FACULTY OF ENGINEERING
SOFTWARE ENGINEERING & COMPUTER ENGINEERING

Project Proposal

List of students forming the project team:
Ugur Cem Ozturk 12070006006
Pelin Fidangul
Ugur Ilter

Advisor:
Korhan Karabulut

Salem

A Multi-Featured Smart Pet Feeder

Salem will be undertaken for pet owners to feed and take care of their pets even when they are far away from home. There is a built-in camera, two bowls and storage bins for both food and water, RFID card reader and a laser light on the device. Users will be able to set a food quota for each pet via management console. Food dispenser mechanism will work as a system that checks the amount of food through the webcam by using the state-of-art image processing technology.

On the management console(mobile and web), each pet will has an unique profile and an ID. Through this profile, users will be able to track:

- Daily and total amount of food that has been eaten
- Diary of vaccine
- Cleaning and grooming schedule
- Set up food quota and feeding time for each pet

On the background of the process, Salem consist of an RaspberryPI, an Arduino and a mini engine system. All of the data will process on Linux operating system via RaspberryPI. Live video

stream and data traffic will send through a server. Engines will work between food bowl and food storage bin and controlled via Arduino. All other features of the Salem are listed as:

- Compatible with multiple pets
- Live video stream through the webcam
- User management console for both mobile and web
- Identification and recognition system using RFID Technology
- Food bowl re-fill using image recognition
- Cheaper production compared to market products[1]
- A ring for feeding time
- Automated water re-fill
- Laser light game for cats
- Beautiful design

BUDGET

Description	Quantity	Unit Price	Cost
Raspberry Pi 3	1	TRY 150	TRY 150
Arduino UNO	1	TRY 20	TRY 20
The outer case (Estimated Price)	1	TRY 130	TRY 130
High Resolution Webcam	1	TRY 100	TRY 100
Total			**TRY 400**

[1] Compared to products from amazon.com