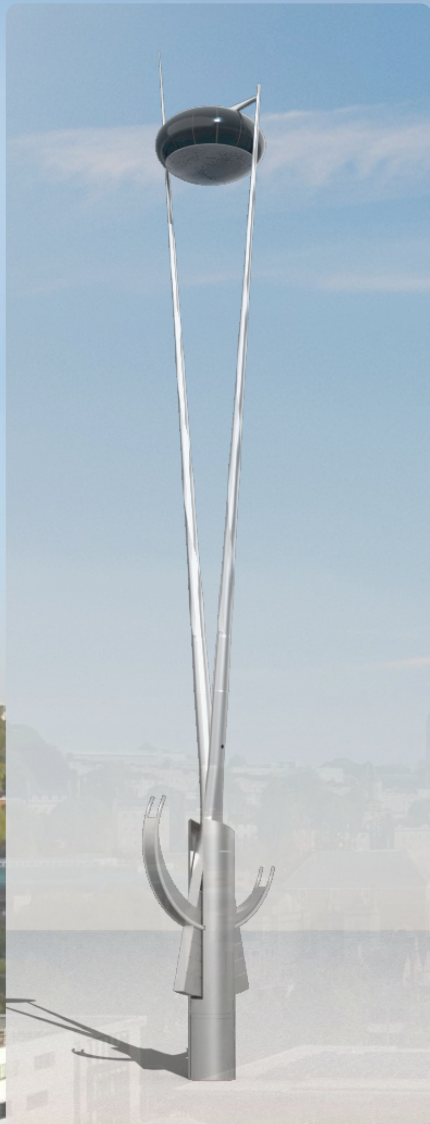


CASE STUDY – Arc Global , Bristol

PRIMARY TASKS

- Supported the architect from blank sheet of paper to bring Arc to life
- Undertook weight optimisation, CFD, structural and dynamic studies
- Created detailed 3d engineering models to nut and bolt level


Arc Global became Argo Engineering's first client back in 2016. We helped Nick, Architect and inventor of Arc, to take Arc from initial concept sketches into the thoroughly engineered and thought-through design it is today.



Arc is an innovative viewing attraction that lifts guests from roof level, immediately above the streets to reveal the local topography and structure of the city below. Arc is enabled by cutting edge engineering and materials. Its immensely strong, but spectacularly narrow carbon fibre masts are important for the aesthetics yet also have higher strength and lower weight than any other material that could be used for the purpose.

The relaxing passenger experience is enhanced using active positional and acceleration control systems that compensate for the bend in the masts and the gusting of the wind.

Argo and Arc are a perfect fit, the Argo team are experts in weight-critical structures as well as being material agnostic. There are few places outside of the largest aerospace companies with our expertise in metals, plastics and composites.



Nick is a conservationist at heart and demands efficiency in design and operation. The environmental credentials of Arc are not immediately obvious, but the design is elegant in its use of energy - it is effectively a huge 'see-saw'. Only modest energy inputs are required to overcome inertia as the balance between the cabin and the counterweight removes the need for high forces and high energy requirements.

Arc is about to receive planning permission and Argo will be supporting Arc through the final design stage and into production. If you are in Bristol in 2024, keep your eyes on the skyline for one of our most exciting projects!

CLIENT:

