



Krishnaworks
Technology Innovations

IoT Deck

About Us



14+ years of
experience in the
corporate world



Specializing in
developing IoT
devices, Rapid
Prototyping, Mobile
Apps, Web Apps,
LMS, CRM and ERP



Krishworks has
delivered **Multiple
Software
Applications** to over
300K users across 7
countries in less
than a decade



Leadership



Kaushik Mazumdar

Director

Product and Software Development



Subhajit Roy

Director

Embedded Systems and IoT Development



Gargi Mazumdar

Director

Business Development and
Operations



Vision

To create impactful and sustainable solutions for the world by challenging the limits of existing technological innovation.

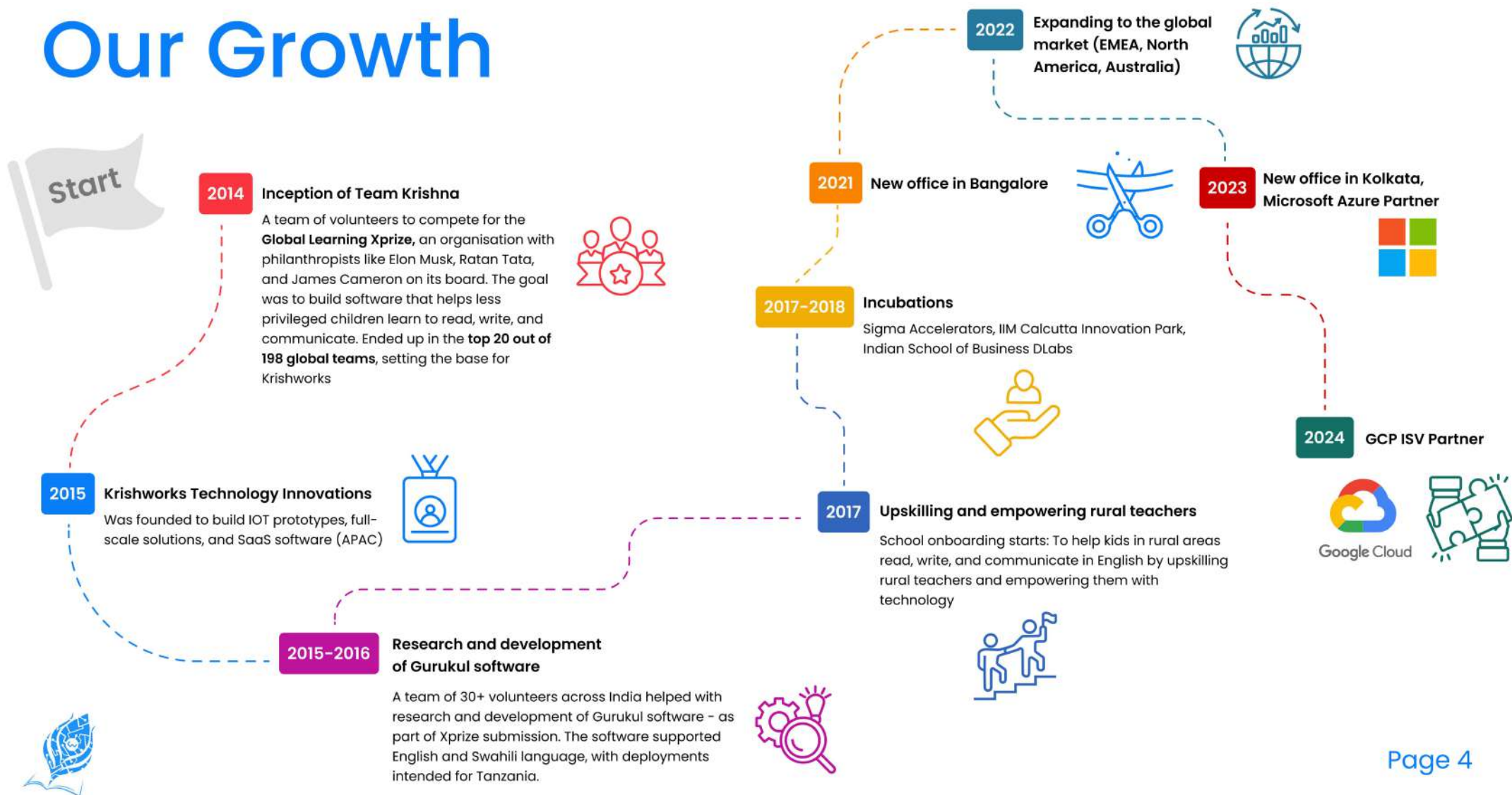


Mission

Become a profitable organization that has acquired the expertise to indigenously Research, Design and Manufacture complex State of the Art technology solutions, and being able to give back to the society and nation through various social means.



