



# XPLORE! SCIENCE DISCOVERY CENTRE

Wrexham

**Dextra**  
LIGHTING

## ABOUT THE CLIENT

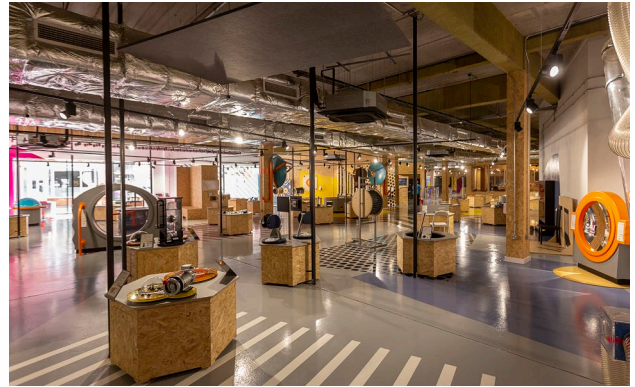
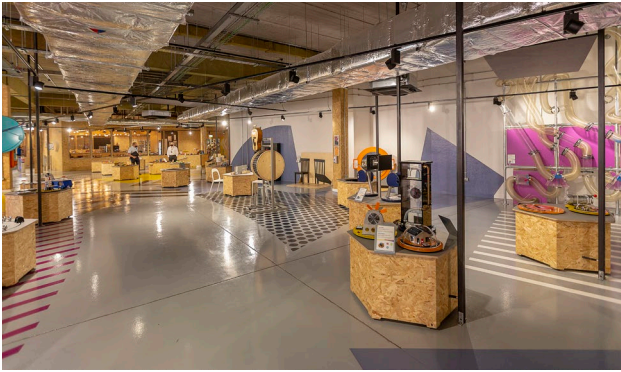
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The Xplore! Science Discovery Centre opened its new science centre in Wrexham in September 2020, carrying on placing science at the heart of the community with the aim of enhancing the knowledge and awareness of science exploration and fun.

Xplore! Science Centre allows all learners the opportunity to develop skills in investigating, imagination, team working, critical thinking and problem solving. In 2019, in its previous home at the Wrexham Glyndŵr University, the organisation delivered close to 203,000 hours of science, technology, engineering, arts and maths (STEAM) activities. The new centre has an interactive exhibit space as well as a purpose-built science shop and a café.

Working with the main contractor Spatial Environments, sub-contractor SELECTRICAL, consultant Futureserv Liverpool as well as architect Day.id, Dextra was appointed to supply lighting for the project that saw the refurbishment of the entire building in the city centre and to include the procurement and installation of bespoke made science exhibits sourced from around the world.

The project was a challenging one, with the refurbishment having a short lead-time of 12 weeks. Dextra supplied full system controls including the multi-controller and DALI Autotest Emergency.



## THE SOLUTION

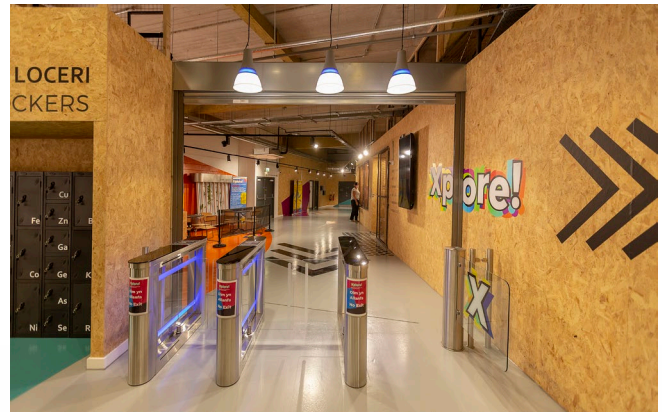
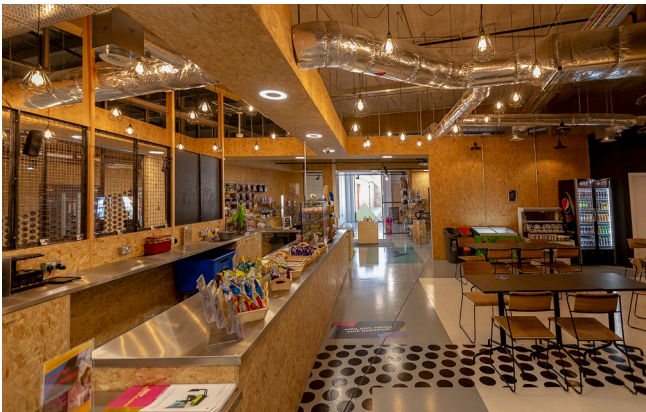
As part of this, 274 meters of Dextra's DALI Track Surface/ Suspended were supplied to help enhance the layout of the science exhibits, alongside black DALI suspended kits in both square and straight formats.

The DALI system offers retailers the ultimate flexibility, enabling them to create and control specific lighting zones to enhance the store environment. The extruded aluminium profiles of this 16 amp three circuit system are available in a choice of three colours and are complimented by a wide array of accessories ensuring complete flexibility in track configurations. This versatility is enhanced with DALI track enabling total control of luminaires for switching, dimming and scene selection. The Hi-Track Vertical was also chosen for installation around the spotting displays, where 122 were fitted with the DALI control and in a black finish.

Dextra's Hi-Track Vertical offers the ideal solution for retail and display lighting. Manufactured from die cast aluminium, the Hi-Track combines a sturdy and durable housing with a modern and attractive appearance. To meet the needs of a wide range of display lighting applications the company offers this product in 1036lm, 1501lm and 2145lm variants. All luminaires are supplied with a black vertical housing and are available with either 25° or 40° beam angles.

