

Statement of Capabilities



Engineering – Innovation – Solutions

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WOSB – SDB - HUBZone

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Our Mission

“LeNginer’s goal is to deliver diverse engineering services for both US Government and Private Industry while honoring 100% customer commitments, on time, within budget, and with the highest standards of ethics. We are committed to excellence in both customer service and the technical support we deliver. Our commitment to strong work ethics and practices is a top priority that starts with our employees.”

~Tuan Le, CEO

Company Profile

LeNginer is a high technology woman-owned, minority-owned, small disadvantaged business that is financially secure, debt-free, and successful in meeting its business objectives. LeNginer was founded as an engineering services company by Tuan Le in 2014. LeNginer has provided top quality, award winning services and products in support of the U.S Space Program/NASA, Department of Defense, Navy, Air Force, Army, and many Fortune 500 companies.

Our diverse team is comprised of engineers and projects managers that have worked in diverse areas of design, electrical, software development, and network architecture for the aerospace industry, in order to automate the next generation of human space flight systems including Launch System, Mobile Launcher, Commanding Controls, Ground Support, Information Technology, and Cyber Security. We have aided in design, fabrication, and maintaining networks for businesses ranging from a single store operation to major corporations. Support also includes commercial industries for facility, waste and water treatment, automatic controls, and HVAC. Support for IT/Cybersecurity and firewall provided across multiple networks and within multiple systems is also within our expertise.

Our company is very motivated with many talented young engineers who are excited to begin a new venture of evaluations, assessments, studies, services, and support within the space industry. Our engineers are integrators who utilize their many perspectives, along with various and diverse backgrounds, in order to develop new ideas and approaches to the sciences and engineering. They each have dreams and goals to lead innovation in this field by being an integral component of project research and development. For each project, LeNginer becomes a partner in our customer’s endeavors. By seamlessly working together, we successfully implement technical and management solutions that enable our customers to keep pace with their evolving needs and technological growth. As a result, our customers can focus on and readily achieve their primary objectives.

Commitment to the U.S Space Program

LeNginer's CEO has years of experience at Kennedy Space Center (KSC), including managing the Controls Laboratory in the Electrical Development Laboratory (EDL) for the development and design activities for NASA Space Launch System (SLS). The Controls Lab is where all the systems and subsystems are designed and developed from electrical to automation control. He has worked as a project manager for multiple projects across the country with multiple private companies (Emerson Electric, Lockheed Martin, AV Electronics) and federal agencies contractors (NASA, NAVY), Kennedy Space Center (KSC), Johnson Space Center (JSC), and King Bay. In addition, we have provided military support for the Navy Fleet Ballistic Missile (FBM) program including missile lab, facility, and test equipment.

Along with program management for system and subsystem design and development from electrical to automation control, his support also includes expanding software and electrical designs that support instrumentation services, customer prototyping, EMI qualification and testing, electromagnetic effects analysis, vibration testing, and hardware design certification. Along with managing the Controls Lab, Mr. Le has extensive work experience as a systems developer and with prototype testing alongside NASA and across multiple complex systems and subsystems including Ground Special Power (GSP), Kennedy Ground Control System (KGCS), Environmental Control System (ECS), Ground Control System (GCS), Liquid Hydrogen Tank (LH2), IOPSS, Launch Control Center (LCC), WX, HazGAS, Thermal Analysis, and Crew Access Arm (CAA). Mr. Le also has several years of experience in technical design, fabrication, operation, support, integration and development of multiple systems and subsystems including the KSC ground control system, environmental control system, ground special power, launch and command control, navigation systems, audio and video visual, and network/cybersecurity systems.

Safety Policy

LeNginer is fully committed to the health and safety of our employees, partners, and customers involved in our contracts. We provide a risk and injury free work environment that maintains the highest standards of safety, health, and environmental policies/regulations through our essential administration team and training protocols. All aspects of our strict safety policy are in place to ensure no possibility of equipment damage or damage to personnel.

When changes need to be made, our managers will assess all the new requirements and determine if new staff is required or if training to the current staff will suffice in which we have readily available training programs and instructors to be brought in. We emphasize a teamwork concept in order to achieve compliance with our regulations to help us achieve our goal of the most efficient workplace possible. Due to these principles, LeNginer is an optimal place of work.

Locations

LeNgeener's headquarters are HUBZone located in Titusville, Florida. We have two facilities, 11,000 and 3,500 square feet secure buildings that are located within 5 miles of KSC, that are capable of completing the design, fabrication, manufacturing and testing of newly developed technology.

North American Industry Classification System (NAICS)

541330 – Engineering Services

541511 – Custom Computer Programming Services

541512 - Computer Systems Design Services

541611 - Administrative Management and General Management Consulting Services

541990 - All Other Professional, Scientific, and Technical Services

541690 - Other Scientific and Technical Consulting Services

541712 - Research and Development in the Physical, Engineering, and Life Sciences (except Biotechnology)

541715 - Research and Development in the Physical, Engineering, and Life Sciences (except Nanotechnology and Biotechnology)

CAGE: 7SAB3

DUNS: 080506457

- **Dr. Troy Nguyen**

Education: He earned a Ph.D. in Mechanical Engineering from Colorado State University, M.S., B.S. degrees in Mechanical Engineering, and a B.S. degree in Computer Science from the University of North Dakota.

Experience: Prior to coming to LeNginer, Mr. Nguyen spent over 25 years in defense and commercial industries as an engineering leader in R&D projects for advanced military systems and state-of-the-art commercial nuclear and fossil fueled power plants. His previous position was with Northrop Grumman Electronic Systems (NGES) as a Consulting Systems Engineer. His work employs systems engineering methodologies to address challenging issues such as energy efficiency, reliability, availability, and cyber security of mission-critical systems on modern military platforms, commercial power generation plants, and buildings. This work has resulted in more than 30 technical publications since 2009. Dr. Nguyen has broad expertise in systems engineering, systems automation, control system design, mechanical design, and project management. He is a registered professional engineer (P.E.) and a certified general contractor (GC) in the state of Florida. He is also certified by the International Council on Systems Engineering (INCOSE) as an Expert Systems Engineering Professional (ESEP), which is the highest certification awarded to a small group of systems engineering experts worldwide.

- **Dr. Alireza Rahrooh**

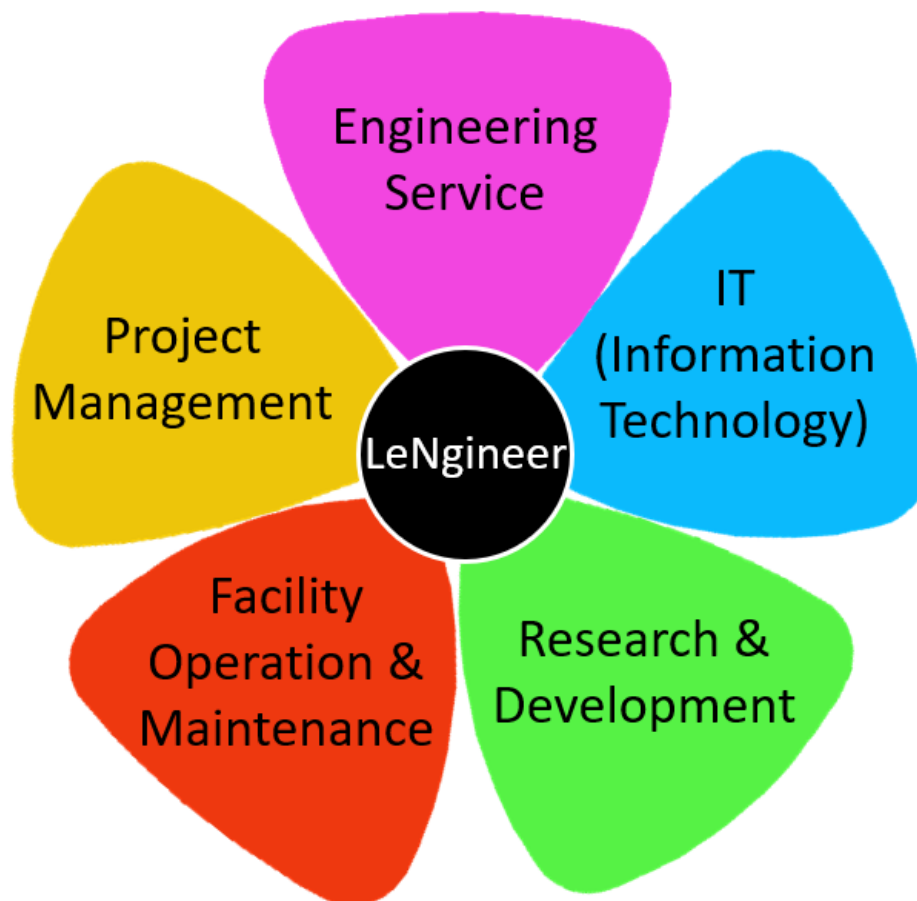
Education: He received the B.S., M.S., and Ph.D. degrees in Electrical Engineering from the University of Akron

