Product Engineering Services

UL’s Product Engineering team has a rich heritage in advancing products from design to production for companies ranging from small to Fortune 500. These customer-centric testing and integrated advisory services help manufacturers meet the complex challenges of today’s competitive global market with services that streamline the product development, reliability, safety, energy efficiency and performance testing processes. Give your product the sustainable competitive advantage by partnering with UL.

Services

• Energy Efficiency
• Engineering Advisory
• Model Shop
• Performance Engineering
• Reliability Engineering

Energy Efficiency

UL is a global leader in energy efficiency product testing and certification, supporting businesses throughout the entire product development, testing and certification cycle. Energy efficiency regulations are on the rise, and we are committed to helping manufacturers navigate this dynamic space.

• Energy performance optimization
• Energy testing and data submission for:
  – US Department of Energy (DOE)
  – US Environmental Protection Agency (EPA)
    ENERGY STAR® program
  – California Energy Commission (CEC)
  – Canadian Energy (NRCAN)
  – Other International Requirements

Engineering Advisory

UL provides advanced engineering advisory services and processes to ensure your product will fit and function per the requirements, delivering your ideas to market on time and within cost targets.

Product development experts for high volume, high quality, cost effective products:

• Experienced Staff
  – Design for Manufacturing
  – Lean Six Sigma
  – Project Management

For more information please visit ul.com/weknowproducts or email UL.ProductEngineering@ul.com
Mechanical Engineering
- Product Specification
- Failure Mode Effects Analysis (FMEA)
- 3D Modeling
- Finite Element Analysis (FEA)
- Statistical Tolerancing
- Manufacturability Analysis
- Lean Assembly Design
- Product Cost

Electrical Engineering
- Hardware
  - PCB Layout
  - Noise Mitigation
  - Test Plan
- Software
  - Specification
  - Programming (C/C++, Labview, PLC)
  - Algorithm Review/Testing
  - Test Plans
  - Wireless Protocols
  - Smart Grid
  - Custom Applications

Model Shop
We can prototype virtually anything made of wood, metal, or plastic. UL understands time to market and the necessary role prototyping fills. Whether your needs involve metal forming/spinning, CNC machining, Renwood mock-ups, welding, or injection molding, UL has the experienced staff to handle your request.
- Rapid Prototyping
- CNC Machining
- Sheet Metal Fabrication
- Aluminum Injection Molds
- Injection Molding
- Test Equipment

Performance Engineering
UL provides advanced performance engineering services to develop product specifications, test plans, and accurately execute test procedures so you can go to market with confidence that your products meet the customer's expectations.
- Competitive Benchmarking
- Performance Improvement
- Marketing Claims Validation
- Test Protocol Creation
- Consumer Evaluation

Reliability Engineering
UL provides advanced reliability engineering and testing services. The skills, techniques, tools and processes have been developed and honed by decades of reliability experience within Fortune 500 companies to help you reduce warranty costs and establish a sustainable competitive advantage in the marketplace.
- Reliability modeling
- Test plan creation
- Component testing
- System level testing
- ALT / HALT / MEOST
- Weibull analysis
- Root cause analysis
- Corrective action
- Warranty analysis & projections
- Test fixture design/fabrication