

NATTHANAN SAENPRASIT

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SUMMARY

Fast-learning engineer passionate about Embedded Systems, IoT, and industrial electronics, with a strong hands-on engineering mindset and a passion for building reliable real-world solutions. Experienced in embedded firmware, custom PCB design, sensor integration, and IoT development. Quick to adapt, effective under pressure, and committed to continuous learning while collaborating with multidisciplinary and international teams.

CORE COMPETENCIES

- Embedded Systems
- Embedded Firmware
- PCB Design
- IoT Development
- Sensor Integration
- Industrial Electronics
- Hardware Debugging
- Rapid Prototyping
- Problem Solving
- Cross-functional Collaboration

EDUCATION

KOSEN-KMITL 4TH YEAR

- Electrical & Electronics Engineering
- Expected Graduation : 2028

CERTIFICATIONS

- Embedded Systems Essentials with Arm
- Networking Basics Cisco
- MATLAB Onramp
- Generative AI & Prompt Engineering Chula MOOC

LANGUAGES

- Thai (Native)
- English (Communication)
- Japanese (Basic)

INTERNATIONAL EXPERIENCE

Kure National College of Technology
(Kure KOSEN) April 20-28 2024

Akita National College of Technology
(Akita KOSEN) October 1-30 2025

- Collaborated with Japanese students in laboratory activities and engineering projects.
- Developed communication, teamwork, and adaptability in a multicultural engineering environment.

Industrial Exposure

- TDK Corporation Akita
- TDK Museum Akita
- MinebeaMitsubea Akita
- Disco Corporation Hiroshima

TECHNICAL SKILLS

- **Programming** C, C++, Python, JavaScript, HTML/CSS, SQL, MicroPython
- **Embedded Systems** ESP32, ESP32-S3, Raspberry Pi Pico W, PlatformIO, I2C, SPI, UART, CAN Bus, Sensor Integration
- **PCB Design** KiCad, Multi-layer PCB Design, Schematic Layout, PCB Assembly, BOM
- **IoT** MQTT, Firebase, REST API, Industrial IoT, Cloud, Dashboard, Real-time Monitoring
- **Software** MATLAB, Fusion 360, SOLIDWORKS, GX Works2, Microsoft Office, FastAPI, Docker, Git, GitHub, PostgreSQL

PROJECTS

- **VVR Monitor** Designed a custom ESP32-S3 wearable medical device, Developed embedded firmware for physiological monitoring, Designed custom PCBs using KiCad, Integrated BLE communication and battery-powered architecture.
- **Sensor Hub** Designed modular healthcare IoT architecture, Developed custom CH32V003 sensor nodes, Designed complete PCB hardware, Built I2C communication framework.
- **Flood Detector(PBL)** Embedded IoT flood monitoring system, PCB.

INTERESTS

- Embedded Systems
- Industrial IoT
- Medical Devices
- PCB Design
- Industrial Automation
- Edge AI
- Robotics