



Job Description Template

Job Title	Lead Solar Thermal Engineer
Objective	To lead the development of the GyroSole solar collection and thermal storage systems.
Accountable to	Development Programme Manager
Responsible for	All development activities associated with developing the GyroSole solar collection system, thermal storage system and associated valve and control systems; from the present concept demonstration model to a full production model
Working relationships	Chief Technical Officer Thermal Engine Development Engineer Electrical Power Development Engineer Control Systems Development Engineer
Key result areas	<p>Development and assembly a 5 kW solar thermal demonstration system using commercial off the shelf parts.</p> <p>Development and construction of an Alfa prototype 25kW and 100kW solar collection and thermal storage assembly based on the prototype design document using the concepts developed by Dr Charles Bennett of Lawrence Livermore National Laboratories.</p> <p>Implementation of the LLNL (Bennett) thermal storage concepts and designs the GyroSole solar thermal energy system.</p> <p>Documentation of the implementation design issues for inclusion in subsequent development models</p> <p>Documentation of trade secrets and intellectual property matters concerned with innovation in the development of the GyroSole solar thermal system.</p> <p>Development and construction of a Beta Pre Production 25kW and 100kW solar collection and thermal storage assembly based on the pre production design document, using the development lessons learned in the Alfa prototype phase.</p> <p>Input development lessons to the manufacturing design activity to ensure the design remains capable of cost effective production.</p> <p>Lead the criteria and selection process for solar collection and thermal storage assembly manufacture partners/contractors</p> <p>Lead the technical aspects of the manufacture of the (first) production solar collection and thermal storage assemblies to ensure successful delivery of the first production solar</p>



	<p>collection and thermal storage assemblies. Produce operational, installation and commissioning, and maintenance documentation for demonstration, prototype and pre production solar collection and thermal storage assemblies.</p> <p>Oversee the production of documentation for the production solar collection and thermal storage assembly from engine manufacturer(s)..</p>
<p>Key tasks</p>	<p>Build Demonstrator System</p> <p>Build Prototype solar collection and thermal storage assembly</p> <p>Build Pre Production solar collection and thermal storage assembly</p> <p>Manage build of production solar collection and thermal storage assembly</p> <p>Provide reports as necessary to management staff</p> <p>Document intellectual property matters for input into patent material.</p> <p>Manage staff allocated to the solar collection and thermal storage assembly design team.</p> <p>Manage solar collection and thermal storage assembly related contractual relationships with suppliers, I&C partners and maintenance partners.</p> <p>Additional tasks as may be directed by BridgeTech Industries LLC</p>
<p>Core skills</p>	<p>In depth knowledge of low pressure small industrial scale HVAC and thermal storage systems.</p> <p>Ability to work without detailed supervision within the scope of a broad direction.</p> <p>Basic understanding of thermodynamic principles of steam cycle engines</p> <p>Team player</p> <p>Innovative and adaptable thinker</p> <p>Excellent English oral and written skills</p> <p>Extremely “hands on” capability. This person will actually be building the prototype and demonstrator solar collection and thermal storage assemblies; so the ability to use</p>



	machine shop equipments (at the least lathes, pillar drills and bed grinding equipments) and design and construct steam piping systems (up to 10A and 200 degrees C) using conventional HVAC equipment is essential.
Time Horizon	Minimum 5 years.