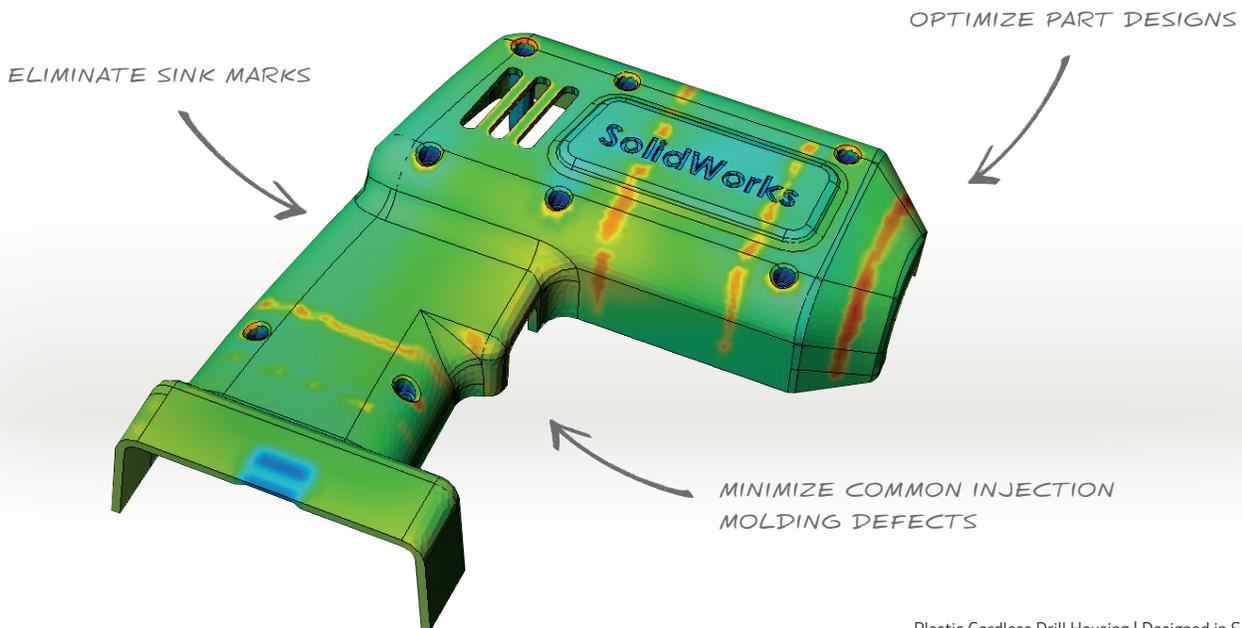


# SOLIDWORKS PLASTICS

Optimize the design of plastic parts and injection molds



Plastic Cordless Drill Housing | Designed in SolidWorks

## SIMULATION-DRIVEN DESIGN FOR PLASTICS PART PRODUCTION

SolidWorks® Plastics brings injection molding simulation directly to designers of plastic parts and injection molds. You don't have to be an expert to easily identify and address potential defects by making changes to the part or mold design, plastics material, or processing parameters, saving resources, time, and money.

## INTUITIVE WORKFLOW AND DESIGN ADVICE

SolidWorks Plastics works directly on your 3D model, avoiding translation issues. You see the impact of design changes right away. Powerful and fast state-of-the-art meshing covers geometries from thin-walled parts to very thick and solid parts.

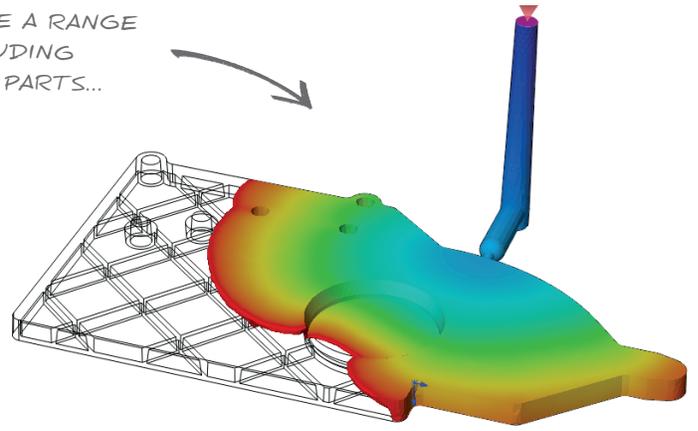
An intuitive interface leads you step by step. Guided analysis, intelligent defaults, and automated processes ensure correct setup, even if you rarely use simulation tools. The SolidWorks Plastics material database contains thousands of commercial plastics and is fully customizable.

