ROBE lighting s .r. o., Hazovice 2090
75661 Roznov pod Radhostem
Czech Republic

Tel: +420-571-751500
Fax: +420-571-751515
Email: info@robe.cz

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Avolites Diamond 9 Controls Arcadia Dragonfly Lighting & Video

Products Involved

iBOLT™

The power and flexibility of Avolites' D9 lighting console and an Avolites AI Qgen media server (with another for hot backup) running Avo's proprietary Synergy protocol – which works with all third-party NDIs – were at the heart of lighting and video control for Arcadia Spectacular's amazing new live music / performance experience launching their Dragonfly conceptual art installation which debuted at the 2024 Glastonbury Festival (Glasto) in Pilton, Somerset, UK.

Originated and designed by Arcadia's Pip Rush (creative director) and Bert Cole (technical director), the 30-metre-long, 8.5-metre-high biomechanical Dragonfly is built from an ex Royal Navy Sea King helicopter and was surrounded by a 50,000-capacity evolved geometric 'energy field' at the festival.

The sculpture 'awakened' every night of Glasto at 23:30, presenting "Warraloo" a breathtaking 9-minute show developed by Arcadia in collaboration with the Wadjuk Noongar nation of Western Australia and based on the Dragonfly's pupation cycle.

The Dragonfly head is covered with over 200 custom hexagonal and pentagonal LED screens, the legs were pixel mapped, the body was projection mapped, and over 200 lighting and LED pixel fixtures were rigged on the construction and dotted around the Arcadia arena, all vital elements of the production lighting scheme created by Dave Cohen from design studio, MIRRAD.

MIRRAD was also responsible for designing and supplying the full lighting and visual control system and all the related integration.

Music lovers were treated to a sizzling hot lineup of local and international DJs who played well into the night throughout the 3-day festival, and Arcadia also presented its new 9-minute 'spectacular' timecoded performance show – complete with aerialists, fire, lasers, other SFX and massive excitement.

In addition to the Dragonfly, four sets of scenic bull-rush podiums, also created from recycled scrap metal, circled the space, two of them doubling as performance areas for elements of the timecoded show. Six 11-metre-high lighting towers were positioned around the outside of the arena, rigged with – among other lighting fixtures – six of Robe's new searchlight style laser-lightsource iBOLTs.

Dave explained that lighting for the event was 95 per cent operated live or busked – only the Arcadia shows were timecoded, so with operating sessions of 5 hours or more, the Avolites D9-330 was his desk of choice for this style of operation.

"It is absolutely the best option" to combine both these operating MOs (busking & cue stack) as well as facilitating the seamless live operation of both lighting and video, he stated.

A major creative challenge was ensuring that the Dragonfly was well lit and getting plenty of light into the arena and amongst the crowds to help keep the atmos pumping whilst maintaining the structural integrity and look of the Dragonfly as an impressive piece of industrial art.

He and MIRRAD's Sam Werrett operated Arcadia's lighting for all artists across the Glastonbury weekend working in close conjunction with the live visuals team featuring Australian artists Peter Walker and Brad Hammond. They used Touch Designer and Unity to bake these (visuals) onto a UV map, which was mixed by Joe Crossley from Astralprojekt using a MIDI controller.

Sam – thrilled to be working on his first Glasto – explained that D9 features like Timeline, Timecoded Cue Lists, Pixel Mapper plus several others created especially for this Arcadia event were invaluable.

Other features like Align made it extremely straightforward to copy all the positional and other fixture information from – in this case – one tower and apply it to another, which saved time when dealing the parts of the lighting rig hidden from the FOH position which was side-on to the Dragonfly – rather than having to adjust every light!

The D9 console's rotary playback faders were utilised to execute some on-the-fly safety parameters like dimming strobes or lighting that might inadvertently get in performer faces during the live shows.

Using Avolites Synergy to unite the worlds of video and lighting control enabled Dave and Sam to see the NDI previews of the visuals being created and instantly match or contrast colour-wise with lighting and crossfade between outputting lighting and video feeds.

"Avo's history is in live operation," noted Sam, "and the D9's versatility meant we could keep the show fresh and invigorated with new looks and combinations even after a 5-hour plus operating shift."

While those long operating stints were part of the challenge of this event, they were also what Dave and Sam relished.

All the timecoded parts were pre-vizzed in WYSIWYG – using a model of the helicopter – and fine-tuned on site, and they also had a WYG set up on site, networked to the FOH which enabled video and lighting and video to be processed in the same previz environment.

The two D9 consoles – live and backup – were run in multi-user mode, allowing looks, combinations and effects to be prepared and trialled on one and then output on the other as the evening progressed.

Coordinating the AI media server side of the control for MIRRAD was Arran Rothwell-Eyre, one of the original team behind AI, and Greg Haynes from Avo provided additional tech support.

The LED screen design and installation for the head of the helicopter was created by Ben Vaughan and Video Illusions.

The connection between Avolites, MIRRAD and Arcadia goes back to 2012 and the famous Spider and their “Metamorphosis” show. An Avolites console has been running their lighting ever since then, and they first implemented Synergy and the AI servers in 2015 which became a crucial part of their touring shows.

Arcadia’s technical production manager Katie Davies enthused, “It’s great to work with a team who just really get what we are trying to do, and with whom we can build on the knowledge and experience of previous years and stage designs.”

Utilising the Avolites D9 console, AI media server and Synergy for the live visual feeds, helped make Arcadia one of the most talked about areas of Glastonbury 2024, and a consensus of opinion has labelled the Saturday night as “the best” Arcadia show to date!

Photo Credit: Steve Bright


GLASTONBURY


DAVE