



Cover page

Project title: Automated Car Washer

Academic Year: 2023/2024

Group Members: Suhaib Darawshi

Department Name: Computer Engineering

Khaled Jeetan

.....

.....

Project Type **Hardware**

Supervisor Name: Dr. Hekmat Darawshi

Format:

- Single space, Times New Roman.
- 12 pt,
- Maximum 1 page.

Abstract Body:

Items must be provided in the Abstract:

- Why do you think this project is important? Please explain the significance of this Project in brief.
- In your point of view what are the important aspects that should be covered in the project?
- Objective(s): In your view, please explain the main objectives of the project.
- Methodology: Give a brief outline of the application development process.
- Had this project been done before? Are there any similar applications available today?
- **Note:** Please deliver this abstract early to ensure that your Project has been approved by the department's projects committee. **Registration will not be done without this approval.**



Project's Abstract:

This graduation project presents the design and development of an Automated Car Wash Machine, aimed at providing efficient car cleaning services. The system combines automation, cost analysis, and remote monitoring to create an innovative solution for car owners and businesses alike.

The main components of this project include a conveyor belt system that guides the car through various stages of the washing process. The car is first subjected to a water splash to remove loose dirt, followed by the application of soap for a thorough cleaning, and then another water splash to clean off the soap. The automated process ensures consistent and high-quality results, reducing the need for manual washing.

The project contains cost analysis component. By measuring the amount of water and soap used during each car wash cycle, the system calculates the cost of the service. This helps car wash businesses optimize their resource utilization, to make their analysis for the profits.

The system also includes remote monitoring capabilities. An integrated camera system captures real-time footage of the car wash process, which can be accessed via a mobile application. This feature enables car wash administrators to monitor operations remotely, ensuring smooth functioning and addressing any issues promptly.

The system will contain sensors to realize the position of the car on the belt, these sensors should verify that the process walked correctly, in case any of the three processes didn't happen correctly, or the car was stuck on the belt.

