

Design Of Food Feeding Machine For Pet Animals Using Iot And Wsn

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ABSTRACT

The portable controlled modified pet feeder is intended to give clients a way to deal with deal with their pets correctly and naturally. It comprises of two sections: The hardware (genuine feeder) and the great programming running on Android. The product permits clients to type in their pet's data including name, weight and taking care of total. The information will by then be transmitted to the equipment where the pets can eat their nourishment. A constraint of two pets in a steady progression is bolstered. Testing on both programming and gear gives fulfilling results. The contraption can perceive different pets inside the extent of 15cm and allot a specific proportion of nourishment relies upon the client's data.

KEYWORDS:-Pet care taker, Internet of things, Cloud, WSN, GSM module.

1.INTRODUCTION:-

Feeding for pets in their daily works is a difficult thing for all people. So owners do not have time to feed them. All most of they feed food morning itself. So it is an unhealthy diet that will almost consistently cause health problems for their pets. As per recent research, one of the top health concerns is overeating and obesity. youthful pets are usually never satisfied and can continue eating until nothing remains. Even adult pets can have a similar habit, which causes a much shorter lifespan for pets. The purpose of our project is to provide an easier and more efficient way for the pet owners to feed their pets, even when they are not at home. Specifically, the aim is to build a hard were design which can automatically to detect different type of pets, match detected the pets with currently stored pet profiles and dispense of correct kind of foods for different pets.

2.LITERATURE REVIEW:-

This paper provides the design of the instrument that was separated into two sections they were hardware and software. In the hardware, a microcontroller is used. The software Arduino and Down loader is used. Arduino which had the main job as the genius in this tool, a few different components, for example, modules ESP866, ultrasonic sensors, Rotate motors, LDR, and alarm. The work applied to the Pet Feeder worked well, an opportunity to show the web server takes for around 4 sec.^[1] This paper provides this apparatus relates to an integrated automatic device for training and feeding pet which also functions as a neighbor while the owner is absent or otherwise busy. It comprises a pet holder which when activated by an execute places a pet placed there into a planned

distance. This pet holder is impelled by a spring associated with a spring and a pivoting handle activated by a motor programmed by a microprocessor.^[3]

In this paper, a mechanical pet feeder is defined that allows bits of pet sustenance to be placed into pits during a rotates food bowl and to be made available to a pet at predestined continuous moves. A top with a gap for explaining one among the food feeder is arranged over the bowl. A base unit that supports the bowl is meant to show the bowl while the highest remains stationary and to screen the circumstance of the bowl.^[10] This paper which provides a device can provide daily feeding without disturbing the owner's work. Owners can monitor the feeding process with their Android smart phone. Intelligent Dog Feeder can give do with similar RFID, set sustaining time and bit per serving through Android telephone, send encouraging report (eaten), and hound appearance when the bolstering time has shown up.^[11] This paper which provides a device can provide daily feeding without disturbing the owner's work. Owners can monitor the feeding process with their Android smart phone. Intelligent Dog Feeder can give do with similar RFID, set sustaining time and bit per serving through Android telephone, send encouraging report (eaten), and hound appearance when the bolstering time has shown up.^[12]

3. OVERVIEW:-

The main methodology works on WSN and IoT devices. These components play a major role in the framework. The IoT module connected to the Arduino module. The pet feeder should be divided into two methods. They are a manual methods and the automatic methods. In the IoT application, we need to give the manual are time to time(auto)using this method. And this project implementing the both automatic pet feeder and manual pet feeder also, feeding food food to pet using manual feeding help of the web server “io.adafruit.com” and also the automatic pet feeder also using the like manual feeder but there is a difference in between manual and automatic that is typing in the web “FEED” and also “AUTO” like as manual. Automatic and manual difference is the one thing only that is giving food automatically or manually with help of the pet owner.

4.PROJECT DESCRIPTION:-

Module 1:-

The manual pet feeding system Can feed the food manually with text messages. After a text message, The IoT will be started and feed the food to pets. The website of “io.adafruit.com” had already connected with the IOT application. From that website, the framework is controlled by a manual pet feeding system.

Module 2:-

The automatic pet feeding system is used to feed the food automatically as per the IOT program based alarm system for every 2 hours. Compare to manual automatic feeding systems having more features. Feeding manually is not possible at all times. For manual feeding needs human being helps, but in automatic no need the humans help.

