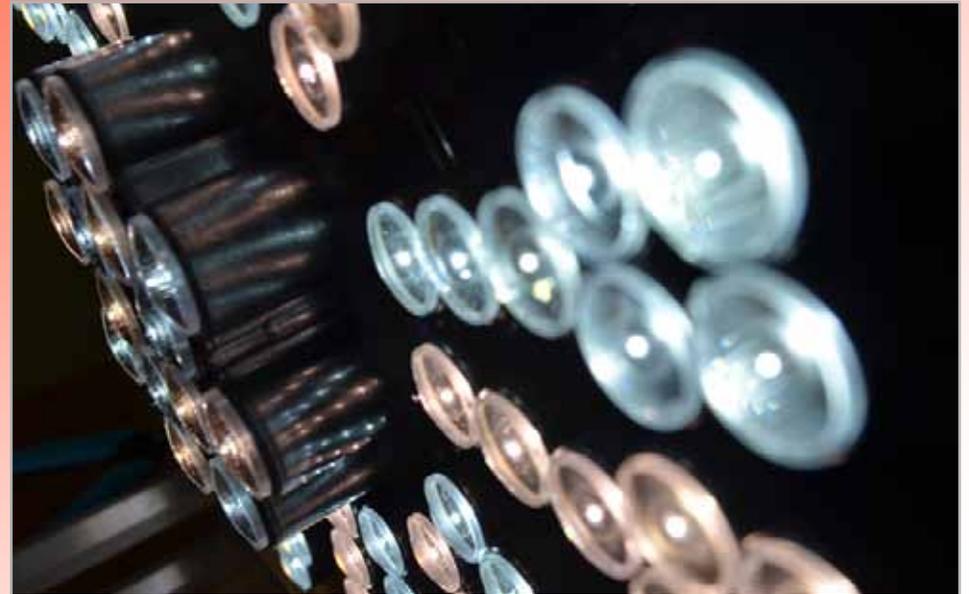


We provide product development services  
that will bring your ideas to life.

From all the intricacies of industrial design to the complexities of engineering, our original design ideas and unique solutions challenge the status quo and disrupt the expected. Creativity is carefully balanced with technology and solid engineering resulting in innovative, award-winning, marketable products.

Smart fresh design, solid engineering, award-winning results.

Ferox Designs Bring Innovation to Market.



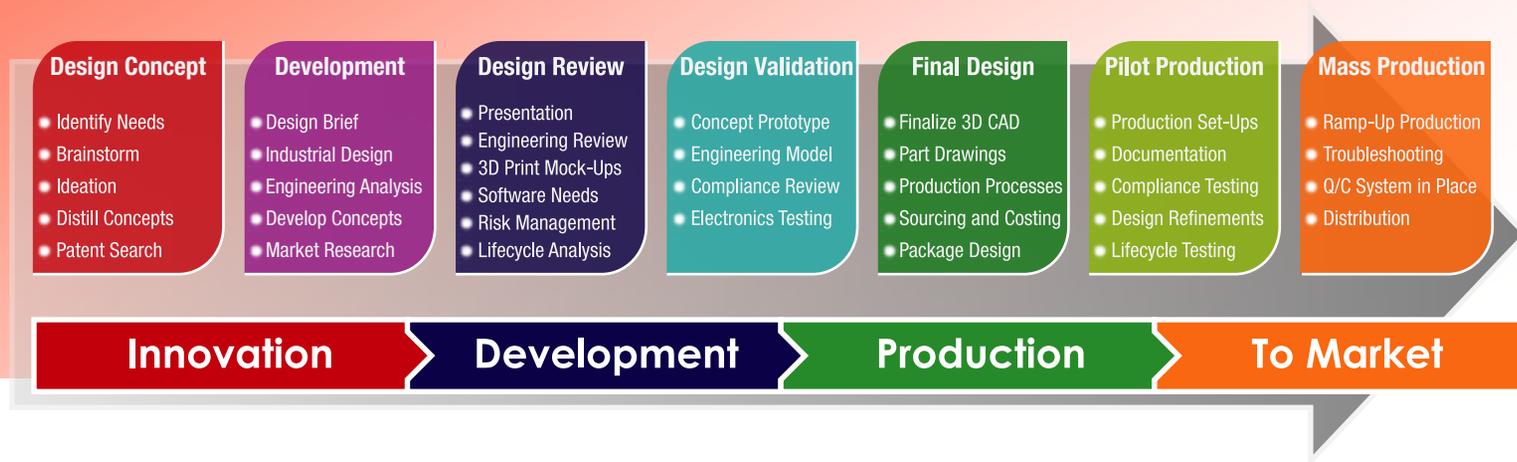
## Our Team | Our Approach

The Ferox Designs team is comprised of designers, engineers, scientists and researchers—all who think beyond traditional limits and bring curiosity and creativity to each project. Their passion and dedication drives them to find the best outcome. Sometimes the status quo is disrupted and the unexpected becomes apparent.