Our Growth





Our Biggest Clients



Partners (Tech and Associations)



Solution Offerings

IoT

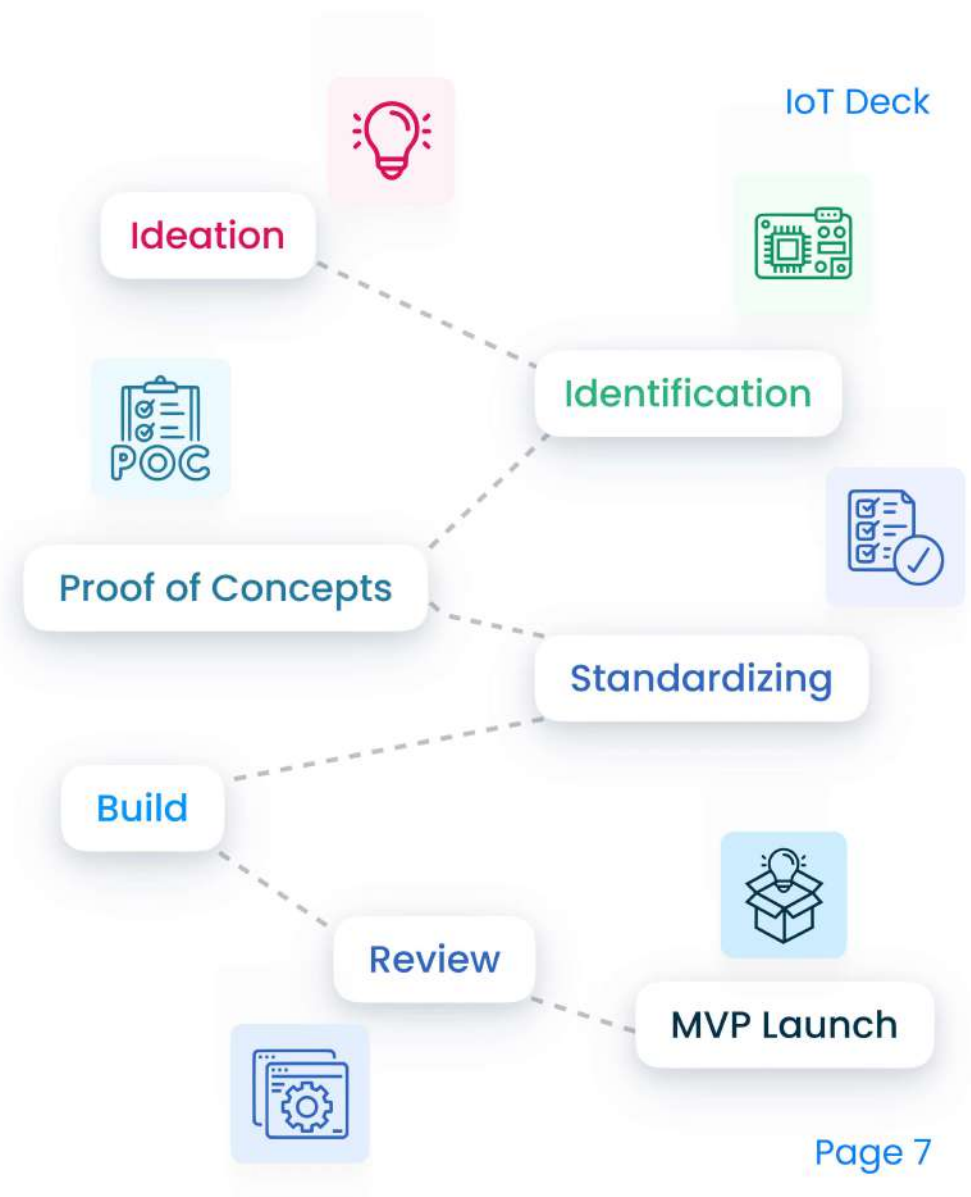
- Wearable Device Prototyping With Sensor Networks For Real-Time Tracking And Insights
- Prototype Design/Assembly
- Embedded IoT Development
- UI/UX Design
- Companion Applications
- Computer Vision
- Cloud Middleware
- Backend Development



