Yousef Ahmed Mohamed Gomaa

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Gender: Male Date of birth: 27 Aug, 2002 Address: Dakahlia Governorate

Summary

Enthusiastic mechatronics engineering student specializing in embedded systems and automation. Excited to contribute to projects and gain hands-on experience in these fields. Actively seeking an internship to apply and enhance my skills, with a keen interest in opportunities within the educational sector as well.

Education

- **Bachelor of Engineering, Mansoura University**, **Al Dakahlia**, **Egypt (Sep 2021 – May 2026)**

  Major: mechatronics engineering GPA: 3.88

Computer skills

- Excellent command of Microsoft Office applications (Word – PowerPoint – Excel).
- Programming (C, C++, Python, Git, Matlab/Simulik).
- Electronics (PCB, basic electronics, proteus, easyeda).

Activities

- Embedded Systems Intern at ITI (Jul 2023 – Aug 2023)

Gained hands-on experience in coding, testing, debugging, RTOS integration, microcontrollers, and communication protocols.

- Brainy n Bright intern and instructor (May 2023 - Sep 2023)

Expanded Arduino, C, and Python technical skills, teaching and mentoring young students.

- Software head in Luminous (Sep 2023 – May 2024)

Expanded technical skills in Arduino, C, Python, Proteus, and more; fostered communication, collaboration, and problem-solving. Experience in teaching and mentoring university students.

Courses

- Arduino
- Python
- Embedded system
- C
- Data structure
- -Electronics
- -Matlab/Simulik

Certification: https://drive.google.com/drive/folders/16jFVQXM-G3yjEyPhwM2Eb7kJjXXUCYzb

Projects

- Sumo:

In this project, I served as the project manager, leading the team in creating a sumo robot. Our efforts culminated in participating in a sumo robot competition last year.

- CNC:

My role in the CNC project focused on software development. We created a CNC system on an RC car, controlling it with a controller using an NRF module. The tools we used included Arduino Uno and Nano, Arduino IDE, NRF module, GRBL, and Inkscape.

- Self-balance:

In this project, my role was to manage the software, utilizing the MPU6050 sensor, PID control, and Arduino IDE.

- Smart home:

Led the development of a smart home system, overseeing both software and hardware integration. Utilized IR sensors, an LCD with I2C module, a comprehensive fire detection system, a DHT11 temperature sensor, and intelligent light detection. Ensured robust security with a sophisticated password mechanism.

- RC car Bluetooth controlled:

In this project, my role was to build it from scratch, focusing on software development and hardware connections. I utilized Arduino IDE, a Bluetooth module, a motor driver, and DC motors.

- Modeling of industrial bump:

Led project modeling bump industrial system, designing an electric circuit. Used piezoelectric elements for vibration detection, capacitors for voltage storage, and springs for optimized vibration capture. Cantilever design enhanced vibration intensity. Result: versatile generator for disaster relief, green energy, and soundwave conversion.

- Obstacle-avoiding RC car

Using Arduino, ultrasonic, and servo motors.

- Line follower RC car

Using Arduino and IR sensors in addition to a normal RC car component.

Languages

1. Arabic: Native speaker
2. English: B2