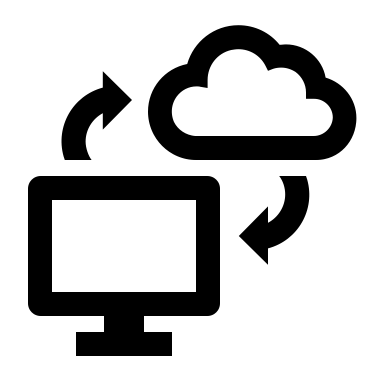
Brief Design of Aquaponics Fish Pond IoT System



Sump Tank

External Antenna

Wired

Serial Data

Wired

Serial Data

Wired

Serial Data

Wired

Serial Data

Wired

Serial Data

Lead

Lead

Lead

Lead

Lead

Lead

Filtration System

Hydroponic Unit

ADC

5. Sensor

MQ-137 Ammonia Sensor

6. Sensor

MQ-135 Nitrate

Sensor

4. Sensor

DF Robot pH V2.2

SEN0161-V2

3. Sensor

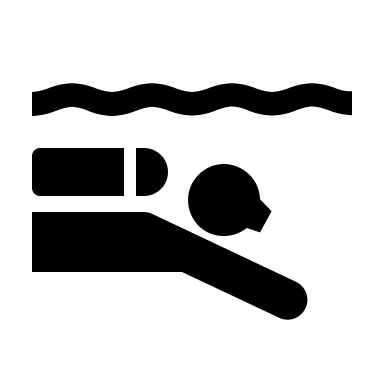
DF Robot Dissolved Oxygen SEN0237

2. Sensor

DF Robot Turbidity SEN0189

1. Sensor

Dallas Instrument Temperature DS18D20

Fish Pond



HTTP

TCP/IP

External RAM

ESP 32 MCU integrated with WIFI and Bluetooth