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Thread: [Outdoor sensor / notification system](#)

skull - December 7, 2023, 4:48 am

So I have the luxury of a big house and land, and need to walk a few meters to check my mailbox.

At the same time I'm often super lazy ?

So I'm looking into making a sensor for the mailbox to send me a notification whenever the lid opens.

So I do have quite a big mailbox, that can also hold up some packages as well, so space is not an issue.

So I was considering a Pi with a sensor module and a WiFi module, connect it to my network and a battery.

However I have a few concerns, would it be able to handle the cold, can the battery live long enough to make it worth it, and is Wi-Fi on an outdoor IoT device secure?

Haven't bought any of the products yet, so haven't tested it, but I am looking for feedback on this idea and possible suggestions from anyone with experience.

IPegFemboys - December 12, 2023, 5:03 pm

Pretty cool idea man, but with how small it is I'd recommend making it sit on the bottom. And using an arduino.

So, the arduino will sit under the mailbox and when the door is opened it will send a signal to the receiver telling it the door has opened.

So, my idea is that it can detect when the mailbox is opened by using a reed switch and a neodymium magnet.

— A reed switch is an electrical switch operated by an applied magnetic field. This switch is normally open when there is no connection and closes to make an electrical

connection when a magnetic field is applied.

— In the app, when the magnet gets close to the reed switch by the mailbox opening, it will create a connection between pin four and ground. This will tell the Arduino that the door has been opened

— One Arduino connects one side of the reed switch to GND the other side to pin 4. This will be your transmitter.

Anyways, this is just a part of it. You can pm me to get more info, this was just an idea I had and just the transmitter.

Thanks for reading.

SawCyanic - *December 16, 2023, 7:33 am*

Regarding your security concerns and battery concerns, why not just do PoE? You said it's only a few meters so it can't be that far right?