



Divor School Of Tech - AGV Curriculum 1st Edition

This workshop series aims to inculcate project-oriented learning skills for those interested in the field of Mechatronics, specifically in the embedded systems and robotics industry. The primary aim of this workshop is to research, design and develop an Automated Guided Vehicle (AGV) based on the Arduino platform utilizing both electronic system design techniques and mechanical product development tactics.

Course Duration - 3 months

Lecturing period - 6 hours per week - Physical Lectures

Broken down into two equal sessions for Electronic and Mechanical System Design

- Day 1:** Introduction to Arduino and AGV Design overview
- Day 2:** Analog and Digital Electronics, 2D and 3D Design Principles
- Day 3:** DC Motor control theory and application, AutoCAD 2D
- Day 4:** Sensors and modules, SolidWorks 2D
- Day 5:** Communication protocols and SolidWorks 3D
- Day 6:** Display Options SolidWorks 3D Assembly
- Day 7:** Wireless Communication and SolidWorks 3D Assembly continued
- Day 8:** Wireless Communication continued and practical AGV Design
- Day 9:** Collision Avoidance AGV design and development
- Day 10:** Line Following AGV design and development
- Day 11:** Line Following AGV development continued
- Day 12:** Bluetooth controlled AGV Design and development