



**PROGRESS REPORT FOR  
AQUAPHOTN'S MEGATRaining PROJECT 25**

## **Heading**

Date: 8/12/2024

To: Aquaphoton Academy

From: Amr Zeina, Ibrahim Ismail, Mahmoud Morsi, Mohamed Yousry, Yassin Khaled.

## **1-Introduction**

### **1.1 Purpose**

We are developing a project that involves creating a remotely operated car, integrated with a Graphical User Interface (GUI) for user interaction and control. Additionally, the project incorporates advanced computer vision tasks to enable the car to perceive and respond to its environment intelligently.

### **1.2 Objectives**

We have developed the Arduino IDE code and design on Tinkercad, but it is not yet complete because we haven't integrated the GUI. Additionally, we have created our own schematic symbols and footprints needed for the PCB design. We have scheduled a meeting for 10 PM to finalize a date for purchasing components tomorrow.

### **1.3 Scope**

- Task1: Amr Zeina and Ibrahim Ismail will collaborate on the design and development of the PCB for the project.
- Task2: Mahmoud Morsi and Yassin Khaled will be responsible for implementing the firmware, ensuring seamless integration with the PCB work carried out by Amr and Ibrahim.
- Task3: Mohamed Yousry will focus on the computer vision tasks, developing and refining algorithms to meet project requirements.
- Task4: The GUI development tasks will be distributed among the team members, allowing for collaborative effort in designing an intuitive and functional user interface.

## **2- Status**

### **2.1 Challenges Faced**

- Regarding the computer vision tasks, there was some confusion about whether our design would require integrating a camera and which specific videos need to be stitched together. To clarify these aspects, Mohamed Yousri will conduct research to better understand the requirements and determine the best course of action.
- We are developing ide code for a car with two modes of operation: manual and automatic ,there was some confusion to do that with three speed levels but After conducting extensive research, we succeeded in implementing this..We are also creating a Tinkercad design to test our code on it.

## **3- Conclusion**

### **3.1 Assessment**

The team is highly enthusiastic about starting the project, and our collaborative spirit is evident. The meeting was exceptionally productive, with valuable contributions from all members, setting a positive tone for our collective effort.

### **3.2 Contact**

If you have any questions feel free and do not hesitate to contact us on the WhatsApp group.