Solution Offerings

Rapid Prototyping

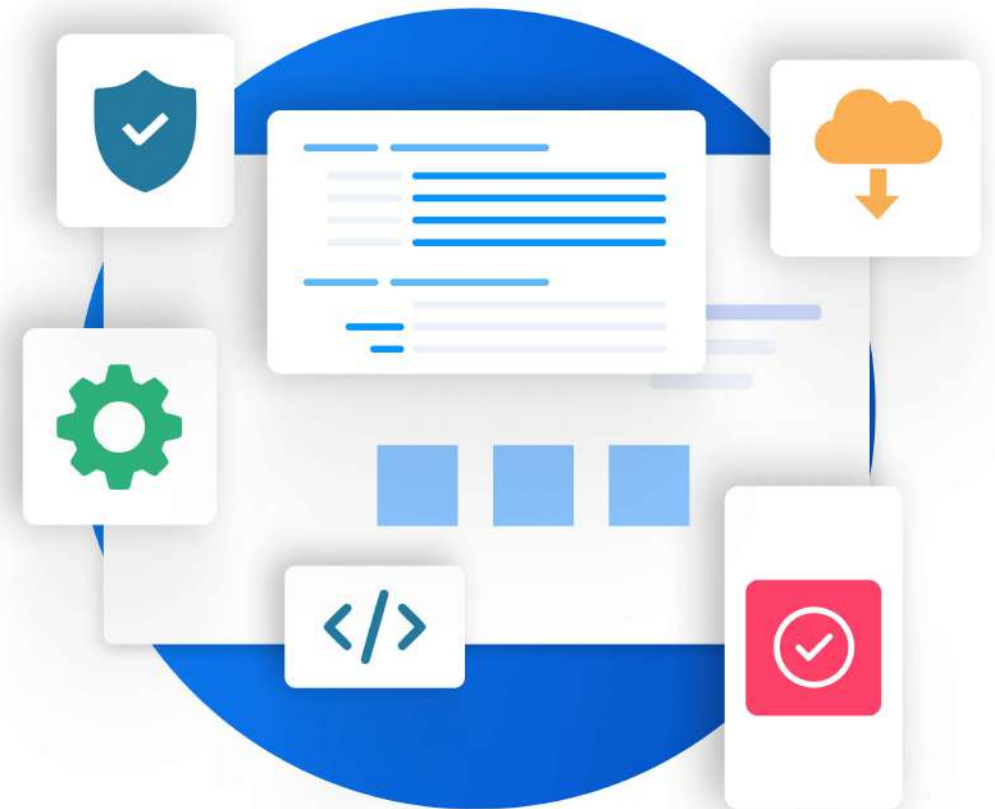
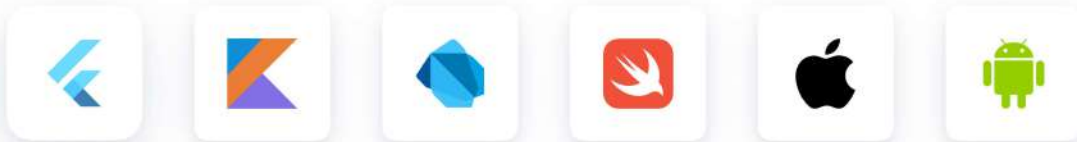
- Ideation
- Development Boards And Microcontroller Identifications
- Proof Of Concepts And Idea Feasibility On The Hardware And Applications
- Standardizing Components
- Full Fledged Firmware Development And Companion Applications
- MVP Launch



