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Project title: **Noodly**

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Department Name: **Computer Engineering**

Project Type **Hardware**

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Abstract Body:

Instant noodles are among the most popular quick meals consumed worldwide, particularly by students and individuals with fast-paced lifestyles. However, preparing noodles manually can be time-consuming and inconsistent in quality. This inspired us to design a fully automated electromechanical system – the Noodle Machine – that prepares a complete bowl of noodles from start to finish based on user-defined preferences.

The machine is designed to handle the entire preparation process automatically, from heating to serving the final product. It's controlled via a keypad and LCD screen which the user selects one of three available flavors and specifies the desired spiciness level.

The main objectives of this project are to streamline the preparation process, ensure consistency in taste and quantity, and provide a fully hands-free cooking experience. Our methodology involved integrating various hardware components including an Arduino-based controller, a piston-based dispenser system, stepper motors, relay, power supply..., All components are synchronized via embedded software to execute each task in precise order and timing.

Although there are some commercial machines that partially automate noodle vending or water heating, a fully customizable and automated noodle preparation system at a personal or semi-commercial scale is still relatively rare. Our project aims to fill this gap with a compact, cost-effective, and user-friendly solution.