Automated Dog Feeder

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Abstract

Dog health and lifespan is a priority for many pet owners. Additionally, food aggression in dogs is a hurdle that numerous people struggle to minimize. There are multiple dog feeding dispensers currently available on the market, but many dog owners still encounter issues in keeping their animals healthy and safe during feeding time. Overfeeding canines is a problem that countless pet owners struggle with. As a result of a continually growing market, there is a strong need for a product that easily enables dog owners to feed their dogs remotely in a healthy manner, while maintaining a safe environment for both animals and humans. It would also be necessary for this product to service multi-dog homes. According to the Veterinary Center of America (VCA) Animal Hospitals, approximately 25-30% of the general canine population is obese in the United States, with 40-45% of dogs aged 5-11 years old weighing in above that of healthy weight range. Furthermore, stated in the Raw Bistro Blog, food aggression is quite common in dogs. One study reported that nearly 20% of all dogs show signs of food aggression. According to the results of a 2021 survey conducted by the American Pet Products Association, dog ownership in the United States has increased by 13% since 1988. Most dog feeding products on the market fail to safely feed multiple animals with different types of foods in a single device. The objective of this system design is to produce an apparatus which can safely service multi-animal homes remotely, while eliminating food aggression incidents. The product will contain multiple compartments for housing differing types of dog foods. There will be a user-interface for clients to enter a feeding amount and schedule. A unique sound will alert a specific dog for its feeding time, and after the alerted dog is within 1 meter of the device, a compartment will open making the food available to eat. If the incorrect dog gets within 1 meter of the apparatus during another dog’s feeding time, the compartment will close until that dog is out of the 1 meter range. In this way, the product is self-training in reducing food aggression and confrontations between pets. This will also ensure that each dog stays on a specific and healthy feeding regiment.