LoRa / LoRaWAN HMI Touch Screen

LTS5

OVERVIEW:

LTS5 is a LoRa / LoRaWAN HMI Touch Screen designed for display purpose of IoT project. It have a 5.0" HMI touch screen, and support WiFi, Bluetooch, LoRa wireless protocol.

LTS5 is an Open Source software project. The MCU is ESP32 and Dragino LA66 LoRa module. There are lots of development source for ESP32 which can greatly reduce the development time.

The HMI touch screen of LTS5 supports drap & drop design. Developer can use SquareLine to easily customize the display UI for different application.

LTS5 use LA66 LoRa module, this module can be program to support private LoRa protocol or LoRaWAN protocol.

Specification:

LoRa:

- Frequency Range: 870 MHz ~ 960 MHz
- TCXO crystal to ensure RF performance on low temperature
- Maximum Power +22 dBm constant RF output
- High sensitivity: -148 dBm
- LoRa Rx current: <9 mA
- LoRa Tx Current: <90 mA at +17 dBm, 108 mA at +22 dBm

WiFi:

- 802.11b/g/n
- Up to 150 Mbps data rate in 802.11n mode
- Support A-MPDU and A-MSDU aggregation
- zero point four μ S protection interval
- Working channel center frequency range: 2412 ~ 2484 MHz

Bluetooth:

- Bluetooth V4.2 BR/EDR and Bluetooth LE standard
- Class-1, Class-2, and Class-3 transmitters.
- AFH
- CVSD and SBC

Display:

- 5.0 Inch , 800 x 480
- IPS Capacitive Touch SCreen
- RGB color
- Display Area: 120.7*75.80 mm

Feature:

- ESP32-WROOM MCU: 8MB RAM & 16MB ROM
- Dragino LA66 LoRa Module
- Support Private LoRa protocol or LoRaWAN protocol
- Support WiFi & BLE wireless protocol
- 5.0" HMI touch screen
- Support LVGL case. SquareLine program.
- Support RS485 Interface
- Open Source Project
- Wall Attachable
- 5V DC power
- IP Rating: IP52
- Operation Temperature: -20 ~ 70°C(No Dew)
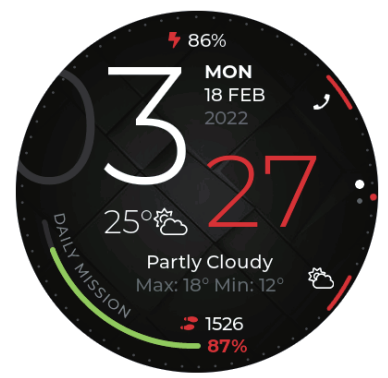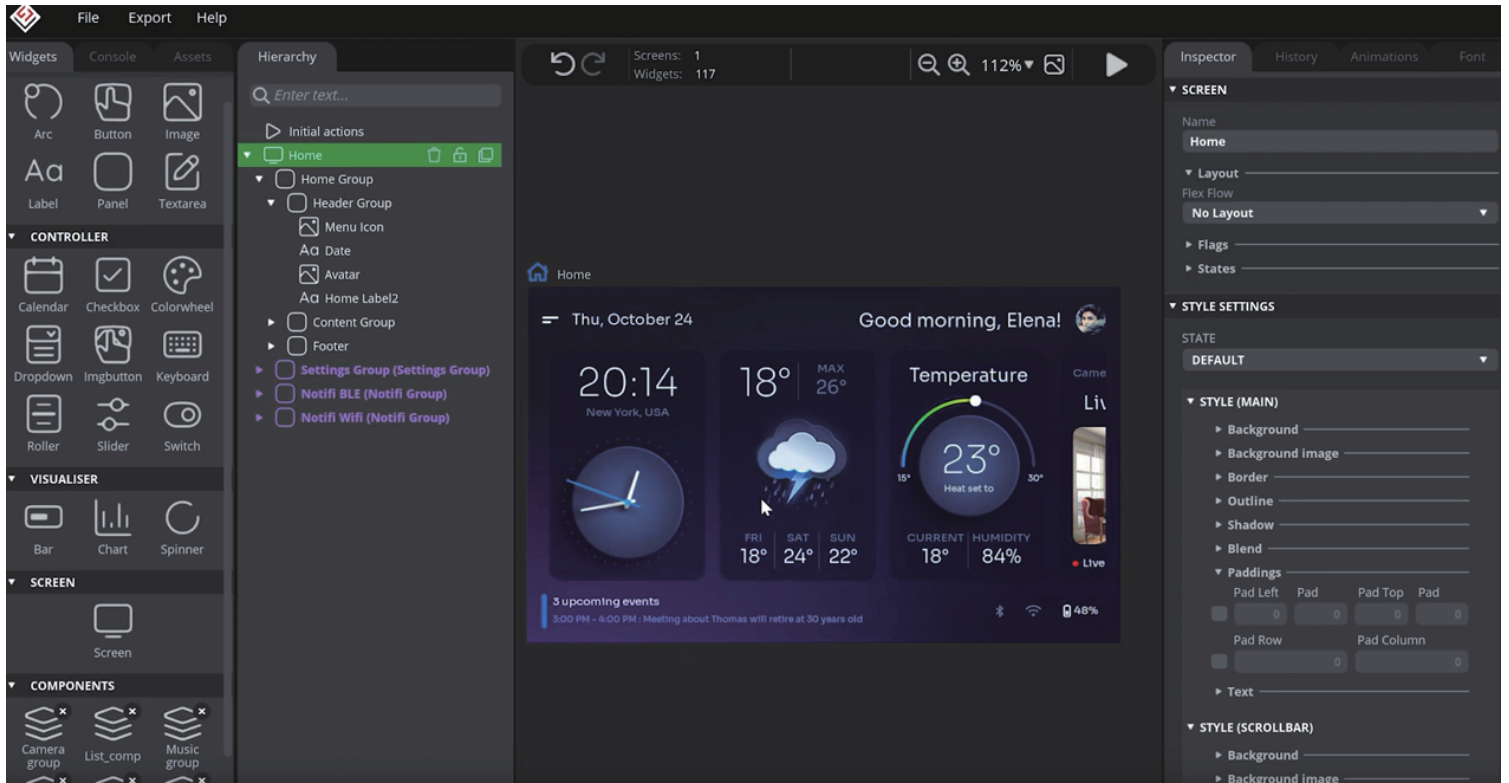- Storage Temperature: -30 ~ 70°C(No Dew)

