Job Description

Job Title: Mechanical Design Engineer
Department: Design and Development
Reports to: Engineering Manager

SUMMARY
Responsible for the mechanical design of a wide range of LED based lighting products used within military and rugged applications and also providing technical support to other company departments.

DUTIES AND RESPONSIBILITIES
- The mechanical design of LED based lighting systems for military, Aerospace and rugged applications, examples of which:
  - Aircraft LED External Lighting Systems
  - Marine LED Lighting Systems
  - LED Panel Indication
  - Land Vehicle LED Lighting Systems
- Carries out detailed mechanical design work including 3D modelling, simulation (eg thermal & stress) and design verification testing, as required. Agreeing the mechanical design approach with the Engineering Manager and Senior Mechanical Design Engineers
- Responsible for the specification compliance of designs
- Responsible for mechanical part selection taking into consideration obsolescence, availability and cost
- Responsible for preparing and presenting mechanical designs at design reviews
- If required, generates minutes from Design Reviews

Effective Date: 01.01.04
Review Date: February 2004
• Ensures design files and information are kept up to date, and stored in accordance with departmental procedures
• Highlights all mechanical technical risks to the Engineering Manager
• Keeps up to date with the latest manufacturing techniques and drawing standards
• Liaises with other Oxley departments to ensure that the required information is available when needed and customer requests are dealt with in a timely manner
• Follows departmental processes relating to management of designs
• Responsible for identifying mechanical part numbers in accordance with the material finishes
• Responsible for creation of 2D drawings to allow manufacture or purchase
• Responsible for production of Customer Procurement (CP) drawings for new products
• Responsible for generation of Assembly drawings and bills of materials
• Responsible for meeting design to cost figures
• Responsible for carrying out design change requests in a timely manner
• Ensures the mechanical design output fits in with all other aspects of the design
• Works closely with operations, manufacturing and production engineers to ensure products are designed for manufacture
• Responsible for reporting progress of all assigned tasks to the Engineering Manager and Project Management teams
• Creation of technical reports and documentation as required for Military/Aerospace projects.
• Is available for onsite customer support (presentations and fault finding) as required

QUALIFICATIONS

Degree or HND/ HNC Mechanical Engineering with equivalent experience

EXPERIENCE

Mechanical Design
Experience in a similar role ideally within Military/Aerospace or similar industry
Autocad/Inventor experience desirable, Solidworks also acceptable
Familiarity with technical specifications
Knowledge of LEDs (desirable)
ADDITIONAL SKILLS
Ability to understand/produce technical drawings
Ability to co-ordinate with the other discipline Engineers (electronics and optics) within the department to produce multidisciplinary design solutions
Confident, proactive character, ability to take the lead in challenging situations
Good communication skills, dealing with other employees and external clients
Good IT skills

ADDITIONAL REQUIREMENTS
Good written and oral communication skills
Self motivated
Team player
Effective problem solving capabilities
Committed to undertaking professional development
Ability to work to tight deadlines

WORK ENVIRONMENT
Office based