



## Sanath Kumara Thilakarathna.

### Mechanical and Manufacturing Engineer

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[in](#) LinkedIn

I am a responsible, dedicated, and reliable Mechatronics interested in Mechanical Design, Electronics Design, Robotics, and Industrial Automation. I look forward to expanding my knowledge and experiences in these subjects, designing and developing sustainable and useful technologies, and significantly contributing to the country's success.

## Work Experience

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### ➤ Mechatronics Engineer at LE Robotics (Present)

- Robot Vision
- MQTT
- Firmware development
- Robot Manipulator Kinematics

### ➤ Intern at Dilmah Ceylon Tea Company PLC (2023) – Mechatronics Engineer

- Design a carton lifting mechanism and supervise the manufacturing and assembly process.
- Collaborate with the Production and QA departments to review the silo connection identification system.
- Design a velvet sticker paper punching machine.
- Collect data for the design and implementation of new packaging machines.

### ➤ Intern at Trischel Fabric (Pvt) Ltd. (MAS Holdings) (2022) – MEP Engineer

- Design the thermic oil pipeline for the new Stenter machine.
- Participate in Flatbed printer belt replacement.
- Thermic oil heater maintenance and service.
- Create a mobile app to calculate the plant's electricity demand.
- Design and prepare BOQ for a diesel bowser unloading station.
- Design and fabricate a Teflon gasket cutter.
- Create an application for preventive maintenance scheduling.

## Education

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### ➤ Faculty of Engineering, University of Ruhuna, Sri Lanka. (2019 – 2024)

BSc. in Mechanical and Manufacturing Engineering.

### ➤ B/Girandurukotte C.C, Girandurukotte. (2012 – 2017)

GCE A/L 2017

Physics -A, Chemistry – A, Combined Mathematics - B

### ➤ CP/Tel/Sangabodhi C.C. (2003 – 2012)

GCE O/L 2013

6-A, B-2, C-1

## License and Certifications

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### ➤ Rapid Prototyping Using 3D Printing Specialization – Arizona State University – Coursera (2023)

### ➤ Become a PLC Developer Learning Path – LinkedIn Learning (2023)

### ➤ Scientific Computing with Python – freeCodeCamp (2023)

### ➤ Certificate course in PLC Programming – Web Sayura Academy by Eng. Buddhika Weerasekara (2021)

### ➤ Introduction to Programming with MATLAB – Coursera (2020)

### ➤ Certificate Course in Soft Skills – Career Guidance unit, UOR (2020)

### ➤ Certificate course in English – Kekirawa English Academy (2017)

## Skills

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- CAD / CAM – Solidworks, Fusion 360
- Computer Programming – C/C++, Python, Matlab, C#, Embedded C
- PCB Design – Proteus, KiCAD
- Electronics – Arduino, ESP32, Raspberry pi
- PLC – Omron, Delta, Haiwell, Siemens
- Documentation – MS Office Package, Libre Office Package, Google Workspace
- Manufacturing – CNC Lathe Machining, Welding
- Languages – Sinhala (Native), English (Fluent), Japanese (basic)

## Achievements

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- Finalist at the IEEE R10 Robotics Competition 2022 at Chulalongkorn University, Bangkok.
- Singapore Space Challenge (SSC) 2020 for designing ISRU-capable Lunar Rover (Participant)
- Mexcellence 2019 – Robot Competition (Winners)
- Mexcellence 2019 – Cad eager competition (Participant)

## Projects

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- Carton lifting machine design and Fabrication – Dilmah Ceylon Tea Company
- Real-time Parameter Monitoring System for Latex – Final Year Project.
- Design and Fabrication of a Tefloan gasket cutter - Trischeel Fabric (Pvt) Ltd.
- Electricity Demand Calculator mobile app - Trischeel Fabric (Pvt) Ltd.
- Mini Project on Designing and Controlling a 1 DOF Magnetic Levitation System
- Automated Tea Packaging Machine
- Arduino line following and remote-control robots
- Face detection and recognition project
- Customers following shopping cart
- Development of a Low-Cost Windmill Water Pump for Remote Use – Group Member

## Referees

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I certify that the particulars mentioned earlier are true and accurate to the best of my knowledge.