Solution Offerings

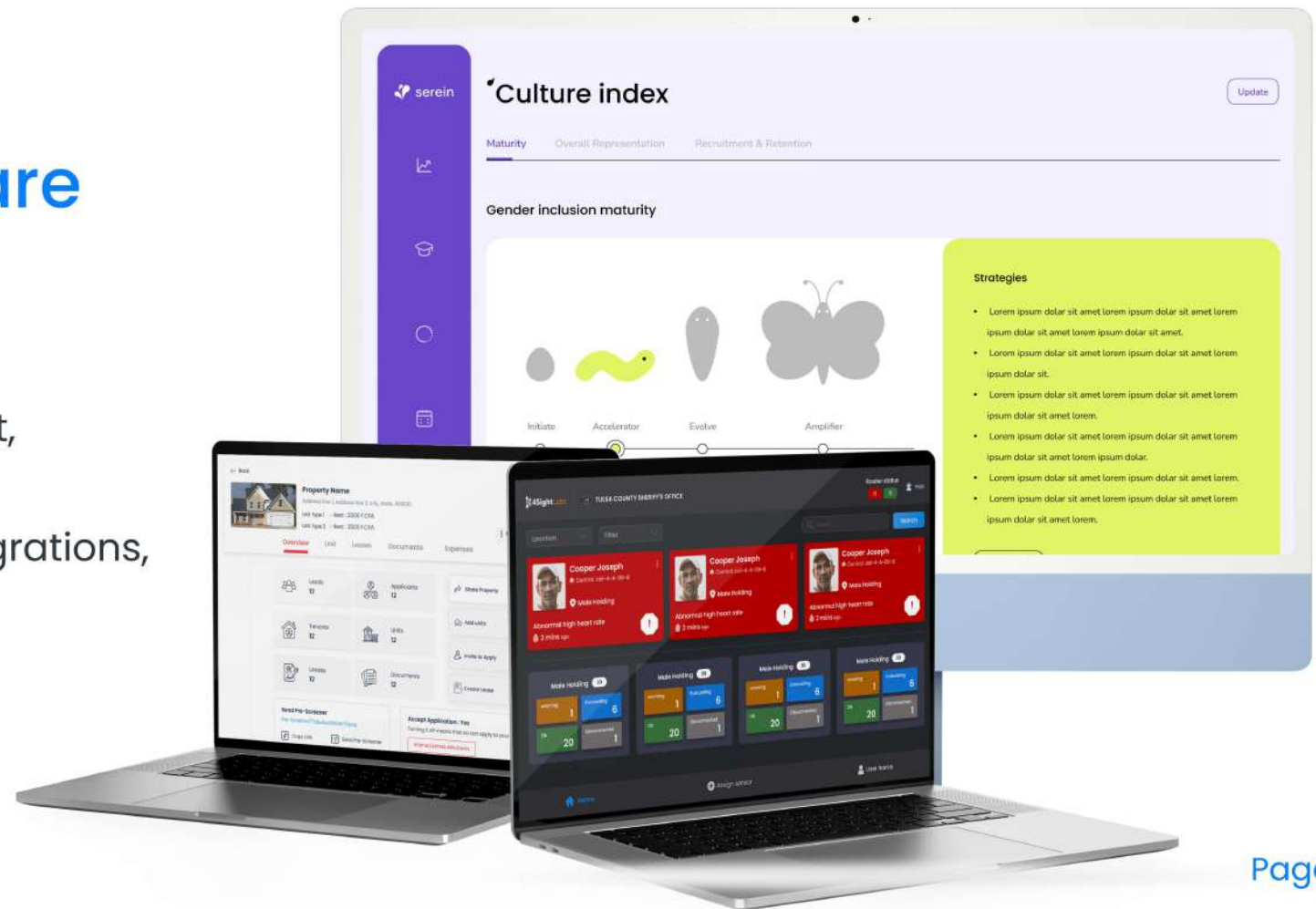
IoT Application Development

- IoT Web Development
- IoT Mobile App Development



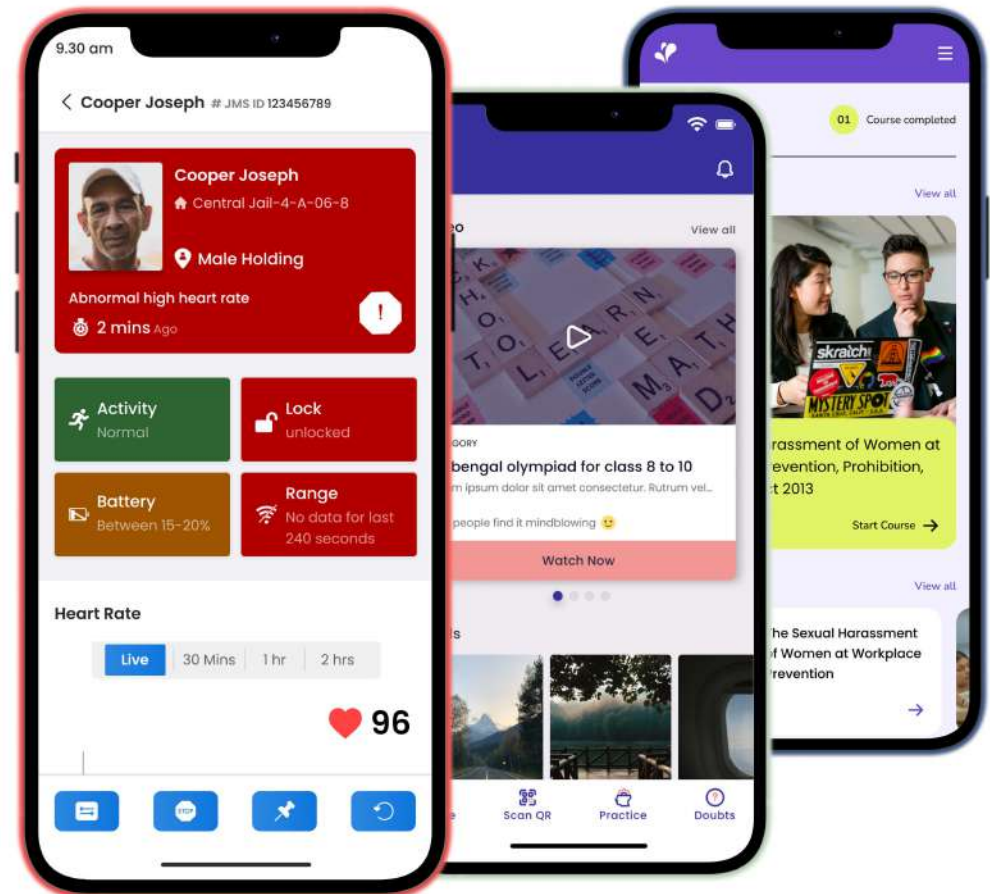
IoT Web Software

- Full Stack Development
- Frontend and Backend
- ReactJs, CSS, JavaScript, Nodejs, Django
- We expertise in API Integrations, REST API, UI UX Designs



