



IoT Design and Development

PROTONEST SERVICES & CAPABILITIES

WHO WE ARE

Protonest is a dynamic IoT engineering hub founded in 2023 to transform visionary ideas into scalable, working systems.

We build scalable IoT solutions that emphasise reliability and security.

Our mission is to accelerate the design & development of sustainable, cost-effective, and scalable IoT solutions, done right and delivered fast.



WHY PROTONEST



ONE-STOP IOT ENGINEERING

We handle hardware, firmware, User facing software, and cloud infrastructure in a single workflow.



PROVEN TRACK RECORD

More than 100 projects and 100 satisfied clients delivered within three years.



CROSS-DISCIPLINARY TEAM

We are a diverse team of engineers, designers, and thinkers.



MISSION-DRIVEN VALUES

Our strong value driven culture ensures every project is delivered with innovation, integrity, and a commitment to excellence.



OPTIMIZED SERVICE DELIVERY

We are committed to streamlining and optimizing our approach to service delivery.



FINANCIAL PERSPECTIVE

Cost-efficient, scalable revenue growth



CUSTOMER PERSPECTIVE

Enhance client value through reliable IoT solutions



INTERNAL PROCESS PERSPECTIVE

Lean, automated, and scalable processes



LEARNING AND GROWTH PERSPECTIVE

Continuous capability development through digital innovation

OUR PRODUCTS

Protonest Connect, our IoT SaaS platform, helps teams save backend development time by **93%** and costs by **64%**.

Our IoT Design Tool breaks down the design process into manageable steps with clear guides, allowing expert reviews and personalized quotes.

SERVICES OVERVIEW

Our end-to-end IoT services and deliverables are detailed below.

<p>CONCEPT DEVELOPMENT</p> <ul style="list-style-type: none">• Feature Analysis• System architectures• Component Selection• User flows• Initial hardware architecture• Stack selections• Power Budget Calculations• Risks and mitigations• Manufacturing cost estimations	<p>BACKEND DEVELOPMENT AND DEPLOYMENT</p> <ul style="list-style-type: none">• Source code with components• Swagger API Documentation• Overall Architecture diagram• Authentication flow• Sequence diagram• DB design• State diagram• README files• Hosted Links and credentials	<p>FRONTEND DEVELOPMENT AND DEPLOYMENT</p> <ul style="list-style-type: none">• Source code with components• README files• Hosted Links and credentials
<p>UI/UX DESIGN</p> <ul style="list-style-type: none">• Information Architecture• User Journeys• Low-Fidelity Wireframes• High-Fidelity Design	<p>ELECTRONICS HARDWARE DESIGN</p> <ul style="list-style-type: none">• Schematics• Hardware Architecture diagram• Design and manufacturing files	<p>FIRMWARE DEVELOPMENT</p> <ul style="list-style-type: none">• State Machines• Tested source code in modular structure

