1. **Beagle Bone Black**

Processor: AM335x 1GHz ARM® Cortex-A8

- 512MB DDR3 RAM
- 4GB 8-bit eMMC on-board flash storage
- 3D graphics accelerator
- NEON floating-point accelerator
- 2x PRU 32-bit microcontrollers

Connectivity

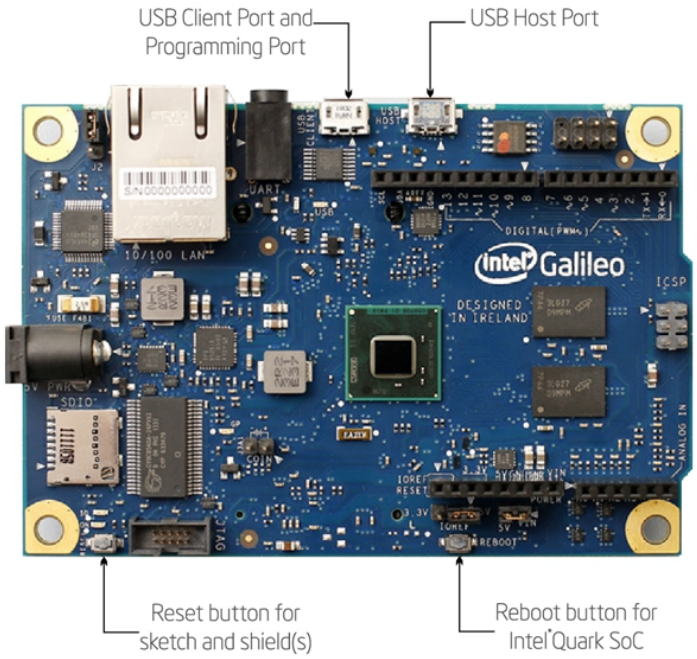
- USB client for power & communications
- USB host
- Ethernet
- HDMI
- 2x 46 pin headers

2. **8051 Microcontroller kit**

- USB Communication with CP2102
- Eight 5mm LEDs
- Eight Switches in DIP package
- LCD 16x2
- Four Seven Segment Displays
- ADC 0808 with 555 timer for sampling frequency
- Two Relays for Switching AC devices.
- 4x4 Keypad
- L293D Motor Driver for DC and Stepper Motors
- DS1307 based Real Time Clock
- AT2404 EEPROM
- Light Sensor(LDR)
- Temperature sensor(LM35)
- USB Programmer for AT89S series microcontrollers

Intel Galileo Development Board:-

Galileo is a microcontroller board based on the Intel® Quark SoC X1000 Application Processor, a 32-bit Intel Pentium-class system on a chip (datasheet). It's the first board based on Intel® architecture designed to be hardware and software pin-compatible with Arduino shields designed for the Uno R3. Digital pins 0 to 13 (and the adjacent AREF and GND pins), Analog inputs 0 to 5, the power header, ICSP header, and the UART port pins (0 and 1), are all in the same locations as on the Arduino Uno R3. This is also known as the Arduino 1.0 pinout. Galileo is designed to support shields that operate at either 3.3V or 5V. The core operating voltage of Galileo is 3.3V. However, a jumper on the board enables voltage translation to 5V at the I/O pins. This provides support for 5V Uno shields and is the default behavior. By switching the jumper position, the voltage translation can be disabled to provide 3.3V operation at the I/O pins of course, the Galileo board is also software compatible with the Arduino Software Development Environment (IDE), which makes usability and introduction a snap. In addition to Arduino hardware and software compatibility, the Galileo board has several PC industry standard I/O ports and features to expand native usage and capabilities beyond the Arduino shield ecosystem. A full sized mini-PCI Express slot, 100Mb Ethernet port, Micro-SD slot, RS-232 serial port, USB Host port, USB Client port, and 8MByte NOR flash come standard on the board.



Galileo is a microcontroller board based on the Intel® Quark SoC X1000 Application Processor, a 32-bit Intel Pentium-class SoC. It is hardware and software pin-compatible with Arduino shields designed for the Uno R3.

Specification	Details
Form factor	4.8inch * 2.8 inch
Processor	400MHz 32-bit Intel® Pentium instruction set architecture (ISA) - compatible processor
Architecture	IA32, Single Thread, Single Core, Constant Speed
OS compatibility	Linux (Ubuntu 32 and 64 bit), Windows, Mac OSx
Storage	8 MByte Legacy SPI Flash (to store firmware and sketch), 512KB SRAM and 256MB DRAM,, Optional microSD upto 32GB
Ports	Full sized mini-PCI Express slot, 100Mb Ethernet port, Micro -SD slot, RS-232 serial port, USB Host port, USB Client port
Power	5V input,
Software Compatibility	compatible with the Arduino SW Development Environment
Shields	supports shields that operate at either 3.3V or 5V
Pin Layput	Same as Arduino 1.0 pinout

SOFTWARE'S

Code Composer Studio (CCS) Integrated Development Environment (IDE)

(ACTIVE) CCSTUDIO

Description & Features | Technical Documents | Support & Community

Description

Cloud-
Start w
Studio
• more

Code Composer Studio™ - Integrated Development Environment

Code Composer Studio is an integrated development environment (IDE) that supports TI's Microcontroller and Embedded Processors portfolio. Code Composer Studio comprises a suite of tools used to develop and debug embedded applications. It includes an optimizing C/C++ compiler, source code editor, project build environment, debugger, profiler, and many other features. The intuitive IDE provides a single user interface taking you through each step of the application development flow. Familiar tools and interfaces allow users to get started faster than ever before. Code Composer Studio combines the advantages of the Eclipse software framework with advanced embedded debug capabilities from TI resulting in a compelling feature-rich development environment for embedded developers.

- MSP Low Power MCUs
- C2000 Real-time MCUs
- SimpleLink Wireless MCUs
- TM4x MCUs
- TMS570 & RM4 Safety MCUs
- Sitara (Cortex A & ARM9) Processors
- Multicore DSP and ARM including KeyStone Processors
- F24x/C24x devices
- C3x/C4x DSPs

MDK-ARM Version 5

MDK Microcontroller Development Kit

Keil MDK is the most comprehensive software development environment with out-of-the box support for over 4000 ARM and Cortex-M based microcontrollers.MDK is split into the MDK-Core and software packs, which makes new device support, and middleware updates independent from the toolchain. The for use in safety applications up to the highest safety integrity levels (SIL). The ARM Compiler Safety Package, available in MDK-Professional, enables fast toolchain qualification for any functional safety standards.