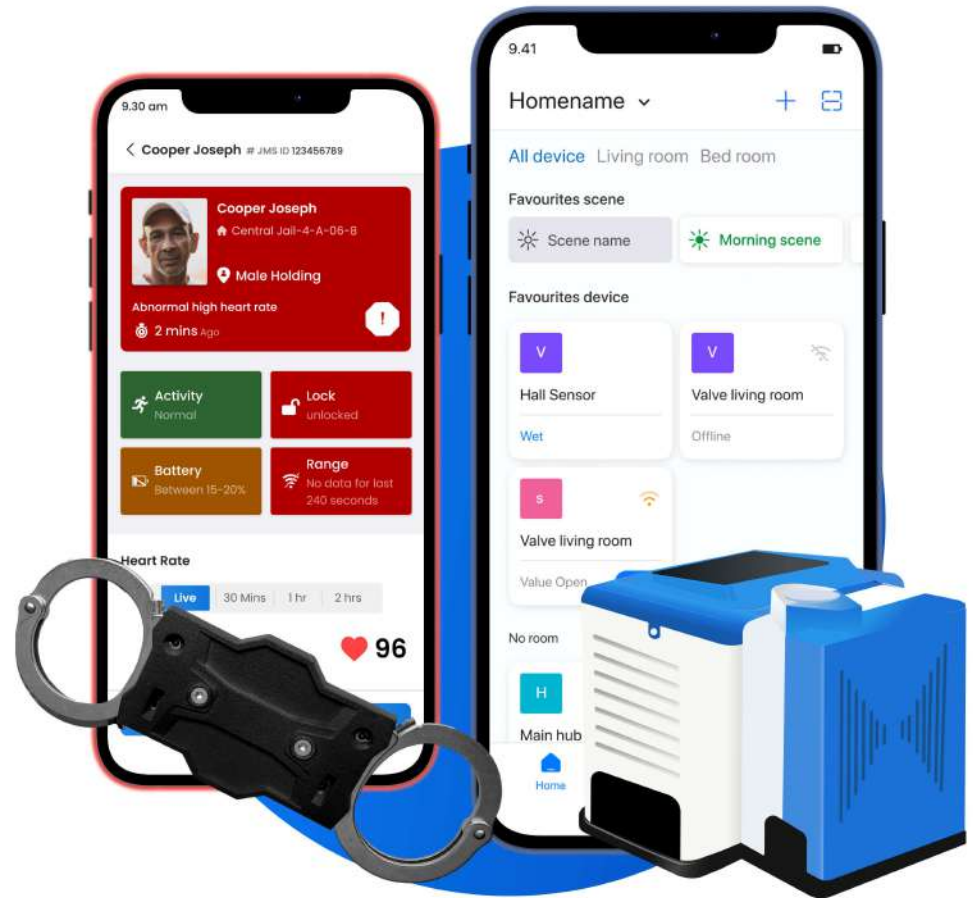
IoT Mobile App

- Android and iOS Apps
- Native and Hybrid App Development
- UI/UX Designing, Cross-Platform Apps, API Integrations
- Flutter, Java, Kotlin, Swift, React Native



Our IoT Devices

- Smart Handcuffs (Custody Protect)
- Smart Pumps (Water leakage detection)
- Face Recognition Smart Watch
- Smart Home for Econet Solutions
- Obel: Real-Time Weather Monitoring Solution
- Presence Smart Mobility – Fleet Monitoring Solution
- Enhanced Yale Smart Lock
- Blackouts LED Light Suit
- Q- Bot



Custody Protect :

IoT solution developed to prevent custody Deaths in US federal prisons.

- Real-Time Tracking & Monitoring.
- HIPAA Complaint.
- Multi-Tenant SaaS Architecture.
- Detainee Management
- Inventory Management.
- Captive Portal.
- HTTPS Server Over ESP32.
- Provisioning.
- Pin/Unpin
- Graphical And Analytical Reports

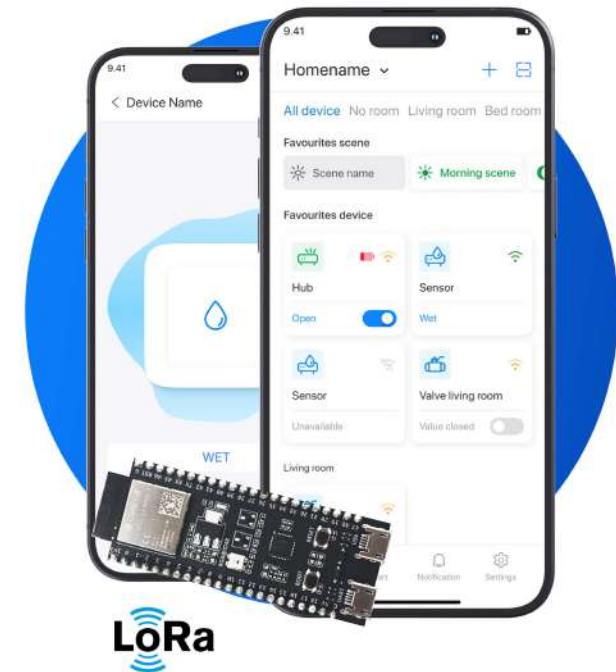


Deployed in 25 + prison agencies across USA.

Smart Home & Leakage Monitoring (IoT solution for Smart home and leakage)

An IoT device with Android & iOS application for water leakage detection with automatic control over the detection & Smart home solution for all the appliances.

