# System Idea Overview

## Cat/Dog food dispenser

### ***Aim,***

Dispense food from a food bucket when the pet is nearby waiting for food at certain times of the day.

### ***Requirements,***

Needs to sense when pet is in area.

Needs to dispense correct amount of food and not overflow bowl.

Needs to notify owner when food stock running low.

Needs to be programmable for food volume depending on pet size and period of time in which pet should be fed in order to prevent over feeding.

### ***Further future requirements,***

Could send a picture of pet feeding to owner.

### **Ideas for implementation,**

Infrared sensor for when pet is near bowl.

Load sensor for weight of pet bowl.

Measures amount of food in bowl in order to prevent overflow and amount of food dispensed in order to know when food bucket running low.

Either motor to lift a flap to dispense food or an electromagnet.

Possible camera to take picture of pet.

Load detector in bowl

On/Off Infrared detects when pet present

Camera (possible future input)

Processing – track weight dispensed, current food bowl level, when to dispense, how much to dispense.

Motor/ electromagnet – lift food flap