

RASPBERRY PI PROJECTS

Presentation by @bencarpena for South Houston High School



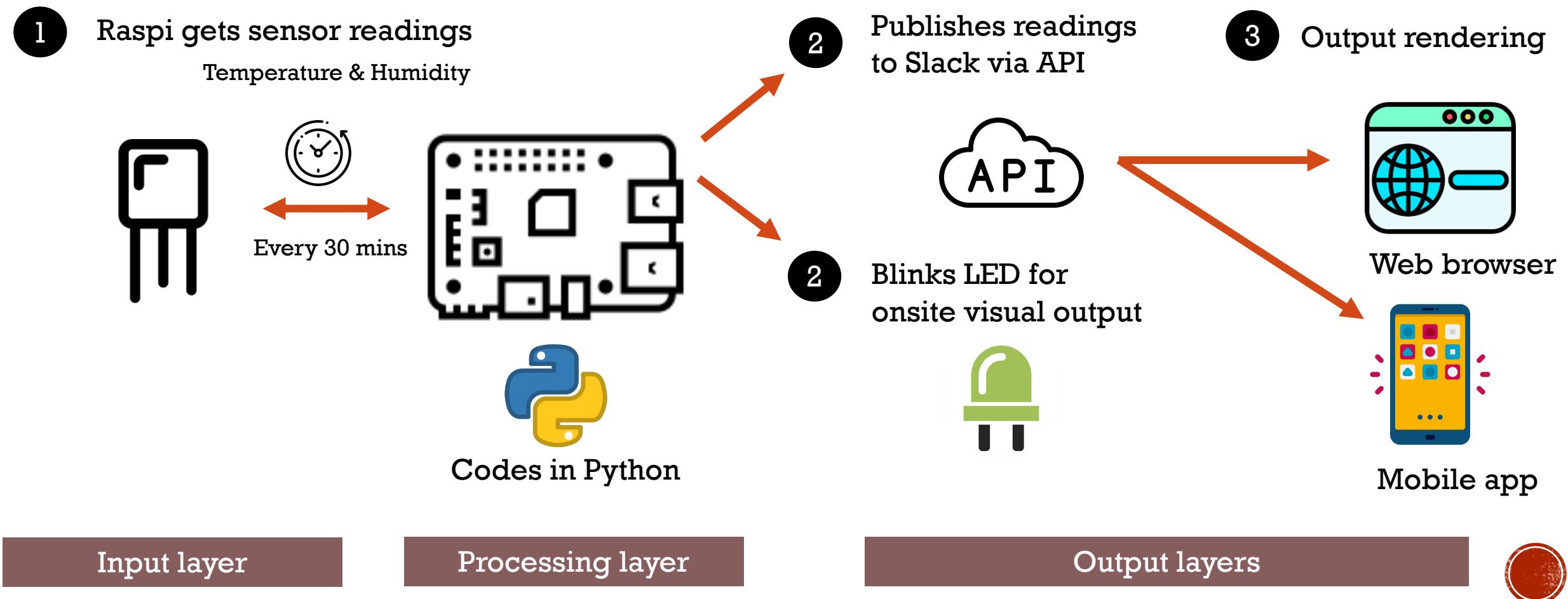


HAGRID

A Raspberry PI integrated with
AM2302 Digital Temperature and
Humidity sensor module



