



Cover page

Project title: **CandleCraft Line**

Academic Year: **2024**

Group Members: **Dalia Hamed Dwaikat**

Department Name: **Computer Engineering**

Asma Tariq Saleh

Project Type Software or **Hardware** (Choose one)

Supervisor Name: **Dr.Raed Oadi**

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:

We observe a growing trend in artisanal projects, particularly in candle making. Candles play a significant role in home decor, enhancing ambiance, and providing pleasant scents. Due to the increasing demand and presence of handmade candles on various occasions, manual production can become burdensome, especially for large orders. Our project aims to establish a production line for candles in transparent cups, tailored to user preferences. Users, as project owners, can specify the number of cups, colors, and scents desired.

The candle production process involves multiple stages, starting with wax mixture preparation based on the required cup quantity. The mixture is then melted, colored, scented, and thoroughly mixed to achieve a homogeneous blend. The cups undergo a simple heating process to facilitate the pouring without errors. Decoration with specific flowers matching the added scent precedes the final cooling stage to dry the wax inside the cups.

Initially, we will develop a comprehensive project design and ensure a detailed plan is in place. Then, the hardware component will be constructed, and the project will be implemented, integrating it with a mobile application for seamless communication between all components. This will be achieved through the creation of an "*Automatic Wax Mixing and Pouring System in Cups*" based on Arduino technology. The system utilizes Arduino programming to control and manage the entire process, integrating various components such as sensors, motors, relay switches, heaters, and other relevant elements.

This project aims to streamline candle production to meet large-scale demand while accommodating specific customer preferences, thereby addressing the growing market demand for these handmade artisanal products.