

# Ryan Patel

## Junior Mechatronics Engineer

BEng Mechatronics graduate from the University of Leeds with a **12 month Year in Industry** at Siemens. Programmed **4 PLC control sequences** in TIA Portal for a packaging line processing **1,200 units per hour**. Assisted with commissioning of **2 automated stations** and built a 4-DOF robotic arm as a final year project. Proficient in SolidWorks, Arduino, and ladder logic, with **Upper Second Class Honours (65% average)**.

### SKILLS

Siemens TIA Portal (S7-1500) • PLC Programming (Ladder Logic & SCL) • SolidWorks • EPLAN • Arduino & C++ • Sensor Integration • Pneumatic Systems • Electrical Schematics • Commissioning & Testing • AutoCAD • MATLAB/Simulink • Technical Report Writing

### LANGUAGES

English - Native • Gujarati - Conversational

### EXPERIENCE

Mechatronics Placement Engineer, Siemens, Congleton

Jul 2024 – Jun 2025

Completed a 12 month Year in Industry placement in the automation and drives division at Siemens Congleton.

- Programmed **4 PLC control sequences** in Siemens TIA Portal (S7-1500) for a food packaging line processing **1,200 units per hour**
- Integrated **8 proximity sensors** and 3 pneumatic actuators into an existing conveyor system, reducing jam frequency by **40%**
- Assisted with the commissioning of **2 automated pick-and-place stations**, supporting electrical installation, I/O testing, and software handover
- Created **6 electrical schematics** in EPLAN and updated control panel drawings following design modifications

Kitchen Team Member (Part-time), Nando's, Leeds

Sep 2023 – Jun 2024

Part-time role during term time working in a fast-paced restaurant kitchen.

- Prepared food for an average of **200 covers per shift** while maintaining food hygiene standards
- Trained **2 new starters** on kitchen procedures and health and safety protocols

### EDUCATION

BEng (Hons) Mechatronics and Robotics in Mechatronics, University of Leeds, Leeds

Sep 2021 – Jun 2026

Graduated with Upper Second Class Honours (**65% average**). Programme accredited by IMechE and IET.

- Final year project: designed and built a 4-DOF robotic arm controlled by an Arduino Mega, achieving positional accuracy of **2mm**, graded **74%**
- Relevant modules: Control Systems, PLC Programming, Sensor Technology, Mechanical Design, Embedded Systems

### CERTIFICATIONS

IMechE Graduate Member (GradIMechE), Institution of Mechanical Engineers

Sep 2025 – Sep 2025

Siemens TIA Portal Basics Certificate, Siemens (Internal Training)

Sep 2024 – Sep 2024

### PROJECTS

4-DOF Robotic Arm (Final Year Project)

Sep 2025 – Apr 2026

Designed, built, and programmed a 4-degree-of-freedom robotic arm for small object pick-and-place tasks.

- Modelled all structural components in SolidWorks and 3D-printed **14 parts** in PLA
- Programmed inverse kinematics on an Arduino Mega in C++, achieving positional accuracy of **2mm** across a **300mm workspace**
- Integrated **4 servo motors** and a force-sensing resistor for grip detection

### EXTRA CURRICULAR ACTIVITY

Leeds University Robotics Club Secretary

Sep 2023 – Jun 2025

Organised **2 inter-university robotics competitions** and managed club membership of **45 students**.