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Project title: calf feeding machine

Academic Year: 2023/2024

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Department Name: Computer engineering

Project Type: Hardware

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Project's Abstract:

This project aims to develop a calf feeding machine to streamline the process of feeding calves in agricultural settings. Calf rearing is a critical aspect of livestock farming, and efficient feeding plays a pivotal role in the health and growth of young animals. The significance of this project lies in addressing the challenges faced by farmers in ensuring consistent and timely feeding for their calves, thereby optimizing animal welfare and farm productivity.

The calf feeding machine project encompasses several critical aspects. Firstly, it focuses on automation to streamline the feeding process, reducing manual labor for farmers. By designing a machine capable of automatically dispensing milk at regular intervals, it aims to enhance efficiency and consistency in calf rearing practices. Additionally, the project emphasizes the development of a user-friendly interface for easy operation and monitoring of the feeding process. Integrating intuitive controls and monitoring systems, it aims to empower farm workers to efficiently manage calf feeding tasks.

The methodology for developing the calf feeding machine involves several key steps. Firstly, it includes the integration of a water tank equipped with a heater and sensor to monitor both the water level and temperature. A heat clock mechanism ensures that the water reaches and maintains a precise temperature crucial for calf health; the system will not operate unless this temperature threshold is met, thus remove the risk of stomach illness in the calves. Secondly, the milk tank incorporates plates driven by motors to facilitate the introduction of milk powder into a mixer. The amount of milk dispensed is regulated by the milk level sensor, which controls the flow of water entering the mixer, ensuring the correct milk concentration for the calf's nutritional requirements.the mixing component of the system includes a level sensor to monitor the milk level within the mixer. This ensures that the appropriate amount of milk is consistently available for dispensing to the calves. Additionally, a mixer and heater are integrated into the system to maintain the milk at precisely the right temperature.