

Data Processing Layer

Frame
Protocol

Synchronization

ChaCha20-
Poly1305

Physical Board



Things

Serial

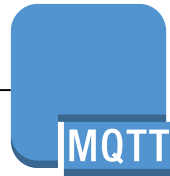


STM32 Device

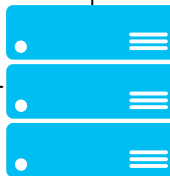


ESP32 IoT Gateway

MQTT Broker



API server



Nginx web server



MongoDB Database



Sensing Layer

Network Layer

Application Layer