



3-D PRINTING: NEW OPPORTUNITIES AND NEW RISKS TO MANUFACTURERS

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3-D Printing: Innovation, Opportunities, and Risks

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Overview of 3-D Printing

- Starts with digital file of a three dimensional object (computer aided design file or “CAD” File)
- File can be scanned from an object, downloaded from the internet, computer generated or designed, or all of the above.
- There are numerous companies that provide CAD files for download or purchase
- Digital file interacts with 3-D printing software
- An individual or organization completes the printing using 3-D printing materials (“ink”) and the 3-D printer.



■ Integration of 3-D Printing in Our Lives

- Fast Repairs: Appliances with built-in 3-D printers that fix themselves
- Reduce inventory costs
- Reduce Transportation Costs
- Medical devices manufactured at home and customized to the individual



■ 3-D Printing in Space

Then

Apollo 13: Solve problems with existing items in space

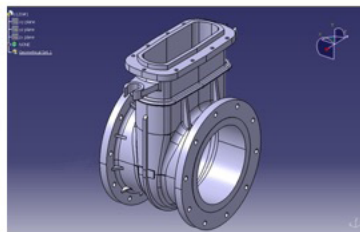
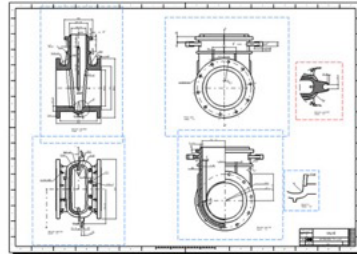


Now

E-mail files to 3-D printer on space station and print tools



2-D CAD vs. 3-D CAD



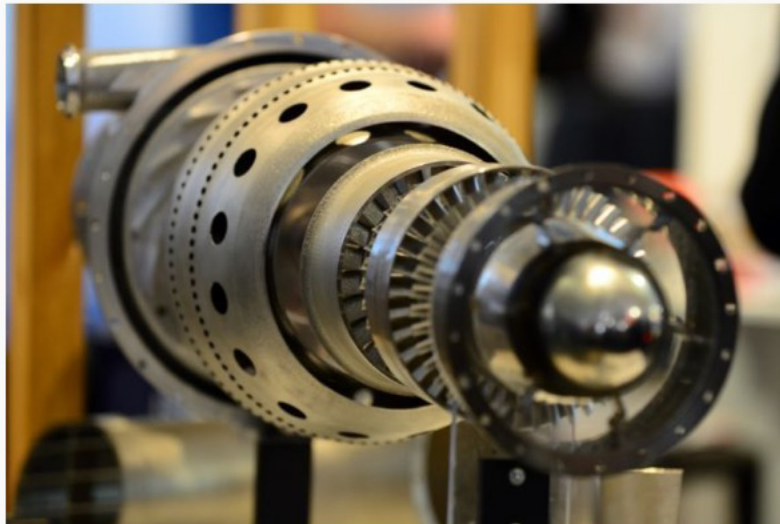
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3D printing: Australian researchers create jet engine, breakthrough captures attention of Airbus and Boeing

By environment and science reporter [Jake Sturmer](#)

Updated 25 Feb 2015, 9:52pm



■ What legal standard applies?

STRICT LIABILITY v. NEGLIGENCE



?

■ Are the manufacturers of a printer subject to strict liability?

- If the printer does not function properly because of an internal defect, manufacturer could be subject to strict liability for any defective products it prints
- A working printer can still print a "defective product."
 - Flawed CAD files
 - Corruption of data during stream
- A manufacturer of a *functional* printer has a strong basis for not being subject to strict liability based on lack of familiarity with printed product

■ Are CAD files “products” for purposes of strict liability?

