Beehive Monitoring System

Status: Filled

Group Members: Group 1: Weilin Sun, Ryan Xu, Zheng Wang, Yongzhe Wang, Duncan

Ensing

Group 2: Ellen Yang, Hanyuan Song, Temir Baimukhametov, Tim Nelson

Sponsor(s): Honeyview Farm, Chilliwack, BC

Supervisor(s): Farid Golnaraghi, Ph.D., P.Eng., Professor, Mechatronic Systems

Engineering

Amr Marzouk, PhD, PEng, Lecturer, Mechatronic Systems Engineering

Project Description

Summary

A sudden Bee population decline of up to 30% per year has been observed since 2006. This poses a major threat to crop pollination and thus has a major impact on human wellbeing.

In this project, the capstone team will be working directly with an industrial partner to build an embedded sensor network to monitor and help maintain a beehive. Parameters including: temperature, humidity and local positioning of bees will be logged and transmitted to monitoring stations or the internet.

Deliverables

Milestones		Estimated Delivery Time
	Initial market research, product functional specifications and requirements.	January 15 th 2016
First Prototype	Scientific research and development of a real-time embedded sensor network.	March 15 th 2016
	Testing and validation and planning for final prototype	April 15 th 2016
	First Prototype demonstration	April 15 th 2016
Final Prototype	Final prototype research and development	July 15 th 2016
	Testing and validation of final prototype	August 1 st 2016
	Final prototype demonstration	August 2016