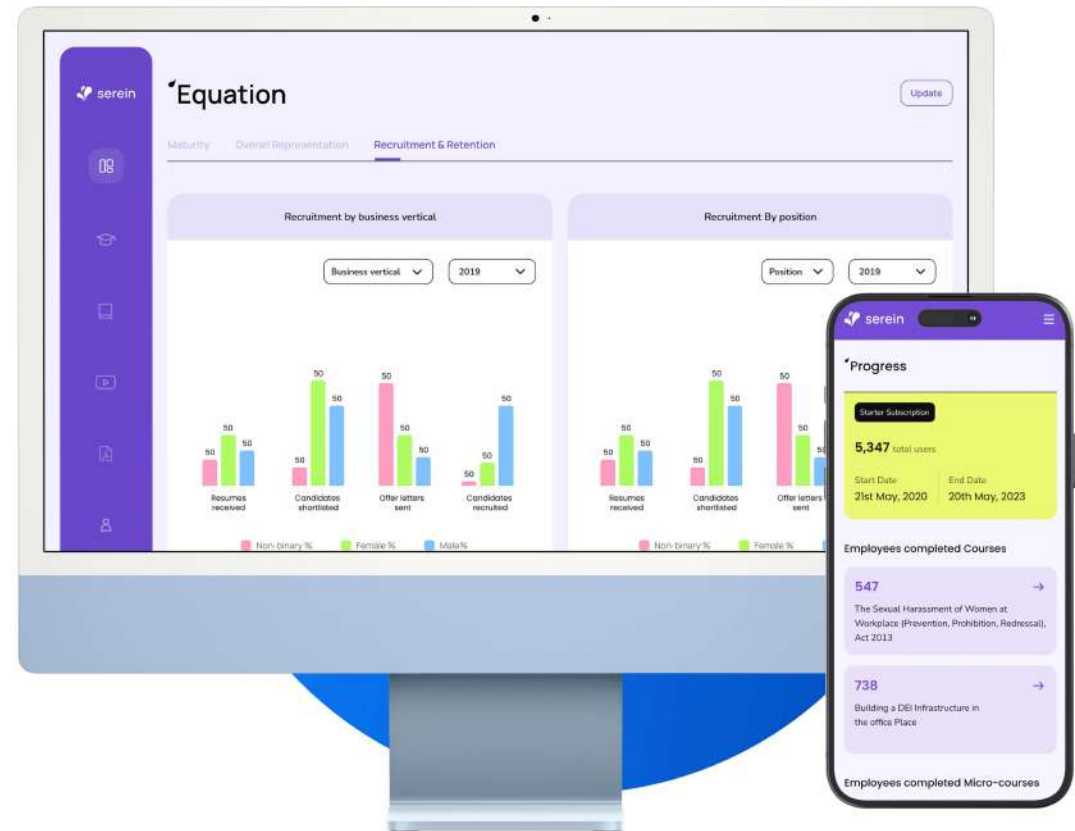
- Water Leakage Detection
- Automatic Valve Closing System.
- In-App Notifications & Reminders.
- Multi-Link Features
- QR Code Implementations.
- Remote Control & Scheduling System.



Deployed around 30K + units in buildings and houses across USA and Canada.

Serein

- Employee Trainings and Skill Development
- Customer Training
- Feedbacks, Surveys, Quizzes
- Certificate Creation and Download
- User Authentication Features
- Dashboards
- SCORM



Having 1 Lakh+ platform users.

Presence Smart Mobility – Fleet Monitoring Solution

Real-time fleet management system for government buses, offering predictive maintenance and live tracking. Enhances safety and reduces operational costs.

- OBD2/CAN Integration With Raspberry Pi
- Predictive Maintenance
- MQTT Data Transmission, Docker Setup
- Geo-Fencing And Route Optimization
- Driver Behaviour Analysis And Reporting



Deployed around 10 – 20 pilot buses for Municipality of Raipur (Indian Govt.)

Hopa (SaaS and NFC Based Ordering and Restaurant Management) with Automated Billing System.

Allows restaurant owners to manage their restaurants: menus, timings, kitchen, orders and deliveries.

- Auto Billing On Receiving The Order And Payment Completion.
- RabbitMQ To Communicate Between Server And Raspberry Pi.
- Puppeteer To Create Html Content And Then Convert Into PNG Format.
- Raspberry Pi Uses HTTPs Protocol To Send The Generated Image To The Printer To Print.
- Integrates With Various 3rd Party Providers



Extended from 20 to 250+ restaurants in last 2 years.

Hotspot Detection for Hindustan Zinc/ Vedanta

A thermal camera powered by a custom AI/ML model detects hotspots and coldspots in a zinc plating cell house to enhance efficiency. A web app provides live analysis and historical reports for informed decision-making.

- U-Net Integration
- Wireless Data Transmission
- Real-Time Feedback
- Detainee Management
- Web App With Dashboard
- Reports On Detection Spots
- Custom Thresholds.



Deployed in 3 planting plants and 2 material furnishing plants.

Enhanced Yale Smart Lock

Smart lock for hotels, integrated with Samsung SmartThings for secure room access. Supports remote management and real-time alerts.

- Z-Wave Integration
- Remote Code Management
- Offline Functionality, Real-Time Battery Alerts
- Multi-User Access With Audit Trail
- Integration With Existing Hotel Management Systems



Deployed in 20+ five star hotels and hospitals.

Obel: Real-Time Weather Monitoring Solution

Weather monitoring device for real-time data collection across multiple stations, used by the Indian government. Features advanced sensors and GSM connectivity.

- ESP32-S3 Microcontroller
- RS485 Communication For Sensors
- GSM Module With Dual SIM, OTA Updates
- Cloud-Based Data Storage And Analysis
- Solar-Powered With Battery Backup For Uninterrupted Operation



Deployed around 30K + across multiple weather stations in India (Govt. of India)

Blackouts LED Light Suit

Dynamic LED suit for performances, utilising ESP32 and ESPNOW for wireless light sequencing. Ideal for stunning LED shows with remote control capabilities.