SERVICES OVERVIEW

MECHANICAL ENCLOSURE DESIGNING

- Design and Manufacturing Files
- Bill of Materials

TESTING & VALIDATION

- PCB Test Reports
- Firmware Test Reports
- Software QA reports

MANUFACTURING SUPPORT & AFTER-SALES

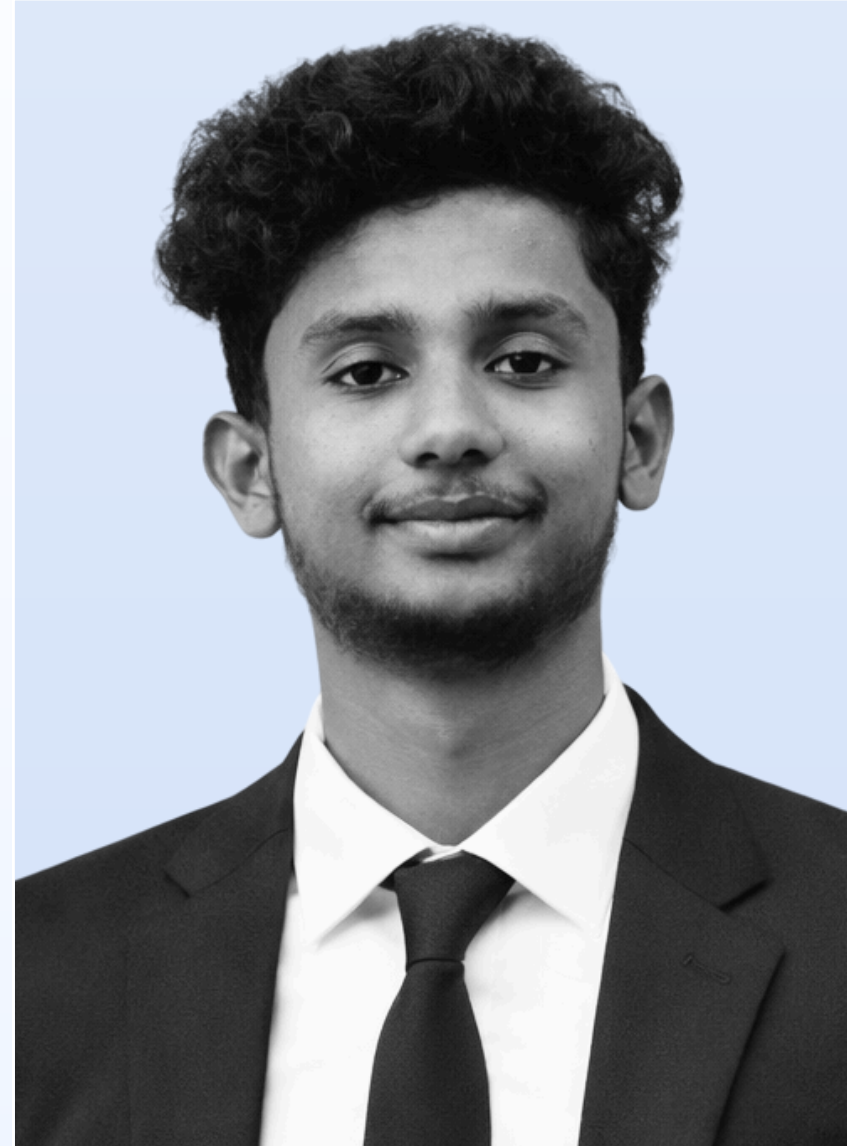
- PCB Documentation
- Mechanical guides
- Non-technical User guides

OUR LEADERSHIP



UDARA KUMARASENA

Founder and IoT
Enthusiast



ABINAYAN RATNASINGAM

Technical Architect and
Manager



MILINDA RUBERU

Senior Electronic
Engineer



PAWANI BUDDIMA

Operations and Management
Executive

OUR TEAM

Protonest's strength lies in its collective expertise. The company employs over twenty professionals who combine creativity, strategy, and technology to deliver world-class results.



