



PET SITTER





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INTRODUCTION

Problem



Our machine is the best solution for you if you have pets at home and you are a person who spends a lot of time outside the home, or you travel frequently. Pets require special care and there are essential needs that should be considered, which are their food, water, litterbox.

OBJECTIVES

1

Create an effective system that can clean and filter water, deliver cat food, and maintain a clean litter box.

2

Provide a comfortable living space for the cat and its owner.

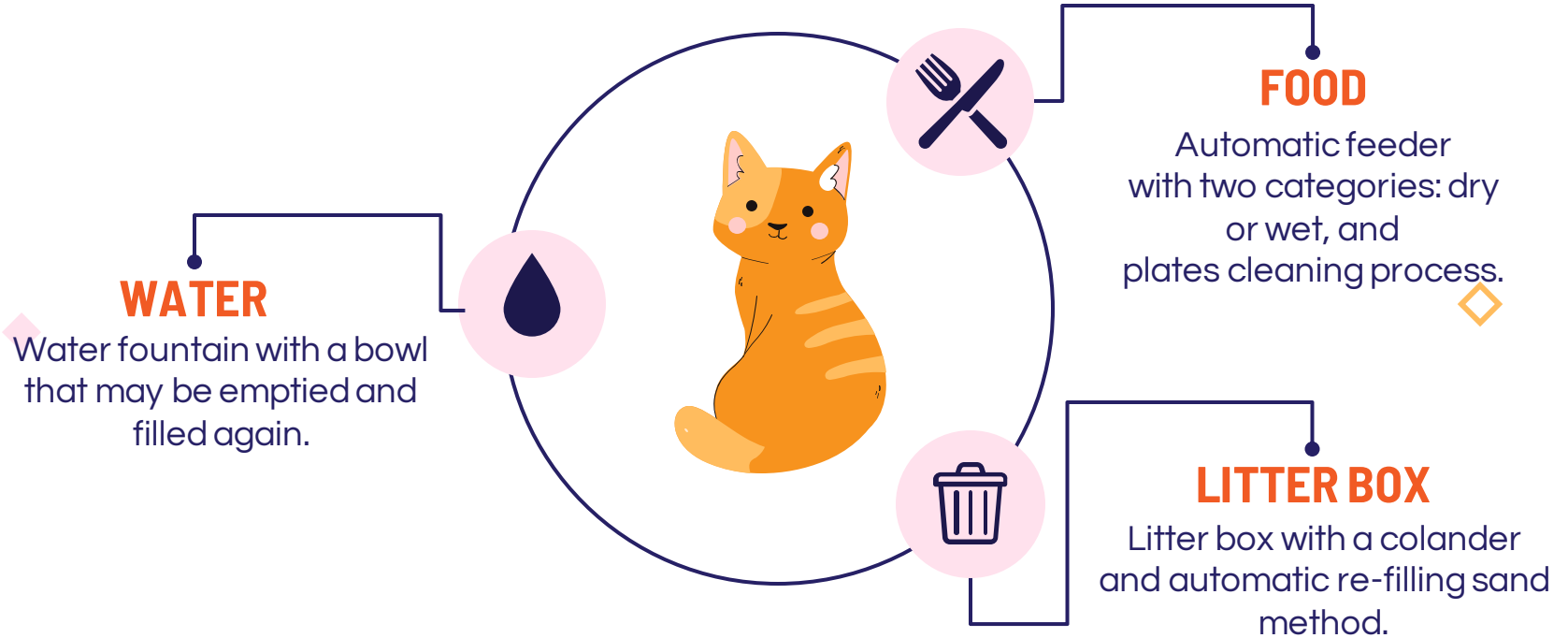
3

Provide immediate data regarding the amounts of food, water, and sand based on readings from the sensors.