Application:

- Smart Buildings & Home Automation
- Logistics and Supply Chain Management
- Smart Metering
- Smart Agriculture
- Smart Cities
- Smart Factory

Order Info:

- Part Number: LTS5

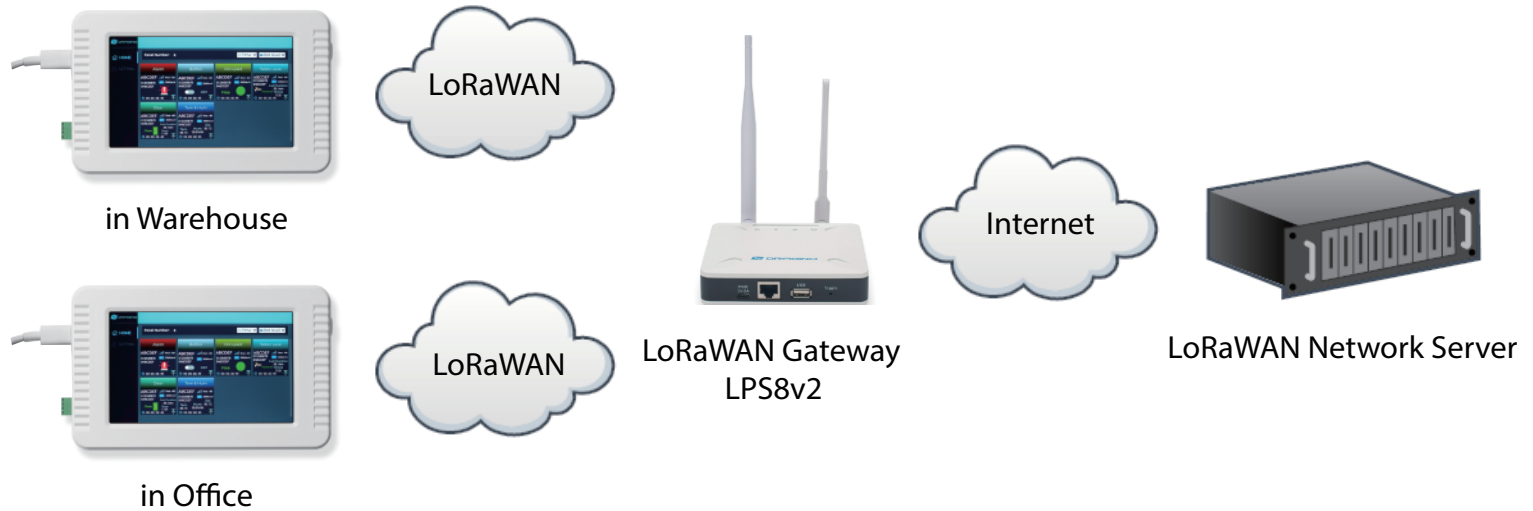# SquareLine for easy design IoT panel

Drag & Drop design your UI

LTS5 LoRaWAN , WiFi , BLE touch screen

Case1: IoT Display

LTS5 act as LoRaWAN Class C node in different locations to:
a) Show sensors status from LoRaWAN server
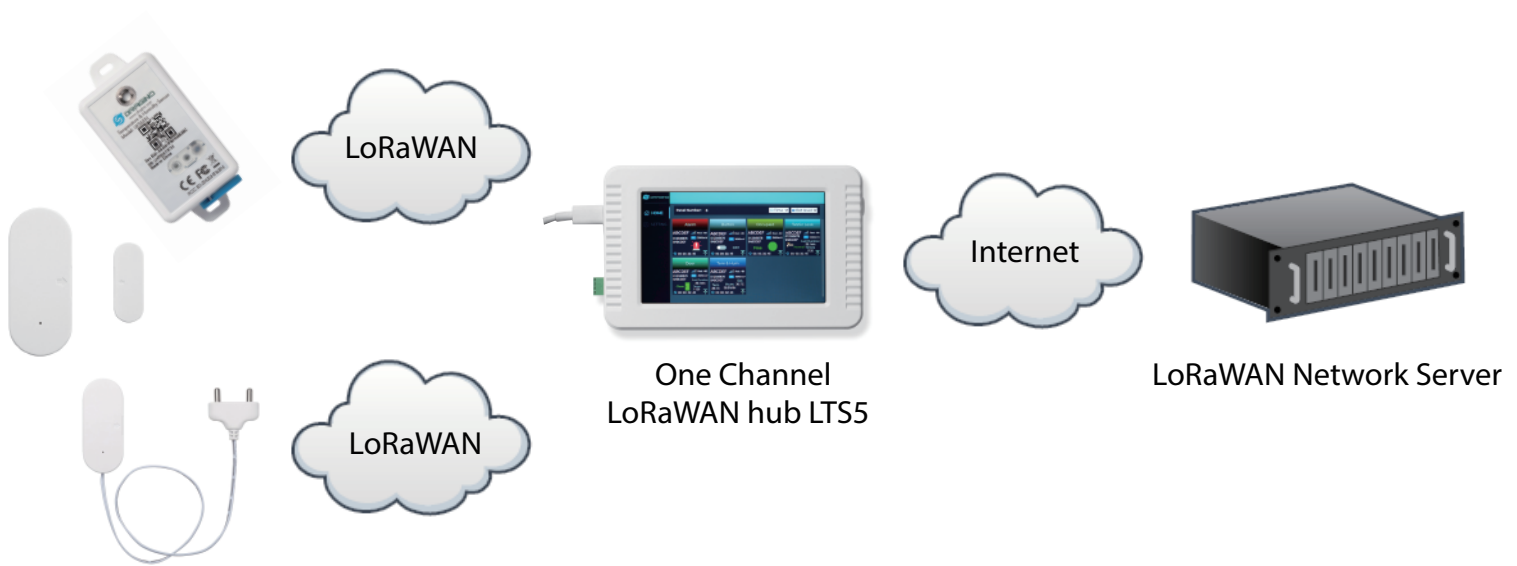b) Send control command to LoRaWAN server