**ELECTRONIC H/W
ENGINEERS**

**FIRMWARE
DEVELOPERS**

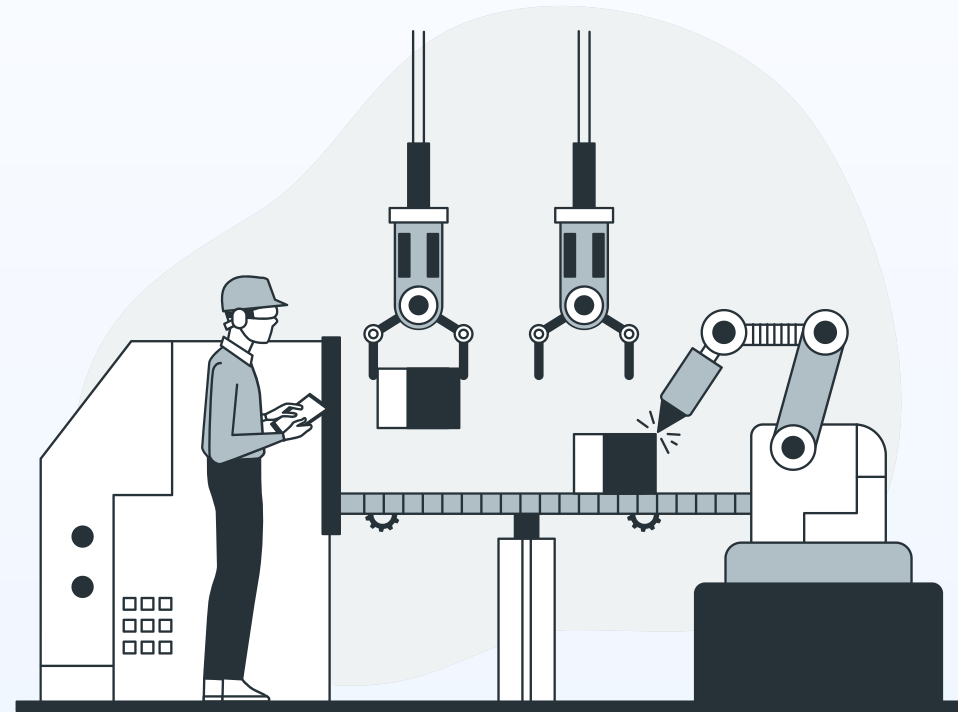
**SOFTWARE
ENGINEERS**

**MECHANICAL
ENGINEERS**

**UI/UX
DESIGNERS**

**PROJECT
MANAGERS & QA**

WHO WE SERVE



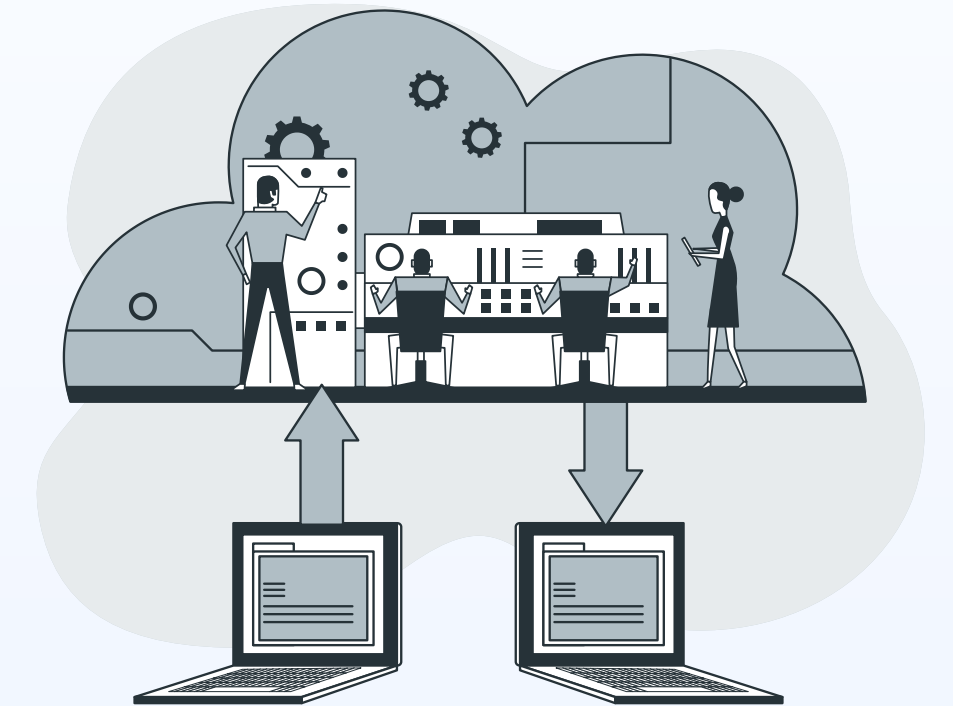
INDUSTRIES

home automation, industrial automation, healthcare, agriculture, and consumer electronics.



CLIENT TYPES

startups, small and medium enterprises, and R&D teams



USE CASES

smart home devices, wearables, industrial monitoring, fleet management, and medical devices

PORTFOLIO & CASE STUDIES

COMPACT GPS TRACKER

CLIENT: ADAM HEALY



PROTOTYPE BY PROTONEST

COMPACT GPS TRACKER PROTOTYPE

A project delivered for Adam Healy in the USA. This is a lightweight yet powerful device prototype that sends GPS data every 30 seconds for location tracking.

Our team delivered end-to-end development, including research, hardware and PCB design, firmware, enclosure design, and prototype optimization.

SOAP DOSE TRACKING SYSTEM

A hardware-software integrated prototype delivered for 1001cleanbox in France. This device is used to count soap doses and track temperature and UV index.

Our team delivered end-to-end development, including research, hardware and PCB design, firmware, enclosure design with 3D prototyping, and backend and web app development.

SOAP DOSE TRACKING SYSTEM

CLIENT: 1001CLEANBOX



PROTOTYPE BY PROTONEST

PORTFOLIO & CASE STUDIES

SMART WIFI REBOOTER

CLIENT: PERSEO SRLS



PROTOTYPE BY PROTONEST

WIFI REBOOTER SYSTEM

A hardware-software integrated prototype delivered for Perseo Srls in Italy. The device maintains uninterrupted internet connectivity by automatically rebooting routers when network issues are detected.

Our team delivered the concept development, hardware and enclosure design, and software design.

