

MECHANICAL ADVANTAGE TECHNOLOGIES, INC

Corporate and small business Engineering assistance

CREATIVITY IN 3D

....Need engineering?



2010-2024

Who we are, what we do...

Mission statement

Provide Engineering designs, drawings, and prototypes to help our customers see and feel what they are thinking. We are YOUR engineering department.

How we do it

Using the latest in 3D design and engineering software coupled with vast prototyping solutions.

Why choose us

We are like having your own full service engineering department...Your own research and development team. Over 35 years in product design and development and over 80 patents in locations around the world. We use the latest versions of SolidWorks 3D design package with built in Finite Element Analysis capabilities. We have photo rendering software, animation software and the full suite of Microsoft office software for documents, spreadsheets, calculations and presentations. We will quote your needs up front and guarantee meeting that quote.

Experience designing for die casting aluminum(s), zinc castings, injection molding plastics, compression molding (carbon fiber), machining of aluminum alloys, steel alloys, invar, medical and industrial titanium, medical plastics, consumer plastics, magnesium.

Familiarity with ASTM standards for welding (including laser welding). We are familiar with mil specs for plating processes, conversion coatings, passivation, and powder coating. We also have software that will flat pattern complex sheet metal parts. Our other skills include tooling, fixturing and automated equipment (hydraulic and pneumatics).

Incorporated for 13 years and providing engineering support to small businesses and individuals in Central Florida. Arrangements can also be made to be on-site with your team or customers if you feel this better suits your needs.

Nuts and bolts

Nobody knows what services the project will need. Below are the services we can provide. If we do not list it here, do not hesitate to ask. If you do not see it or we cannot provide it ask, someone in our network of value added resources can.

-Conceptual sketches - Our team is artistic and creative. Pencil sketches can be done from your verbal descriptions or we can meet and brainstorm to develop your idea.

-Consulting - Whether you cannot get your current product to work, or have an idea that you would like to bring to fruition, we can help. We can exceed your expectations in industrial designs (the look) and make a functional mechanism with the fit, form, and function intended. Not sure what materials to use? Let us determine the best material for your application.

-3D CAD models - Want to see your idea, this is the first step. These designs can be done with no size in mind, or our team can develop the concept proportionally correct. The best method is based on your input, and creative licensing by us, to get the size right. We base this on the application of your idea. We can export the 3D model to numerous formats recognizable around the world by other CAD packages.

-Photorendering - We use cutting edge software to apply material, color and textures to the model. We then use high-tech "lighting" to make your 3D model look like a photograph of your product. This file is viewable with standard Windows based image viewers.

-Animation - Want to see your product in action? Whether your idea has moving parts or you want to watch your product assemble itself, we have the tools. You get a video file universally recognizable by any Windows based player.

-Presentations - We can create a presentation for investors or potential buyers of your product or idea using 3D models, animations, sketches, pictures, videos and eye catching graphic designs. Presentations are best viewed with PowerPoint viewer (free from Microsoft website). We can print on 8.5 x 11 paper in color. Your local print shop could print whatever your needs are.

-Manufacturing drawings, If you need to get parts made, you need one or both of the following: A dimensioned drawing (drafting service) and /or a CAD model for direct machine programming (CNC). We follow the latest ASME international drawing and drafting standards for documenting how to make and assemble your product. We can export various formats recognized by CNC machine centers all around the world. We also create Adobe .pdf files for computer viewing and can print copies. For machine centers we can export to .DXF, IGES, PARASOLID (X_T, X_B), or STEP (.step .stp).

-FEA, Finite Element Analysis, If you need to know if your product is going to bend and how much under a given load, we can solve that problem using the latest software. We can create a report, export images or video.

-Prototypes, Once we have a 3D CAD model, a glass filled plastic model is as quick as 48 hours away. These parts can be sanded, painted (we can do) or plated. Also available are quotes and delivery schedules on metal or plastic machined parts. These can be available in as little as 5 days depending on material and complexity.

-Production runs, need to order 25, 50, 1000? We have the resources to get them. Value added contacts and a global sourcing partner company, we can get your parts from the United States to China and sources in-between for every budget.

-Research and Development, We can research materials, processes, patents, mechanisms and finishes. We can them and translate the data into a user-friendly format.

-Reverse Engineering, Do you have a part or product with no way of replicating it? Let us create a model and drawing that you can take anywhere and get one made.