Elsewhere on the project, the Ecopak was used in the storerooms and back of house areas of the centre, where 15 were installed. This LED luminaire provides increased energy efficiency and simplified maintenance, giving greater return on investment. With sizes ranging from 600mm to 1800mm, lumen outputs from 2,200 up to 12,000, a range of optic designs including the most popular opal diffuser as well as high rack and ultra high rack for higher mounting heights the Ecopak can be tailored to suit applications from warehousing and light industry through to circulation and ancillary areas. 4 Amenity Plus Circular were also fitted alongside.

To help with both efficiency and design eight of Dextra's Siren luminaire were fitted for use in the plant areas. This injection moulded IP65 luminaire is made from a polycarbonate housing and diffuser offering excellent protection against light impact. The Siren is available in a wide range of lumen outputs, 600mm, 1200mm and 1500mm sizes and lithium emergency and dimming variants. Wireless dimming and control can be offered with the Reacta-Dim system and Reacta-Link options are also available where web based control and reporting of luminaires is required.



## THE SOLUTION

Also used on the project, was the Comtec Surface, with 26 in 2000 lumen and 8 in 3000 lumen supplied, along with 26 suspension kits supplied in black.

With a range of options including 1100, 2000, 3000 and 4000 lumen outputs and all common dimming variants the Comtec Surface is easily tailored to a range of applications and is supplied with a clear glass attachment as standard or opal glass attachments as an optional extra. Suspended versions come complete with suspension kits for ease of installation. The Comtec Surface is ideal for solid ceilings or where there is insufficient ceiling void for a recessed luminaire. In the shop and reception area Elisian was chosen and 27 luminaires were supplied. The Elisian offers an attractive polo ring design adding visual interest to installations whilst also allowing simple inclusion of sensor controls for both presence detection and daylight regulation. With a shallow housing of just 65mm the Elisian is ideal for restricted void spaces whilst the four sprung steel clips allow it to be installed quickly and simply into plasterboard, mineral fibre and metal pan ceiling tiles.

Dextra's Graduate LED was selected for the office area and server room, with six luminaires supplied. The Graduate is one of the company's most popular luminaires and is offered in four lengths ranging from 600mm to 1800mm, a wide range of lumen outputs as well as dimming and lithium emergency options. The Graduate can be tailored for use in applications ranging from classrooms and hospital wards through to circulation and ancillary areas. In the office area and teaching spaces 23 Modled Office were specified alongside the same amount of sister product Modled Slim.

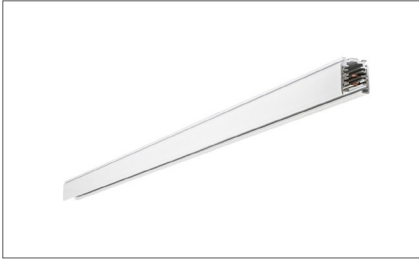
The Modled range has been designed specifically for applications where monitors are used in areas such as classrooms and offices.

The BTEC helped enhance both the toilets and circulation areas. In the Theatre area, three LED4 luminaires were fitted. Designed to reduce testing costs and complement mains operated luminaires, the LED4 is a standalone non maintained emergency luminaire and is available in standard, self-test and auto-test emergency variants ensuring compatibility with a range of systems. 6 AME LED were also installed as part of the project.



## FEATURED PRODUCTS

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### DALI TRACK SURFACE/ SUSPENDED

**Overview:** Our DALI system offers retailers the ultimate flexibility, enabling them to create and control specific lighting zones to enhance the store environment.



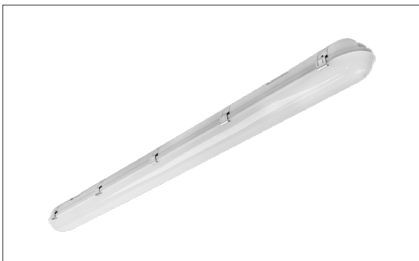
### HI-TRACK VERTICAL

**Overview:** The Hi-Track is an ideal solution for retail and display lighting. We offer this product range in 1036lm, 1501lm and 2145lm LED variants.



### ECOPAK

**Overview:** The Ecopak offers increased energy efficiency and low maintenance of an LED source giving greater return on investment.



### SIREN

**Overview:** An injection moulded IP65 luminaire made from polycarbonate housing and diffuser offering excellent protection against light impact.



### COMTEC SURFACE

**Overview:** The Comtec Surface compliments our recessed Comtec range.



### ELISIAN

**Overview:** The Elisian offers an attractive polo ring design adding visual interest to installations whilst also allowing simple inclusion of sensor controls for both presence detection and daylight regulation.

## FEATURED PRODUCTS

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### GRADUATE

**Overview:** The Graduate is a mainstay of the Dextra range and has been extensively used in schools and hospitals nationwide.



### MOD OFFICE

**Overview:** The MOD Office has been designed specifically for applications where monitors are used in areas such as classrooms and offices.



### MOD SLIM

**Overview:** The MOD Slim is a highly efficient and versatile backlit modular range of luminaires available in a wide range of housing styles and lumen outputs.



### BTEC

**Overview:** The BTEC Downlight is ideal for customers who need a premium quality downlight with high quality LEDs and drivers as well as excellent efficiency for a rapid return on investment.



### LED4

**Overview:** The LED4 incorporates Lithium batteries as standard giving extended lifetime and warranty reducing ongoing maintenance costs.



### AME2

**Overview:** The AME2 offers lithium emergency in a robust IP65 polycarbonate housing.