

Investigating the Biological Impacts of Radio Spectrum Transmissions

The bee project group



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Objectives & Current Phase

- Bees use Earth's magnetic field for navigation and orientation.
- Explore if RF(Radio Frequencies) has any impact on the behaviors of the bees.

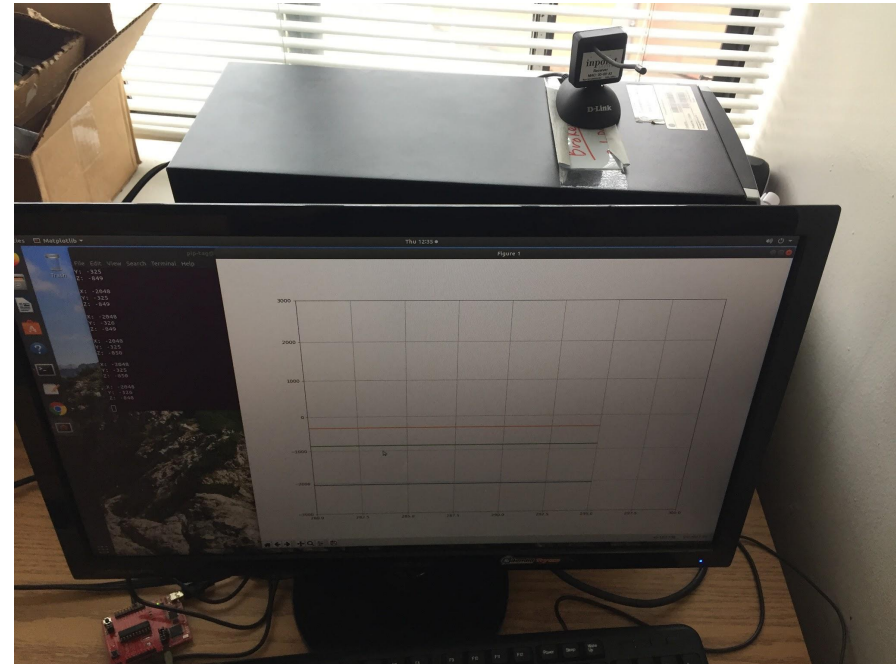
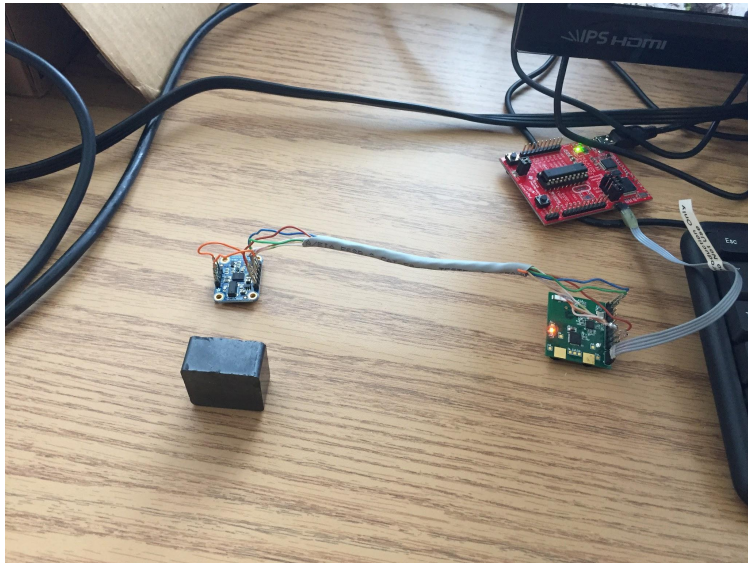


What we have done so far:

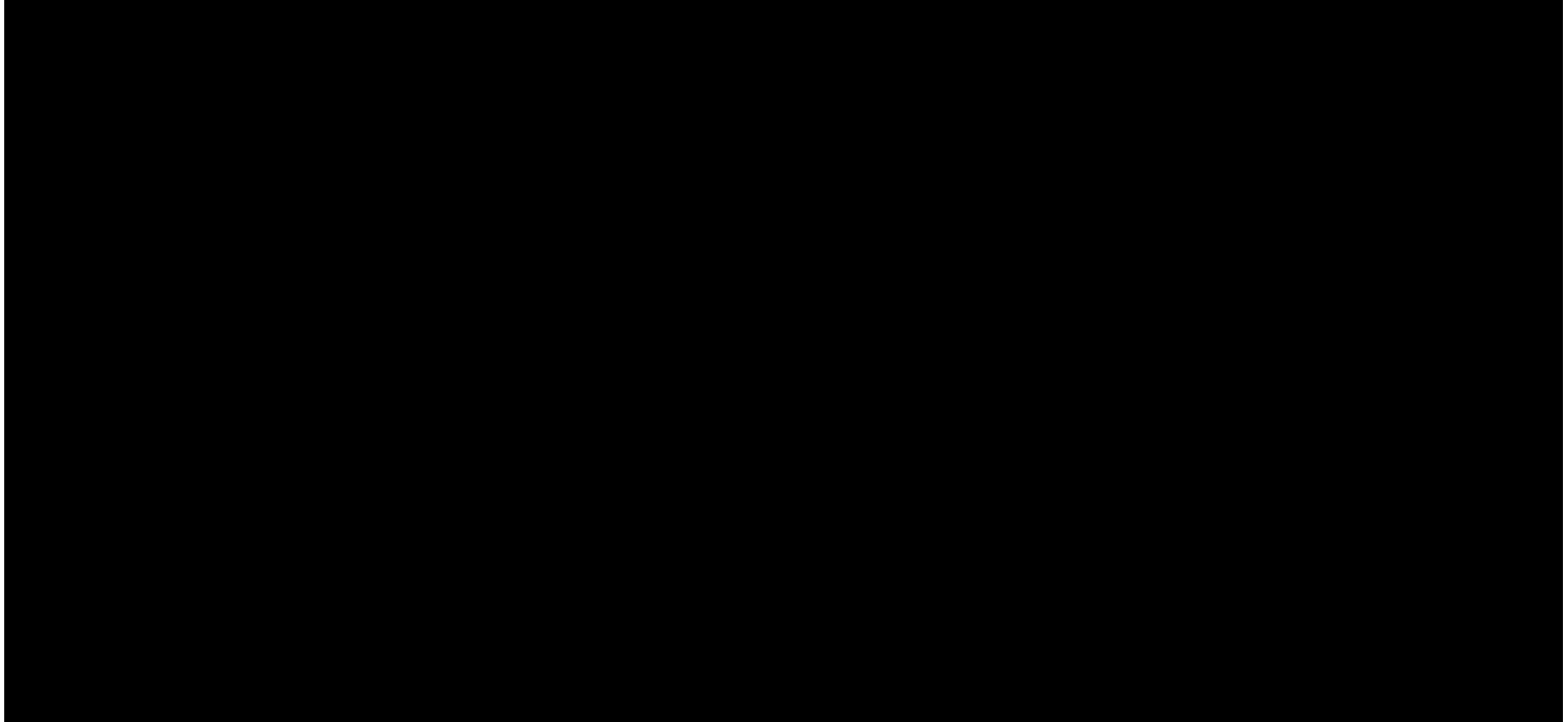
- A Method to conduct the experiment.
- A prototype for magnetic field sensing (using a magnetometer)
- Basic equipment design: camera, feeder pump

Tasks completed/on-going this week

- The PIP Tag currently collects the data and transmit them to a nearby computer.



Tasks completed/on-going this week



Tasks completed/on-going this week

- Familiarize with Eagle software and went through tutorials.
- Able to make 1. Schematic Design.
2. Printed Circuit Board Layout.
through Eagle.
- Build a simple project (2 LEDs with LM55D timer) through Eagle.

Detail shown in next slides in Figure 1, 2, 3.