## ► VERIFY MANUFACTURABILITY

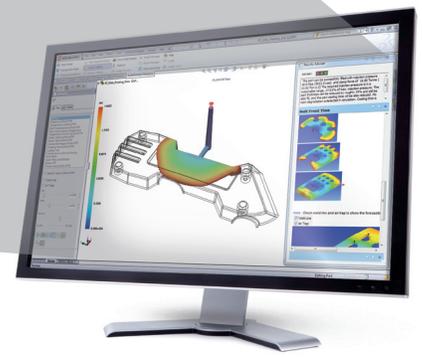
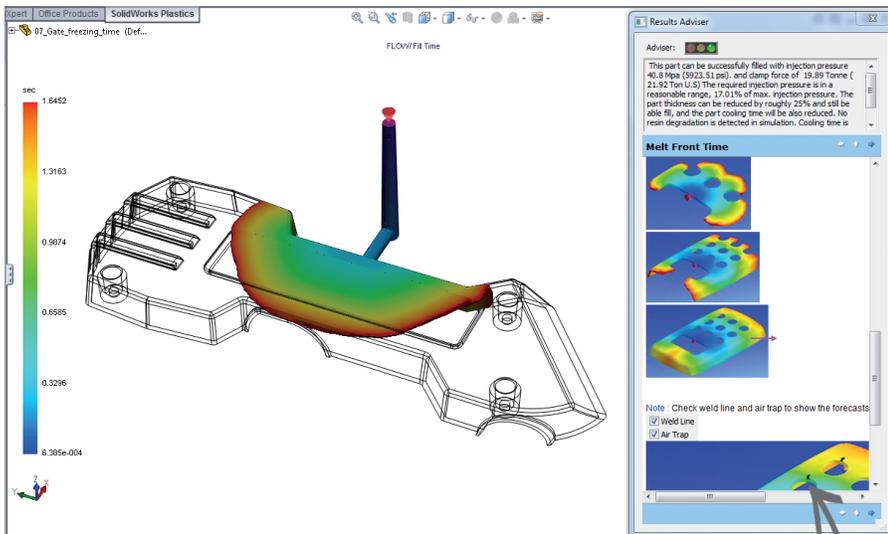
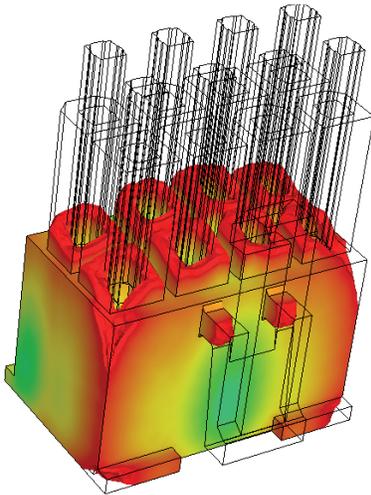
**SolidWorks Plastics makes it easy for companies that design plastic parts or injection molds to predict and avoid manufacturing defects during the earliest stages of design, eliminating costly rework, improving quality, and accelerating time-to-market. Fully integrated with SolidWorks CAD, this intuitive software helps part designers, mold designers, and mold makers optimize designs for manufacturability without leaving their familiar 3D design experience.**

Part designers get rapid feedback on how modifications to wall thickness, gate locations, materials, or geometry can affect the manufacturing of their part, while mold designers can quickly optimize multi-cavity and family mold layouts and feed systems—including sprues, runners, and gates.

ANALYZE AND OPTIMIZE A RANGE OF GEOMETRIES INCLUDING THIN-WALLED PLASTIC PARTS...



...OR THICK AND CHUNKY PARTS THAT ARE SOLID IN NATURE



The Results Adviser provides practical design advice and troubleshooting tips to help diagnose and solve potential problems. This powerful information gives users tremendous insight into the injection molding process, leading to informed design decisions and better quality products.

GET VALUABLE RESULTS ADVICE TO OPTIMIZE YOUR DESIGNS AND MAXIMIZE PART QUALITY

## THE COST OF CHANGE

While the cost of making changes is low in the early stages of product development, the impact is highest. The sooner you can optimize your plastic parts and injection molds for manufacturability, the better.

.....  
**Design changes in the early stages of product development cost less and have the greatest impact on improving manufacturability. The cost of change increases substantially further downstream and can lead to significant time-to-market delays.**  
.....

The challenge in plastics part production is determining how your part or mold design impacts manufacturing—and how manufacturing will impact your design, and then communicating that information early and often throughout the design-to-manufacturing process. SolidWorks Plastics gives you the tools to quickly identify potential problems so you can make changes early in the design process.