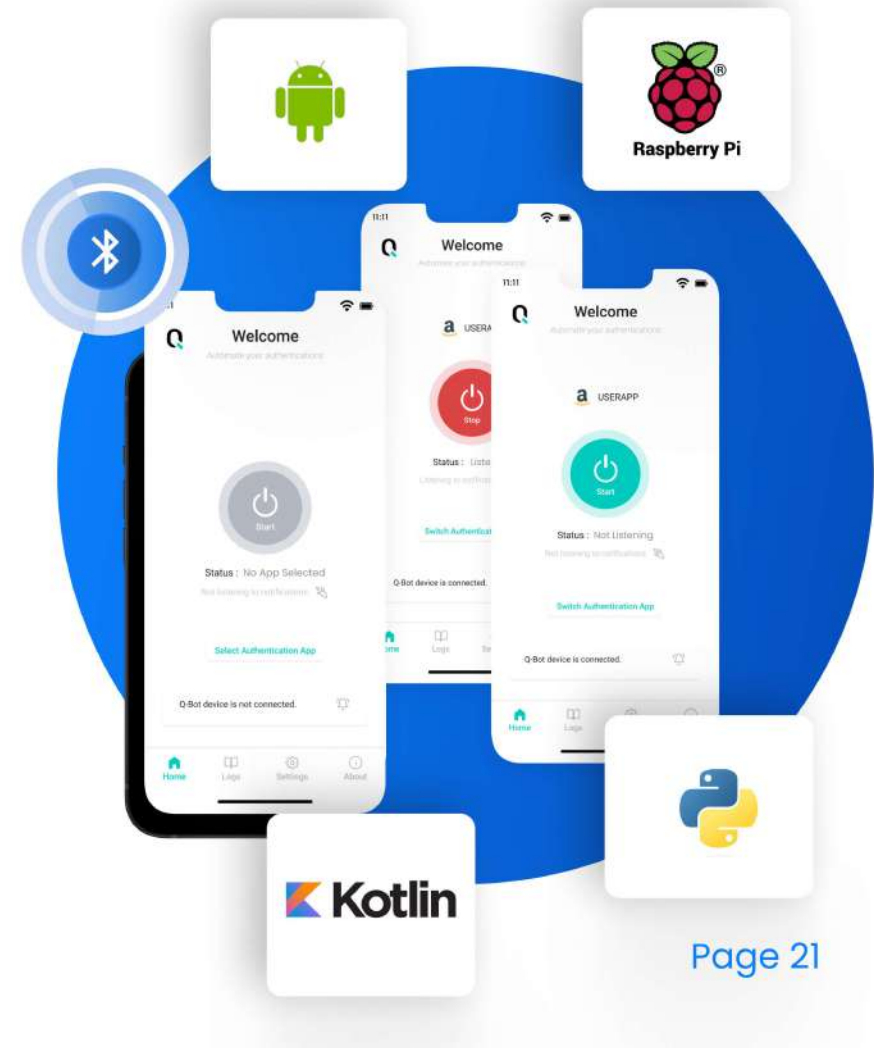
- Supports WS2813C LED Strips
- XLights Integration
- Wireless Control With SD Card Storage
- Seamless Sync With Music For Choreographed Light Shows
- Low-Latency Wireless Communication Up To 100 Metres



Q-Bot – 2FA Automation solution

Automated tool for two-factor authentication (2FA) testing, improving efficiency in software testing environments. Integrates with Android and Raspberry Pi.

- BLE Peripheral With Raspberry Pi
- Notification Logging
- 2FA Automation With Secure Data Transfer
- Multi-Platform Support (Android, IOS)
- Real-Time Test Result Analytics And Reporting



Smart Water Pump

An IoT device for remote controlling and monitoring the water pump system.

- Remote Control & Monitoring
- Voltage Monitoring
- Scheduling Systems
- Notifications, Alerts & Status Update.



Myro PaintBot

A BLE integrated mobile application for the world's first wall painting robot from Singapore. The application is used to communicate and navigate the robots to paint the walls. The Application is available for both Android and iOS.

- AI Wall Painting
- File Transferring
- Navigation/Control The Robot.
- Health Screen For Robot Diagnostics
- Statistics On Covered & Uncovered Areas.



Face Recognition on Smart Watch

Attendance tracking system on Smart watches using OFFLINE Face Recognition.

- Identifying And Locating Objects & Persons.
- Detect Face Emotions.
- CNN – Object Detection, Face Recognition.
- Facial Authentication And Biometric Features.



ESP32 Based Smart Spectacles With Camera Integration.

