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ROBE®

31.3.2021

RoboSpots in New League for LOL Worlds 2020 Final

Products Involved

RoboSpot™   BMFL™ Spot   BMFL™ FollowSpot LT

League of Legends' World Championship 2020 Finals was staged at the new Pudong Football Stadium in Shanghai, China, a high-profile, hi-energy event notable for many things, which – in addition to being an eSports calendar highlight – included a spectacular production lighting design by Mat Stovall of LampedUp and his team who helped produce dazzling opening and closing ceremonies plus seat-edge atmospheric engineering, boosting the buzz, thrills and spills of the gaming action.

Thirty-seven Robe RoboSpot systems were part of a large lighting rig for the event, specified by Mat and associate LD Trevor Stirlin Burk of Visual Noise Creative, and supplied by Christie Lites out of their UK and US bases … to the event's main technical contractor, Creative Technology (CT) Shanghai.

Robert Roth coordinated for Christie Lites, working closely with the CT Shanghai team headed by Aaron Ross Durdin, Sam Tibble and Daniel Sun.

Mat wanted RoboSpots on the event for several reasons. He needed "a quality white light source" to key talent for the opening and closing shows and during the gaming action, with capacity to cover specific choreographed aspects, plus coach and team 'moments' throughout the tournament.

With a massive performance area to cover in the center of the stadium, Mat was not sure that it would be possible to physically get operators into all the required locations, so RoboSpot was his go-to solution.

The 37 x Robe BMFL moving light units were positioned everywhere – on the downstage trusses, above and below the two giant LED screens onstage that flanked a huge central scenic Paifang arch, and on top of this elegant 33-meter-high centerpiece of Joe Kale's

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impressive scenic design which was based on the overall show creatively developed by Riot Games' producers with Possible (Michael Figge).

The breakdown of the RoboSpot systems was 16 x Robe BMFL FollowSpot and 21 x BMFL FollowSpot LT (long throw) luminaires, all with integral cameras, together with 37 active base stations, each linked to the individual lights.

They were operated by 14 people, sometimes jumping between different systems depending on which section of the show was playing out at the time. Most operators had not used a RoboSpot before, but they all picked it up quickly and efficiently.

The most experienced operators stayed on all the 'hero' action downstage, while others were covering the back lights and some of the more creative angles.

The massive task of coordinating this with a mostly non-English speaking crew was relished by Zach Matusow from the international team, who is highly experienced in the field. He also called all the spot cues working closely with CT Shanghai's crew who helped with the translating and ran some of the RoboSpot units.

The operators were corralled in a conference room underneath one of the main grandstands, with no windows or line-of-sight to the stage. They did however have multiple monitors showing broadcast camera feeds giving them eyes on the action independently to what was showing on their own separate RoboSpot BaseStation screens.

By far the most challenging element of installing a RoboSpot system of this magnitude was engineering the control, a task tackled by network architect Tom Buddingh, also part of Mat's core international crew who were coordinated by production LX Jason Mack.

He utilized a design he had previously successfully used on smaller RoboSpot systems which involved managed gigabit switches, fiber-optic cables, and Luminex DMX nodes.

Being out of the country during a pandemic and not in a position to build a mockup system in advance to verify that the plan would work was galvanizing, even though he was confident that with the caliber of the team working on this, everything would be sortable!

The RoboSpot control network consisted of 17 x Gigabit fiber optic switches and 15 Luminex DMX8 Mk2 nodes, which were essential to act as bridges and transport the RDM communication needed to link the RoboSpot controller and the moving head with the attached camera.

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Tom configured the follow spot network to have 40 x VLAN's (Virtual Area Networks) essentially running 40 different networks over a single piece of fiber or copper wire which allowed each camera to have its own "network" link back to the controller, with the operator only able to see a single camera on each controller.

This eradicated the chance of a RoboSpot controller viewing a camera that it was not controlling!

In the control room with all the RoboSpot BaseStations were six managed switches, 4 x 24 port non-managed gigabit switches, and six Luminex Nodes which enabled each controller to have a discrete feed from the appropriate camera, RDM communication to the appropriate head, and receive signal from the lighting console, for tweaking color, intensity, and other parameters.

Tom also designed the main MA-net / sACN "show lighting" network to control the approximately 3500 fixtures on the main production lighting rig, kept as a completely separate network to reduce traffic on the "RoboSpot" network.

To easily accomplish this, he took a hard DMX feed from a node attached to the "Lighting Network" into a node connected to the "Spot" network, reducing the hundreds of sACN universes to just five.
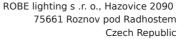
With the RoboSpot heads so spread out across the rig and the 100-meter limitation of copper ethernet cables, Tom needed a way to distribute the control throughout the venue.

"I implemented a hybrid trunk / spider network topology with a couple of main hubs splitting off to distribution points on trusses which accommodated between 2 and 8 RoboSpot follow spot heads. These four "hubs" and eight "Spider" distribution points were all connected with Neutrik OpticalCon Quad Fiber cable."

After the initial calibration, with a little tweaking of the managed switch settings and a small change to the cable connections, he had all the images stable on all RoboSpot controllers throughout the show period!

The network elements were also supplied by Christie Lites.

Riot Games' technical production company ConCom has been Mat Stoval's client for nearly 10 years, and he was production lighting designer for their XR playoffs show as well as the finals. Given the scope of this project and the demands on his time, he asked Trevor to

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collaborate and help keep an eye on the Finals from the US while Mat was on site in Shanghai.

Mat and Trevor have worked together on multiple lighting and design projects over the years embracing concert tours, theme park installations, art creations, corporates, and special events.

Trevor worked from his home office in LA, with lighting director / programmers Tiffany Keys and Mike Appel working remotely from LA and Florida, respectively. Early Bird Visuals helped Mat and his lighting design team with renders and pre-vis and hosted a Discord session to composite Tiffany and Mike's show files on top of each other so they could see a single image in pre-vis from anywhere in the world.

The gaffers on site were Geoff Knight and Scotty Beck, and Shaheem Lichtmore was in Shanghai programming lighting for the backstage activations, gamer key lighting, and key light for the local host desk. He also programmed the playoffs show.

Joining Jason Mack on Mat's "amazing" core crew were Adam Eldridge, Ron Konsur and Brian Davies who with their hard work and superlative skillsets coordinated the entire installation on-site liaising between the LOL production and CT Shanghai.

Randy Quick was the coordinating Technical Director for ConCom and Marc Hilko the head of global eSports production for Riot Games.

The show directors were Sam Wrench for the Opening / Closing Ceremonies and Riah Chiu for the tournament.

The tournament winners were South Korea's DAMWON Gaming who defeated China's Suning 3 - 1 to claim the 2020 League of Legends World Championship!

Photo Credit: Courtesy Riot Games

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