

# chipKIT™ UNO32 and chipKIT MAX32 Development Platforms

*Developed for the Arduino™ community.*

## Summary

The chipKIT™ UNO32 and MAX32 development boards are the first 32-bit microcontroller-based platforms that are compatible with existing Arduino™ hardware and software.

## Application Examples

The chipKIT platform allows hobbyists and academics from many disciplines, such as mechanical engineering, computer science and artists to develop original embedded applications easily and quickly including:

- Motor Control
- LCD Display
- Wired and Wireless Communications
- LED Matrix Control
- Sensor Networks

## Key Features

- Application development using an environment based on the original Arduino IDE, modified to support PIC32 devices while still supporting the original Arduino line. Leverages existing code examples, tutorials and resources.
- Pin-out compatibility with many existing Arduino shields
- Higher performance at a lower price-point than existing solutions
- Advanced capabilities including:
  - Integrated USB (Device/Host, OTG)
  - Integrated Ethernet
  - CAN



## Getting Started

### chipKIT UNO32 (TDGL002)



- Features PIC32MX320F128H MCU
- Compatible footprint with the Arduino Uno
- Compatible with 3.3V shields and software examples

### chipKIT MAX32 (TDGL003)



- Features PIC32MX795F512L MCU
- Compatible footprint with the Arduino Mega2560
- Provides advanced communications and memory

Visit [www.microchip.com/chipkit](http://www.microchip.com/chipkit) or [www.digilentinc.com/chipkit](http://www.digilentinc.com/chipkit) to purchase hardware and download FREE software.

## Feature Comparison

| Feature        | Core   | Performance | Program Memory (KB) | RAM (KB) | Additional Features              |
|----------------|--------|-------------|---------------------|----------|----------------------------------|
| chipKIT™ UNO32 | 32-bit | 80 MHz      | 128                 | 16       | PMP/PSP/RTCC                     |
| chipKIT MAX32  | 32-bit | 80 MHz      | 512                 | 128      | USB, 2x CAN, Ethernet, DMA, RTCC |

| Compatible Shields from Digilent Inc.                                                                        |  | Shield Features                                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  chipKIT™ Basic I/O Shield |  | 4 switches, 4 buttons, I <sup>2</sup> C™ temperature sensor, 256 Kbit I <sup>2</sup> C EEPROM, 128x32 OLED display, 4 open drain channels, 1 potentiometer, 8 LEDs |
|  chipKIT Network Shield    |  | Ethernet PHY and transformer, USB OTG, 32 KHz oscillator, 256 Kbit I <sup>2</sup> C EEPROM, 2 CAN interfaces                                                       |



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