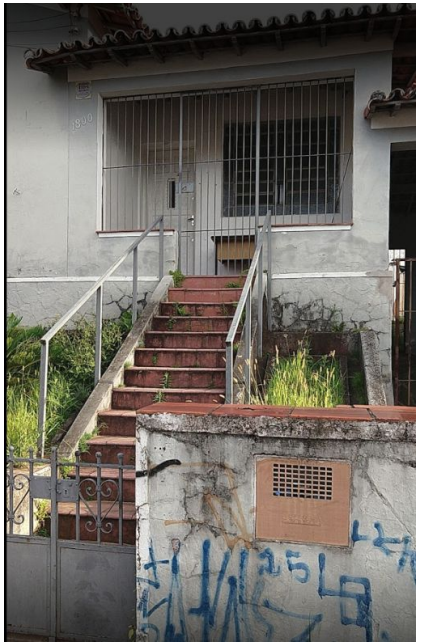
Aprendendo a programar os microcontroladores ARM da ST

Jorge Guzman

O Laboratório Hacker de Campinas

- Sala Central (Oficinas, Palestras)
- Sala Coringa (Biblioteca)
- Laboratorio de Eletronica
- Cozinha
- Marcenaria
- Area externa (Area de testes)
- Network



Yo

- Formado em engenharia da computação
- Especialização em Automação industrial
- Especialização em Engenharia de Software
- Membro do LHC
- Articulista do Portal Embarcados
- 9 anos trabalhando com desenvolvimento de Firmware

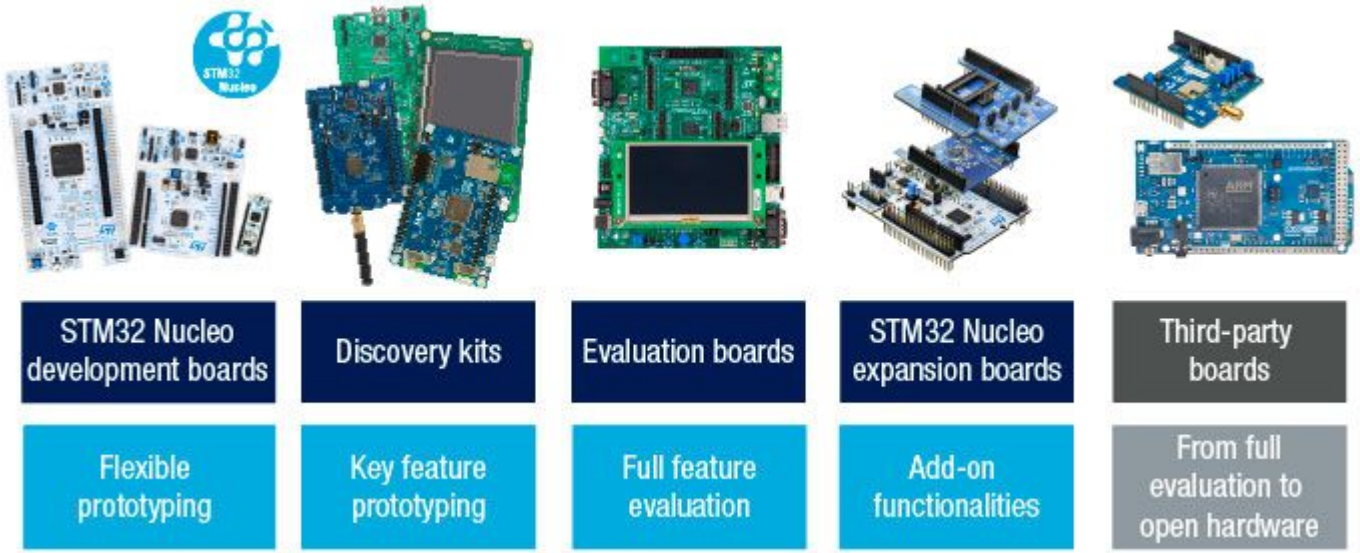
Ferramentas ST

- IDEs
  - System WorkBench
  - Atollic
  - STM32CubeIDE
- CubeMX
  - Camada HAL drivers da familia ARM da ST.
  - Biblitecas CMSYS-Math, CMSYS-NN.
  - FreeRTOS, FATFS, LWIP, USB, etc.
- Debuggers:
  - ST-Link
  - J-Link

STM32CubeIDE

- Usa a interface Eclipse
- Interface gráfica para configurar todos os periféricos
- Gera código de inicialização
- Debug da aplicação.

