



NuMaker Tomato

Level 2 : 進階武功秘笈

秘笈十

IoT Gateway 聯網應用

應用32位Cortex®-M微控制器實現方案

學會新唐武功秘笈，晉升32位微控制器達人！



課程目標

- ▶ 瞭解 NuMaker Tomato 硬體
- ▶ 物聯網 IoT 應用 實作 (有線無線聯網)
- ▶ 軟體啟動原理與步驟
- ▶ Tomato 在聲音控制應用實作

課程特色

使用 Tomato 上 Python 快速開發物聯網相關應用。

課程內容

秘笈十

IoT Gateway 聯網應用

- 介紹 Nuvoton ARM9 product
- 介紹 (實作) Python 如何快速開發物聯網應用
- 介紹 NuMaker Tomato 硬體
- 介紹 (實作) Tomato 聲音相關應用
- 介紹 NuMaker Tomato 搭配軟體

課程教材

採用新唐科技開發板，作為彈性開發及快速學習上手的教材。

課程日期

台灣場 5.24 台北

本課程表為預定日期及地點，必要時將依實際開課情形作適當變動及調整

課程報名 (名額有限，請速洽聯絡人報名)

- Vann 許文權
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課程地點

台北 新唐台北辦公室
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備註

- * 學員需自備Notebook。
- * 新唐科技將提供講義及午餐。
- * 更多NuMicro相關資訊，請上 www.nuvoton.com/NuMicro 查詢。

NUC970 系列

| Part No. | Max Speed (MHz) | Core | | Memory I/F | | Storage | MAC | USB | GFX | LCD | Timer | Analog | | | | External Bus Interface | GPIO (Max) | CAN BUS | UART | I2C/AC97 | Package | Operating Temp. Range (°C) | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|-----------------|----------|------------|-------------------------|--------------|---------|-----|-----|-----|-----|-------|--------------|----------------------------|-----------------|-------------------------|------------------------|------------|---------|------|----------|---------|----------------------------|----------------------------|-----------------|-----------------------|----------------|---------------|-----------------------|---------|-------------|-------------------|-------------------------|---------------------|----------|------|----------------------------|---------------------------|------------|------------|-------------|-------|--|--|--|--|--|--|
| | | CPU | Cache (KB) | Security against piracy | D-Cache (KB) | | | | | | | ADC (10-bit) | ADC (12-bit) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | Speed (Samples per second) | No. of channels | Touch Screen Controller | | | | | | | | Speed (Samples per second) | No. of channels | Window Watchdog Timer | Watchdog Timer | Time (32-bit) | Real Time Clock (RTC) | TFT LCD | 2D Graphics | USB 2.0 HS Device | USB 2.0 Host (480 Mbps) | Ethernet 10/100 MAC | SD /SDIO | EMMC | NAND Flash No. of ECC bits | SPI Flash No. of I/O pins | NOR Flash | SRAM (KB) | DDR2 (RAMB) | 5SRAM | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NUC972DF62Y | 300 | ARM926EJ | 16 | 16 | ✓ | - | 64 | 56 | - | 1 | 24 | ✓ | 2 | 2 | 2 | 2 | 2 | 1 | 2 | ✓ | 1 | LQFP216 | -40 to +85 | | | | | | | | | | | | | | | | | | | | | | | | |
| NUC976DK62Y | 300 | ARM926EJ | 16 | 16 | ✓ | - | 64 | 56 | - | 1 | ✓ | 2 | 1 | 2 | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | 4 | - | - | ✓ | 4 | 200K | ✓ | - | 80 | 6 | 1 | 2 | 1 | 2 | ✓ | 1 | LQFP128 | -40 to +85 | | | | | | | | | |
| NUC977DK62Y | 300 | ARM926EJ | 16 | 16 | ✓ | - | 64 | 56 | - | 1 | 24 | ✓ | 2 | 1 | 2 | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | 4 | - | - | - | ✓ | - | - | ✓ | 87 | 8 | 1 | 2 | 1 | 2 | ✓ | 1 | LQFP128 | -40 to +85 | | | | | | | | |
| NUC976DK51Y | 300 | ARM926EJ | 16 | 16 | ✓ | - | 32 | 56 | - | 1 | ✓ | 2 | 1 | 2 | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | 4 | - | - | ✓ | 4 | 200K | ✓ | - | 80 | 6 | 1 | 2 | 1 | 2 | ✓ | 1 | LQFP128 | -40 to +85 | | | | | | | | |
| NUC977DK51Y | 300 | ARM926EJ | 16 | 16 | ✓ | - | 32 | 56 | - | 1 | 24 | ✓ | 2 | 1 | 2 | 1 | ✓ | ✓ | ✓ | ✓ | ✓ | 4 | - | - | - | ✓ | - | - | ✓ | 87 | 8 | 1 | 2 | 1 | 2 | ✓ | 1 | LQFP128 | -40 to +85 | | | | | | | | |