*"WITH 40 YEARS IN PLASTICS DEVELOPMENT, I'M EXCITED BY SOLIDWORKS PLASTICS. USERS WILL BE ABLE TO OPTIMIZE PART AND MOLD DESIGNS IN THE EARLIEST STAGES OF DEVELOPMENT."*

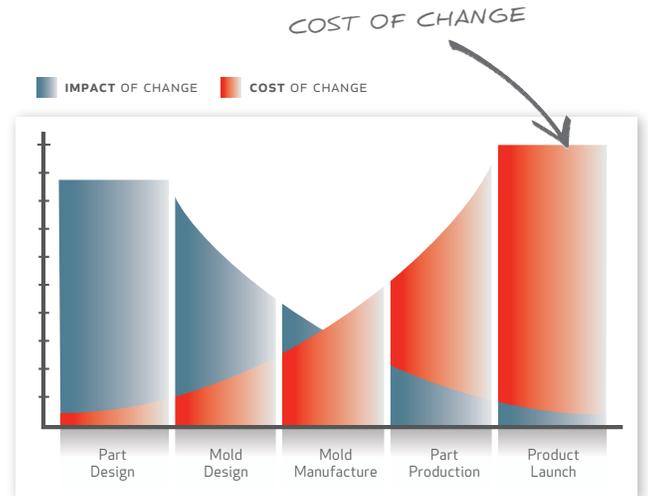
— ED HONDA, President, hondaDesign, LLC

## FOR PLASTICS PART DESIGNERS

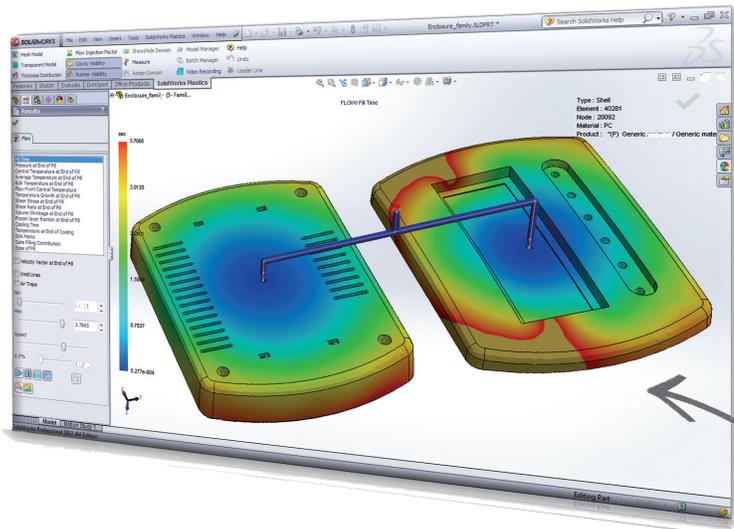
### SolidWorks Plastics Professional

The most cost-effective time to optimize plastic parts for manufacturability is during the initial stages of product design. Skipping this step often leads to an inefficient mold design with an extremely narrow "good parts" processing window, resulting in high reject rates and time-to-market delays.

- **CAD integrated:** fully embedded in the SolidWorks 3D design environment so you can analyze and modify designs for manufacturability at the same time you optimize for form, fit, and function
- **Easy to learn and use:** takes only minutes to learn and does not require extensive analysis or plastics expertise
- **Facilitates design team communication:** web-based HTML reports make it fast and easy to communicate simulation results and design advice to all members of the design-to-manufacturing team



DESIGN TO MANUFACTURING PROCESS



Unbalanced filling in family molds (as seen here) can be predicted and avoided with SolidWorks Plastics.

AUTOMATICALLY BALANCE THE RUNNER SYSTEMS OF FAMILY MOLDS AND AVOID MANUFACTURING PROBLEMS

Plastic Electronics Housing | hondaDesign, LLC

## FOR MOLD DESIGNERS AND MOLD MAKERS

### SolidWorks Plastics Premium

SolidWorks Plastics Premium gives designers or builders of injection molds an accurate, easy-to-use way to optimize them. Quickly create and analyze single, multi-cavity, and family mold layouts.

- **Avoid costly mold rework:** ensure molds will work right the first time to avoid time-consuming, costly, and unnecessary rework
- **Optimize feed system design:** analyze sprues, runners, and gates to balance runner systems; optimize gate type, size, and location; determine the best runner layout, size, and cross-sectional shape
- **Estimate cycle time, clamp tonnage, and shot size:** quote tooling projects quickly and accurately; size the injection molding machine for a given mold, optimize cycle time, and reduce plastics material scrap

## SOLIDWORKS PRODUCT DEVELOPMENT SOLUTIONS

SolidWorks software creates an intuitive 3D experience that maximizes the productivity of your design and engineering resources to create products better, faster, and more cost-effectively. See the full range of SolidWorks solutions for design, simulation, sustainable design, technical communication, and data management at [www.solidworks.com/products2013](http://www.solidworks.com/products2013).

### ► SYSTEM REQUIREMENTS

- Windows® 7 (32- or 64-bit) or Windows Vista®
- 2 GB RAM (minimum)
- 5 GB disk space free (minimum)
- Video board (certified recommended)
- Intel® or AMD® processor
- DVD or broadband Internet connection
- Internet Explorer 8 or later

For additional details, visit [www.solidworks.com/systemrequirements](http://www.solidworks.com/systemrequirements)

### ► LEARN MORE

To learn more about SolidWorks Plastics, visit [www.solidworks.com/plastics](http://www.solidworks.com/plastics) or contact your local authorized SolidWorks reseller.



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