

Services

R&D/CONCEPTING

PDE assists in the early stages of product development when the ideas are just forming. We are able to brainstorm a concept or idea and come up with alternatives. We can suggest novel approaches based on years of diverse multi-industry experience and many engineering disciplines. Our abilities span many related products over many years. We sign confidentiality agreements at the onset to protect client interests. All patent rights are assigned to the customer. Complete confidentiality is guaranteed.

DESIGN SERVICES

Pro Design Engineering has the ability to turn your ideas into CAD models in various CAD platforms. We constantly update our software expertise to better serve customers. Our associate designers generally work with a seasoned engineer as a team to develop components, assemblies, molded parts, and fabricated piece parts. We can also provide separate CAD services when customers have a design partially or wholly ready for documentation and/or fabrication.

QUICK PROTOTYPES/FABRICATION

Over the years we have developed close relationships with a variety of specialty vendors. We specialize in rapid prototypes that save project time. We are a streamlined organization that puts delivery first. Many of our fabricated parts are delivered in days instead of weeks.

FORENSIC ENGINEERING

We do selected forensic engineering work for products/equipment related to medical products or high-tech products for communication, transportation, and/or electronics.

ENGINEERING/TEAM SUPPORT

Our seasoned engineers can provide that extra set of eyes on a project to provide any opinions and options that they think of. Sometimes another experience can mean an insight into a process, material, or way of doing things. We can work on-site part of the time or videoconference as needed to assist in team efforts. We can critique designs in many phases of the product development cycle.

SPECIAL MACHINES

PDE does automation, custom special machines, assembly fixtures, special environments, test fixtures, and many other special equipment needs.

DFM/DFA--DESIGN FOR MANUFACTURING/DESIGN FOR ASSEMBLY

Because of our experience in mechanical engineering, processes, manufacturing engineering, special machines, injection molding, and many other disciplines---we have the ability to move the design into manufacturing as fast as possible. This eliminates many extra steps and saves valuable project time. We constantly think of the end manufacturing and assembly process while we assist in the design.

RESEARCH AND DEVELOPMENT

Our experienced and networked engineers can provide extensive research on materials, processes, related equipment,

new procedures, and most technical aspects of a project. We understand that many projects are state-of-the-art and related research is often very beneficial to the outcome of a project. We can provide formal reports or informal findings information as required.

FEASIBILITY STUDIES

Sometimes a client wishes to prove a concept or feasibility before going forward with the entire development effort. We can evaluate an element of the design or an entire assembly and make our recommendation. We have developed methods to shorten the evaluation process so not to invest huge costs into an effort until a higher confidence level is reached.

MATERIAL EVALUATIONS

Often in precision technical industries, a material choice is of paramount importance. The material is tied implicitly to the functionality of a component or product. We have extensive materials experience and can suggest alternatives to a polymer, metal, or other material to decrease cost, improve compatibility, or easier processing.

OTHER SERVICES

We also do product design, device design, product development, product R&D, rapid proptotype, product & technology development, research and development, equipment design, precision equipment design, mechanical engineering, design for manufacturing, mechanical design, design for assembly, proof of concept, manufacturing engineering, product research and development, CAD design, product research, technology assessment, special machine design, contract R&D, design for manufacturability, electromechanical design, cost reduction, injection mold design, innovative, creative, concept, invention, research & development, CAD modeling, special machines, special machine design, tool designs, custom machines, machine design, troubleshooting, fixtures, assembly fixtures, contract design, automation, custom equipment, process development, industrial design, precision mechanisms, automated process machinery, consumer product design, mechanism development, reverse engineering, dimensional analysis electro-mechanical product design, problem solving.