

# Merck IT Symposium: IoT Demo System Architecture

HTU21D Temperature / Humidity  
GP-735 GPS Receiver  
MPL3115A2 Barometric Pressure  
ALS-PT19 Light Sensor

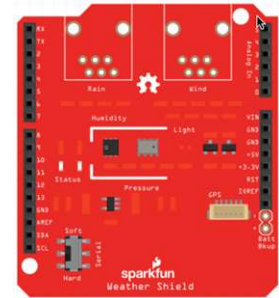
Arduino Uno  
ATmega328

Raspberry Pi 3B  
Broadcom BCM2837

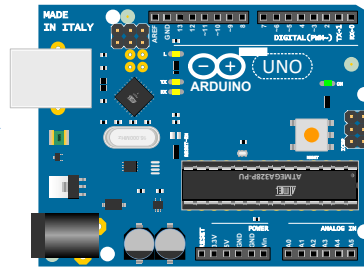
IT-WS-Demo.c

IOT-WS-Client.py  
DeviceClient.py

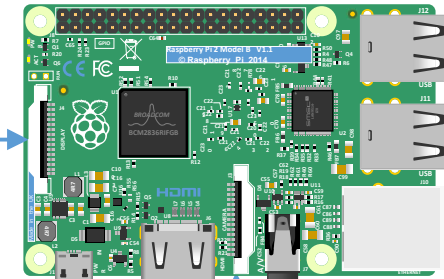
Device



GPIO



Serial (UART)  
JSON

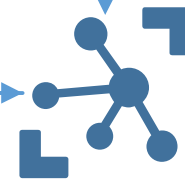


HTTP /TCP/IP  
JSON



Cold Path

Warm Path



IoT Hub  
IOT-WS-Demo



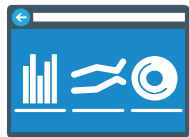
SQL Server  
IOT-WS-DB



Stream Analytics  
IOT-WS-ASA



Stream Analytics  
IOT-WS-BI



Power BI

Cloud

Actions / Notifications

Event Processing & Persistence

Ingestion