

Automatic Pet Feeder

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Abstract: *Pets need special treatment and special care. Due to busy life style ,this task is not as simple as it used to be. The goal of this project is to design and implement a smart pet feeder The automated pet feeding system not only addresses a practical need but also enhances the bond between pet and owner by reducing a stress associated with pet care. This project presents a comprehensive solution by automating the feeding process through three methods remote feeding via a mobile, scheduled feeding and voice activated feeding. The system is built using an Arduino as the core controller, a Bluetooth module for wireless communication, a 4 channel relay module to manage multiple devices, and a sound detection sensor to recognize the dog bark .The mobile apps allows owner to remotely dispense food providing real time control when they are away from home . Additionally the scheduled feeding function enables owners to set specific times for the system to automatically release the food , ensuring the dog is fed at regular intervals . If the dog is hungry and barks near the feeding station , the sound detection sensor triggers the system to dispense food.*

Keywords: Arduino Uno , Bluetooth module, Sound detection sensor, IC 555 timer