



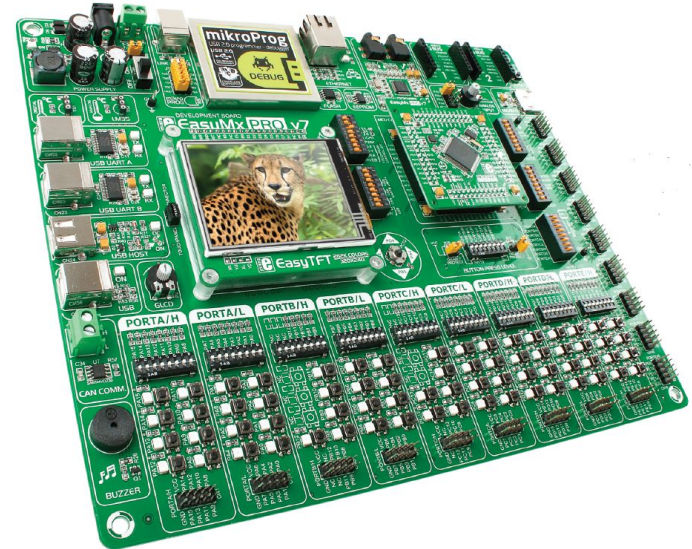
# EasyMx PRO v7 for STM32 ARM

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# Introduction

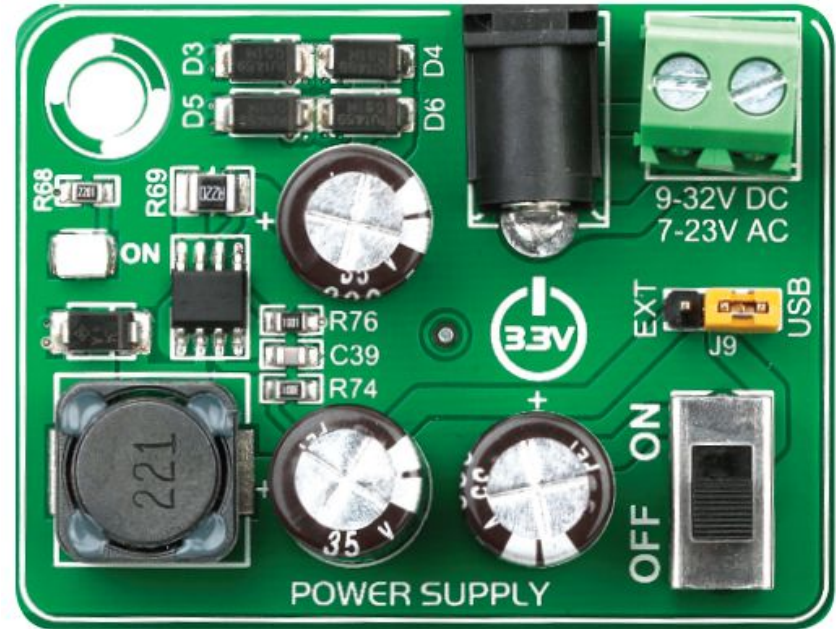
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- ARM® Cortex™-M3 and Cortex™-M4 are increasingly popular microcontrollers
- A development board with as many peripherals on the board as possible
- Covers many internal modules
- On-board programmer and debugger



