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
The magnetometer is working as required!
Tasks completed/on-going this week

Next:

3D printing
Tasks completed/on-going this week

- Eagle Libraries added and shared for the following components:

  1. Buck Converter regulator: MP2307 (Figure 1).
  2. Relay: AY1-SRD / G6AK-434P (Figure 2).
  3. Header size: 14*1, 2*1, 7*1. (Figure 3).
Tasks completed/on-going this week

Schematic View from Last Week

Updated Schematic View

Board View
Goal Next Week(s)

- Learn how to add customized components to Eagle.
- Adjust locations of the pin headers to fit to MSP430.
- 3D printing of the feeder.
Questions?