IMPLEMENTATION

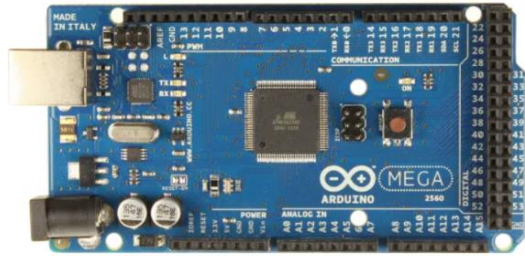
FEATURES





HARDWARE COMPONENTS

Microcontrollers



Arduino Mega 2560



ESP-WROOM-32

Motors and Drivers

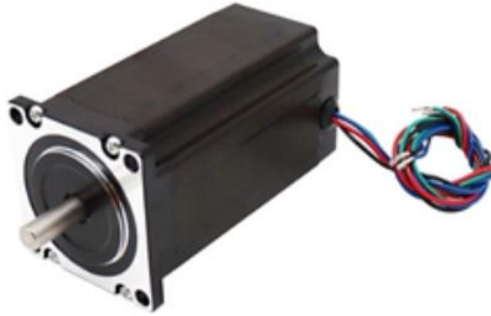


Servo Motor



DC Motor

Motors and Drivers

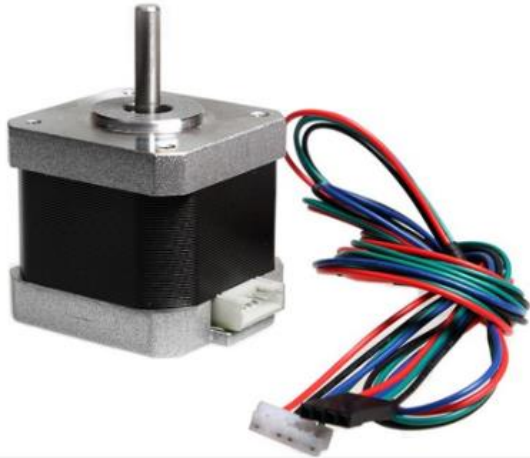


Stepper motor NEMA23

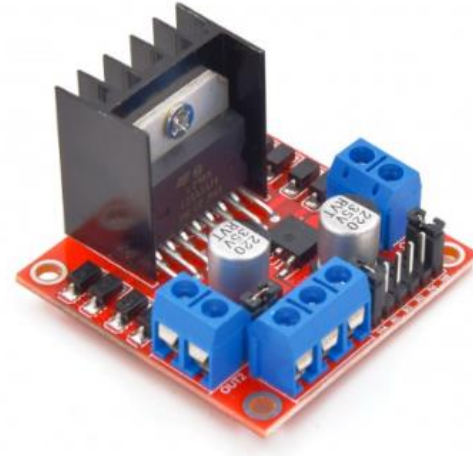


YS-DIV268N driver

Motors and Drivers



Stepper motor NEMA17



H-bridge L298N

Sensors



IR Sensor



Ultrasonic Sensor



Water Level Sensor

Other Components



Fan



Power Supply

Other Components



Timing Belt



Gear

Other Components



Wires

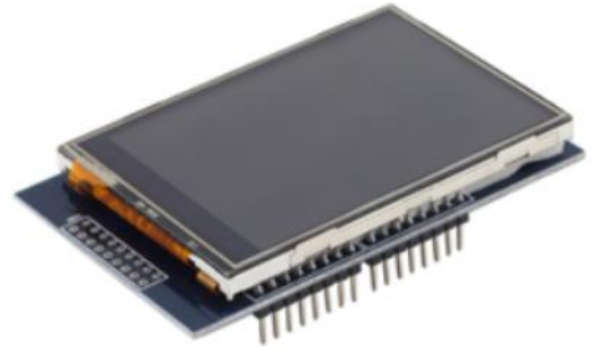


Intercom Wires

Other Components



