

Founded in
1978

Case Study

Solar Signage

- ▶ Your answer to off-grid illuminated sign requirements.
- ▶ Design your sign to incorporate solar panels into the main unit, like a totem, or install PV separately.
- ▶ Our Marlec Plug and Play cables make installation a breeze.
- ▶ Advice and guidance offered by the most experienced solar engineers in the business, from the UK's original renewable energy company.

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The Project

The National Space Centre is a visitor attraction in Leicester dedicated to sharing educational resources and information about all space or astronomy-related topics. They may focus on all things off-world, but those at the National Space Centre tune their satellites to sustainability while on the ground.

Implementing solar signage outside the main building offered a solution to their signage requirements and a way to showcase a commitment to eco-friendly alternatives where possible. The sign aims to alert visitors to the Centre's location. Marlec's collaboration with Etchells Signs meant the sign could be tailored perfectly to the Centre's needs.



Target

Marlec delivers reliable solar solutions to signage clientele.



Development

Our solar engineers work with our R&D department.



Integration

Installation concerns? Drink your morning coffee and relax. Your solar totem will be up and running by lunch.



Communication

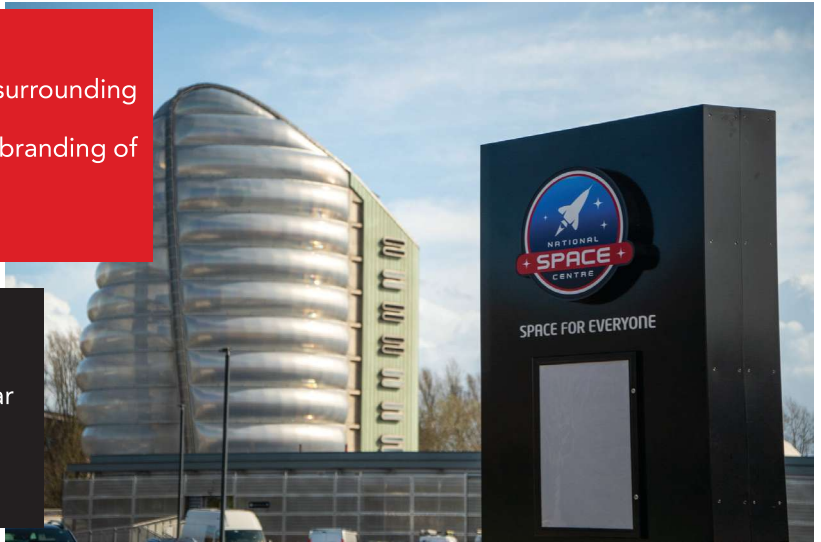
Trust us to work with your chosen sign manufacturer. Sit back while we work behind the scenes.

Requirements

- Maintenance free
- Simple installation
- Reduction in disruption to the surrounding environment
- Aesthetically on brand with the branding of the visitor attraction
- Fully off-grid
- Integrated LED lighting

Challenges

- No access to the national grid
- Consistent lighting all year round
- Custom timings



The Solutions

Maintenance:

Solar panels or PV arrays may initially strike you as technology that requires a deal of TLC. Yet, solar equipment will run efficiently in the background with minimum maintenance. Solar panels can run smoothly without intervention and a system of moving parts. They are designed with ease in mind.

Installation and Disruption:

The area proposed as the site for the sign, by the main car park entrance, needed more feasible access to a power source. Connecting to a mains power supply can also become extremely expensive when you factor in the labour and machinery costs to dig up tarmac and install electricals.

To ensure minimal disruption to the surrounding area, Marlec provided their plug-and-play cables. The plug-and-play feature eliminates any requirement for complicated wiring, further minimising environmental interference and promising easy installation.

Due to limited space, an inability to use power from the grid and the hope to engage in a sustainable solution, the National Space Centre again chose to avoid environmental disturbance by ridding the need for cable trenching.