Hagrid : SOLUTION ARCHITECTURE



HAGRID COMPONENTS

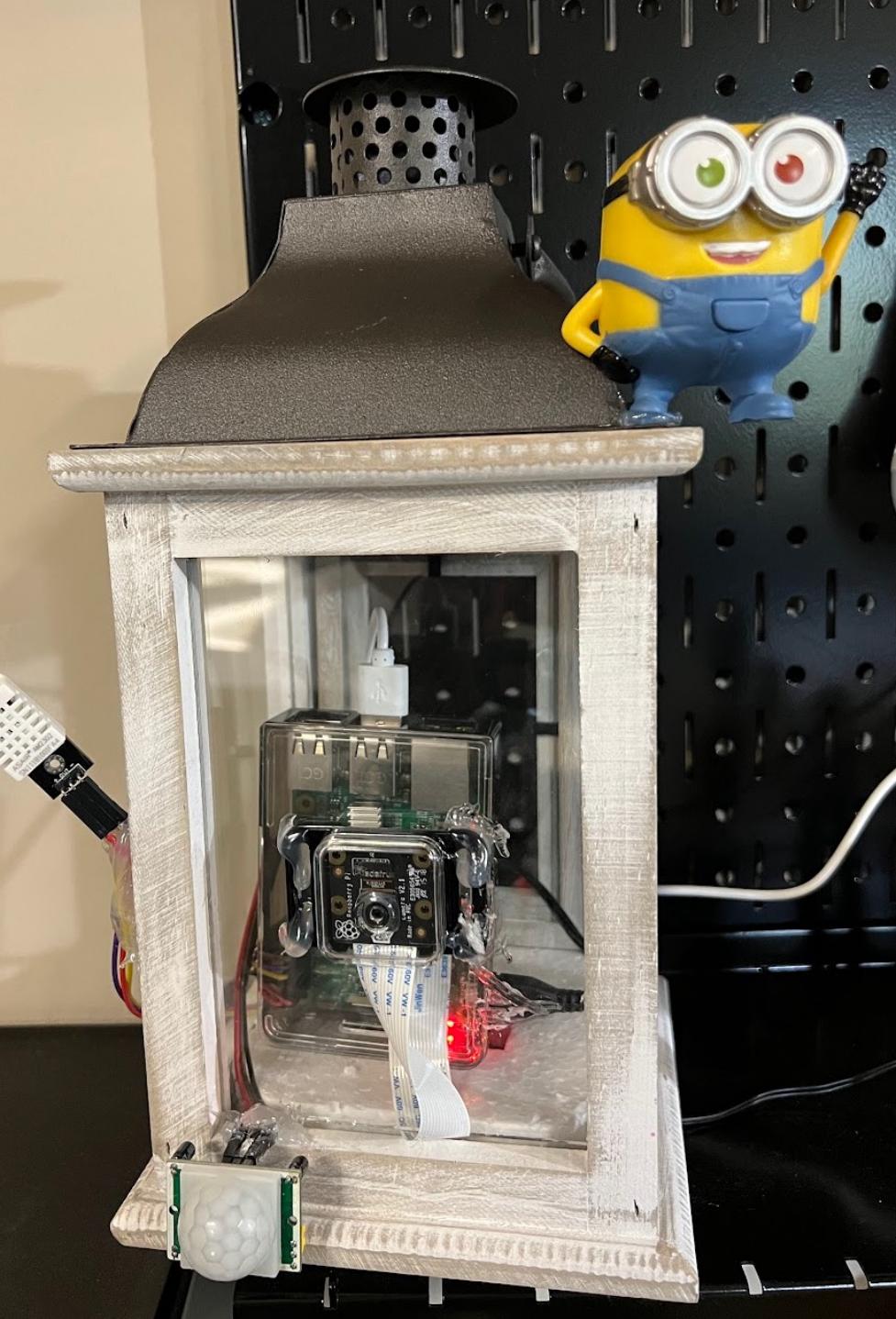
Hardware

- Raspberry PI 3 Model B+
- AM2302 Digital Temperature and Humidity sensor [[amazon](#)]
- Light Emitting Diode (LED) [[amazon](#)]
- Raspi jumper wires [[amazon](#)]

Software

- Operating system: Raspian GNU/Linux
- Python3
 - Sample codes [here](#)
- Slack API
 - Documentations [here](#)
 - Webhooks are event-driven APIs. Documentations [here](#)