Belt



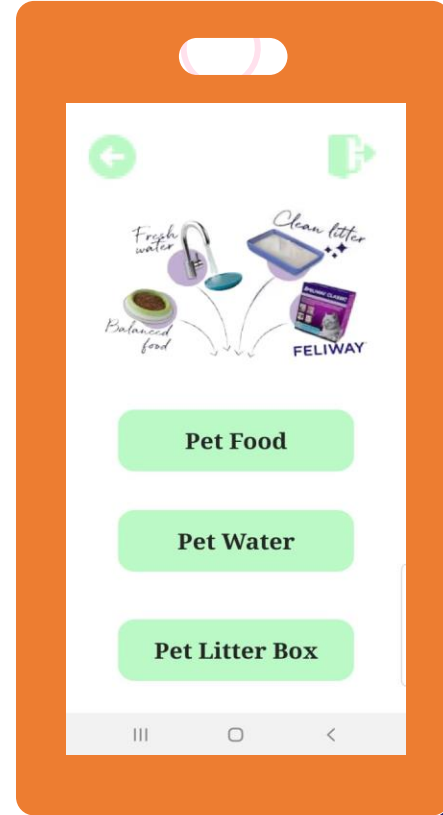
Touch Screen



MOBILE APP & TOUCH SCREEN

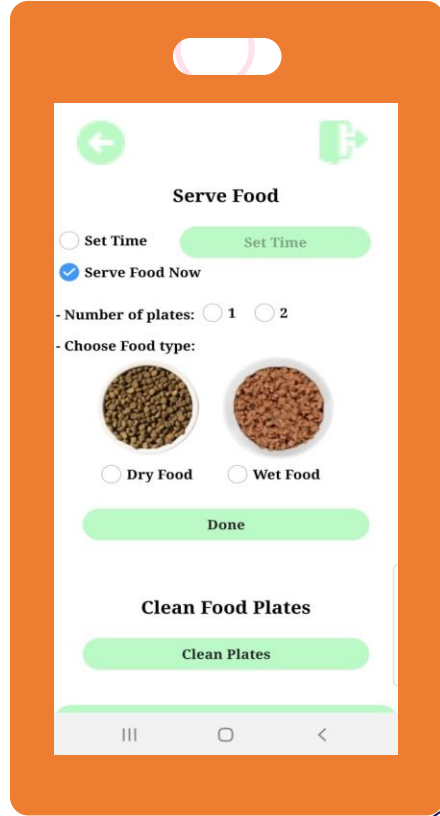


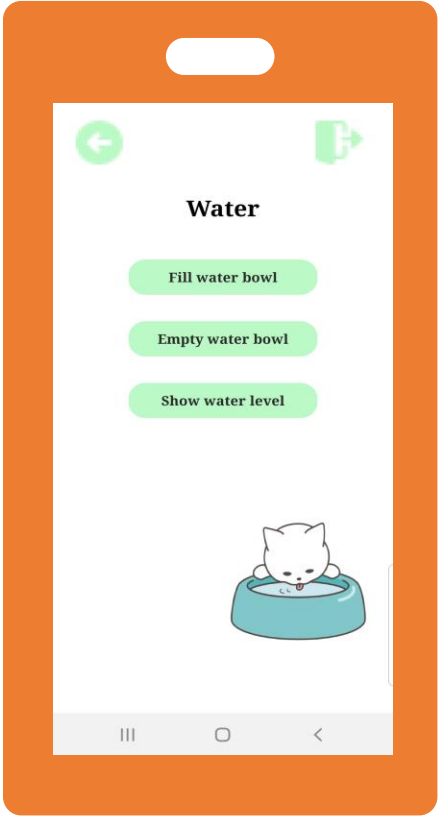
MOBILE PAGES





MOBILE PAGES





MOBILE PAGES



TOUCH SCREEN



TOUCH SCREEN



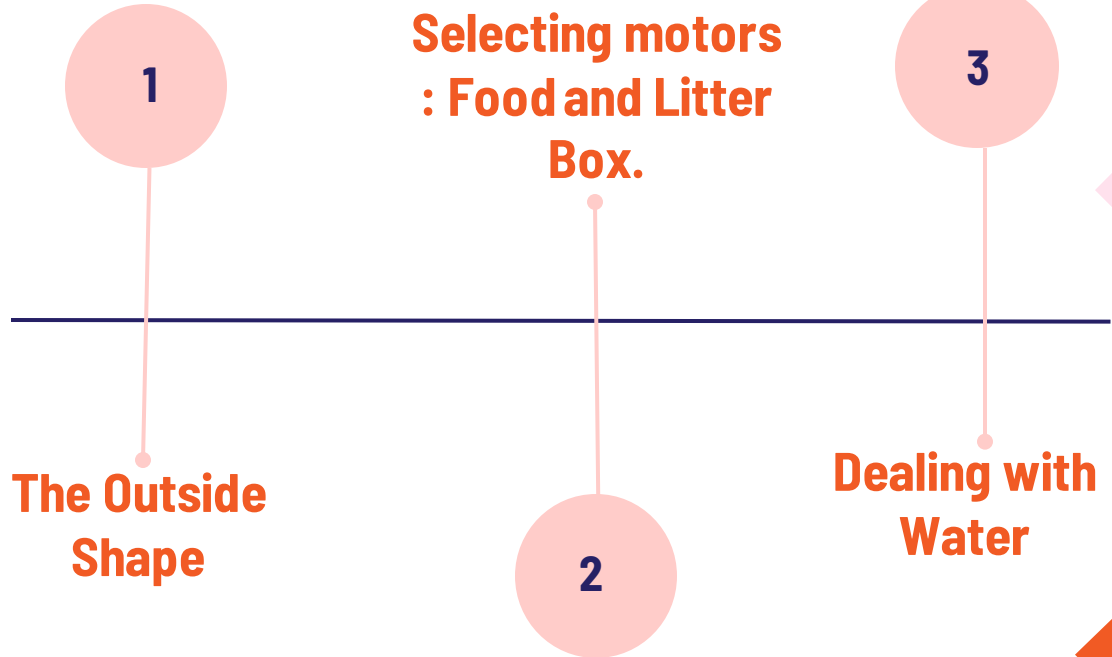
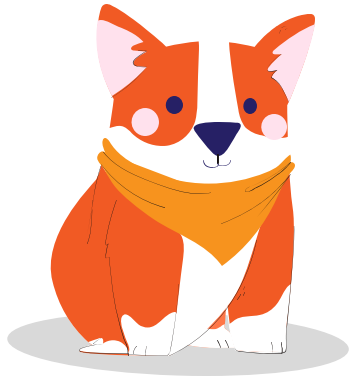
TOUCH SCREEN







CONSTRAINTS

CONSTRAINTS





To autonomously supply food at predetermined times and intervals, use a real-time clock.

Use a timer to clean the litter box fifteen minutes after the cat enters.

Empty the litter box of all the sand and replace it.

Use sensors to detect the cat's activities.



Future Work



THANKS!

Any Questions?