SMART DOOR LOCK SYSTEM

A hardware-software integrated prototype delivered for Entryphone in the UK. This is a secure Bluetooth Low Energy-enabled smart lock system with clearly defined access levels for users, admins, and super admins.

Our team delivered end-to-end development, including research, hardware and PCB design, firmware, enclosure design, backend, web interface and mobile app development.

SMART DOOR LOCK

CLIENT: ENTRYPHONE



PROTOTYPE BY PROTONEST

TESTIMONIALS

"I collaborated with Udara from Protonest on a test equipment project for a large international company, requiring microcontroller coding. We selected Udara based on his outstanding customer feedback and project discussions. He delivered everything promptly and reliably."

Peter Hodgson

Purbrook Engineering Ltd



"Very knowledgeable and efficient team. Always available to answer questions and get the job done on time."

Sajjad Akhtar (MD)

SurgicalBooking.com



"Great work. I have been working with Protonest for almost a year on several projects. And we proceed. He does solid good work for a fair price. I can recommend!"

Karl Stoll

Stoll-Photobox, Germany



"I've worked with Protonest on a development project and have been really impressed by their technical ability, clear communication, and professional approach. Everything has been handled carefully and to a high standard."

Oliver Ashbee

Entryphone, UK



TESTIMONIALS

"We worked with Protonest on a number of projects over a period of months. Their help and expertise have been incredibly valuable to us. I'd strongly recommend working with them."

Ben Beavers
Smartyplants.ai



"Terrific experience. Udara and his team worked to take our idea and make it better through thoughtful execution. Udara's team has a unique blend of experience, as they are able to handle software design, firmware design, industrial design and IoT integration. This is a very professional group."

Steve Gribben
USA



"Udara and the Protonest team have been great to work with. Their communication and proactiveness are beyond anything else I have found on the platform. They are quick to understand problems and quick to deliver solutions. Stoked that we continue to work together."

Adam Healy
USA



NEXT STEPS

1. Initial communication
2. Requirement gathering
3. Proposal, scope definition and quotation
4. Client review and signoff
5. Iterative development and prototyping
6. Progress communication and reviews
7. Testing, validation and acceptance
8. Final deliverables and project handover
9. Post-project support

FREQUENTLY ASKED QUESTIONS

Who will be our main point of contact during the project?

You will be directly connected with a Project Manager, who oversees the full development lifecycle and ensures smooth communication between your team and ours

What time zone does Protonest operate in? What are your working hours?

Our team operates in GMT +5:30 (Indian Standard Time). Standard working hours are 8:00 AM – 5:00 PM, and we are open to aligning our availability with the client's time zone for communication and coordination purposes.

What is the English fluency level of the project manager or main contact person?

Our primary contact communicates in fluent English as a second language, ensuring clarity, professionalism, and smooth collaboration.

How large will the development team be, and what are their experience levels?

Our team comprises a diverse range of experience levels, from experts to freshers.

FREQUENTLY ASKED QUESTIONS

Can Protonest provide examples of relevant past work?

Yes, we can share examples subject to NDA constraints.

More about us: Protonest.co

Do you work under NDA?

Absolutely. We are fully comfortable proceeding under a mutual NDA before sharing or receiving sensitive project details.

How do you provide visibility into ongoing work?

We offer continuous transparency through:

- Weekly progress updates
- Demo builds / prototype releases
- Read-only repository or environment access (upon request)

FREQUENTLY ASKED QUESTIONS

Do you provide strategic guidance on deployment and go-live preparation?

Yes. We help with:

- Deployment best practices
- Production environment preparation
- Release checklists
- Cloud & infrastructure recommendations

If you have specific strategic expectations, we're happy to clarify during onboarding.

What is your revision policy?

We provide:

- Up to 2 major revisions during the project
- Minor adjustments as part of ongoing iterative development cycles

Additional revisions can be scoped if needed.

Do you provide ongoing maintenance after delivery?

Currently, we do not offer long-term maintenance by default.

However, if the project scope requires ongoing support, we can expand the agreement to include post-launch maintenance.

FREQUENTLY ASKED QUESTIONS

What is your support model—ad-hoc or contract-based?

This depends on project size and duration:

- Smaller scopes may use **ad-hoc support**
- Larger or long-term scopes may require a **formal support contract**
- Our services can be contracted individually or as part of a full product development program depending on requirement

Can Protonest continue development beyond the MVP stage?

Absolutely. We have the capability and team structure to support:

- MVP → Beta → Production
- Feature expansions and upgrades
- Scalability improvements

CONTACT US FOR MORE DETAILS



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