ALMOUKHTAR AMIOUNI

Founder & Club Head • STEM Instructor & Robotics Developer

ROBOTICS & MECHATRONICS CLUB
Executive Profile & Digital Gateways
Portfolio: **www.Almoukhtar.dev** • Email: **Almoukhtar123xyz@gmail.com**
Official Platform: **pepsroboticsclub.com**

EXECUTIVE STEM MISSION

"As Founder and Head of the Robotics Club, Almoukhtar leads hands-on STEM curriculum in embedded microcontrollers (Arduino/C++), sensor perception, and electromechanical actuators. Through laboratory workshops and kinematic projects like 4-DOF robotic arms, he empowers students in precision prototyping, firmware, and robotics innovation."

CORE TECHNICAL PILLARS

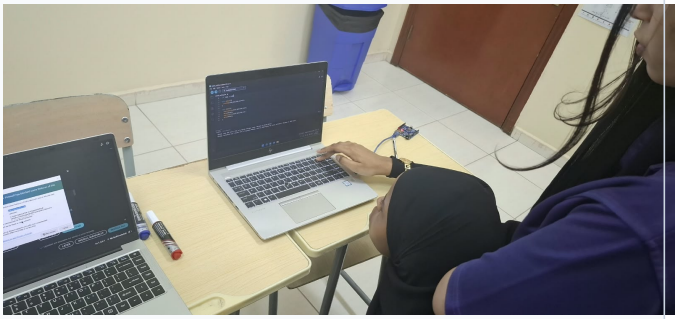
Embedded Hardware & Firmware: ATmega328P, Arduino C++, GPIO multiplexing & PWM	**Perception & Sensor Fusion:** I2C/SPI bus protocols, 6-DOF IMUs, LiDAR ranging
Actuator Dynamics & Power: H-Bridge drivers, flyback protection, steppers, precision servos	**Kinematics & Metrology:** Digital calipers, tolerance fits, 4-DOF articulated robotic arm synthesis

WORKSHOP ACTIVITY HIGHLIGHTS



Club Leadership & Hands-On Mentorship

Founder Almoukhtar presenting microcontroller pinout architecture and GPIO logic.



Embedded Firmware Compilation & Flashing

Club members compiling C++ routines and flashing ATmega328P microcontrollers via USB.

SCAN & CONNECT: DIRECT DIGITAL GATEWAYS

■ OFFICIAL CLUB WEBSITE

pepsroboticsclub.com

Sessions 1–5 video recordings, slides, technical notes & student forum

■ ACTIVITY PHOTO GALLERY

pepsroboticsclub.com/#gallery

Real classroom lab photos, Arduino breadboard builds & video highlights

■ **Weekly Schedule:** Mondays 4th Period Break (In-School Lab) • Fridays 7:00 PM GST (Online Zoom) **www.Almoukhtar.dev** ■