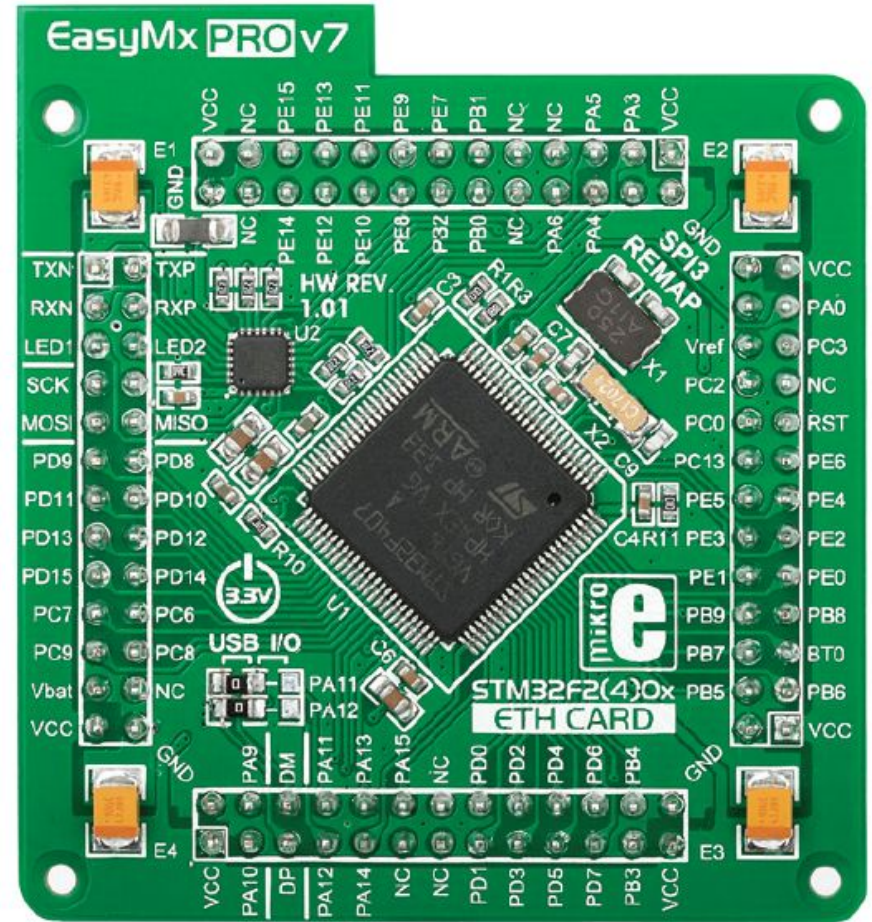
# Power Supply

Creates VCC 3.3 power supply



# MCU Card

- STM32F407VGT6
- 16 MHz default CPU clock
- 5 PORTS (A, B, C, D, E)



# MicroProg

- Fast programmer and debugger
- Enabled by placing the jumpers on the left side
- Takes the following pins for programming
  - PA13
  - PA14
  - PA15
  - PB3
  - PB4



# MicroC pro for ARM



- A compiler for ARM
- Produces hex file to be programmed on MCU
- Can be used for debugging
- Download:
  - <https://download.mikroe.com/setups/compilers/mikroc/arm/mikroc-arm-setup-v620.zip>

# Program our board



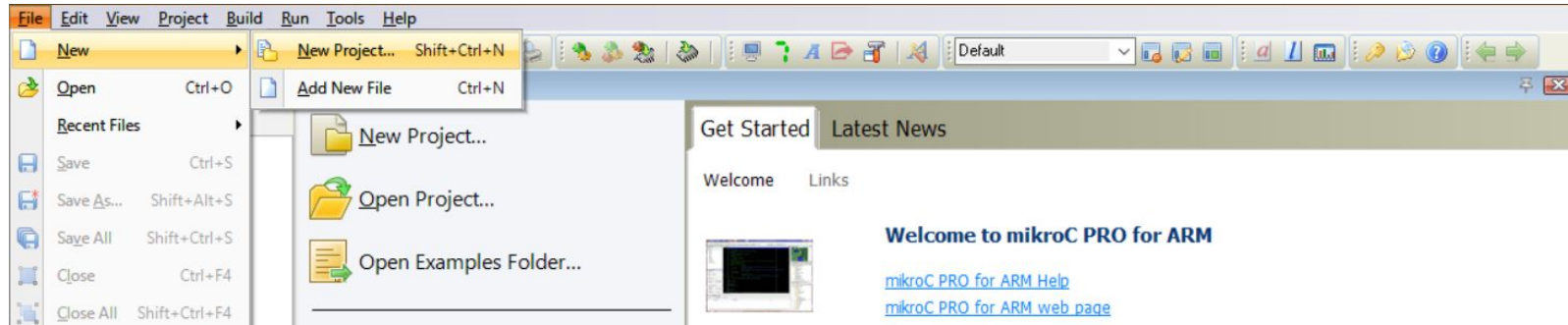
To program our board you need to do the following:

