

Arduino Mega 2560

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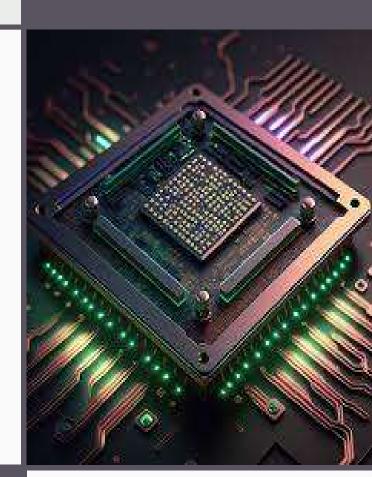
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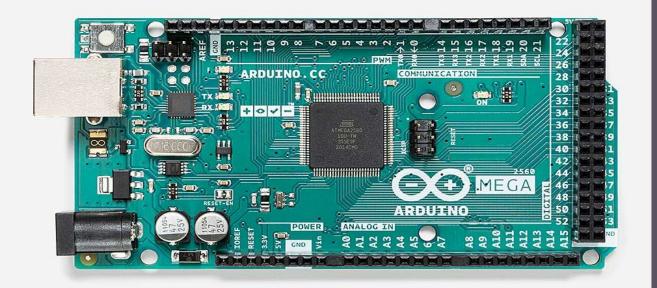
Prepared by

Embedded Systems

Agenda

- Overview
- Technical Specification
- Reference(Datasheet)

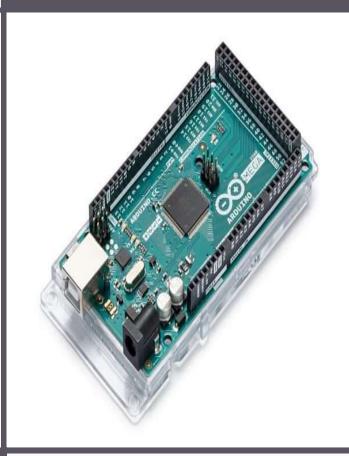


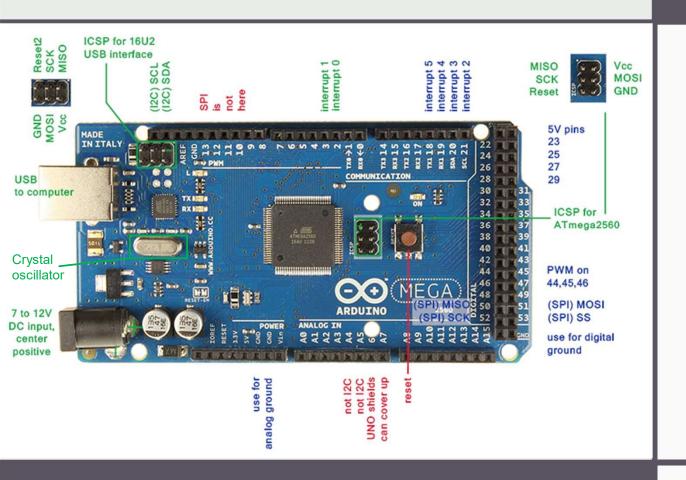


Overview

What's Arduino Mega 2560

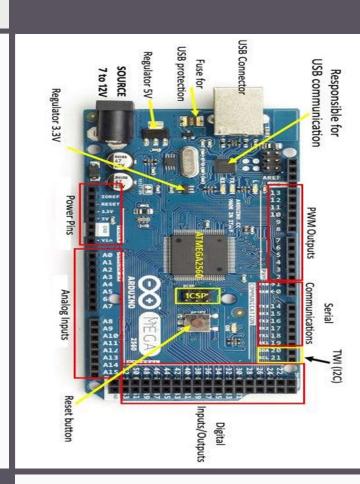
Arduino Mega 2560 is an exemplary development board dedicated for building extensive applications as compared to other maker boards by Arduino. The board accommodates the ATmega2560 microcontroller, which operates at a frequency of 16 MHz. The board contains 54 digital input/output pins, (of which 15 can be used as PWM outputs), 16 analog inputs, 4 UARTs (hardware serial ports), a USB connection, a power jack, an ICSP header, and a reset button.





