

# Design of a Welding Jig for Robotic Welding

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## **Abstract**

We are to design a jig/fixture that holds all parts of an earth movement equipment frame in place. This jig will allow the industry sponsor employee can make tack welds to keep all the parts in place. The jig design allows to bring the frame assembly to a robotic welding arm to finalize the welds and complete the framework of the piece of equipment. The project scope includes designing a positioning mechanism to deliver the tack-welded frame into the robotic welder. There might also be a fixture needed for some sub-assemblies that are part of this framework. Our fixture must be as simple as possible to facilitate versatility and multipurpose usage. Simplicity is also important because the fixture must not interfere with the robotic weld cell. The team will complete all the designs, CAD and information needed to make this project a success.

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