

**INSPIRE**  
solidThinking®

Design Faster, Smarter, and Lighter

Inspire is easy to use and works with existing CAD tools to help generate and investigate structurally efficient concepts quickly and easily.

# Create optimal designs

solidThinking Inspire enhances the concept development process.



Sketch or Import a Part

Defeature the Part

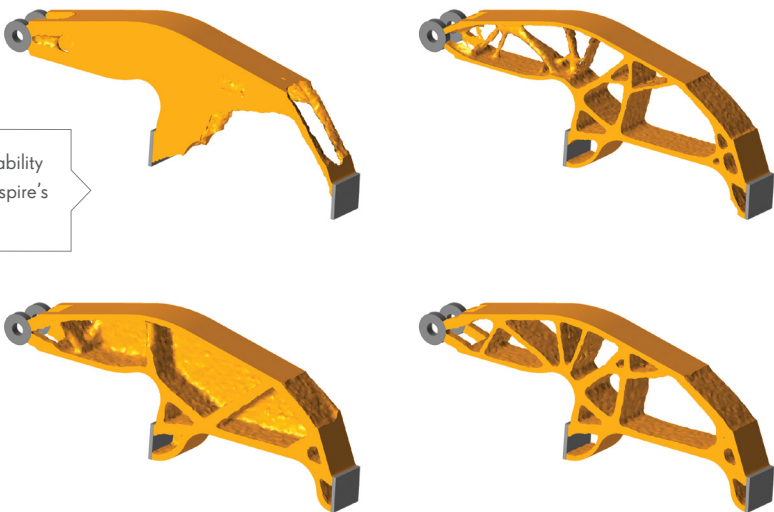
Assign Materials  
and Loads

Begin here

Inspire changes the way design engineers approach design.

Inspire assists design engineers by generating the ideal part shape within a design space using the loads as input.

Assure the manufacturability of the concept using Inspire's Shape Controls

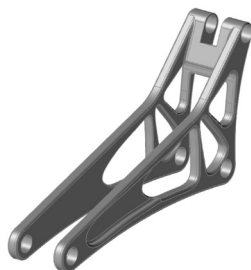




Generate Ideal Shape



Verify Performance

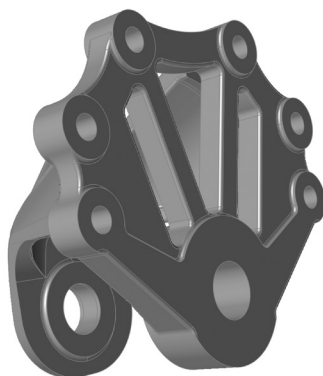
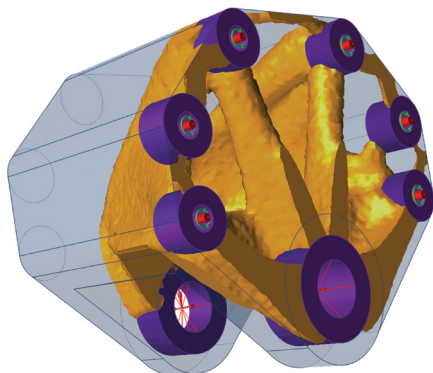


Export Geometry and  
Refine Concept in CAD

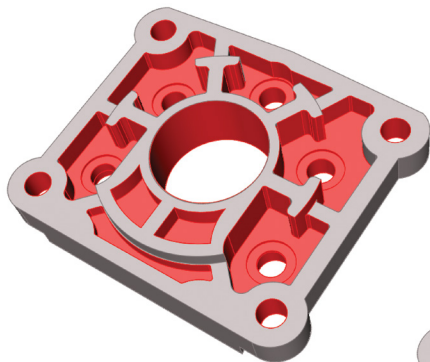
## Better designs

Design lightweight in, instead of engineering mass out when starting with the ideal solution.

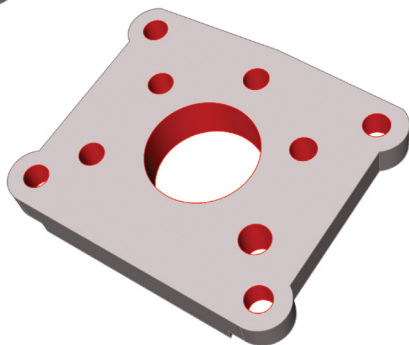
Inspire is built to work with existing tools and has a straightforward user interface that is easy to learn.