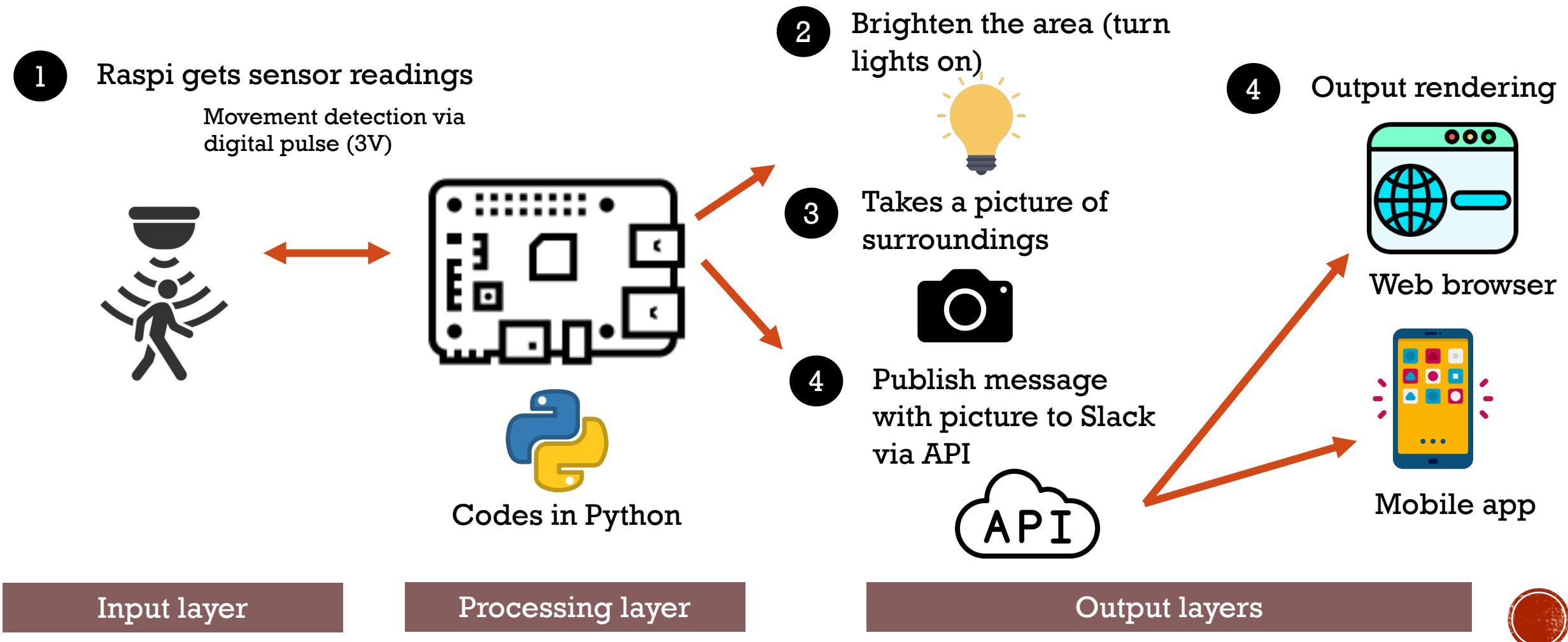




BOB

- Raspberry Pi integrated with Pyroelectric (Passive) Infrared Sensor to detect motion and report on it.
- Sense, detect, and react.

BOB : SOLUTION ARCHITECTURE



BOB COMPONENTS

Hardware

- Raspberry PI 3 Model B+
- Passive InfraRed (PIR) Sensor
[[amazon](#)]
- Raspi camera [[amazon](#)]

Software

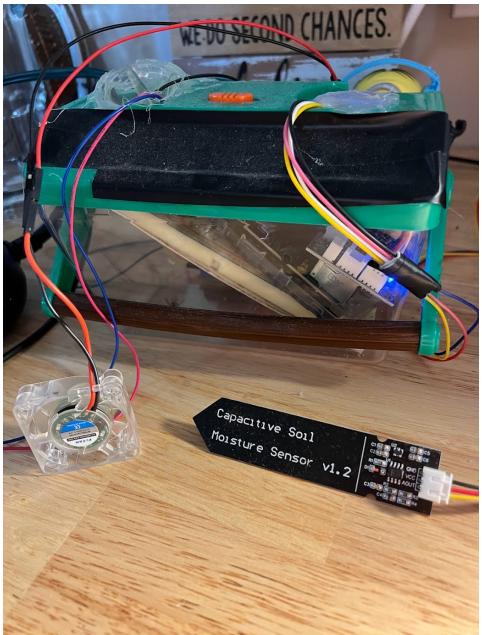
- Operating system: Raspian
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OTHER PROJECTS

Project Furion

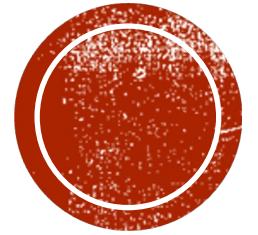
- Raspberry Pi that senses soil moisture and turns on water pumps if hydration is needed



Project Zero

- Raspberry Pi Zero integrated with Phidget sensors and a camera





RANDOMS

The making of

A film strip at the bottom of the page, showing two frames of a movie scene. The left frame shows a person's face, and the right frame shows a person's hand holding a small object.

Hagrid

Raspi



AM2302
Sensor

Camera

PIR
Sensor

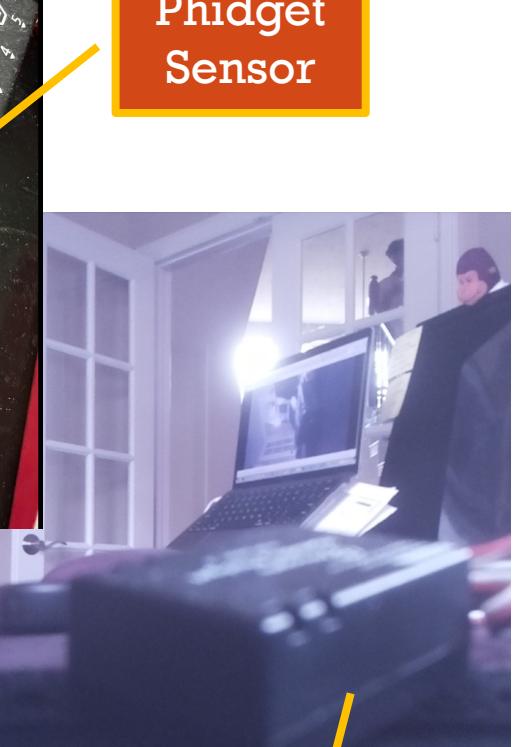
Bob



Zero



Phidget
Sensor



Camera
output