- Download and install MicroC pro for ARM
  - While installing it will ask you to install MicroProg accept and install it as it is mandatory for programming
- Connect the board to your computer with the USB cable
- Power on the board

Having done these steps, your board is ready to be programmed!

# Start a new project in MicroC

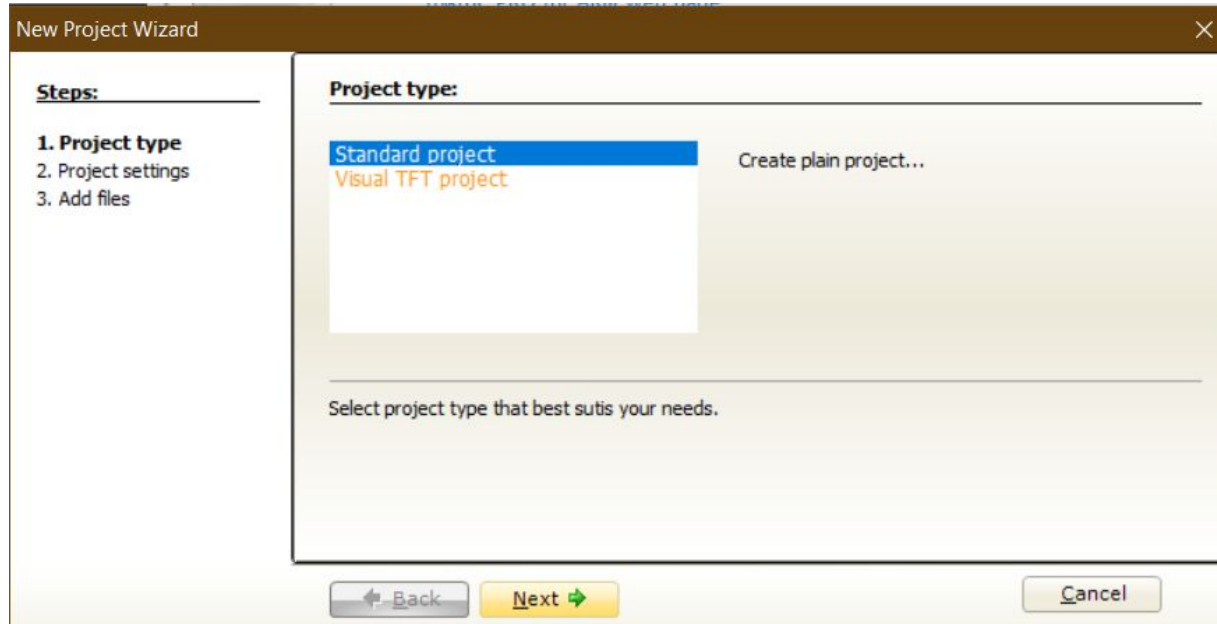
1. Open MicroC pro for ARM
2. Select File -> new -> new project





# Start a new project in MicroC

3. Choose standard project then click next



# Start a new project in MicroC

4. Type your project name in (Project Name)

5. Choose the location of the project in (Project folder)

6. Choose STM32F407VG in (Device Name)

7. Choose 16 MHz as our device clock frequency

8. Click Next

New Project Wizard

**Steps:**

1. Project type
- 2. Project settings**
3. Add files

**Project Settings:**

Project Name: HelloWorld

Project folder: C:\Users\omars\Desktop\HelloWorld\ Browse

Device name: STM32F407VG

Device clock: 16.000000 MHz

Open Edit Project window to set Configuration bits ☐

Enter project name, project folder, select device name and enter a device clock (for example: 80.000).

