

Phần mềm



Phần mềm sử dụng trong khóa học:

- CubeMX và KeilC: https://khuenguyencreator.com/cai-dat-stm32-cubemx-va-keil-c/

- Cài Package STM32: https://khuenguyencreator.com/cai-dat-package-cho-cubemx-va-keil-c/

- Hercules Terminal: https://khuenguyencreator.com/huong-dan-hercules-terminal/

- Salease Logic Analyzer: https://www.saleae.com/downloads/

Phần cứng

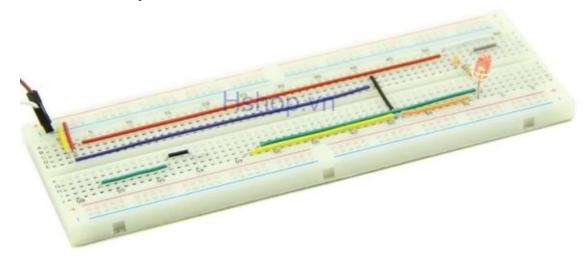


Phần cứng chuẩn bị:

- KIT STM32F103C8T6 Blue/black pill + Mach nap
- Mua ở bất kì cửa hàng nào hoặc shopee



- Board cắm + dây dẫn + Led 5mm + trở 100 Ohm + nút nhấn 4 chân 6x6x6



Phần cứng



- Module DS? 221: https://bahop.vn/products/mach-thoi-gian-thuc-rtc-ds3231



- Module LCD16x2 và mở rộng I2C

Lcd: https://hshop.vn/products/lcd-text-lcd1602-xanh-lo

I2C: https://hshop.vn/products/mach-chuyen-giao-tiep-lcd1602-lcd1604-lcd2004-

sang-i2c





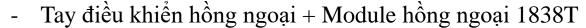
- Module 74hc595 led 7 thanh: https://icdayroi.com/module-hien-thi-4-led-7-doan-74hc595



Phần cứng

KHUÊ NGUYỄN CREATOR Chia sẻ đam mê

- LCD ST7735: https://nshopvn.com/product/man-hinh-lcd-tft-1-8-inch-st7735-giao-tiep-spi/



- Link mua hàng: https://hshop.vn/products/module-dieu-khien-hong-ngoai-tu-xa

- Salease Logic Analizer Link mua hàng: https://hshop.vn/products/mach-usb-saleae-8ch-24mhz-logic-analyzer







Tài liệu



Tài liệu sử dụng:

- STM32F103c8t6 datasheet: https://www.st.com/resource/en/datasheet/stm32f103cb.pdf
- STM32F103 Reference Manual: https://www.st.com/resource/en/reference_manual/cd00171190-stm32f101xx-stm32f101xx-stm32f102xx-stm32f103xx-stm32f105xx-and-stm32f107xx-advanced-arm-based-32-bit-mcus-stmicroelectronics.pdf