Home Suite Home Block Diagram MK 2

Remote Users

External Network (internet)

Local Network

Local User

Email Service

Incoming Comand

Command sent to server ex: subject line "report" sends All sensor data

Outgoing Alert

Alert to user ex: temperature too low w/sensor value

Raspberry Pi Aggregator

Optional Path

Physical Notification

Flashing Beacon LED/ Buzzer

Optional alarm-line Alerts Easy to implament by connecting directly to GPIO on Rasp Pi

Optional Path

Built to only work within the home to avoid DNS/complex external comms

Virtual notification

Basic UI
- Web app
- phone app
- etc.

All sensors connected to the local area network (LAN)

All Built on NodeMCU ESP8266

ESPs will act as basic HTTP servers displaying sensor data when the Rasp Pi connects to them

Almost all arduino sensors have pre-made software libraries

Access control

RFID/ Keypad entry

Contact switches

glass Break

Environment

Climate control

Temp/Humidity sensors

CO/CO_2 sensors

AQI sensor

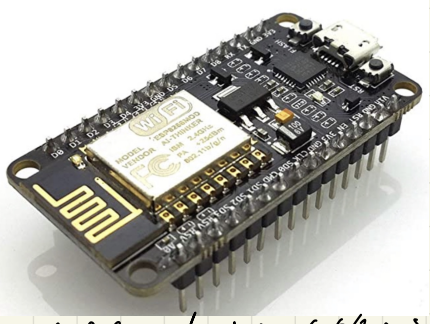
Home Health

Leak sensor/ prevention

Utility Usage

Utility health

Node MCU ESP8266



- Affordable ($9.60)
- Socketable - moved to new sensors / reusable
- 8 D i/o 1 analog
- excessively easy software to simplify this part of the Project Focus on other Parts