- Tangible v. intangible
- Product aspect (mass-marketed) v. services aspect (custom-made)

Products	Not Products
Electricity	Information in Books
Navigational & Aeronautical Charts	Content in Video Games

- Courts have yet to address this question directly for CAD files

■ Data Streamers

- Functional CAD files can be corrupted while streaming via internet to a 3-D printer, making the printed product defective
- Internet Service Providers are typically insulated from liability generated by their users
 - Communications Decency Act (CDA)
 - Digital Millennium Copyright Act (DMCA)
- Courts are unlikely to hold ISPs strictly liable for any product defects arising from data transfer problems

CAD File Designers May Face Negligence Liability

- Creators of a digital file traditionally have not faced potential liability from unknown end-users.
- Existence of a duty of care for a CAD file designer will depend on type of injury and product at issue
 - Programmers will be more likely to have a duty of care not to cause physical injury but not exclusively economic loss
 - Courts will apply greater scrutiny to designers of CAD files for medical devices
 - Designer of CAD files may have sufficient knowledge to generate a duty to warn of any inherent risk

Printer Manufacturers and Data Streamers Have Strong Defenses to Negligence

- **Manufacturers of a functional printer have stronger negligence defenses**
 - **Printer manufacturer will NOT know the specific products being generated**
 - **Printer manufacturer will not know the risks associated with printed products and thus could not have a duty to warn**
- **Data streamers also have a strong basis for asserting no duty to end-user or a duty to warn of any risks associated with a product**

Changes in Insurance Landscape

- New customers: computer programmers will now need insurance for potential products liability/contribution claims
- Develop specific protocols and requirements for insured companies that address specific risks created by 3-D printing
- Insurers must take a broader view of scale of insured's operation & risks
 - Intentional and inadvertent infringement of copyrights, patents, and trademarks will be rampant
 - Size of an insured's market share can increase rapidly beyond capital investment
 - Insured's markets will not be limited geographically
 - 3-D printers release toxins in the air thus creating potential environmental liabilities
- Keep an open line of communication between innovation and risk management teams

Reducing the Risk of Product Liability for Retail Manufacturers & Sellers

- **Due diligence/quality control**
- **Data security & secure streaming**
- **Traceability**
- **Indemnification**
- **Insurance**

FACULTY BIOGRAPHY



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Brian Stansbury focuses his practice on complex litigation, toxic tort litigation, environmental litigation, and white collar criminal and government investigations. Brian represents and counsels chemical and energy companies in high profile toxic tort and environmental litigation matters. He has represented numerous clients with respect to federal, state, and common law environmental claims arising from alleged groundwater contamination in Florida, South Carolina, Indiana, New York, New Jersey, North Carolina, Pennsylvania, Illinois, California, and Connecticut. Brian also has extensive experience defending multi-jurisdictional antitrust and commercial class action suits.

Areas of Expertise

- Class Action Defense
- Environment & Natural Resources
- Environmental Litigation
- Products Liability & Mass Torts
- White Collar Crime & Government Investigations

Representative Experience

- Counsel for W.R. Grace & Co. in successful defense of federal prosecution arising out of the operation and closing of a former vermiculite mine in Libby, Montana. Government's allegations included criminal violations of The Clean Air Act, obstruction of justice, and wire fraud. A Montana jury found Grace not guilty on all counts of the indictment.
- Developed and coordinated scientific defenses for chemical and energy companies facing nationwide toxic torts claims.
- Represented chemical company in lawsuit alleging adverse health effects arising from alleged in utero exposure to drinking water contaminated with atrazine.
- Counsel for W.R. Grace in bankruptcy proceeding involving the estimation of personal injury liability arising from alleged environmental and occupational exposure to asbestos.
- Represented Chemtura during its bankruptcy proceeding with a focus on reducing billions of dollars of alleged federal and state environmental liabilities.
- Represented Raytheon Company in class action in Florida arising from alleged contamination of groundwater in a residential community. The court entered voluntary dismissal of all claims prior to class certification hearing.
- Advised non-U.S.-based company facing numerous personal injury lawsuits arising from alleged environmental exposures to toxic substances.
- Advised 3D printing company to identify and reduce the risk of products liability litigation.

Professional Memberships and Activities

- The School for Ethics and Global Leadership, Member of the Board of Trustees
- American Bar Association, Member
- Maryland State Bar Association, Member

Education

- J.D., University of Virginia School of Law, 2002
- B.A., University of Texas at Austin, 1999