Experience: Prior to joining LeNginer, Dr. Rahrooh is also a Senior Professor of Electrical Engineering Technology and the Program Coordinator of Electrical Concentration of Bachelor of Science in Engineering Technology. He has also served as a faculty member at the University of Central Florida for 16 years, Pennsylvania State University for 6 years, and worked in industry as a control engineer for 5 years. He has played a key role in promoting emerging technologies, research and education in electrical engineering by introducing and integrating a variety of hardware and software into the undergraduate and graduate curriculum. He also has developed several undergraduate and graduate courses in the electrical engineering field. His research interests include digital simulation, nonlinear dynamics, chaos, control theory, system identification and adaptive control. He is a member of ASEE, IEEE, Eta Kappa Nu, and Tau Beta Pi. Dr. Rahrooh developed an adaptive technique for real-time simulation of highly linear systems which is extensively being at the NASA Lewis Research Center. He has routinely mentored his students and have led them to landing jobs in the Aerospace field, including

NASA. He developed a curriculum for training the Process Analysts at Lucent/Cirent Technologies as a part of the State Funded Education Program. His main objective as an educator is to teach technical skills that can be applied the ever-growing engineering industry.

Core of Services

- Engineering Services
- Information Technology
- Research and Development
- Project Management
- Facility Operations and Maintenance



LeNginer was founded on the engineering expertise of our CEO and for the encompassing capabilities of our engineers. We provide research and technology development along with services to meet the desires and goals of our clients. Our services encompass:

Electrical Engineering

- Circuit board and PCB design
- Control panel, power distribution, thermal management
- Upgrade/modify aerospace equipment and vehicles

Computer Engineering

- Software development
- Machine Learning and Artificial Intelligence implementation
- Automation and feedback control

Systems Engineering

- Obsolete equipment restoration with newly developed technology
- Prototype development, testing, and evaluation
- Electromagnetic Interference (EMI) and computational fluid dynamics (CFD) testing

Mechanical Engineering

- Test and evaluation of stress/structures
- Trajectory, velocity, launch angle, and external ballistic factors

Biomedical Engineering

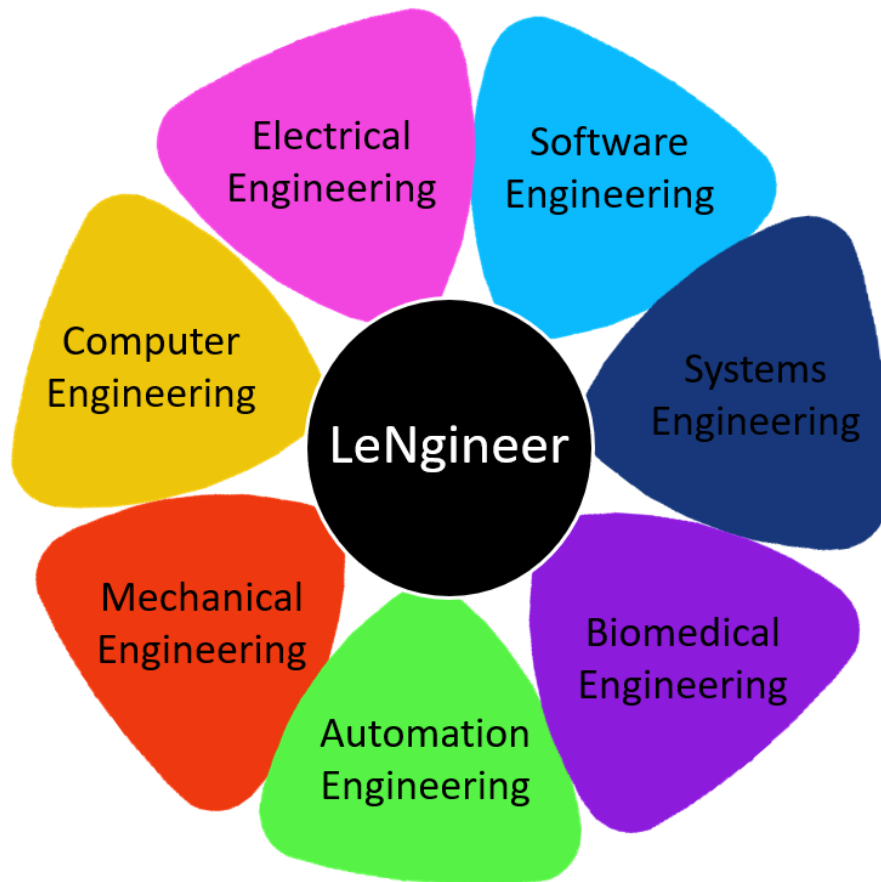
- Upgrade/modify medical equipment
- Computational modeling to create clinically useful diagnostic tools that personalize therapy
- Bio sample testing

