

ARDUINO UNO R3 DIP DEVELOPMENT BOARD

ATmega328P • USB-B • 5V logic • 16MHz • Ekastore SKU 191002

Connector Pinouts

The diagram shows the pinouts for the three main connectors on the board:

- ICSP Header:** IC, IOREF, RESET, +5V, GND, GND, VCC.
- Analog Header:** ADC[0] (PC0), ADC[1] (PC1), ADC[2] (PC2), A0 (D14), A1 (D15), A2 (D16).
- Digital Header:** D19/SCL (PC5), D18/SDA (PC4), GND, D13 (PB5), D12 (PB4), D11 (PB3), D10 (PB2), D9 (PB1), D8 (PB0), D7 (PD7), D6 (PD6), D5 (PD5), D4 (PD4), D3 (PD3).

PRODUCT
Arduino Uno R3 Development Board – DIP Version by Ekastore

CORE ATmega328P (DIP)
USB ATmega16U2 + USB-B
I/O 14 digital • 6 analog • 6 PWM
CONTROL ICSP • reset • power jack

5 V	16 MHz	14	6	32 KB	2 KB
OPERATING	CLOCK	DIGITAL I/O	ANALOG	FLASH	SRAM

KEY TECHNICAL SPECIFICATIONS

PARAMETER	VALUE	REFERENCE
Microcontroller	ATmega328P (DIP)	Ekastore / Arduino reference
Operating voltage	5 V	Arduino reference
Recommended input	7–12 V	Arduino reference
Input voltage limit	6–20 V	Arduino reference
Digital I/O	14; 6 PWM	Arduino reference
Analog inputs	6	Arduino reference
DC current / I/O	20 mA	Arduino reference
3.3V pin current	50 mA	Arduino reference
Flash / SRAM / EEPROM	32 KB / 2 KB / 1 KB	ATmega328P
USB interface	ATmega16U2; USB-B	Ekastore / Arduino reference
LED_BUILTIN	D13	

Ekastore listing: 30 g; 80 × 60 mm. These values are retained exactly as listed.
APPLICATIONS: maker / introduction • education • scientific projects • DIY electronics • robotics • home automation • academic / engineering prototypes • industrial development.

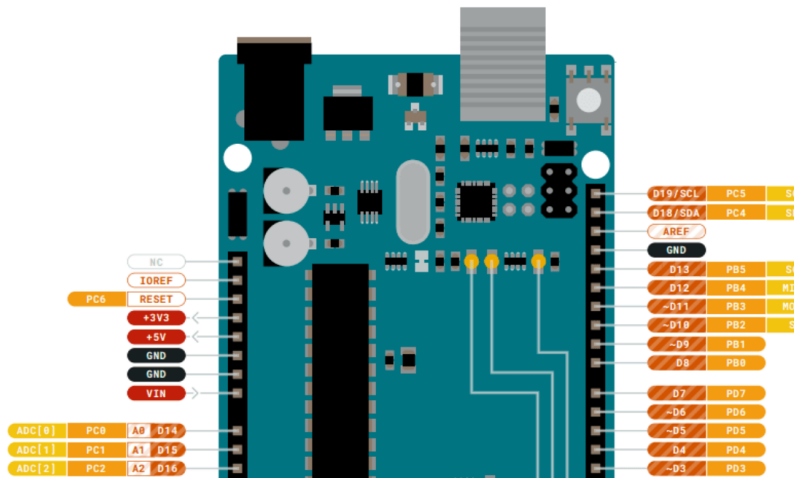
FUNCTIONAL, PINOUT & MECHANICAL REFERENCE

Compact engineering view

1. BOARD TOPOLOGY / MAJOR HARDWARE

X1: 2.1x5.5 mm power jack • X2: USB-B connector • U1: SPX1117M3-L-5 regulator • U3: ATmega16U2 • J-ZU4: ATmega328P • Y1: ECS-160-20-4X-DU oscillator • ICSP: 6-pin through-hole headers.