Tasks completed/on-going this week

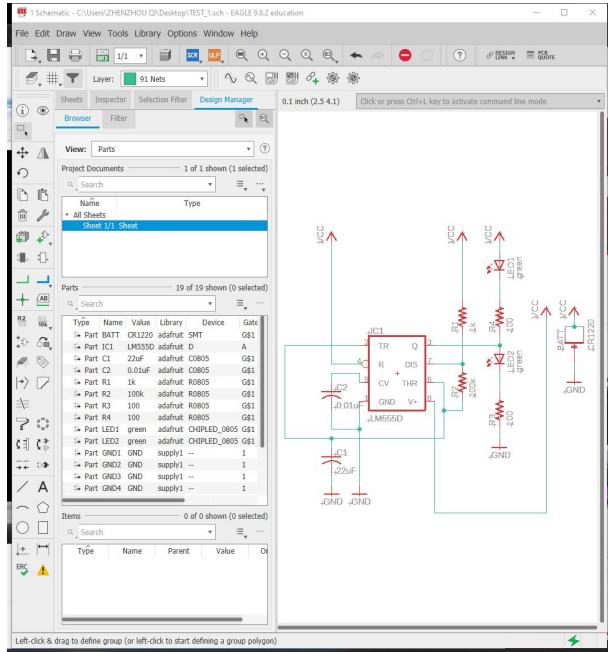


Figure 1: Schematic Design

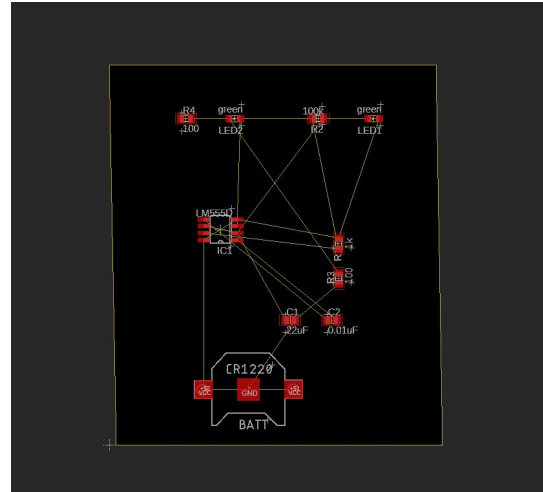


Figure 2: PCB Layout directly converted from figure 1.

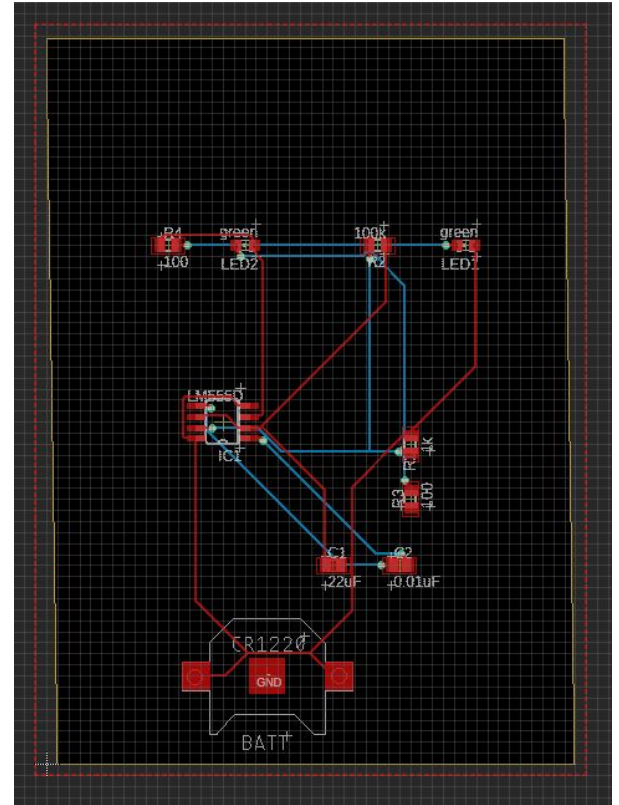
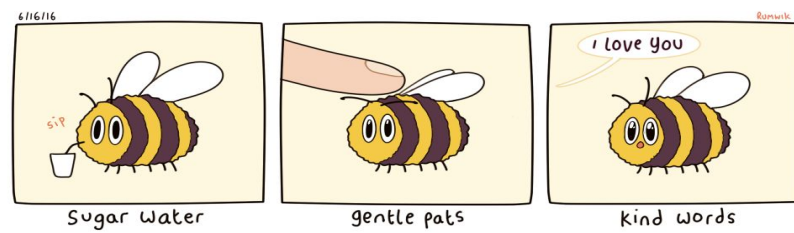


Figure 3: PCB Layout after adjustment

Goal Next Week



- Collect the dimensions for the circuit board we already have and work on our PCB board based on the dimensions and the positions of the pins.

- Magnetic field source design.

Questions?