Quickly and easily generate the ideal concept and refine in CAD



Easily clean up and defeature problem areas including imprints, rounds, fillets, holes, and more

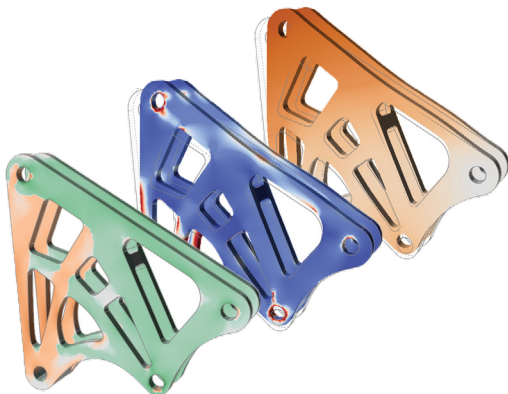


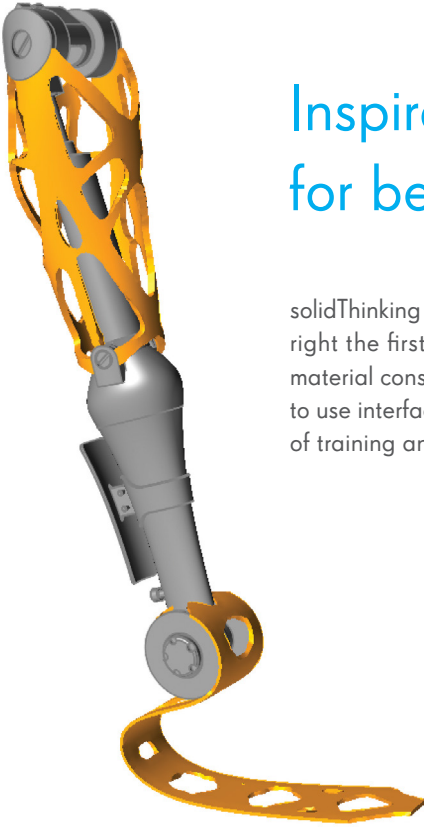
## Faster results

Evaluate ideal part performance with linear static and normal modes analysis.

Reduce design iterations, material consumption, and product weight by designing faster, smarter, and lighter.

Visualize displacement, factor of safety, percent of yield, tension and compression, von Mises stress, and major principal stress





## Inspiration for better products

solidThinking Inspire helps design engineers create parts right the first time, reducing costs, development time, material consumption, and product weight. With its easy to use interface, new users need just a few hours of training and many require none at all.

"[Inspire is] a new way of generating design, generating shapes, generating concepts... it helps designers to explore lines and design strategies differently than the things they usually do."

*Francesco Lovo,  
Research and Development Director  
Pininfarina Extra, Pininfarina Group*

"Reducing part and assembly mass is important to us and Inspire shows us how we can do this while also increasing the durability of structural components. The great thing is the rapid feedback from design to an optimized shape."

*Martin W. Dirker,  
Technical Specialist  
Navistar, Inc.*

"I can use [Inspire] to solve structural problems, to find structural fitness... But what's more interesting is that you can reinvent structural systems. Architects can build buildings, but the art of architecture is about rethinking what a building is."

*Dr. Peter Macapia,  
Adjunct Assistant Professor,  
Pratt Institute; architect, artist,  
and founder of labDORA*

"solidThinking Inspire shows the essential material that cannot be removed from a design. This helps you understand your design earlier and can be used as a common language between departments."

Andy Davis, Sr. Design Engineer, Computer Aided Engineering, Evenflo, Inc.

## Inspire Features



### SHAPE CONTROLS & DESIGN CONSTRAINTS

- Min/Max Size
- Draw Direction
- Symmetry
- Pattern Repetition
- Cyclic Repetition
- Stress Constraints
- Frequency Constraints
- Part Instances
- Displacement Constraints



### GEOMETRY IMPORT

- ACIS
- CATIA (V4 & V5)
- IGES
- JT
- Parasolid
- Pro/E
- SolidWorks
- STEP
- STL



### GEOMETRY EXPORT

- IGES
- Parasolid
- STEP
- STL

## Inspire is Available for



Windows 8.1, 7, Vista, XP



Mac OS X 10.7 or later

Learn more at [solidThinking.com/Inspire](http://solidThinking.com/Inspire)



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