

Job Specification for: **Mechanical Design Engineer.**

To apply for this post please email your CV to Michael Jennings at hr@westernautomation.com quoting the job title above.

Main Responsibilities

- Design of mechanical components, in particular electrical switching mechanisms.
- Design plastic components for use in electrical accessories.
- Conduct detailed mechanical analysis (stress, FMEA, thermal, tolerance analysis, reliability, etc) of existing products to determine weaknesses and implement improvements.
- Specify plastic and metal materials suitable for various applications.
- Produce 3D models and 2D drawings.
- Build and test prototype metal and plastic parts and manage the related sourcing and quality issues.
- Support electronics engineers working on projects with mechanical components.
- Work closely with toolmakers making injection and compression moulding tools for plastic parts.
- Work closely with vendors on supply of pressed, turned and plastic parts.
- Use precision measurement equipment to verify dimensional accuracy of mechanical components.
- Assist in transfer of products from design to manufacturing.
- Work to exacting international product standards.
- Communicate project status and progress on a regular basis.

Qualifications / Experience / Skills / Attributes

- Degree level mechanical or electro-mechanical.
- Minimum of three years relevant experience.
- Able to work in a highly flexible team environment.
- Good knowledge of 3D CAD, preferably Solid Works.
- Good knowledge of basic electrical principles.
- Understanding of basic principles of magnetism.
- Familiarity with electro - mechanical devices.
- Knowledge of simulation techniques, including FEA.
- Able to apply FMEA methodology.
- Good knowledge of materials and their properties, especially plastics and metals used in the switchgear industry.
- Understanding of manufacturing processes used for moulded, pressed and turned parts and of the relevant design considerations.
- Communications: Fluent written and spoken English with excellent record keeping and report writing skills are required.