Kits de Desenvolvimento



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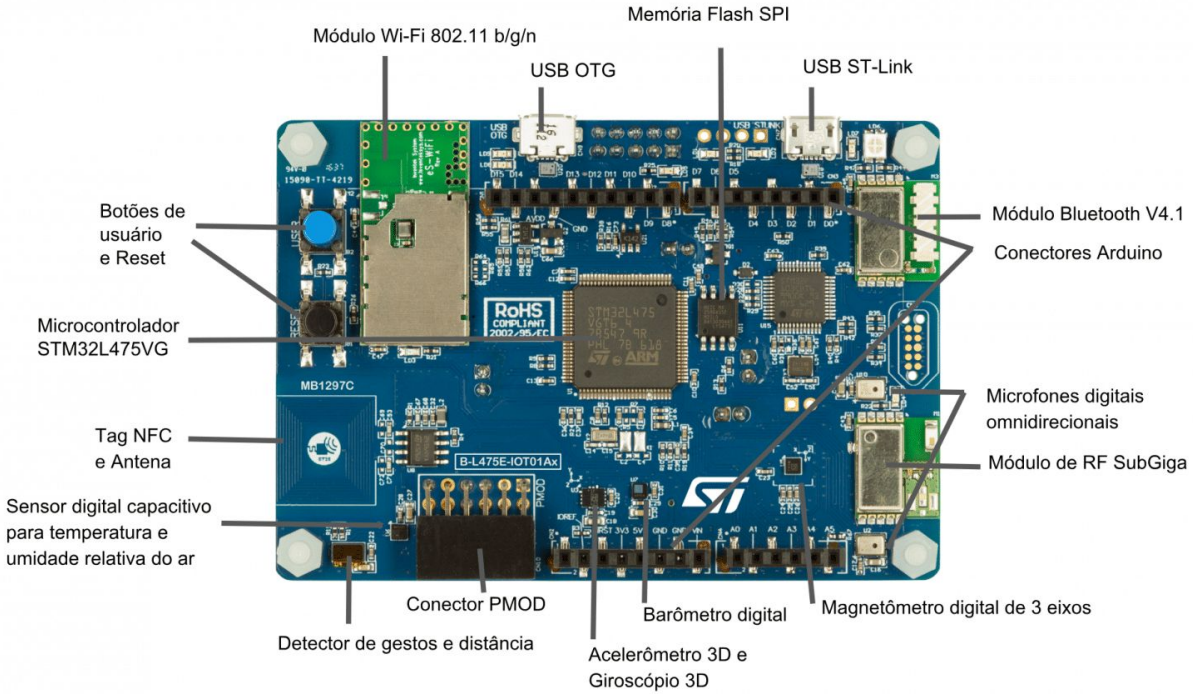
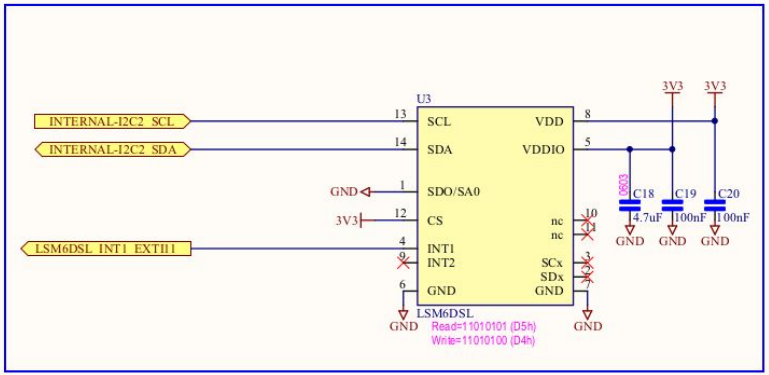
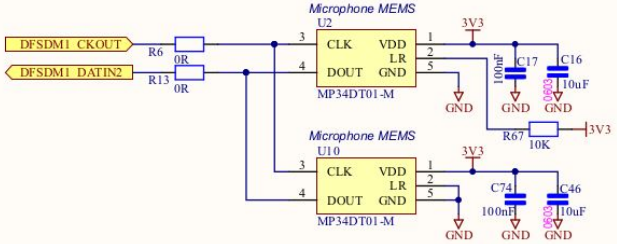