-Drafting service, Do you need a line drawing to get a part or product made? We can provide the drawings. In addition a 3D model can be included at no charge.

-Production support, Tooling and fixtures. We have experience in automated equipment and simple hand tools. Whether you want automation thru hydraulics/pneumatics or both with electronics. We can design a solution for your production needs. Background in 5s, lean, and standardized workflow, we can help get you the tools and fixtures you need to efficiently get your product made.

References?

With Over 75 satisfied local customers, hundreds of drawings and thousands of 3D models, animations, presentations and videos, ask to see some samples. We can provide names of clients, who, through word of mouth, have expanded our client base. They would be willing to share their experience.

What will I get?

Our deliverable is usually an electronic transfer of any document you provided or we created. CAD models, translated files, pictures, scanned documents, videos, invoices and e-mails. All of these are organized smartly for you to browse and retrieve as you need.

Ready yet?

Contact us so we can meet and discuss your project. Give us the opportunity to show you how we can be an asset to you.

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www.mechanicaladvantagetech.com

FAQ

Q: How do I know what the cost will be before I get started?

A: We will do our best to quote each phase of your project up front. We will not bill you for exceeding that quote.

Q: Does MechAdvTech get to assume any ownership in my intellectual property of concepts?

A: If you come to us with a technology or idea, you own it. Every situation is different and we are open to do everything to protect you and your ideas. All possible scenarios will be discussed before anything is done.

Q: Why is pricing so reasonable?

A: We do not have the overhead and expenses of a large design firm. We never want to be so big that our clients have to pay for our success.

Q: Do you offer guarantees that the product design will work right out of the box?

A: This is engineering not magic or mind reading. Our pricing is low enough to have cycles to work-out an idea. Products on the market today have thousands of hours of upfront engineering, design, testing, etc.. We will carefully research each step to get the best results we can from that cycle.

Q: Do you offer a refund if I am not satisfied with the results?

A: No, we make every effort to extract what it is you want. If there were certain requirements, you failed to provide we will make effort to help you meet those in the next phase. If we make an error on a drawing, spelling or other, we will correct it at no charge to you. We do recommend you review any documentation we provide to you.

Q: Can you work on-site to assist our current engineering department or customers?

A: Yes we can, a contract or arrangement could be made.

Payments and Policies

Below you will find our current payment policy. Please read it carefully as this is the official policy in force at the present time. The policy listed below supersedes any other written document you may have received prior to Today's date. If you have any questions or comments about this policy please do not hesitate to contact us.

Current payment policy

Effective immediately, the following payment policy must be adhered to. THERE ARE NO EXCEPTIONS, ALL CLIENTS MUST READ, UNDERSTAND AND ADHERE TO THIS POLICY except by other written arrangements approved by us. Any payment made without regard to this payment policy will be charged a service charge of \$20.00. Additionally, late charges may apply (see below). Our policy is to collect payment within a reasonable time from date of the invoice date. The invoice will be sent upon completion of electronic files as deemed required to complete the project or project phase.

FEE schedule as of 1/01/11

Fee schedule is directly impacted by payment terms. There is a discount for early payment. For reference, the average central Florida rate is \$125-\$200 per hour depending on the engineering firm selected, with no prepayment discount.

Engineering consultation/design fees hourly	\$120.00 (net 30 days)	\$100.00 (net 15 or cash/banking app)
Engineering design fees – Analysis, FEA	\$150.00 (net 30 days)	\$125.00 (net 15 or cash/banking app)
Drafting and essential CAD work	\$90.00 (net 30 days)	\$75.00 (net 15 or cash/banking app)

All fees are negotiable up front based upon amount of work and length of project

Engineering travel

We bill at the current government rate.

Meetings

The first meeting/call to discuss business is free. All subsequent meeting are \$40.00 per half hour, meetings will be rounded to the nearest half hour . Meeting or travel fees will be added to the first invoice.

Late charges

All payments such as invoices, meeting fees, service and mileage charges MUST BE RECEIVED within the agreed time specified on the invoice, or late fees in the amount of 3% of the invoice will be charged for every business day your payment is late. This applies to ALL clients, without exception.

Non-payment may result in your account being sent to collection, your credit standing with us being downgraded and possible litigation to recover payment. If you have any questions or concerns, or feel that you have been charged incorrectly, please contact us IMMEDIATELY so that we can work together to find a solution.

We prefer to work out payment issues in a positive manner and will try to avoid sending payments to collections or small claims court unless we have no other recourse.