

UAL 20/21 CREATIVE MAKING:
ADVANCED PHYSICAL COMPUTING

PROJECT PROPOSAL

AUTOMATIC PET FEEDER

Presented by Xiuyuan Chen

TARGET USER

Families with pets want to take better care of their pets

USER PAINPOINT

Too busy to feed the pet regularly

Have no time to feed the pet when work overtime and come home late

Cannot take the pet on vacation and need someone else to take care of it





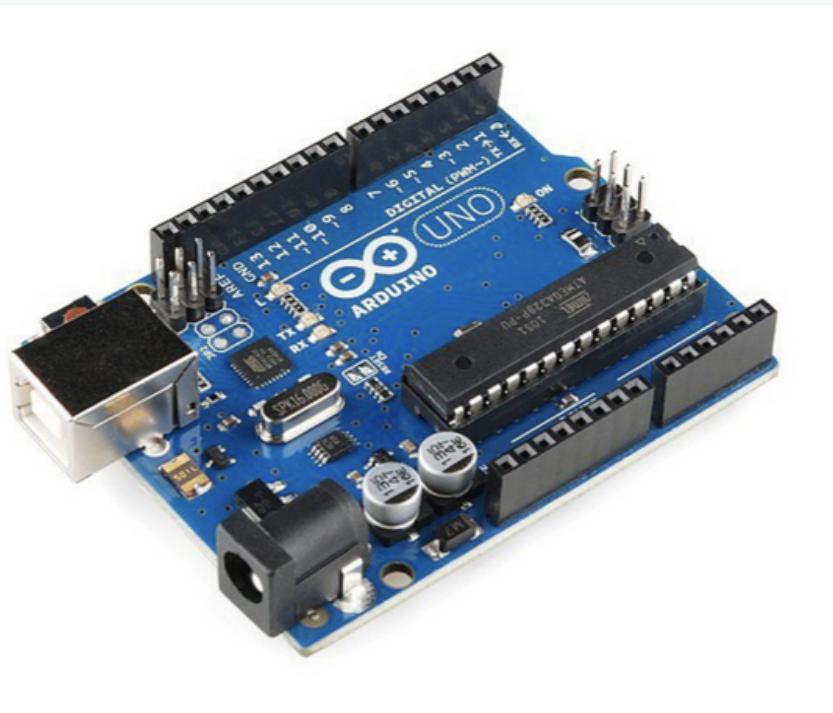
PROJECT PROPOSAL

USER NEEDS

User need a pet feeding machine that could...

1. Automatically feed the pets with fixed time and quantity
2. Monitor the amount of remaining feed and water at any time
3. Alarm when the amount of remaining feed and water is insufficient
4. (if possible) Have a camera to see the pets
5. (if possible) The camera captures highlights when the pets use the feeding machine