Civil Engineering

- Construction management
- Secure facility design
- Commercial and residential building management and operations
- Water treatment plant and wastewater plant
- Maintaining compliance with federal, state, and local regulatory agency guidelines
- Worksite monitoring to ensure OSHA requirements compliance

LeNginer Engineering Certifications:

- Certified IPC Specialist
 - Successful completed the Application Specialist course of study on J-STD-001 Requirements for Soldered Electrical and Electronics Assemblies.
 - Wires and Terminals
 - Through Hole Technology
 - Surface Mount Technology
 - Inspection
 - Space Addendum
- Rockwell Automation Certificate of Achievement
 - Completion of the certificate program as a Programmer of ControlLogix



LeNginer works to create client specific solutions by developing, integrating, and supporting advanced hardware and software products. Our team routinely conducts research, data analysis, systems analysis, troubleshooting, and certification testing of all products used prior to customer implementation. LeNginer is One-Stop-Shop for all services required for IT integration; including verification and validation reviews. We can assure the timely implementation and operational support necessary to meet the client's objectives. We offer:

Cyber Security

- Network Monitoring
- Management System Assessments
- User Access Controls
- Risk Assessments
- Security Maintenance Protocols

Network Architecture

- Computer Workstation Setup
- Commercial Cloud Configuration
- Network Mapping
- Framework Design
- Communication Protocols
- Software Defined Network

Automation Controls

- Data Management
- Cost Reduction
- Cloud Provisioning
- Configuration Management
- Application Deployment

Implementation

- Professional Training
- Technical Support
- Software Maintenance
- Site Assessment and Analysis
- Strategic Planning

LeNginer Information Technology Certifications:

- Microsoft Certificate of Excellence
 - Successful completion of requirements to be recognized as a Microsoft Certified Technology Specialist (MCTS).
 - Successful completion of requirements to be recognized as a Microsoft Certified IT Professional: Enterprise Desktop Administrator on Windows 7.
- Microsoft Certified Solutions Associate
 - Successful completion of requirements to be recognized as a Microsoft Certified Associate: Windows 7 (MCSA).
- Infosec Institute
 - MCITP: Enterprise Administrator Upgrade Training
 - Completed all facets of the MCITP Enterprise Administrator Upgrade Training and earned 16 CPE hours and is hereby deemed as a Content Specialist in the field of Information Security.
 - MCITP: Windows 7 Desktop Administrator Training
 - Completed all facets of the MCITP Windows 7 Desktop Administrator Training and earned 40 CPE hours and is hereby deemed as a Content Specialist in the field of Information Security.
 - MCITP: Server Administrator 2008 Training
 - Completed all facets of the MCITP Server Administrator 2008 Training and is hereby deemed as a Content Specialist in the field of Information Security.
 - Windows Server 2008 MCITP/MCSA Training
 - Completed all facets of the Windows Server 2008 MCITP/MCSA Training and is hereby deemed as a Content Specialist in the field of Information Security.

LeNginer has been designed with the capability for advanced engineering and have provided Architectural and Engineering services in relation to R&D to our customers. R&D is a core skill and amenity of LeNginer as it provides the basis of our experiences and attributes to engineering and management. The goal of LeNginer's R&D is to further create advanced technology and to deliver tools to our customers that aid in their respective field. We provide multi-scale and multi-discipline engineering research and design services to create developmental standards including architectural, civil, structural, mechanical, communications, environmental, safety, and security.

