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 technical skills in Arduino, C, Python. experience in 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
- Simulink

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 electric circuit. Used piezoelectric elements for vibration detection, capacitors for voltage storage, 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 motor.

- 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