

# MECHANICAL ADVANTAGE TECHNOLOGIES, INC

Inventor and small business design assistance

## CREATIVITY IN 3D

*....got ideas?*



2001-2024

## 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 we do it.....

Inventors and gadget people alike abandon their ideas because large design firms can consume thousands of dollars and still leave you feeling unsatisfied or lost on what to do next. Those ideas need to be seen. We know how to get you there.

### Why choose us.....

Your idea is your child; every concept is special and important to you. That is what makes it important to us. The personalized attention we give, and the satisfaction you get from seeing your idea grow, needs to be realized. We focus on the development and the important stages of a project where growth needs to happen fast. We are also more than willing to see you all the way thru, as far as you want to go, even up to the consumers hands. We have the resources and contacts to answer those questions "how do I do this" and "what do I need to do now". We have served over 50 local inventors and companies that by word of mouth are expanding our client base quickly.

## What does it take?

### *The concept....*

We can help take that cocktail napkin sketch and turn it into something that can be felt and seen. Then we take that concept into something that works. From horseshoes to children's furniture (actual customers), we have seen them all. We can take that concept and give you a stunning visual look into the potential of what it could be.

### *The patent....*

We have references for patent attorneys up the east coast from Orlando to Hartford. One of the numerous services is to get the drawings needed for that idea recognized and protected. We recommend immediately putting the idea on paper and mailing it to yourself. That unopened envelope will provide protection for one year.

### *The plan....*

Where do you want to go once you have the patent application in motion? We can work with you to evaluate that step based on your needs. It all starts with a 3D design of the concept. From there, photo-renderings and presentations for proposals, rapid prototyping in plastic in less than 48 hours. Do you want machined functional parts? We can provide manufacturing drawings recognized around the world. You have choices, how far you want to go is up to you.

## Who are we?

We are like having your own full service engineering department...Your own research and development team. Over 25 years in product design and development and over 60 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.

## 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 be afraid to ask. If we cannot provide it, 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 (Windows comes with "media 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.

(continued)

*-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 have the ability to 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.

Need help with a design or engineering related service you do not see here? Contact us, if we cannot help, we know who can.

## 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 deliverables are electronic copies 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. All files are password protected and transferred using secure sites

## Ready yet?

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

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[www.mechanicaladvantagetech.com](http://www.mechanicaladvantagetech.com)

## FAQ

**Q: What if I do not want to disclose all of my ideas or concepts?**

**A:** First step is to sign an NDA (non-disclosure agreement). This will protect us both. Never discuss your business without an NDA in place regardless of patent status. We can forward you a standard NDA document when you are ready. This is the same document we sign with all of our clients.

**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 MAT 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 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: What materials and manufacturing processes are you familiar with?**

**A:** 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. We are familiar 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.

## NDA

Contact us for an NDA so we can get started right away we can send via mail or E-mail.