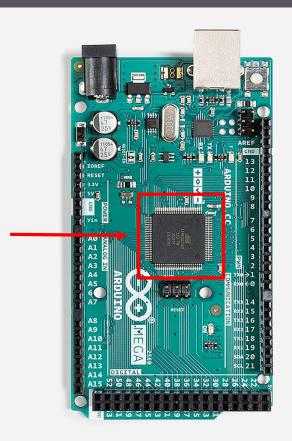
Technical Specification

Microcontroller	ATmega2560
Operating Voltage	5V
Input Voltage (recommended)	7-12V
Input Voltage (limit)	6-20V
Digital I/O Pins	54 (of which 15 provide PWM output)
Analog Input Pins	16
DC Current per I/O Pin	20 mA
DC Current for 3.3V Pin	50 mA
Flash Memory	256 KB of which 8 KB used by bootloader
SRAM	8 KB
EEPROM	4 KB
Clock Speed	16 MHz
LED_BUILTIN	13
Length	101.52 mm
Width	53.3 mm
Weight	37 g

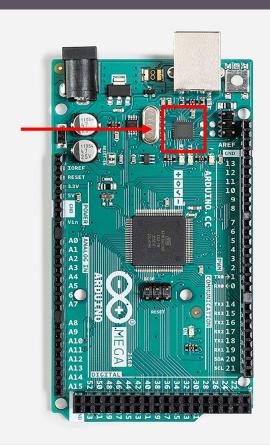


ATmega2560 Processor

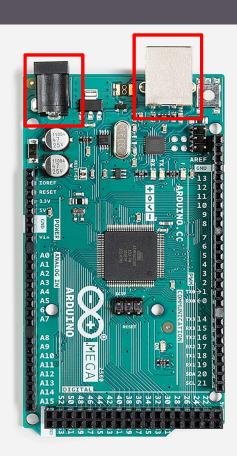
- ✓ Up to 16 MIPS Throughput at 16MHz
- √ 256k bytes (of which 8k is used for the bootloader)
- √ 4k bytes EEPROM
- √ 8k bytes Internal SRAM
- √ 32 × 8 General Purpose Working Registers
- ✓ Real Time Counter with Separate Oscillator
- √ Four 8-bit PWM Channels
- √ Four Programmable Serial USART
- ✓ Controller/Peripheral SPI Serial Interface



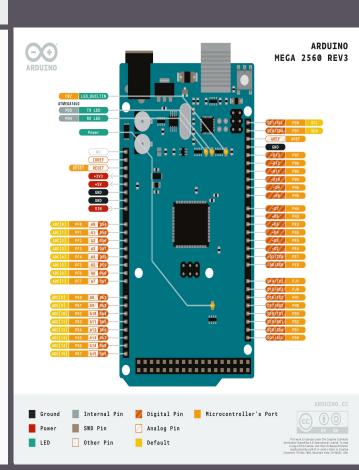
- > ATmega16U2
- ✓ Up to 16 MIPS Throughput at 16 MHz
- √ 16k bytes ISP Flash Memory
- √ 512 bytes EEPROM
- √ 512 bytes SRAM
- ✓ USART with SPI master only mode and hardware flow control (RTS/CTS)
- ✓ Master/Slave SPI Serial Interface



- > Power
- √ USB Connection
- √ External AC/DC Adapter



- > I/O Pinouts
- √ 54 digital I/O pins.
- √ 16 analog input pins.
- ✓ 15 PWM Output



https://docs.arduino.cc/hardware/mega-2560/

Reference

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