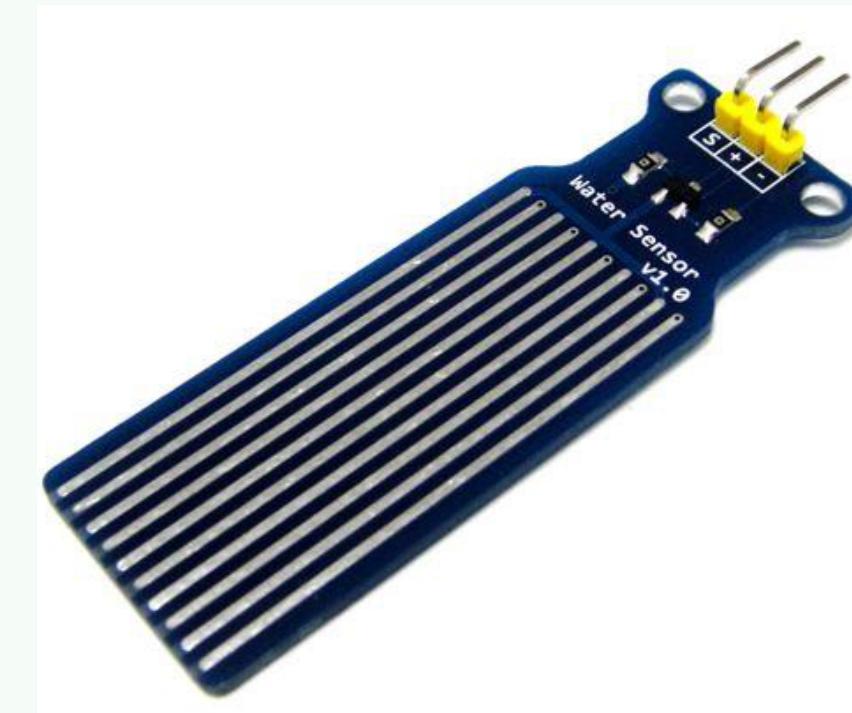
PARTS USING



Arduino UNO



HX711 Weight Sensor



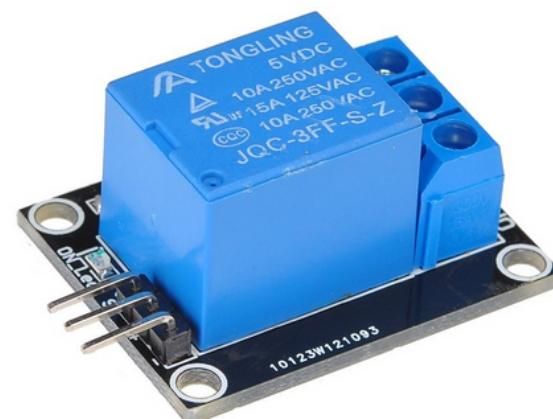
Water Detection Sensor



Servo Motor



DC 12v water valve



Relay



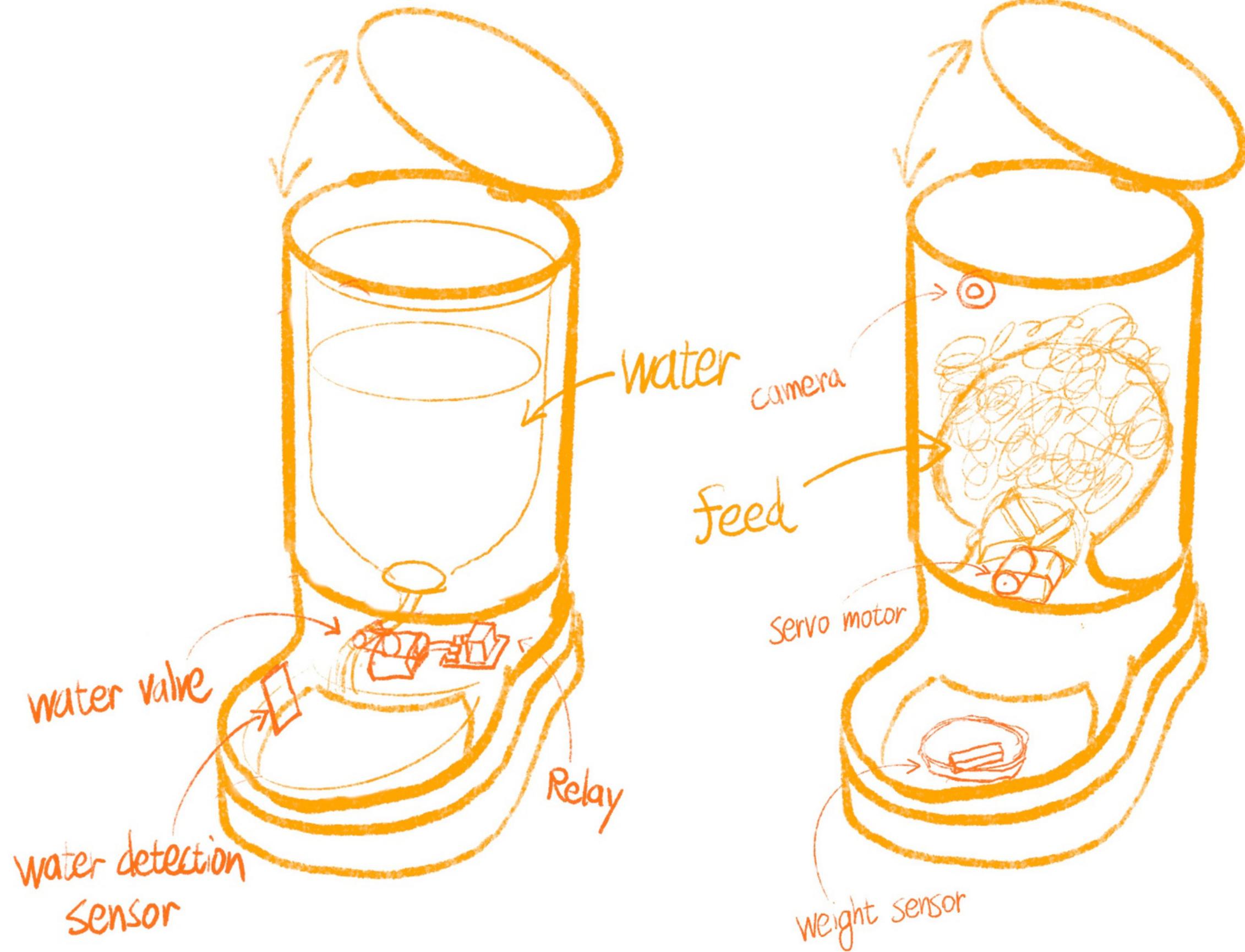
Jumper Wire



PROJECT PROPOSAL

PROJECT STATEMENT

Build a device that can help pet owners more accurately and timely feed their pets food and water



TIME MANAGEMENT

Week 6

Week 7

Week 8

Week 9

Process document

User research, Competitive analysis, Technical research

Breadboard Wiring & Coding

Cover Making

User testing & refining

Final Product Making

Presentation Slides

PROJECT PROPOSAL

THANKS

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