

Digital Displays for eSports

Selecting the right technologies to enhance the experience



Video games have come a long way since we played Super Mario Bros. with friends in our living rooms. At the competitive level, professional esports events now attract thousands of fans to arenas and are streamed to massive audiences worldwide. The esports market is forecast to surpass \$1.5 billion by 2023.¹ ESL Pro Tour's StarCraft II, League of Legends world championships, FIFA eWorld Cup, and Dota 2's The International championship are among the high-profile circuits and events offering millions in prize money.

Beyond the big-dollar professional extravaganzas, smaller-scale leagues and competitions have also become popular spectator events, with professional and amateur teams – as well as college² and high school³ squads – battling it out. Some colleges are now offering scholarships to esports athletes, and both colleges and high schools are installing purpose-built esports facilities to boost their esports programs.

Because all of the action in esports takes place on virtual playing fields, high-quality digital displays are indispensable to the experience. Players favor clear, crisp monitors with fast response times and extremely low input lags to keep pace with the fast action of the games. To ensure spectators won't miss any of the play, venues hosting esports events use a wide range of large-screen digital displays, including dvLED video walls, LED displays, and projectors. Let's take a closer look at how these three types of displays can enhance the spectator experience at an esports event or installation.

Engaging viewers throughout the venue

Spectators at esports events watch the action on large screens. Depending on the size of the space, host facilities typically use either large-format LCDs (liquid-crystal displays) or dvLED (direct-view light-emitting diode) video walls. LCD screen sizes extend up to 98 inches, and dvLED video walls can be assembled to almost any size and customized into different shapes.

Projectors are another viewing solution for some venues. In addition to displaying the game action, they can be used for projection mapping. In a projection mapping setup, multiple projectors are synced to showcase entertainment or mood-setting content on either flat or unconventional surfaces – including outdoors at night. A familiar sight at NBA games, projection mapping provides a wow factor that ramps up crowd enthusiasm during breaks in the action.

The need for digital displays at larger esports events extends beyond the competition space. Green rooms are outfitted with displays so the athletes can watch the action while waiting their turn to compete. LCD screens throughout the venue can display the live feed, promos, and other content. In the broadcast booth, commentators use LCD displays with touch overlays to provide commentary on the action.

Digital displays are also integral to large esports events outside the venue. They can be used to show promotional content to pump up fans as they arrive for the event. When the competition is in progress, outdoor displays can also provide live feeds to overflow crowds and passers-by.

Considerations

To maximize spectator enjoyment, you want to ensure that the right technologies are in place. Selecting the ideal displays for an esports event or purpose-built esports facilities requires taking several key considerations into account.

Viewing Distance

Large digital displays provide bright, vivid images that grab viewers' attention and interest. Whether you're considering an LCD, dvLED, or projection solution, a key issue to address is determining how far your viewers will be from the screens. That will help you determine the optimal resolution for your installation.

If viewers will be standing close to a display, you will need a higher-resolution display that features a greater quantity of pixels. For example, for dvLED panels, pixel pitch measures the distance between the center of a pixel and the center of an adjacent pixel. A panel with a smaller pixel pitch (measured in millimeters) has more pixels overall and provides higher resolution images. That's important because the tighter pixel arrangement means viewers standing close to the display will not notice the individual pixels, which distracts from the visual experience.

If viewers will be farther away from a screen, a lower-resolution display will meet your requirements at a more budget-friendly cost. These displays will have fewer pixels, but they will still provide a quality viewing experience from appropriate distances. In general, look for a digital signage provider who offers displays with a wide range of viewing distances (or resolutions) so you can find the ones that match your viewing distance needs.

Viewing angle

Viewing angle refers to the positions from which viewers can adequately see an image on a digital display. It's expressed in terms of a display's horizontal and vertical viewing angles. For example, a 160/120 viewing angle means that the screen is viewable up to 160 degrees horizontally and 120 degrees vertically. The greater a display's viewing angle, the more viewing coverage it provides – which means that fewer displays will be needed to ensure everyone in an esports venue has a great view of the action.

Ambient light

The amount of light in a space has an impact on which display technology will be best-suited for it. LCD displays and dvLED video walls provide extremely bright, crisp images and are recommended for bright interior spaces and outdoor use. Projectors usually work best in rooms with lower levels of ambient light, and they're well-suited for outdoor use at night.

Service and support

To ensure that you find the best digital esports signage at the lowest total cost and highest level of reliability, look for a solution provider who will be there every step of your journey. A skilled provider will take the time to help you plan the ideal signage solution for your space. Its team will conduct a site survey to measure and determine the project needs to ensure your goals are met. Its technicians will deliver a flawless installation of the complete solution and explain how to use the solution. And for peace of mind, make sure the warranties provide the coverage you need.

Budget

Budget is always a concern, even for million-dollar esports events. By choosing their display solutions wisely, arenas and promoters can provide spectators an immersive, satisfying viewing experience without breaking the bank.

For events and venues with limited budgets, such as college and high school esports facilities, projectors may be the most cost-effective solution for new builds and for retrofitting existing spaces into an esports venue. Projection is also a technology that educational institutions have great familiarity and comfort with.

Finding a trusted partner

As esports continue to grow and prosper, arena owners, promoters, signage integrators, building developers, and other stakeholders will increasingly seek out the best digital displays to engage fans and athletes alike. A trusted technology partner who makes signage simple can ease the process of selecting the right solutions for your needs. For more



information on digital signage for esports and other applications, visit Sharp NEC Display Solutions at: <https://www.sharpnecdisplays.us>.

Sources

1. Business Insider, Esports Ecosystem Report 2021, www.businessinsider.com/esports-ecosystem-market-report.
2. Campus Technology, 6 Colleges Launch or Expand Esports Programs, campustechnology.com/articles/2019/09/24/6-colleges-launch-or-expand-esports-programs.aspx.
3. High School Esports League, Compete for Esports Glory at Your School, www.highschoolsportsleague.com/.

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