University of Massachusetts Amherst

College of Engineering

Department of Electrical and Computer Engineering

ECE 416 - Senior Design Project II

Spring 2021

SDP21 Progress Report

Team member:

Owen Boucher

Date:

2/13/2021

Team number:

22

Team name:

Pest Alert

1. **Project Description**

Our Project takes and transmits an image of a sticky trap along with the temperature and humidity at the time the picture was taken to a base-station, that then counts and identifies the pests and displays the data in a web-app

2. **Primary Responsibilities**

My primary responsibility is to handle the transmission of the image and data to the base station and store the data, and design the PCB.

3. **Recent Achievements**

I have finished the PCB and sent it out to be ordered, with an expected delivery date of Feb. 15. I also migrated our project from using a microcontroller and a separate Bluetooth module into using an nRF52840, a microcontroller that also functions as the Bluetooth module. In the past week I have been working on converting our Arduino code to be using ANSI-C.

4. **Problems**

The main problem I am having right now is that image transmission is still relatively slow. By using the nRF52840 I was able to make the image transfer much more reliably, so I’m hoping to be able to test the transmission speed In order to get the image to transfer quickly

5. **Plan of Action**

6. **Assessment**

*This section consists of your assessment as to whether you and your team will succeed in producing the promised robust prototype which meets the agreed-upon specifications by FPR.*