

## JOB DESCRIPTION

**Position: Product Development & Project Manager (PDPM) III**    **Date: 02-19-15**

**Reports to:** Director of Product Development

**Job Objective: (Purpose for position)**

The PDPM will champion the development and launch of new product projects for Orion. He/She will be responsible for a project from conception thru development and launch/shipment in a timely manner. He/she will program manage and conduct product development activities, expedite the product through the vendors manufacturing cycle, explain the product advantages to non-technical staff and provide documentation and training in the use and operation of the product. Will provide ongoing tier three support for the product (~30% of time).

The employee will serve as the lead engineering **and/or** project/program lead for core product development projects. Responsible for overseeing the requirements development, specification, design, scheduling, and engineering development as appropriate, using in-house resources as well as outside vendors and services. Perform prototype and sample evaluations, diagnose technical problems, conduct bench and field tests and create written reports and recommendations.

The employee will provide guidance for the in-house assembly and inspection of Orion products. As well as oversee technical editing of product instructions. May supervise other Product Development staff.

Provide product marketing expertise and supervision to the organization as required for the technical products under their area of responsibility, including new product planning (MRD, BRD and PRD creation), cost benefit analysis, vendor analysis & management, total Product Lifecycle Management planning and implementation of products he/she develops and/or is assigned.

**Essential Job Functions: (Functions essential to attaining job objectives)**

*1. Product Development:*

- a. Perform necessary engineering efforts such as optical, mechanical, electrical or software development on assigned projects consistent with areas of technical expertise.
- b. Own key pieces of the Orion product roadmap, including concept justifications and annual financial forecasts per sku. Review and receive buy-in at least quarterly with senior management.
- c. Spearhead product design and development based on merchandising goals for new product (including software and/or hardware engineering and assuming project/program management responsibility).
- d. Provide specifications, product descriptions and other documentation, build engineering prototypes or make design modifications to existing products as directed.
- e. Research and source outside suppliers of needed parts and services, also engineering and manufacturing firms.
- f. Work with in-house or outside designers and engineers, negotiate contracts, timelines, and fees, provide all necessary support documentation. Evaluate finished work.
- g. Initiate engineering changes to existing products as needed, create engineering change notices.
- h. Takes initiative to expedite vendor acceptance and timely manufacture of assigned products.

*2. Product/Sample Evaluation:*

- a. Provide optical lab testing, lab and field-testing of products or product samples and create written reports of the findings.
- b. Provide guidance to Technical Services on testing methods and on needs for specific inspection and testing for certain products.

*3. Product Problem Solving:*

- a. Diagnose product problems and determine appropriate solutions. Provide necessary documentation and correspondence with vendors on technical issues.

*4. Inspection and Repair:*

a. Provide inspection of incoming Orion products, as required, or instruct DC staff on inspection criteria and procedures.

b. Provide guidance to Technical Services on product repairs.

*5. Assembly:*

a. Provide guidance for others to assemble Orion-manufactured products.

b. Document assembly procedures and assist in maintaining product logs and documentation.

*6. Other:*

a. Monitor products for quality and reliability issues.

b. Contribute new product concepts and seek to differentiate Orion with proprietary IP.

c. Oversee scheduling, writing, and technical editing of product instructions (≈30% of time).

d. Maintain a clean and orderly work area.

**Critical Skills/Expertise: (Needed specifically for this position)**

- Deep knowledge of consumer optical products (should be a hobbyist).
- Knowledge and experience in astronomical imaging (image acquisition, image processing software expertise).
- Experience in consumer product/consumer electronics manufacturing, product engineering and/or optical instrumentation
- Experience in Project/Program Management and Product Management (Product requirements, planning, go-to-market analysis and planning, positioning, segmentation, etc).
- Strong project management bias – the ability to take leadership of a project from concept through to shipment and successful marketing.
- Ability to analyze and understand engineering product drawings.
- 4+ years Product Engineering, Management or Development experience working in a technical capacity with telescopes and binoculars.
- Education and/or work experience in one or more of the following specialties and tools:
  - A) Mechanical Engineering & Industrial Design (AutoCAD, SolidWorks, etc.);
  - B) Optical Engineering/ Optical Manufacturing and Testing (CODE 5, Zemax, ATMOS, OSLO, APEX, , etc.);
  - C) Electrical Engineering EDA Tools (Mentor Graphics, etc.);
  - D) Software Development (C, C++, Java);
  - E) Materials Science & Manufacturing Engineering;
  - F) Machine and Process Automation.
- Advanced understanding of optics.
- Ability to perform telescope and/or binocular collimation and repair.
- Ability to perform lab/field testing on optical parts and assemblies.
- Machine shop experience desirable.
- Knowledge and ability to work with computer, small tools and equipment.
- Knowledge of Microsoft Office (especially Word, Project and Excel).
- Ability to write/develop instructional materials.
- Experience in Project Management – the ability to champion a new product effort and successfully launch a new product in a timely manner.
- Inbound and outbound product marketing expertise.

**Job Standards: (Minimum qualifications needed to perform essential job functions)**

- Ability to read and write English.
- Ability to safely work around machine equipment.
- Demonstrable ability to prioritize work, work under pressure, and to meet deadlines.
- Ability to communicate technical material clearly both verbally and in writing – as in product evaluations, product documentation and product training.
- Ability to communicate effectively with co-workers, customers and management.
- Minimum education: Bachelors degree in science or engineering or higher.
- Ability to safely lift 40-50 lbs.

**Required Knowledge of Equipment: (Machines, devices, software, tools used in job)**

- Assorted hand and machine tools.
- Personal computer and/or engineering work station.
- Basic engineering drawing software programs.
- Electronically controlled equatorial mount.
- Digital imaging equipment (CCD cameras, autoguiders, imaging related software programs).

**Non-Essential Functions:**

- ♦ May be assigned other tasks as needed to accomplish the goals of the department and company.

**Job Location: (Place where work is performed)**

- Corporate Offices: 89 Hangar Way, Watsonville, CA 95076, and
- Remote astronomical observing locations (for field work), which may include working in conditions of extreme cold, high elevation (low oxygen) and limited amenities.
- National and International Travel may be required up to 10% of the time.