

## Birdwatch Birdfeeder

Basically, a birdfeeder that you put outside somewhere that takes a photo of the birds that use it because you're a budding birdwatcher and you're interested in what kinds of birds visit your backyard. Other than the camera and wirelessly sending the photo to a website or computer, we could make it do anything.

Most likely use an ESP32 of some kind, should be enough to support this level of complexity.

Other sensors and actuators to do more things:

- Weight sensor + actuator to close food door when a squirrel tries to get into it and stays open only for birds.
- Distance/weight/trip sensor to notify the user when the unit needs to be refilled.
- LEDs to notify users when the unit needs to be refilled, or an error has occurred. (possibly in addition to a message being sent to them)
- Have the camera trigger based on motion/proximity/trip
- Have the battery charge using solar (this one probably actually needs to happen).
- Nice 3D printed/wood enclosure that keeps all the electronics safe, but also bird-friendly.