

## CASE STUDY – Gondola Maintenance & Installation Trolley

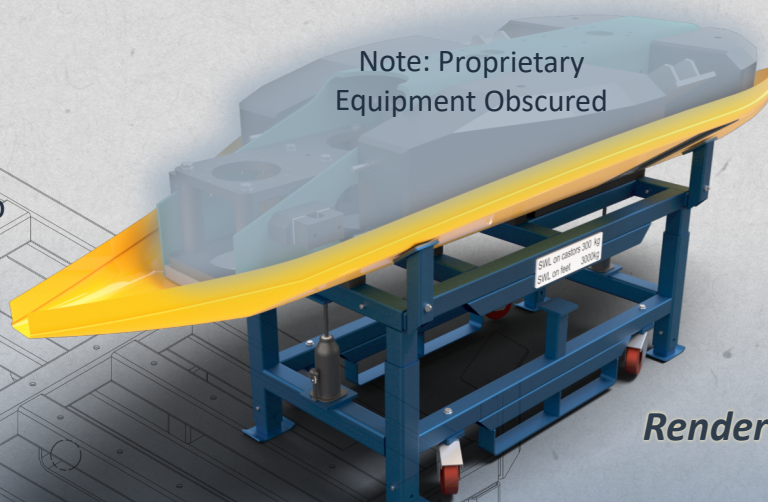
## PRIMARY TASKS - Design, Supply & Install

- Parametric 3D model of structure
- Full structural analysis & reporting
- Bill of Materials for purchasing & fabrication
- Detail drawings for manufacture
- Deliver

Argo Engineering Solutions has continued its relationship with Ocean Infinity to design and supply several items for their Unmanned Surface Vessels. In addition to the keel gondola itself, Argo supplied a bespoke maintenance trolley to suit the specific requirements of this unique load. Requirements for the trolley included being able to align the keel gondolas for removal and fitment to the vessel as well as being able to safely manoeuvre them in the workshop. When not in use gondolas could be stored for regular maintenance and easy access



To install and remove the gondola, the trolley is built in 2 sections. The height of the upper section is controlled on 2 hydraulic rams which allow precise vertical control of the gondola, relative to the keel. The trolley can support the full weight of the gondola before unbolting.



*The keel gondola is heavy due to lead ballast, but also houses sensitive hydrographic instruments and has a smooth hydrodynamic casing. Consequently a solution was required that was both robust, but allowed for fine adjustment and careful handling*



Working with a local fabricator, Argo was able to deliver a complete working solution using our network of existing engineering partnerships and local manufacturers