

# **The Chicken Minder**

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## **Description**

The purpose of the project is to monitor a chicken shed and provide live data, alerts and data analysis from various sensors.

The temperature of the chicken shed will be monitored and an alert sent if the temperature spikes outside of a normal range. Humidity will also be monitored as high humidity may indicate fresh bedding is required. A pressure reading will also be provided in order to indicate current and incoming weather conditions. A live video stream of the inside of the shed will also (hopefully) be made available online. The device will turn on a white LED light when it senses authorised personnel are in the shed to provide light.

## **Tools, Technologies & Equipment**

I keep chickens and have a chicken shed in my backyard. I will install the Raspberry Pi in it (at a safe height from the birds!). I will just need to run a power supply into it; the home wifi signal seems to be reasonable strength inside.

I plan to use python coding (via SSH) on the Pi to collect, consolidate and send the temp, humidity and sensor data via HTTP to the Thingspeak platform where it can be analyzed. On Thingspeak I will create a temperature React to send a notification when temperature is outside of normal range.

I will make a livestream video available on the Pi via port forwarding. I will create a bluetooth beacon on the Pi to scan for authorised mobile phones within range, and when they are in range to turn all the LEDs on white to provide an extra light source to the authorized person entering the shed.

I will make the livestream and data analysis available via either a custom web app or an IoT platform such as Thingspeak.

Project Repository: <https://github.com/JCagney/compsys2020>