A clear comprehensive development program suited to your requirements, with set timeframes and budgets can be created. From start to finish, we guide our clients through the maze of product development which can seem complicated at times.

## Typical Product Development Phases

Project Identification & Brainstorming  
Design Brief Developed  
Competitive Market Review  
Concept Selection, Development & Refinement  
Design Engineering & Development  
Risk Management  
Prototype  
Proof of Concept Testing  
Documentation- ISO 9001 Standard  
Pilot Production | Production



## Capabilities | Services

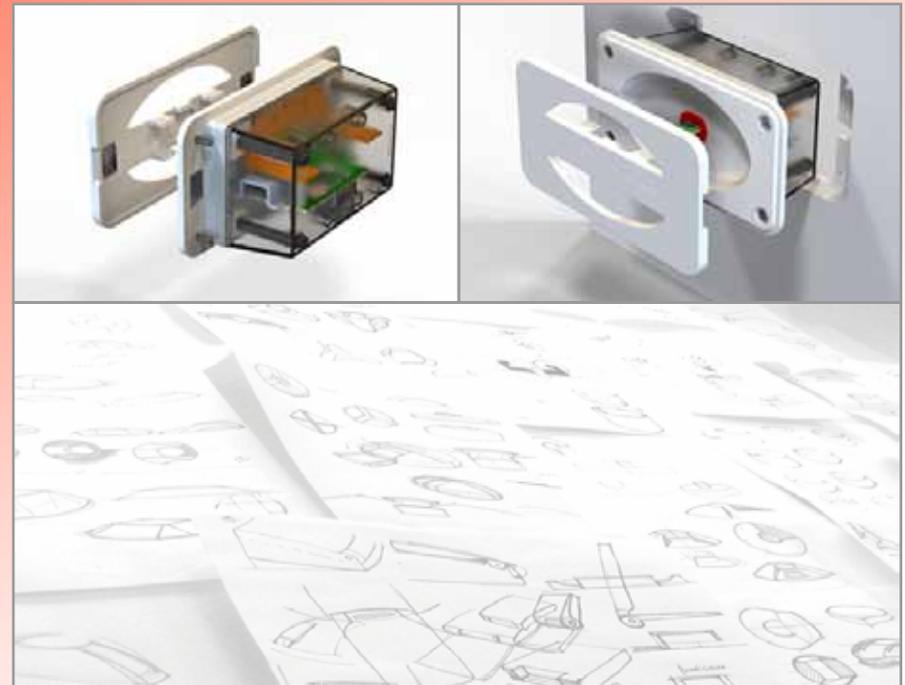
We can work as your outside R&D department or we can be integrated into your company and work with your in-house staff.

### Research

- Market | User Research
- Review Regulatory Requirements
- Feasibility Studies
- Patent Search | Navigation
- Sustainability
- Ergonomics | Human Factors
- Identify New Technologies
- Lifecycle Analysis
- Materials Investigation
- Manufacturing Processes

### Industrial Design

- Concept Ideation | Brainstorming
- Product Specification
- Design Concepts
- Concept | Form Development
- User Interface Design
- Materials Investigation | Evaluation
- Vendor Sourcing & Costing
- Lifecycle Analysis
- 3D Computer Modeling
- Photorealistic Renderings
- 3D Printing | Prototyping
- Proof of Concept Testing
- Model-Making | Photo Ready Model
- Product Documentation

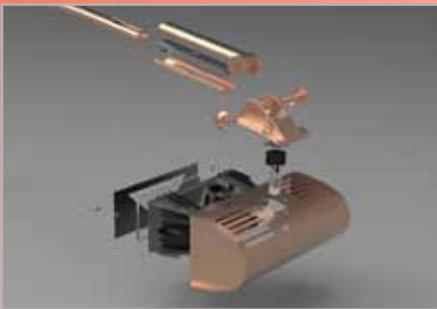


# Capabilities | Services



## Marketing Support

Market Research  
Photorealistic Renderings  
Mock-Ups | Photo-Ready Models  
3D Printing | Prototyping  
Brand Identity | Management  
Product Packaging  
Compliance & Regulatory Affairs  
Certified ISO 9001