The solar panels chosen in this design ensure the most straightforward setups without cable trenching or further complications.

Power harvested by the Spectra Semiflex Pro 150w solar panel is directed to AGM batteries. AGM batteries offer clients longevity and stability in their designs. The kit comprises an advanced lead acid battery. They are sealed, spill-free and, most importantly, maintenance-free. All necessary cables housed within the sign are IP-65 rated, making the system resistant to water damage.

Off-Grid:

Solar, of course, promises power regardless of the national grid. Other measures to ensure the system can follow the changing seasons without manual action include the ability to customise timings. All clients want signage that can be left to run hassle-free.

An adaptable signage system is an answer to the issue. Marlec technology can resolve the problem entirely and guarantee that all harvested energy is used efficiently. LC101 controller plug-and-play systems, compatible with LED technology, offer uniquely customisable settings. The lit signage is set to follow the year's seasons, with the LEDs activating consistently at set times.



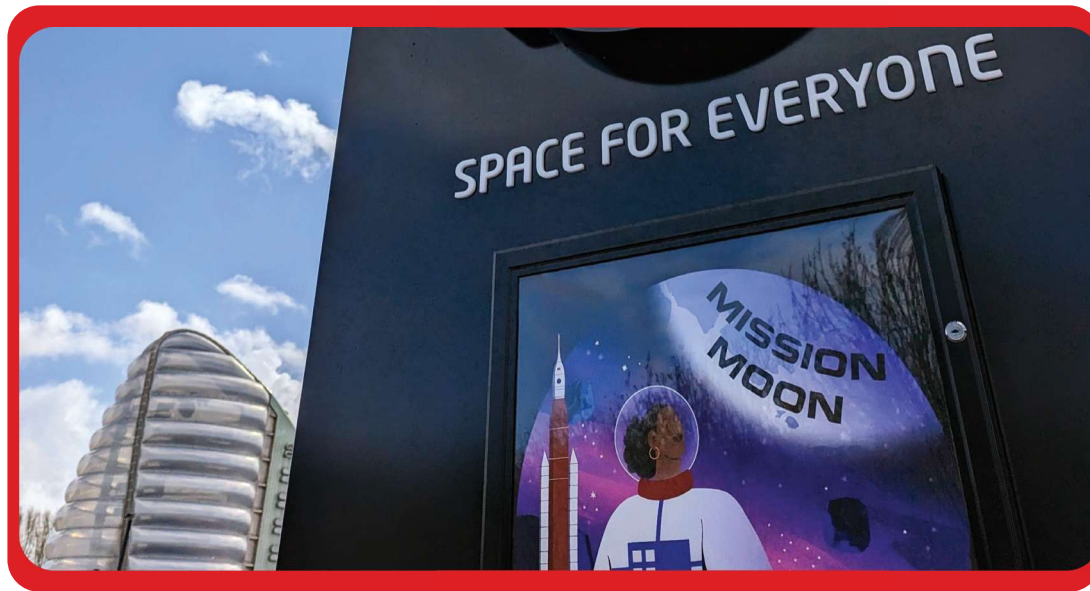
Specifications

- 140mm x 3200 x 900mm
- Mild steel framework
- Clad in a folded and powder-coated aluminium
- Illuminated acrylic detailing



"The National Space Centre is dedicated to 'Space for Everyone' and that includes future generations on this tiny blue dot we call home. Sustainability is really important to our core ethos and values, so when we had to replace our very broken and out of date welcome sign, we knew that solar power was important to the design."

The National Space Centre Team



Our Services



Marlec Engineering, the longest-standing renewable energy company in the whole of the UK, has a dedicated Green Systems team on hand for energy issues of all kinds.



With projects on the railways, highways, utility sectors, telecoms, land & marine leisure industries and sustainable solutions, we know what to do.



Thousands of systems guarantee sustainable energy worldwide, with our planet at the heart of its power. We're on hand to advise, design and implement off-grid power, whatever your requirements.