Our research and architectural capabilities include designing for ambience, functional, environmental, and aesthetic considerations; scheduling, cost estimating and construction administration; and consulting. We also conduct peer reviews; and ensure structural designs to account for load, seismic activity, hurricane conditions, and other conditions that affect the structural integrity of buildings. Services we offer:

Electronics Design

- Electrical circuit
- PCB designs
- Electrical wiring, installation, and fabrication for commercial and residential buildings
- Testing and measurement equipment and instrumentations
- Power calculations and power distribution

Automation Control

- Supervisory Control and Data Acquisition (SCADA)
- Human Machine Interface Display (HMI)
- Program Logical Control (PLC)
- Water and wastewater
- Oil and gas industry

3D Modeling & Printing

- Blueprint designs and write ups
- Plot plans for site layout
- Facility and building analysis
- Mechanical parts modeling
- Design modifications to comply with current codes
- LiDAR

CAD Design

- Utilizing multiple AutoCAD pipelines to design, analyze, and implement newly developed technology
- Launch design, guidance, navigation, and control

Software Development

- Planning of scheduled timeline to achieve the proper goals
- Analysis the requirements needed for the final product
- Design of software
- Implementation in new and upgraded scenarios
- Testing and Integration for systems failure detections
- Maintenance of software performance

Biotechnology

- Biomedical informatics tool development
- Data visualization
- Imaging data analysis
- Reverse engineer molecular networks
- Nanotechnology

Tools

- 5G communication network research
- Fault detection software
- Vehicle health monitoring
- Automation control

LeNginer has experience as a project management service for multiple large-scale and small-scale contracts for government and private commercial industries. LeNginer's team of evaluators will be collected from our teams of engineers, project managers, administrators, accountants, and professional experts. Their schedules and timelines will be adjusted based on the task order and the requirements for its duration. LeNginer is able to quickly staffing up and down, including accessing personnel from other than direct hiring, to adapt to changing requirements, priorities, workload, and funding fluctuations to meet Government requirements without adversely affecting ongoing work. Tasks offered:

Risk Assessment

- Identify hazards and risk factors that have potential to cause harm
- Analyze and evaluate the risk to create a supply chain to avoid any discrepancies

Cost Analysis

- Cost comparisons to prepare financial statements
- Controllable or noncontrollable for direct or indirect costs to maintain the proper budget

Scheduling Analysis

- Timeline creation and evaluation to meet deadlines

Standardization Projects

- Data clean up, documentation, process development
- Improve quality, productivity, morale and revenue

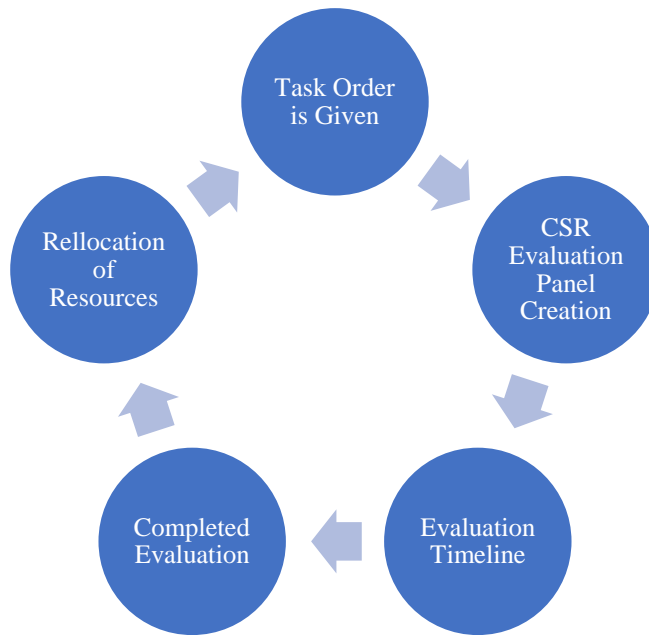
Program and Mission Operations

- Strategic planning activities for the realignment of science and engineering
- Budget planning and performance evaluations
- Vehicle Fleet Management
- Inventory Management

