

## Abstract:

Our hardware graduation project is a fully autonomous chocolate-making system that allows users to order customized chocolate products via a mobile application. This machine eliminates the need for a worker to make chocolates, saving both money and effort. It is user-friendly and safe, making it ideal for use in schools, universities, and institutions, offering a fresh and healthy alternative to traditional vending machines.

Our machine is connected to a mobile application that allows clients to choose the chocolate chips they want. Clients can select from predefined options such as nuts, blueberries, or raisins according to their preference. After choosing the chocolate and add-ons, the machine will start the process by measuring the correct quantity of chocolate and placing it into a pot for heating and mixing to make it liquid. Once mixed, the machine pours the chocolate into a mold. Finally, it adds the chosen nuts or blueberries, then dries the chocolate to create a chocolate palette, preparing the machine for the next order.

Additionally, our project uses multiple sensors to ensure that everything is done correctly and to achieve high accuracy.