

# GSI GEISEL SOFTWARE

Geisel Software is a custom software development company with a passion for innovation and special expertise in embedded and application software solutions. Our highly skilled team designs, develops and deploys groundbreaking software solutions that incorporate stringent security protocols. We've worked with some of the most visionary companies to deliver world-class web/cloud, mobile, IoT, AI/ML and embedded solutions. Our revolutionary thinkers and problem-solvers are embracing innovation to tackle some of the toughest technical challenges in robotics, medical devices and more.

With a deep understanding of traditional technologies that only comes with years of experience, combined with a passion for staying ahead of the technology curve, Geisel Software is defining the future of technology.

## WHY GEISEL?

### Expertise

Over 20 years of experience across government, robotics, embedded, and application development. CEO Brian Geisel was named Massachusetts Small Business Person of the Year 2020.

### Industry Acumen

Expertise working with Government procedures such as ITAR, FAR, DFARS and others.

### Agile

We can quickly assemble a team of any size to meet project requirements.

### World-Class Talent

We hire only the top 1% of developers - over 100 applicants screened for every one engineer hired.

## FULL SERVICE TEAM

- Software Architecture
- Software Engineering
- QA/Testing
- UI/UX Design
- Program Management
- Security Expertise
- Content Creation

## SATISFIED CUSTOMERS

“Geisel Software **completely understood** where we were and where we wanted to be. They didn't just deliver what we asked; they told us what we needed to know and **acted in every way like a partner** with a common goal instead of just a service provider.”

*Duane Delfosse, Director of Engineering & Product Development at Sterilis Medical*

## SOME OF OUR CLIENTS



## TECHNICAL CAPABILITIES

- Robotics
- RTOS
- ROS
- Embedded Development
- UGV / UAV / UAS
- Swarming Robots
- Planetary Robotics
- Independent Robotic Tasking
- Application Software
- Artificial Intelligence
- Machine Learning
- Autonomous Behavior
- Localization/Mapping
- UI/UX
- Automation
- Electronic Manual Conversion
- Bluetooth
- BLE
- RF
- Wireless
- Encryption
- Cybersecurity
- Linux Device Driver
- Kernel
- Cloud
- AWS
- Azure
- iOS/ iPhone / iPad
- Android
- Angular JS
- Node.js
- Real-time
- Firmware
- HTML
- C/C++
- Python
- Java
- JavaScript
- Swift
- and more...

## SAFE OPS SYSTEMS COMMAND PLATFORM [AI]

SOS Live is an enterprise-grade, edge cloud solution that connects and automates mission-critical equipment to provide rapid, real-time situational awareness to first responders. The virtual command platform integrates UAVs, cameras, sensors, and mobile devices. An AI-based application preemptively detects threats and equips responders with mission-critical information.

Geisel Software was hired to create a first-of-its kind compact UAS proof-of-concept for police/fire department response in a large county in CA. GSI performed: requirements, architecture, software development, integration, demonstration. An iPad app user provided a target location, which directed the UAV to fly to the target, circle, stream video to the iPad app and remote browsers, and return to launch point. Communication was via WiFi and processing was performed on an on-site laptop.



“I highly recommend Geisel Software for your small or large development projects. We developed a transparent relationship with the Geisel team. They felt like an extension of our own team and put in the extra effort needed to hit our incredibly tight deadline. They were very flexible as our needs changed, working within our budget and schedule constraints to deliver a quality product on time.”

*David Weatherwax, Director of Software, FLIR Systems*

## FLIR SYSTEMS UNIVERSAL INTERFACE [ROBOTICS]

FLIR Systems needed help to expeditiously develop an operator control user interface (UI) for their lifesaving, bomb-defusing robots. It features a universal controller that allows operators to view and control other UGVs, as well as unmanned aircraft, for improved battlefield awareness. It was a large-scale, complex project with a compressed six-month timeline and mission-critical deadline.

FLIR knew Geisel Software had a track record of success and the skilled engineers to get the project done by the critical deadline. Geisel engineers developed a high-quality, performant UI running on a tablet computer using modern, web-based technologies.

Geisel also solved several tough technical problems, including a troublesome video decode issue. During the integration phase, the Geisel team worked onsite with FLIR engineers to troubleshoot and resolve the many integration challenges common in designing complicated robotic systems.

Geisel's software development, architecture, project management, UI/UX, JavaScript and SQA skills, combined with their expertise in web applications, robotics and security, helped FLIR to complete the project on time and within budget. The UI work for the initial project was designed with future projects in mind and FLIR retained the Geisel team to continue work on their next robot.

## DIAGNOSTIC BLOOD ANALYZER [MEDICAL]

A manufacturer of diagnostic blood testing analyzers was developing a new version of an electrolyte measurement system featuring leading edge analysis technology. They also wanted to replace the text-based user interface with a sleek, easy-to-use, modern design. Other projects at the company fully utilized their internal staff of Android developers, preventing them from meeting the product's scheduled deadline.

Geisel Software worked with their .rmware and software teams to meet their project deadline. Geisel architected a solution that incorporated existing code where feasible, simplified the application software, and allowed the new code to be reused with the company's other products, resulting in lower product development costs. They also created a screen navigator storyboard that reduced software development and maintenance efforts and will reduce development time for future product releases. In addition, the manufacturer's engineers were able to tap into Geisel's expansive Android expertise for best practices and tips that will carry over to future projects.

Geisel's extensive product development experience also helped the manufacturer streamline and enhance internal processes. A preliminary version of the new product was made available to the company's scientists ahead of schedule, further shortening the overall product development cycle.