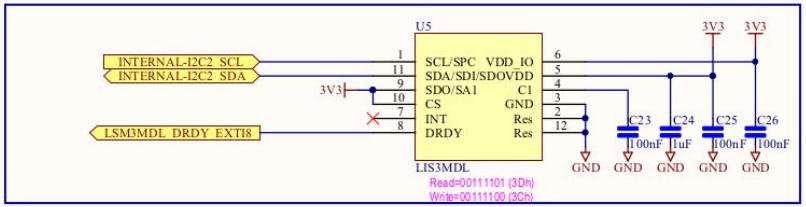
O que implementaremos

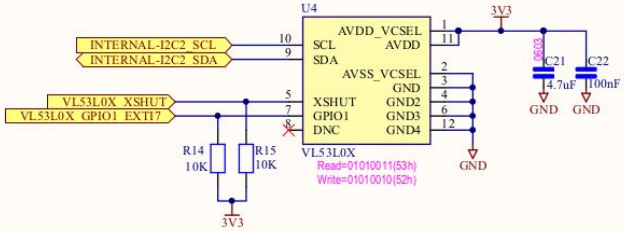
- Criar o código de inicialização usando o CubeMX
- Configurar periféricos UART, SPI e I2C.
- Leitura dos sensores:
  - HTS221
  - LIS3MDL
  - LPS22HB
  - LSM6DSL
- Web Server usando o módulo Wifi ISM43362-M3G-L44

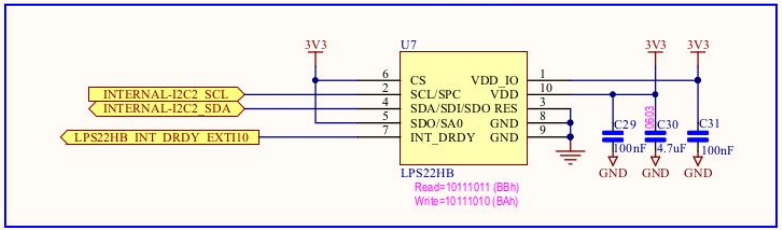
Conexão Elétrica Sensores (I2C)