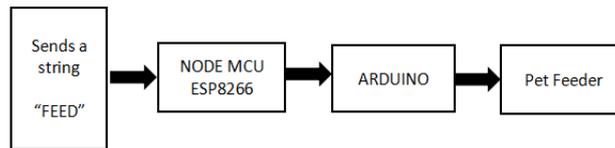
5.EXPERIMENTAL RESULTS:-

From this project, pets can feed as per time to time using an automatic system. Using web site “io.adafruit.com” also feed food manually when the “FEED word” is typing website

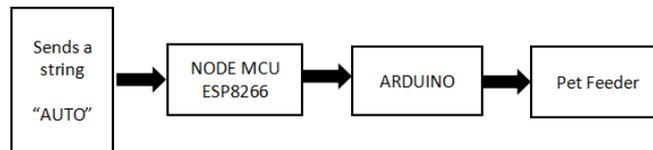
using user id and password and the food gate opens up to 5 seconds. If the food is not enough then it will again open for 5 seconds. The framework will give the food time to time as per the IoT programmed per two hours one time. And also like the manual feeding feeding automatic also using in the web site of the “io.adafruit.com”

BLOCK DIAGRAMS:-

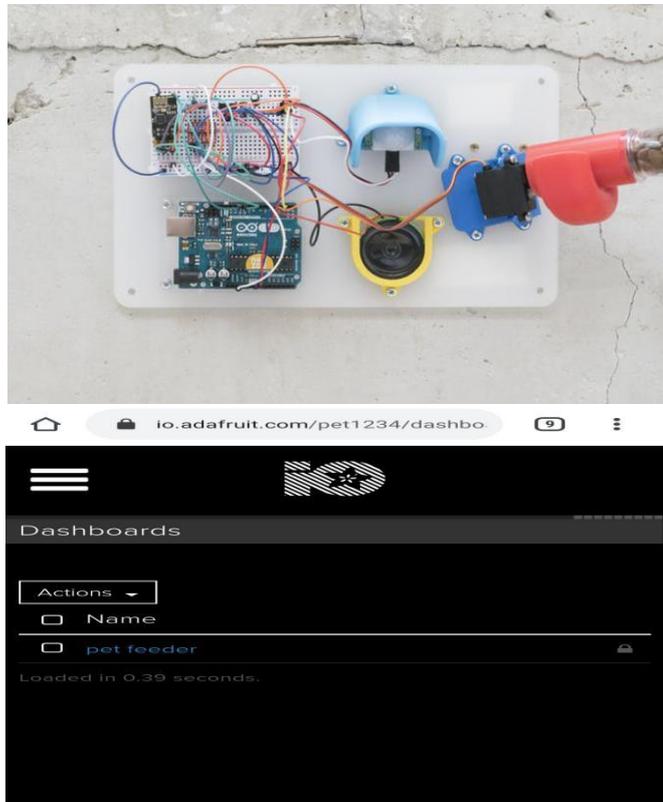
Manual feeding:-



Automatic feeding:-



RESULT IMAGES:-



EXPERIMENTAL TABLE:(PER 2 HOURS ONE TIME FEEDS STARTS FROM 8 CLOCK)

S. NO	Automatic time	feeded	Not feeded
1	8 am	yes	no
2	11am	no	yes
3	2pm	yes	no
4	5pm	no	yes
5	6pm	yes	no
6	10 pm	Yes	No

7.CONCLUSION:-

In this project, automatic food feeding system is implemented in the both manual and automatic food feeding system. This framework is also useful to the next generations and nowadays so many workers doing their work in different stations so they cannot feed their pets at a particular time. And this framework is designed to help the stopping wastage of the pets food and pet should be healthily. By using this technique, pet owner saves the money and no need to appoint the pet care takers.

REFERENCES:-

1. Design of Pet Feeder using Web Server as Internet of Things Application1Andi Adriansyah,2. MuchdAriefWibow. Shifengfang, Lidaxu, Yunqiangzhu, Jiaerhengahati, Huanpei, Jianwuyan, Andzhihuiiu (2014), 'An Integrated System For Regional Environmental Monitoring And Management Based On IoT ' IEEE Transactions On Industrial Informatics, vol. 10, no.2,pp.1596-1605.
2. <https://www.circuito.io/app?selectedComponentsIds=11021&selectedComponentsIds=9442&selectedComponentsIds=13678&selectedComponentsIds=197253&selectedComponentsIds=931983&selectedComponentsIds=10333>OSGi-based intelligent context-aware middleware for smart home appliances 1W.D. Lin,2 Chih-Heng Ke
3. Internet of Things: A Survey on Enabling Technologies, Protocols, and Applications Ala Al-Fuqaha ; Mohsen Guizani ; Mehdi Mohammadi ; Mohammed Aledhari ; Moussa Ayyash
4. Automatic Pet Feeder using Arduino pankajkhatri
5. <https://create.arduino.cc/projecthub/circuito-io-team/iot-pet-feeder-10a4f3>