

MECHANICAL ENGINEERING

There is no question that today's consumer is more demanding, and why not, with more to choose from than ever before. To guard your competitive position, now more than ever your product must be designed right the first time, on time. Here is where Stone Mountain Design can step in.

Working with state of the art CAD software, our mechanical engineers think, conceptualize and design in three dimensions while other firms are still on the drafting board. Utilizing an internally developed methodology, Stone Mountain has bridged the stop gates often found in design processes to dramatically shorten product development cycles. Industrial design three-dimensional CAD models are handed off to the Mechanical Team for final development, detail design and analysis. Data is continuously exchanged between groups, resulting in a seamless and highly efficient development cycle. Frequent design reviews and extensive use of FEA and prototyping minimize risk and facilitate expedited tooling development. Our engineers continuously push the envelope by exploring new processes, technologies and materials to insure our customer's competitive advantage. Our numerous patents reveal Stone Mountain's drive for innovative and exceptional products.

Stone Mountain draws from the experiences and technologies gained from developing products for the most demanding of a global clientele of consumer, industrial and military product manufacturers. Exercising meticulous attention to every detail, we pride ourselves in the efficient produceability, enduring reliability and uncompromised quality in our finished products. Call us to find out how Stone Mountain Design can do the same for you.

**Concept to reality...
Faster than you imagine!**

stone mountain
DESIGN™

Mechanical Engineering

Complex mechanical and electro-mechanical packaging

Consumer, industrial and military products

Design for assembly (DFA) and design for manufacturability (DFM)

- Z axis assembly
- Automated assembly
- Minimized component count

Plastic injection molding

- Insert molding
- In-mold decorating (IMD) and in-mold foil (IMF)
- Two shot revolving platen molding
- Exotic materials, glass/metal filled, etc.
- Elastomer overmolding
- Secondary operations – plating, welding, painting

Electro-mechanical components

- Custom connectors
- Conductive elastomers
- Switches
- Microphones & speakers
- EL backlighting
- Keypads & snap domes
- Flex films
- LCD's & LED's

Shielding

- Dispensed conductive gaskets
- Conductive overmolding
- Formed metal
- Die-cut conductive gaskets
- Painting/plating

Metallic

- Die casting
- Thixomolding
- Plasma molding
- Investment casting
- Metal injection molding
- Sand casting

High-tier 3D modeling software programs for complex, sculpted geometry

- Unigraphics
- Pro/Engineer

Multiple software program support

- AutoCAD
- CADKey
- Visula
- ECAD
- Dazix
- Parasolid
- Catia
- CADAM
- PDGS
- Allegro
- RhinoCAD

Multiple file formats compatibility

- IGES
- SET
- CGM
- TIFF
- STL
- Neutral
- STEP
- VDA
- IDF
- VRML
- JPEG
- Other

Ultra state of the art, custom configured workstations

Finite element analysis (FEA)

- Assemblies and parts
- Heat transfer
- Linear dynamics
- Linear and non-linear materials
- Static stress

Stone Mountain Design is a wholly owned company offering comprehensive turnkey services including the design, engineering and development competencies vital to new products. We are experts at developing complex and sophisticated electronic products smaller, lighter and faster than our competition.

Our robust product design capabilities include industrial design, mechanical engineering, and electrical and software engineering. Through our own facilities and strategic partnerships, we offer a full compliment of domestic and international manufacturing and production facilities to further enhance our total turnkey solution.

While our core competencies are industrial design, mechanical engineering and product development, we also offer a full range of services for product positioning, market research and beta testing that work to greatly improve user acceptance.

1597 Eagle Point Road
Huddleston, VA 24104
www.stonemountaindesign.com
540.297.6434