## Pilot Production | Manufacturing

Product Specification  
Bill of Materials  
Final Part and Assembly Drawings  
Assembly Instructions  
Component Specifications  
- Materials, Processing, Colors, Textures, etc.  
Compliance Testing  
Maintenance | Service Manuals  
Manufacturing Specification  
Design of Special Tools and Fixtures  
Tooling Refinement Recommendations  
Assist in Setting up Quality  
Regulatory Standards Protocol  
Establish Production Procedures  
First Article Inspection and Sign Off  
First Assembly Validation and Sign Off

## Engineering

Mechanical Engineering  
Electrical Engineering  
Software Development  
Embedded Systems  
- Control, Product Monitoring  
Automatic Control System  
- Design and Implementation  
Finite Element Analysis  
Thermal Management  
Optics | Lens | Reflector Design  
Patent Navigation | Documentation  
UL | ETL | CSA Evaluation  
CE Marking

## Software

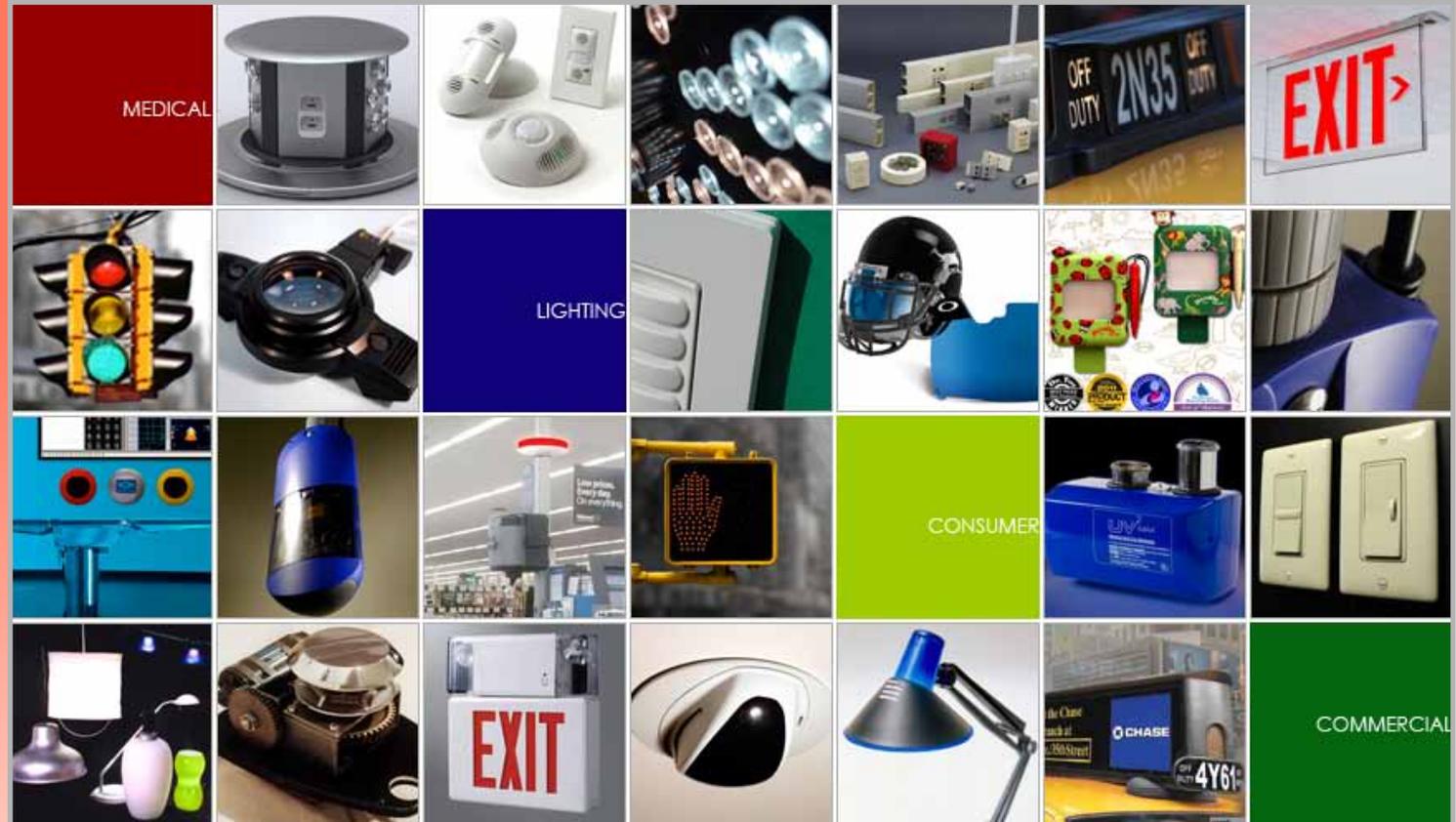
- Custom software  
- Mobile App development  
- Embedded systems development  
- Custom database solutions  
- Data analytic, model generation  
- Security and encryption software  
- Parallel processing solutions  
- GUI design  
- Firmware development  
- Compliance IEC 62304, IEC 60601  
- Customization of existing systems  
- Migration to new platform  
- Embedded systems

