Matthew Canna

Project Engineer / Process Engineer

Lansdale, PA - Email me on Indeed: indeed.com/r/Matthew-Canna/c056c3a68ff406f4

WORK EXPERIENCE

Project Engineer / Process Engineer

Medical Components / Martech Medical, Inc - Harleysville, PA - 2010 to 2013

Functioned as a multi-purpose engineer to refine the product to meet stringent FDA specifications and the associated process or manufacturing methods to produce a repeatable high quality product.
• Coordinated efforts and resources between two symbiotic companies, Medcomp is the clinical and research and development division, and Martech is OEM manufacture division.

Project Engineer duties/roles(Medcomp):
• Prepared and authored all documentation for a clinical and compliance relevance to support thorough product design.
• Maintained (DHF) Device History File for the life of the project: this includes core inception to final release to market.
• Adhering to the latest standards ISO 9001 and ISO 13485, I developed quality management for various devices and processes
• Consulted with ASTM and the FDA to develop a logical Verification and Validation plan for single device and/or full kits.
o This includes authoring Lab Book Studies, and V and V Protocols used to support 510K submission of various product lines.
o Instructed key laboratory personnel on how to test and evaluate benchmark testing and simulated use validations.
o Developed protocols to evaluate the human factors associated with each unique device.
o Post testing I would summarize and conclude testing I had conducted, to document in the DHF and use for FDA submission
o Coordinated shipping and packaging tests with outside and internal resources to conform to the latest ISTA shipping standards, to ensure a quality product reaches the end user.
• Using ISO 10993 Biocompatibility standards I would select and test a products safety for human safety and efficacy.
o In parallel efforts I would coordinate with outside resources to establish suitable, safe and the best method to sterilize final kit form of product
o Sterility processes familiar with include ETO(Ethelyne Oxide), Gamma radiation, heat and or autoclave options.
• Using Solid Works authored and refined drawings and models of various products and tools for manufacture and production.
o Includes detailed drawings for the individual component level as well as final bill of material for a completed kit (tray) the end user would recieve.
• Provided on demand evaluations on various products to answer in field complaints to support the sales and marketing team.
• Networked with outside vendors to validate vendor processes to certify compliance with FDA standards.
• Contributed to creation of various white paper documents to show clinical advantage of a single or grouping of devices.

• Interfaced with sales and marketing to give valuable clinical information on the benefits of existing products and production methods.

Process Engineer duties/roles(Martech Medical):
• Maintained the manufacturing (DHR) Device history Record, for ISO compliance.
• Authored Standard Operation Procedures for existing and one off machines/fixtures to effectively produce repeatable product.
• Refined and authored quality assurance procedures to inspect and verify assembled product to enhance quality and produce the best possible product to the end user.
• Executed and Authored Install Qualifications (IQ) on new and existing machinery to verify a machine was up to ISO 9001 standards before a product could be assembled.
• Developed and established operational(OQ) windows for a variety of processes to enhance the quality of the products for the end user.
• Well versed in manual and fully automated processes and tooling to ease in the assembly and construction of various products.
o Including UV light cure gluing operations, EFD dispensers, 2 part epoxy dispensing units, rotary application devices, enhanced vision systems, logic controlled automation, and robust mechanical assembly devices
• Troubleshot existing machines and processes (PQ) to enhance the repeatability of products.
• Use (FMEA) root cause analysis to assess design flaws to minimize scrap rates of product.
• Use inline risk analysis(CAPA) to address production concerns and apply controls to minimize risk of producing a defective product.
• Towards the completion of a product I would author and institute a Quality Assurance Procedure, to assure final product is delivered to the end user.
• Exercising lean and six sigma principles I would routinely look towards improvement on any of the processes associated with a design or even evaluate the design itself for ease assembly.
• Coordinated transfer of assembly and quality procedures between national and international facilities.
o Includes the instruction and training of factory workers to assemble single components and full kit designs.
o Includes the migration of quality and inspection procedures from one facility to another.
o Documents the new installation of new tooling, machines, or fixtures used to build up final product.
• Acquired injection and extrusion molding experience to apply to plastic products to enhance quality to the end user.

Consulting Production Engineer

Accutome Ultrasound, Inc - Malvern, PA - 2010 to 2010

Stream-lines Production and Repair processes to minimize lead in.
• Alters the design of current products to reduce long term defects and faster turnaround.
• Troubleshoots current designs to assist in lowered manufacturing times.
• Provides minor circuit analysis to find replacement components for obsolete parts on existing circuit boards.
• Interfaces with vendors to find supply of backordered parts to finish production milestones.
• Verifies new Quality inspection protocols to ensure the product arrives at end use free of problems.
• Certifying diagnostic equipment to ensure the product is within the specifications set by the FDA.
• Interfacing with design engineers to prepare for future production timelines.
• Assesses competitive products to develop repair and diagnosis procedures to expand company base.
• Interfaces with Sales reps to give real-time feedback as to the current trends in production and how to speed communication.

Senior Test Engineer / Design Engineer

Globus Medical, Inc - Audubon, PA - 2005 to 2009

Designed unique test fixtures with PRO/E Wildfire to analyze developing and existing products.

• After Modeling Test fixtures in PRO/E I would then create the necessary drawings with GDT Standards to have the fixtures accurately created.
• At times I would modify existing fixtures myself to lessen the burden in the prototype shop.
• Designed the Layout of a State of the Art Testing Facility utilizing Visio and AutoCad.
o After Designing phase I built the Testing Facility from the ground up
• Offered Guidance on the designs of Plates, Screws, Spacer Systems, and TDR constructs.
o With Mechanical data analysis done in complex Excel Spreadsheets after collecting the data from the DAQ units with the test equipment
• Utilized PRO/E Mechanica to perform FEA on developing designs before the production process.
• Validated multiple designs for the FDA in quick and precise manner.
o Utilizing State of the art Testing Equipment and efficient data analysis packages
• Authored documents to support and submit to the FDA the validity of the products.
o Critical Test protocols and reports that were examined to the highest standards
o Aided in the completion of Device History Files, and White Paper Reports
• Fully versed in MTS And Instron Testing equipment.
• Organized and Supervised over cadaver laboratory exercises with lead project engineers to develop products further.
• Acquired a solid knowledge of biomechanics to give valuable advice on design consideration of future implants.
• Worked in a Clean Room environment to prepare and conduct testing of a sensitive manner.
• Managed and conducted four artificial disc wear debris studies using the MTS 858 Spine wear simulator.
• Conducted over 1300 individual research and mechanical tests.
• Authored and developed all testing protocols and reports in my tenure at the company.
• Analyzed and summarized all lab data to support submissions.

At the end of each term group/individual projects were given that utilized all of our education and CADD skills. Two notable are pole climbing robot and PROE recreation of a stage light mounting bracket.

Miscellaneous Skills
Experienced electrician and knowledgeable in small engine repair.

EDUCATION

Bachelors of Science in Mechanical Engineering Technology

University of Pittsburgh (Johnstown Campus) - Johnstown, PA
2005

ADDITIONAL INFORMATION

General Skills:
Machine and Lathe experience, Residential and Light Commercial Electrical work, Light Commercial Construction, Residential and Light Commercial Plumbing and HVAC Installation