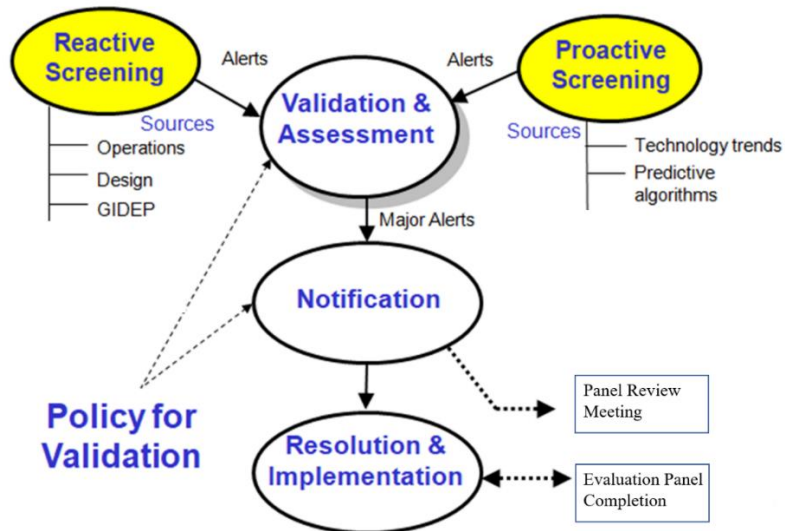
LeNginer Recruitment Process



Evaluation Process



Validation Process



LeNginer is exceptionally experienced in managing and performing facility and infrastructure operations along with maintenance of facilities, launch structures, laboratories, and test beds for private industries and government agencies. We offer:

Facility Condition Assessments

- LeNginer is able to conduct facility condition and energy/water use assessments to meet any lifecycle requirements.
- These assessments are used to accurately document repair/replacement and future requirements.
- The information is also used to identify budget requirements and incorporate requirements into task planning.
- Job walks in order to assess the incoming workload for maintenance and operations

Predictive Testing and Inspection

- Monitor failure and conduct root cause failure analysis on critical and noncritical systems
- Power calculations
- Power distribution
- Modifications of technology
- Electrical Circuits
- Analysis for feedback control and automation

Maintenance/Operations

- Installation, repair, and onsite troubleshooting of HVAC, elevator systems, remote sensing, fire and alarm systems
- Systems analysis and installation
- Corrosion control
- Landfill operations
- Preventative maintenance plans
- Vehicle and equipment maintenance
- Road and grounds maintenance
- Access control and monitoring
- Documentation for standard operation procedures
- Disaster plans and support
- Scheduling of heavy equipment

Due to LeNginer’s desire to innovate and to be a part of the next generation of technology we have already begun the development of our own products. LeNginer has a reputation for building efficient systems within a low budget with the future for potential add-ons.

MITA

LeNginer’s MITA (Multifunction Instrument Test and Analysis) technology is used to design, analyze, and optimize complex systems. The advantages of MITA include the following: safer, cheaper, and more accurate than ever; design and troubleshoot faster; universal hardware; compact and portable. MITA collects data and analyzes but can also function as a launch system if needed. This technology integrates information from multiple systems in order to make predictions and provide accurate data to the user. This is a main concept behind the LeNginer MITA safety technology; in order to reduce human error, the innovation must precisely recognize system failures and outliers by assimilating all the inputted and collected data.