in Warehouse

LoRaWAN

in Office

LoRaWAN

LoRaWAN Gateway
LPS8v2

Internet

LoRaWAN Network Server

Case2: One-Channel LoRaWAN Hub
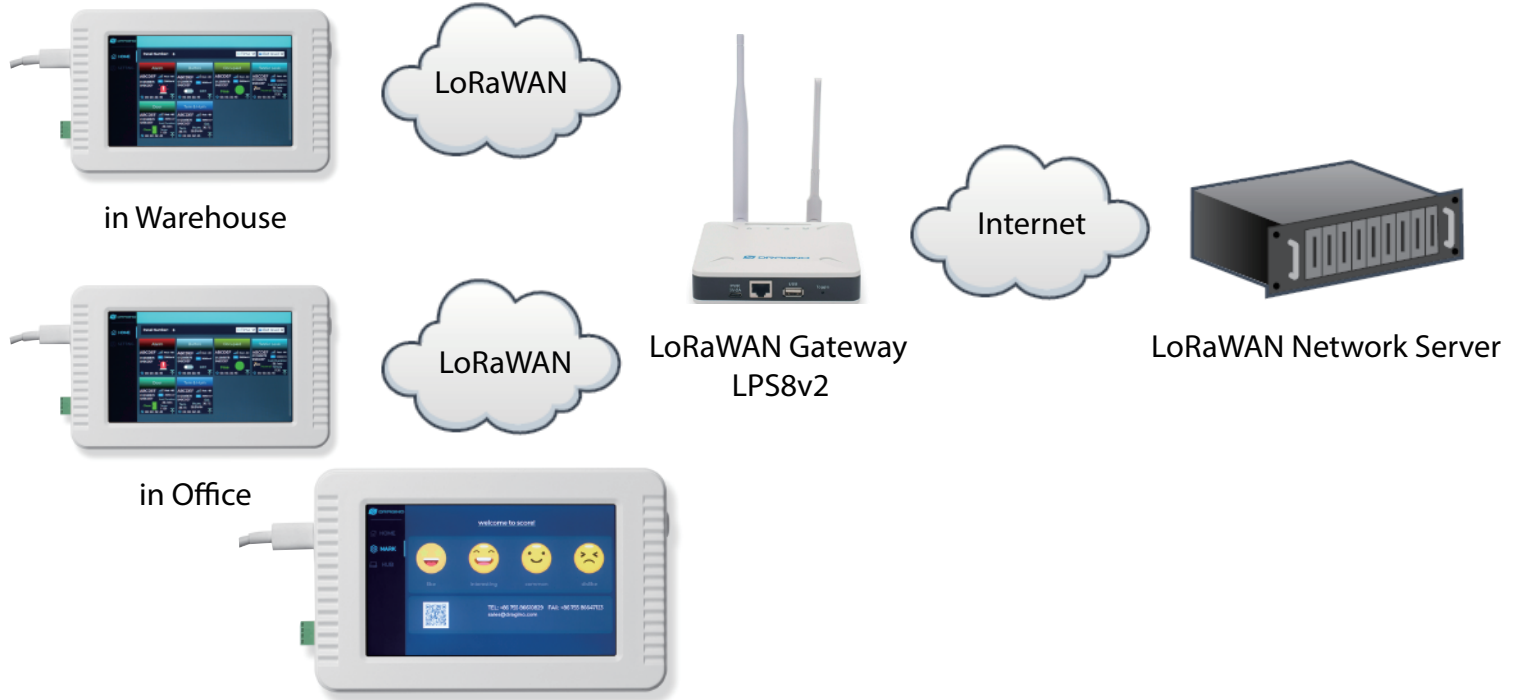
LTS5 act as LoRaWAN One Channel Hub with additional feature:
a) Show sensors status from LoRaWAN server
b) Send control command to LoRaWAN server
c) Show LoRaWAN network traffic

One Channel
LoRaWAN hub LTS5

LoRaWAN Network Server

Case3: LoRaWAN Score Panel / Push Button

LTS5 act as LoRaWAN Class A push button or score panel

in Warehouse

LoRaWAN

LoRaWAN

in Office

LoRaWAN Gateway
LPS8v2

Internet

LoRaWAN Network Server

Case4: Private LoRa Gateway

LTS5 act as private LoRa gateway, connect to IoT server directly, and
a) Show sensors status from LoRa server
b) Send control command to LoRa server
c) Show LoRa network traffic

Private LoRa

Private LoRa

Private LoRa Gateway

Internet

IoT Application Server