DINETH SANDEEPA KEERTHI

MECHATRONICS ENGINEER | AUTOMATION & ROBOTICS
Bachelor of Science (Hons)
Mechatronics Engineering | SLTC Research University, Sri Lanka

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PROFESSIONAL SUMMARY

Entry-Level Automation / Mechatronics Engineer with hands-on experience in industrial automation, PLC programming, SCADA, HMI, robotics, and embedded systems. Skilled in machine automation, PLC-based control systems, sensors and actuators, pneumatic systems, commissioning, and troubleshooting electronic & mechanical equipment. Completed internships at INQUBE Global and SLINTEC. Seeking an Automation Engineer / PLC Engineer role in a technology-driven organization.

EDUCATION

• **Bachelor of Science (Hons) in Mechatronics Engineering | SLTC Research University**   *Aug 2020- Dec 2025*

Relevant Coursework: Industrial Automation | PLC Programming | Robotics & Automation | Mechatronics System Design | Sensors & Instrumentation | Industrial Electronics | Computer Systems Architecture | Manufacturing Processes | Electrical & Electronic Circuits | CAD/CAM | Embedded Systems | Industrial Control Systems | Pneumatics & Hydraulics | Fluid Mechanics | Power Electronics.

Academic & Practical Exposure:

- Hands-on experience in PLC programming, control panel design, industrial wiring, and industrial automation laboratory practices.

- Design and integration of mechanical, electrical, and embedded systems, with application of control theory, PID control, and motion control systems.

• **G.C.E. A/LEVEL | SIRISAMAN M.M.V | Deraniyagala.**   *2019 | 2014*

Combined Mathematics – C | Physics – C | Chemistry - S.

PERSONAL PROJECTS

• **Automated Pharmaceutical Sorting System.**   *Oct 2025*

Final Year Project

- Designed an automated pill dispensing system using Raspberry Pi, Arduino, stepper motors, and sensors, integrating mechanical, electrical, and embedded systems for accurate dispensing.

• **PLC-Based Heat Press Machine Automation.**   *Apr 2024*

For INQUBE Global (Pvt) Ltd.

- Automated a heat press machine using PLC control and pneumatic actuation, improving temperature control accuracy and reducing manual setup time by approximately 25%.

• **AC Servo Conveyor Sorting System.**   *Jun 2022*

SLIR Academy

- Developed a PLC-controlled conveyor sorting system using an AC servo motor and pneumatic sorting mechanism, achieving consistent positioning accuracy and improving sorting cycle time by approximately 20%.

• **Grid Following Robot with Pick & Place Arm.**   *Mar 2022*

SLTC Robot Club Event

- Designed and implemented an Arduino-based grid-following robot with a pick-and-place mechanism using PID control.

• **Designed, Assembled, and controlled wire inserter machine.**   *Feb 2024*

For INQUBE Global (Pvt) Ltd.

- Designed, assembled, and controlled an automated wire inserter machine using PLC, stepper motor, pneumatic cylinder, and Arduino microcontroller.

PROFESSIONAL EXPERIENCE

- **Brandix INQUBE Global (Pvt) Ltd**   *Jan 2024 – Jun 2024*

  Automation Engineer Intern   On - Site
  - Designed and automated industrial machinery using XINJE XD3 PLCs, stepper motors, sensors, pneumatic systems, and microcontrollers, supporting multiple production-line automation projects.
  - Developed a label-attaching automation system for JUKI AMS 221EN, reducing manual operation time by 30% and improving overall line efficiency and consistency.
  - Assisted in PLC wiring, control panel assembly, testing, and commissioning, contributing to successful machine handover with minimal downtime.
  - Performed system troubleshooting and fault diagnosis, helping reduce machine stoppages during trial and production runs.
  - Contributed to the development and testing of a fully automated laser cutting machine, assisting in mechanical setup, control integration, and performance testing.

- **SLINTEC (Pvt) Ltd**   *Oct 2023 – Dec 2023*

  Maintenance Engineer Intern   On - Site
  - Performed preventive and corrective maintenance on electrical, mechanical, and automation systems, improving machine reliability and uptime.
  - Assisted in troubleshooting PLC, motor, sensor, and pneumatic system faults, supporting faster fault resolution and reduced production delays.
  - Worked closely with senior engineers during machine inspections and repairs, gaining hands-on experience in factory maintenance operations.

TECHNICAL SKILLS

- **Programming Languages**

  C/C++ | Python | HTML+CSS

- **PLC & Automation**

  PLC Programming (XINJE XD3) | Ladder Logic | SCADA | HMI | Industrial Automation

- **Embedded Systems**

  Raspberry Pi | Arduino | ESP32 | ESP8266 | Sensors & Actuators

- **Industrial Systems**

  Pneumatics | AC Servo Motors | Stepper Motors | Control Panels | Electrical Wiring | Preventive Maintenance

- **Designing Software & Web Tools**

  SOLIDWORKS | AutoCAD | Fusion 360 | MATLAB | Proteus | PCB Design | Git | GitHub | VS Code | AI Tools

- **Soft Skills**

  Problem Solving | Team Collaboration | Analytical Thinking | Communication | Quick Learning

CERTIFICATIONS

- **CNC Machine Shop Practical Training |** ACECAM Technologies(Pvt)Ltd.   *Jul 2024*
  - CAD/CAM software, machine setup.

  - Programming (G-code, CAM software).

- **Robotics & Industrial Automation |** SLIR Academy , Pannipitiya.   *Jan - Jun 2022*
  - PCB Design.

  - Micro-controller Programming.

  - Industrial Automation.

  - IOT & web development.

- **ROAD TO CODEMANIA |** SLTC Research University, Padukka.   *Jan - Jan 2021*
  - PYTHON Programming.

REFERENCES

References available upon request.