Spacewalk Simulator
S-Type
Industry: Aerospace

Summary

Customer Challenge

Spacewalks training is a necessary component for astronauts to successfully perform tasks outside of their space craft once in the vacuum of space. Space simulators have been created to train astronauts in a variety of situations, to ensure their success and safety during real life missions in space. Load cells are needed to monitor forces during the simulation.

Interface Solution

In order to monitor and maintain the forces of the subject when the subject moves, a WSSB Welded Stainless Steel IP68 Environment Protected S-Beam load cell can be connected to the cable. This will monitor the constant force needed as someone is using the spacewalk simulator. The DMA2 DIN Rail Mount Signal Conditioner will signal the customer's controller system.

Results

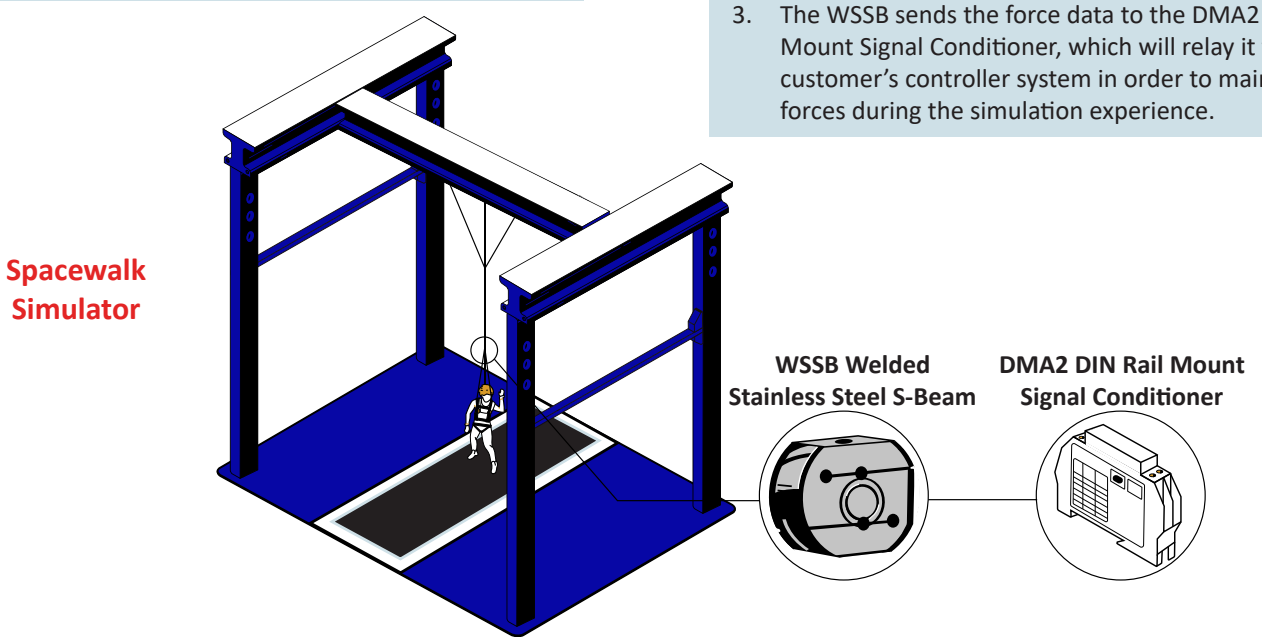
The customer was able to successfully monitor and maintain the force of subject when the spacewalk simulator was in use.

Materials

- WSSB Welded Stainless Steel IP68 Environment Protected S-Beam
- Rod End Bearings
- DMA2 DIN Rail Mount Signail Conditioner
- Customer's control system
- Customer's spacewalk simulator

How It Works

1. The WSSB Welded Stainless Steel IP68 Environment Protected S-Beam is attached to the cable with rod end bearings of the spacewalk simulator, and the subject in training.
2. The WSSB captures the force data of the subject as the simulator controller moves the subject on all axis.
3. The WSSB sends the force data to the DMA2 DIN Rail Mount Signal Conditioner, which will relay it to the customer's controller system in order to maintain the forces during the simulation experience.



interface
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