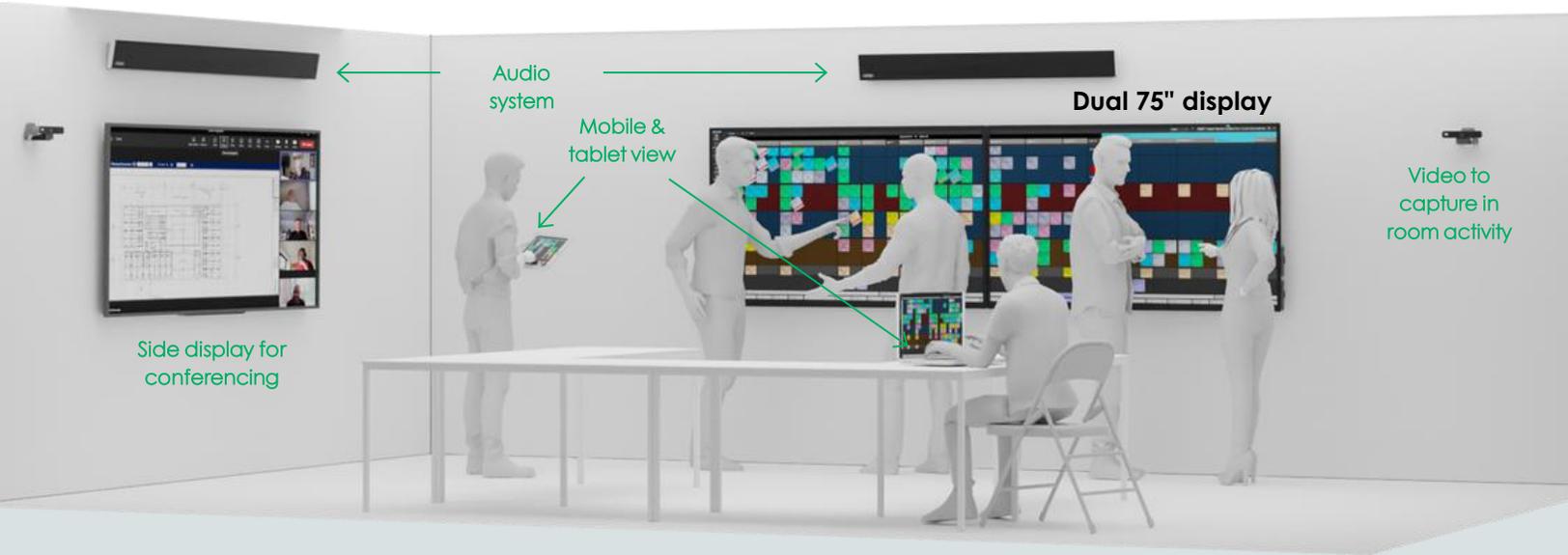
Optimal computer specifications

Powering multiple high-resolution touch displays requires more graphics and memory power than what is offered in most standard computer setups.

To ensure proper performance, consider these PC specifications.

Processor	Intel i7 – 7th Generation Processor
Memory	Minimum 32Gb
Hard Drive	Minimum 256Gb SSD
GPU	Nvidia T1000 with 8Gb dedicated graphics memory
Video Ports	2 x DisplayPort OR 2 x USB-C supporting Thunderbolt
USB Ports	Minimum 4 x USB-A ports (for touch control when using DisplayPort video) Minimum 2 x USB-C ports (if using USB-C for video out / touch control)
PC Profile	Desktop / mini-tower is required for Nvidia GPU

Choosing the right layout

There's lots of flexibility in how you can design your space. Consider how many people you will have participating in your meetings, the size of your site trailer and how many weeks of your plan you'd like to have visible at once. Here's some configuration options for scale.

Audio system

Mobile & tablet view

Dual 75" display

Video to capture in room activity

Side display for conferencing

Single 81" display

Dual 85" display

Triple 75" display

Triple 86" display

Dual 81" display

Dual 105" display

Frequently asked questions

Does Nialli sell hardware?

Nialli is a software company and does not sell hardware. However, we are happy to make recommendations based on your setup and refer you to a hardware provider.

Can I use Nialli Visual Planner on a non-touch display?

Of course! While interactive displays provide the best in-room experience for users, Nialli can run on any browser-connected device using the Google Chrome browser (laptops, PCs, phones, tablets).

Where can I source hardware?

Hardware providers vary by region. Reach out to Nialli sales for recommendations.

Do you have recommended installers?

It varies by region and what type of displays you're installing. Our team is happy to refer you to an installer if we know of a trusted entity in your region.

How long does the average display last for?

It depends on the type of display and how much use it gets. Average manufacturer warranties are 1 - 3 years. Extended warranties are available. With proper care, screens can easily last for 5 - 10 years.

I don't have the budget for this right now. What are my options?

There are several options available. Consider purchasing older model or professional refurbished displays for significant cost savings. We also recommend talking to an AV/IT provider! Many can offer financing and/or equipment leasing packages.

Another lower cost option is to use Nialli Visual Planner on regular TV monitors. You will just need to ensure your users have a way to contribute to the plan (such as accessing the application from their phone or tablet).

Nialli™ Visual Planner

Nialli Visual Planner helps construction crews stay on schedule and see the big picture.

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