STYLING TOOL TEMP DETECTOR

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PROJECT AIMS

I'd like to be able to stop having to take pictures of my unplugged hair styling tools (straightener, curlers etc.) before leaving the house, which is my current method of assuaging my fears that I've left a potential fire hazard plugged in.

To do this I'd like to implement a system which would turn off the tool if the temperature has been over X amount for a certain period. I would also like to be able to manually check via a web app whether the item is on or off, what the temperature reading is, and manually turn it off from the app.

TOOLS, TECHNOLOGIES AND EQUIPMENT

- Raspberry Pi with SenseHAT: Mounted on the direct underside of the surface where the tools usually rest to detect the temperature. An ambient temperature reading will be taken as a baseline and a reading when the tool is left sitting for a certain period will also be taken.
- TP-Link Kasa smart plug: Tools will be kept plugged into this so that they can be switched off remotely, or automatically if certain conditions are met.
- Code will be written in Python to trigger the events if those conditions are met. There is a Python library called Python-Kasa which is used to control TP-Link Kasa plugs.
- An IoT platform like ThingSpeak will be used to read in the data and generate visuals to display in the webapplication.

REPOSITORY

https://github.com/ECCooney/Styling-Tool-Temp-Detector