IoT Deck

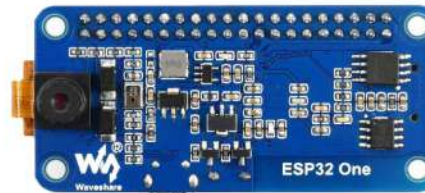
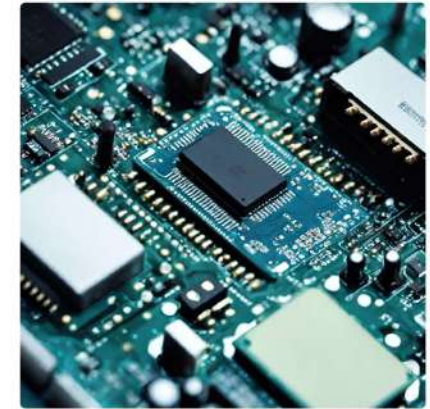
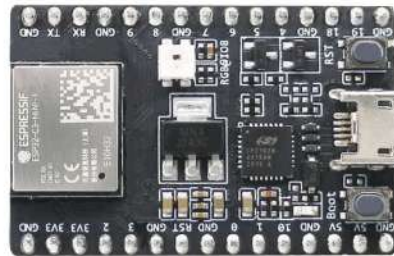
Capture camera feed using sensors placed on the spectacles and stream the data to a local mobile phone and thereby develop an application that utilises the AI face recognition module.

- Camera Modules Of 2MP Upto 5MP To Detect Objects
- ESP32 As Microcontroller.
- Data Transfer From Spectacles To The Mobile Using TCP/IP Socket Over The Wifi For Faster Transfer.
- Camera Feed Processed Using An AI Module.



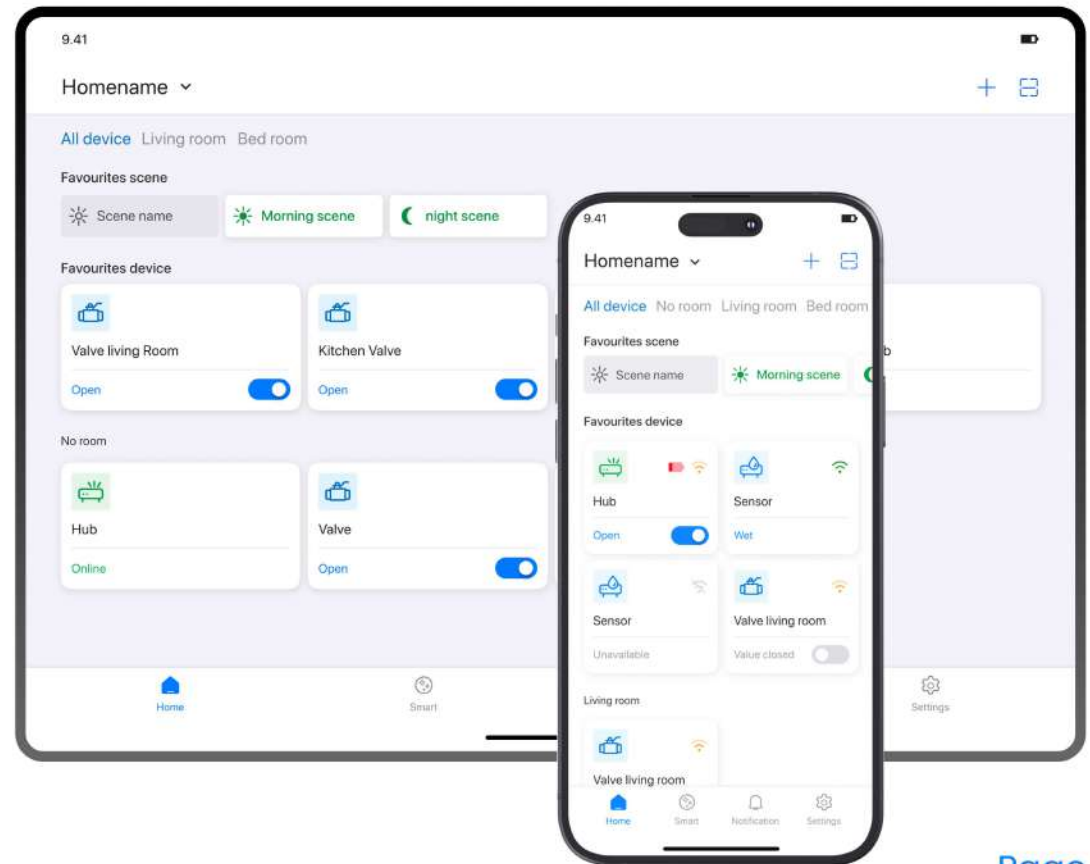
Firmware/Embedded Systems

- ESP32, BLE, Wifi Mesh, OTA, FreeRTOS, Arduino, Routers, LoRaWAN, UWB, MQTT, Azure, RFID, NFC, LTE, GPS, ESP IDF Framework, NimBLE, NV Flash, RTC, Sensors & Multiple Peripheral Interfacings.



Web Portal, Android & iOS Mobile App :

- ReactJS, NodeJS, Python, Flutter, React Native, Dart, Swift Kotlin, Blue_plus, REST API, IOS Distribution, Android Distribution, Power BI Tools. Etc, Figma For UX/UI. Kotlin, Tensorflow, Computer Vision, AI & Other ML Technologies.



IoT Gateways

- Dell, Laird, Dusun, Raspberry-Pi, Rock-Pi

Cloud

- Azure, GCP, AWS, Firebase, MQTT, IoT Hub, Event Hub, Azure Services (Stream Analytics, Cosmos DB, Signal R, Change Feed, Notifications)



Our Alliances

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campus VARTA
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Thank You

Our Offices



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