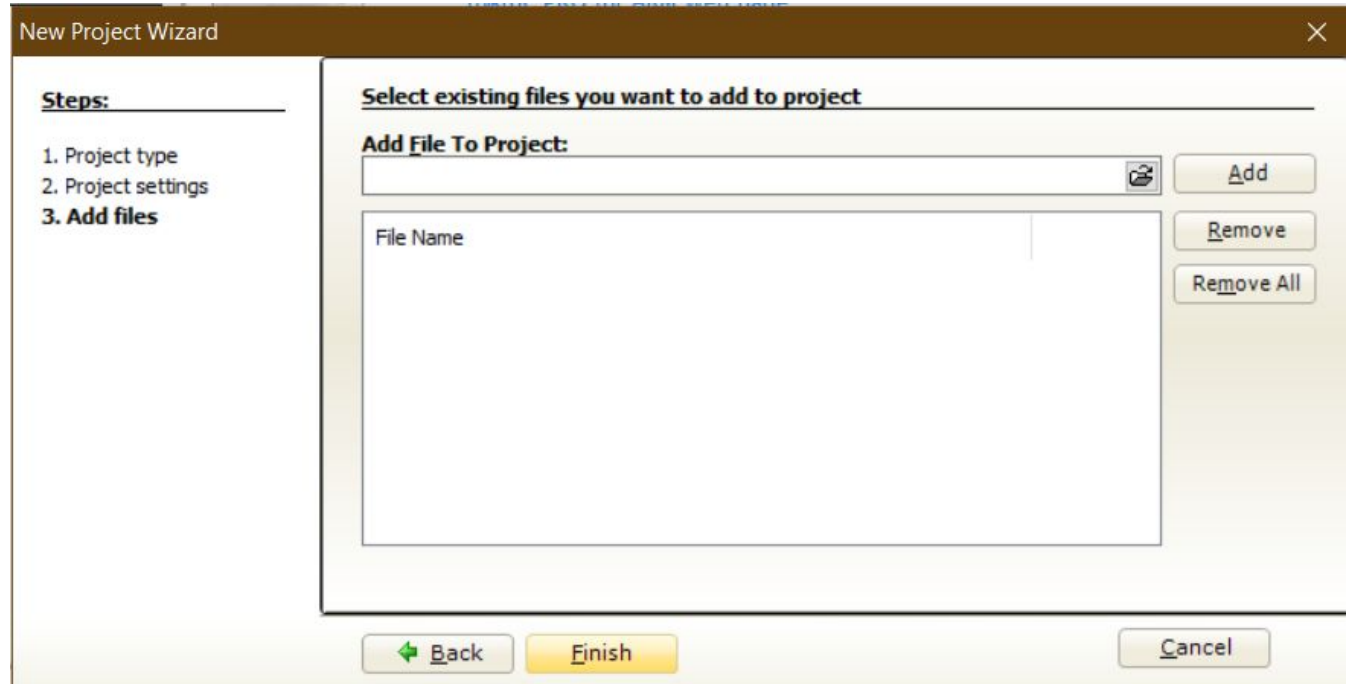
Checking 'Open Edit Project' option will open 'Edit Project' window after closing this wizard. This enables you to easily setup your device and project.

**Note: Project name and project folder must not be left empty.**

Back Next Cancel

# Start a new project in MicroC

## 9. Click Finish



New Project Wizard

**Steps:**

1. Project type
2. Project settings
3. Add files

Select existing files you want to add to project

Add File To Project:

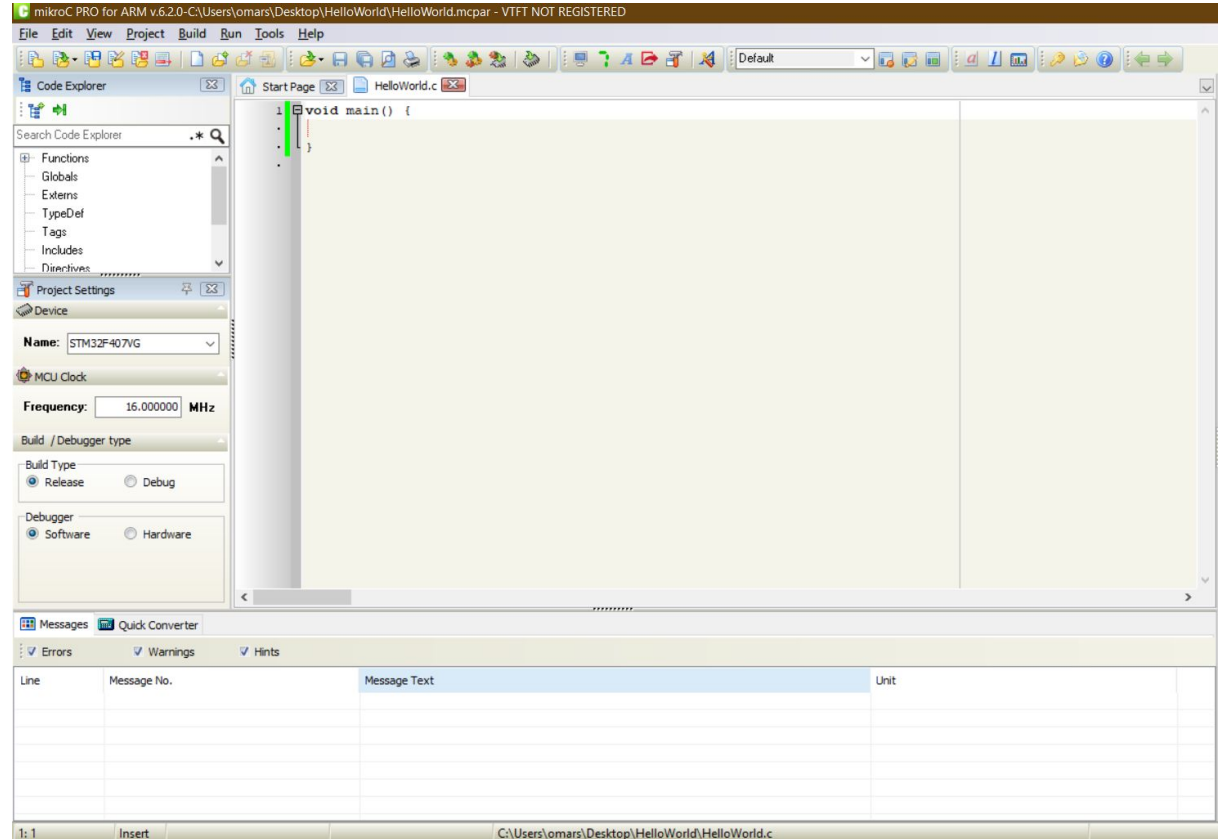
File Name

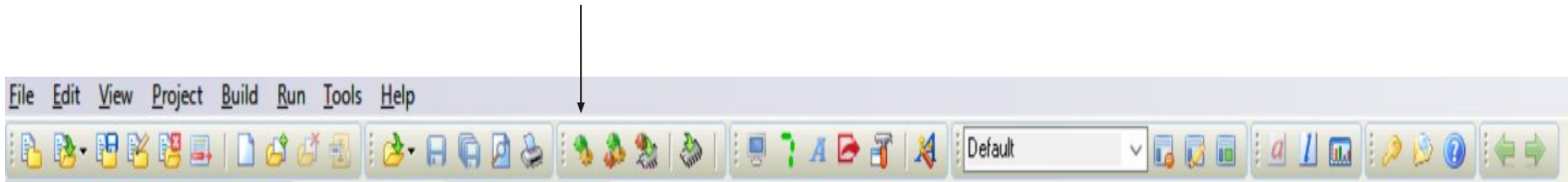
Add Remove Remove All

Back Finish Cancel

# Start a new project in MicroC

You are ready to code





# Build and Program

You need to be connected to the board and to power it on