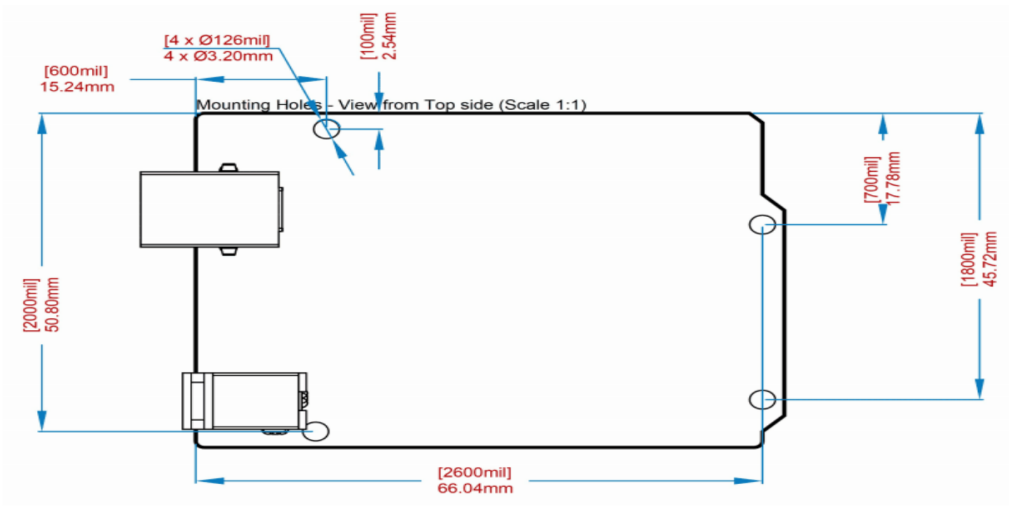
Connector Pinouts



2. PIN GROUPS

GROUP	PINS	FUNCTION
Power	IOREF, +3V3, +5V, GND, VIN	Power / reference rails
Analog	A0–A5	Analog input / GPIO
I²C	A4/SDA, A5/SCL	Analog + I²C data/clock
Digital	D0–D9	Digital / GPIO; PWM on supported pins
SPI	SS, MOSI, MISO, SCK	SPI select / data / clock
Control	RESET, AREF	Reset / analog reference

3. BOARD OUTLINE



Use the supplied Arduino board-outline/CAD documentation for manufacturing-critical dimensions.

POWER, OPERATION, IDENTIFICATION & COMPLIANCE

Ordering and source information

4. RATINGS & POWER

PARAMETER	VALUE	NOTE
Board thermal limit	–40°C to +85°C	Extreme temperatures may affect EEPROM, regulator and oscillator
VIN input	6–20 V	Maximum input voltage from VIN pad
USB input	5.5 V max	Maximum input voltage from USB connector
Operating voltage	5 V	Board logic / operating voltage

5. PROCESSING & MEMORY

ATmega328P	ATmega16U2
AVR CPU up to 16MHz • 32kB Flash • 2kB SRAM • 1kB EEPROM	8-bit AVR RISC • 16kB ISP Flash • 512B SRAM • 512B EEPROM • debugWIRE

6. BOARD OPERATION

USB-B provides programming/data and power. Offline programming uses Arduino Desktop IDE; sample sketches are available in the Examples menu. The supplied manual also documents Arduino Cloud Editor support.

7. EKASTORE PRODUCT IDENTIFICATION

FIELD	VALUE
Product	Arduino Uno R3 Development Board – DIP Version by Ekastore
Ekastore SKU	191002
Category	Microcontroller
Weight / dimensions	30 g / 80 × 60 mm
Package	1 × Arduino Uno R3 – DIP Version by Ekastore
Listing status	Dispatch within 1 day; 25 in stock when checked

8. COMPLIANCE & SOURCE NOTES

The supplied Arduino manual documents CE conformity, EU RoHS/REACH information, conflict-minerals declaration and FCC-related statements. These are source-document statements and are not presented as a separate Ekastore certification claim for every board sold under this listing.

Sources: Arduino® UNO R3 User Manual, SKU A000066, modified 15/09/2026; Ekastore product page, SKU 191002; Arduino official UNO Rev3 technical documentation. Where physical measurements differ between the Ekastore listing and official reference, both are preserved rather than silently reconciled.

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