**Smart Bird Feeder**

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I have a bird feeder in my garden that I try to remember to top up, especially at this colder time of year. The feeder is for small birds but, as I usually fill it in the morning just before I head to work, I do not know much about feeding habits. I want to create a smart bird feeder that will allow me to gather information such as what type of birds eat the food left out, and what is the optimum feeding time. I would also like to be able to send myself timely reminders to feed the birds, especially on colder days or to notify me if there is a lot of activity at the feeding station.

I aim to achieve this by attaching the Raspberry Pi, camera and pir sensor (in a weatherproof cover) to or near the bird feeder and running a python script that would capture an image at intervals when motion is detected.

I plan to use a RESTful API to access the Raspberry Pi Weather Station database, calculate the closest weather station and retrieve the latest weather reports from there.

I will use the IoT platform ThingSpeak to collect, analyse and act on the data gathered from the bird feeder and weather station. For example, send a tweet reminding me to leave out food when the temperature goes below a certain degree.

I will also create a GitHub repository to document my progress.