# Ahmed Mahmoud Antar

# **Embedded Software Engineer**

I'm extremely passionate about software engineering with focus on embedded systems. I'm seeking a position as embedded systems programmer in a company or an international corporation that fosters talents with fast learning ability where I can contribute into the company's success while learning and growing.

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Helwan, Cairo, Egypt 👂

25 November, 1996 🎬

# **EDUCATION**

# Bachelor degree in communication and electronics engineering.

Helwan university

09/2015 - 07/2020

Degree: Good.

Graduation project: Distinction

# **PROJECTS**

### Bomb Raider (Graduate Project) (09/2019 - 07/2020)

Design and implementation of a wireless bomb disposal robot. The Robot is controlled remotely by transmitting hands, elbows, and shoulders actions of the bomb disposal expert to the robot using Wireless technology. Also there is a live stream that is transmitted from the robot's camera to the VR headset worn by the expert.

#### Sorting Robot using open-cv and tesseract (04/2020)

the project idea is to use a raspberry PI camera with the aid of open-cv and tesseract libraries to take a picture of a label on a box, this picture is then converted to text. This text is then searched for a specific word and based on that word a command is sent to an Arduino through serial communication, which in turn moves the robot arm to put the box in a certain place.

# Home Automation over wifi using esp8266 (10/2020)

the project is based on controlling home appliances using simple web page I designed it, it linked with esp8266 where esp8266 interface with microcontroller Stm32f103c8t6 with communication protocol is UART. Based on that command a specific action is taken.

#### Home Control using remote control

Remote if pressed on any button will send frame, where IR receive that frame, with interface IR with microcontroller Stm32f103c8t6 on External Interrupt pin ,it received frame data and save it . Based on that frame length a specific action is taken.

### **EXPERIENCE**

# Software Engineer

Free Lancer

- Sorting Robot using open-cv and tesseract
- Home Automation over wifi using esp8266

# **SKILLS**

# MICROCONTROLLERS & COMMUNICATION PROTOCOL

AVR Atmega32.

Stm32f103c8t6.

**UART** 

SPI

I2C

CAN

LIN

bootloader

# **PROGRAMMING**

C

**PYTHON** 

### CERTIFICATES

Diploma in embedded system programming (08/2018 - 05/2019)

Arm cortex-M3 online course (07/2020 - 10/2020)

Fiber Optics design and implementation (08/2017 - 09/2017)

### LANGUAGES

English Arabic

# **EXTRACURRICULAR ACTIVITIES**

Member at 4P (IT committee), attended workshop in Web designing using (HTML, CSS,javascript,jquery,php). Got the chance with a team to design 4P Website which enhanced my communication skills.