# Portfolio

Ferox Designs Bring Innovation to Market.

Medical  
Lighting  
Consumer  
Commercial

[www.feroxdesigns.com](http://www.feroxdesigns.com)



# Case Study

## Optimus I Integrated Surgical Environment

### Our challenge

Re-imagine today's Operating Room into the first fully Integrated Surgical Environment that is simple, safe and sterile.

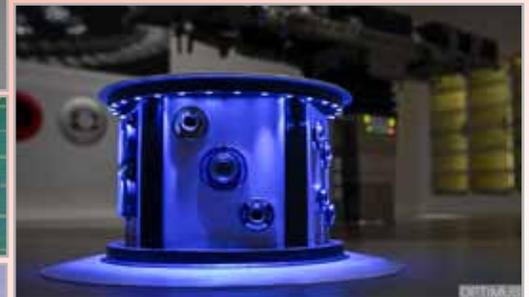
### How we did it

Every OR has several mandatory and patient critical systems in common. Extensive research, interaction with end users, prototyping and trials in our state-of-the-art mock surgical suite helped us to determine the essential requirements of these systems and distill down to the basic interactions of the whole. The results lead us to a reduction of clutter, improved efficiency, logical interaction and an intelligent leap in surgical support technologies.

### Innovative designs include

- Retracting floor pods that serve as docking stations for critical equipment electrical and gas connections.
- LED lighting system comprised of ceiling mounted remote controlled providing shadow-free, variable intensity and variable color temperature control. Secondary beam design provides focused deep wound illumination.
- RFID pass-through supply cabinet to monitor inventory within the OR.
- Built-in trash disposal system to segregate post-surgical hazardous waste.
- Whole room disinfection via a patented ozone system.
- Sink trap that eliminates potential infectious hazards within the scrub sink.
- Smart-power system; monitored and controlled by embedded software.
- Integrated, remote controlled system for efficient use of space, excellent ergonomics and unsurpassed sterile procedure.

**As a result of these and other innovations the Integrated Surgical Environment is a reality... simple, safe, and sterile.**



# Case Study

## Adapt Media | Taxi Advertising Display

**Adapt Media** approached us to design and engineer a taxi roof-mounted combination LED/LCD advertising display system with the capability of broadcasting advertising campaigns in real-time via GPS and cellular network.

**The initial challenge** was to create a distinctive appearance combined with the important elements of reduced aerodynamic drag, accessibility of internal components for easy part replacement, simplified construction, reduced weight, thinner cross-section and lower cost.

**The biggest challenge** we faced was the environment in which these Crown Victorias would travel -New York City- one of the harshest environments around. Smog, potholes, hurricane rain levels, and winter icing effects, vibration, etc., were just some of the problems faced.

Concurrent with the design direction, engineering tasks included mounting issues/ structural support for the unit, a cooling system for heat dissipation, wiring and cabling, gaskets/ weather sealing, providing screen visibility in daylight, shock and vibration minimization, and power consumption (custom alternator was designed) all of which were solved. Intense attention was placed on testing.

**In the end**, with close communication with our client and the high level of expertise we provided, the unit went far beyond all expectations of the client. Addendum—the custom designed high-output alternator became standard equipment in police car packages.



Some of Our Clients



Unilever

pepsi



LIGHTOLIER



Tupperware®



GENERAL  
FOODS



STANLEY

COOPER

Powerwinch

PHILIPS  
ALKCO



3M

Nessen LIGHTING



dac

THE LIGHTING QUOTIENT