

µDuino

Title:- µDuino - Low Cost Arduino Compatible Development Board

Team Members:-

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Idea:-

The Arduino Uno is a development board based on the ATmega328 AVR Microcontroller. It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator, a USB connection, a power jack, an ICSP header, and a reset button.

ARDUINO DEVELOPMENT BOARD

Microcontroller	ATmega328
Architecture	AVR
Operating Voltage	5 V
Flash memory	32 KB of which 0.5 KB used by bootloader
SRAM	2 KB
Clock Speed	16 MHz
Digital I/O Pins	20 (of which 6 provide PWM output)
Analog I/O Pins	6
EEPROM	1 KB

Arduino boards are great for prototyping. However they get rather expensive when you have multiple concurrent projects or need lots of controller boards for a larger project.

So We decided to build a Simple and cheap version of Arduino Uno. This gets you much closer to the device, letting you better understand the platform. As a benefit, it's also a lot cheaper than a full board-bearing kit.

You can program it using arduino language (Arduino IDE) or direct with C (Atmel® Studio 7).

Components:-

1. Atmega328 AVR Microcontroller
2. 16 MHZ clock crystal
3. 2 x 22 pF capacitors
4. 7805 Voltage regulator
5. 2 x 10 uF capacitor
6. Resistors
7. FTDI Programmer

Schematics:-