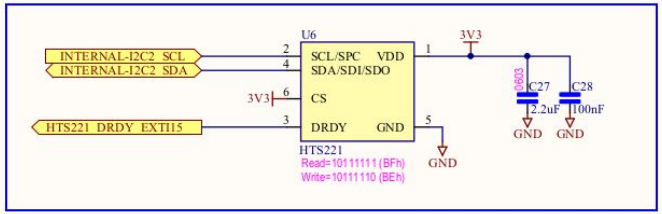




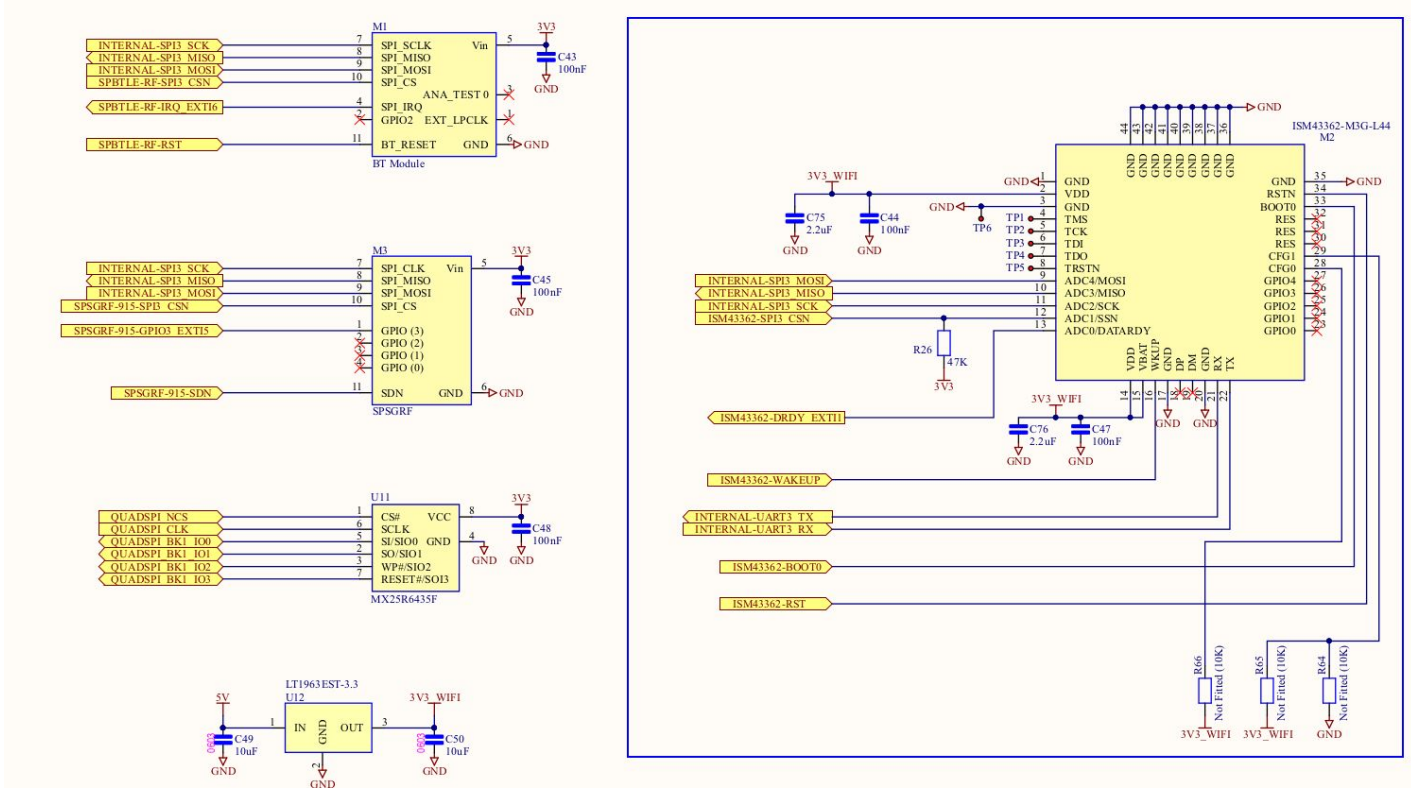








Conexão Elétrica Módulo Wifi (SPI)

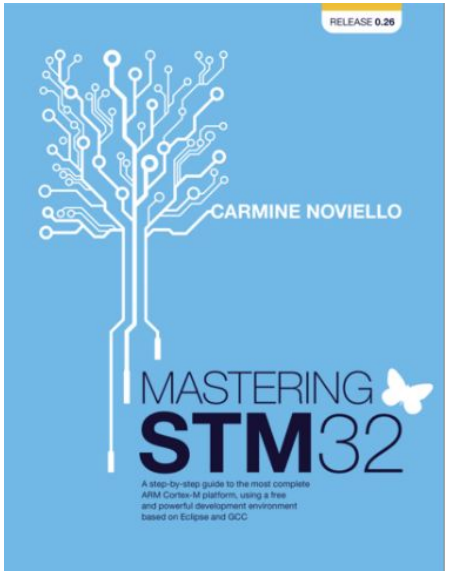


MÃOS À OBRA

Canais no YouTube

- MYaqoobEmbedded
- Marcelo Barros de Almeida
- Controllers Tech
- narod stream

Livros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CARMINE NOVIELLO
MASTERING
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A step-by-step guide to the most complete
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