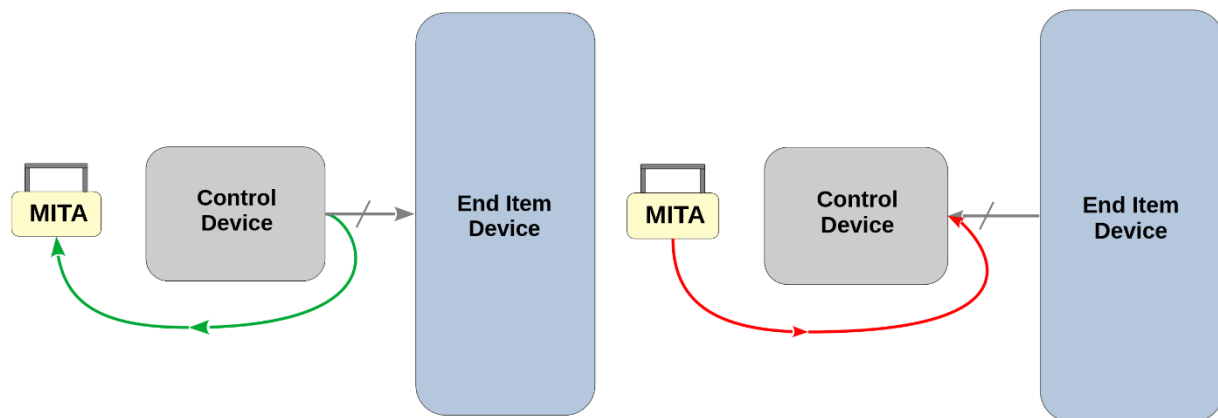


Figure 1: Control device sends input data to MITA

Figure 2: MITA output data sent to control device & end item device

Command and Control Center

LeNginer has already been in development of a portable command and control system that functions as a mobile system. This system functions on a unique and proprietary software that will aid the future space industry. The small and compact vehicle can fully automate the launch, self-diagnostic, constantly checks and validates the system simultaneously. It also asks and requires verification from the human user when a minor error has been detected. The system will shut down when critical conditions are detected; however, it can be overridden by human input. This minimizes personnel and manpower needed to run a launch system, while decreasing

the chance of human error. Our compact system utilizes AI and ML, and LeNgeener is very confident in finalizing the development of this new technology.



Drone

LeNgeener has also developed our own drone technology that has many applications in the technical workforce. Our drone was originally designed to function as a first responders' aid for the fire department and police department here in the City of Titusville. When LeNgeener's Drone is combined with essential software packages (Revit, 3D CAD, ReCap PRO and more), we can provide accurate data for facility assessments, renovations, maintenance and construction. When combined with sensors, the drone provides accurate data for the emergency medical services team as they react to emergency situations. The live data will be sent to the nearest emergency center in order to develop a plan of action before the patient even arrives at the facility.





AR Glasses

LeNginer is also in development of augmented reality glasses which provide the user with an interactive experience that will boost their knowledge of currently aerospace technology. The glasses optimize the next generation of digital integration for operations, such as workplace instructions, quality assurance, and maintenance. The user will be provided with predictive information regarding real-time operation based on sensor and telemetry data along with displaying needed specifications on screen while working on the project.



Our Major Customers

LeNginer has a demonstrated history of completing work tasks in a timely matter and under budget while conforming to contract requirements and task order necessities. We deliver the appropriate documentation as scheduled and maintain the highest accuracy standards possible. A sampling of our satisfied customers includes:

- Government
 - NASA
 - Kennedy Space Center
 - Johnson Space Center
 - Base Operations and Spaceport Services
 - Engineering Services Contract
 - United States Navy
 - University of Central Florida
- Commercial
 - PAE
 - Lennovation
 - Le Crave
 - Leng Investments
 - CaT Solutions
 - Kobe Steakhouse



LeNginer believes in developing partnerships with motivated companies that share the same principles and goals as us in order to achieve a framework of teams that establish a framework of collaboration. By doing so we are able to combine our skills and expertise to unify a shared skillset that allows for the best solutions to be reached efficiently. LeNginer has established working relationships with the following companies:



**Millennium Engineering
and Integration Company**



O.T. TRANS, INC.



Our Awards

LeNginer is committed to delivering high quality products and services at a superior value. Our attention to quality, coupled with our timely, cost-effective performance, has earned recognition from our customers and partners as well as from government agencies. In addition to the numerous individual awards our employees have received for safety, quality, and performance, CEO Tuan Le and the company's accolades include:

- Space Flight Awareness Team Award
 - In appreciation of this team's remarkable abilities and exceptional performance in the area of hardware assembly, testing and installation in support of the Pad B Early Deployment Project.
 - Awarded to less than 1% of the workforce annually.
- Space Flight Awareness Team Award
 - In recognition of the Kennedy Ground Control System Team's outstanding performance demonstrated during the successful design of the KGCS system for the different Constellation elements including the fabrication, installation, and testing of the system at Pad B.
 - Awarded to less than 1% of the workforce annually.
- Kennedy Space Center Group Achievement Award
 - For outstanding efforts and teamwork in preparation for and conduct of numerous demonstrations of the future Kennedy Space Center End to End Command and Control Capability.
- Engineering Services Contract Achievement Award
 - In recognition of contributions to improve ESC's advertising campaign through the use of social media marketing.
- Engineering Services Contract Teamwork Award
 - In recognition of the outstanding performance of the KGCS team throughout the design, fabrication, testing and implementation phases.
 - The continual support to and integration with the GSE Subsystems and the Launch Control System that the KGCS team provides is critical to the overall success of the Space Launch System program.
- Titusville Talking Points
 - LeNginer recognized as a new high-tech venture in the Space Coast area.