

Teensy USB Development Board

The Teensy is a complete USB-based microcontroller development system, in a very small footprint, capable of implementing [many types of projects](#). All programming is done via the USB port. No special programmer is needed, only a standard "Mini-B" USB cable and a PC or Macintosh with a USB port.

Teensy 3.1



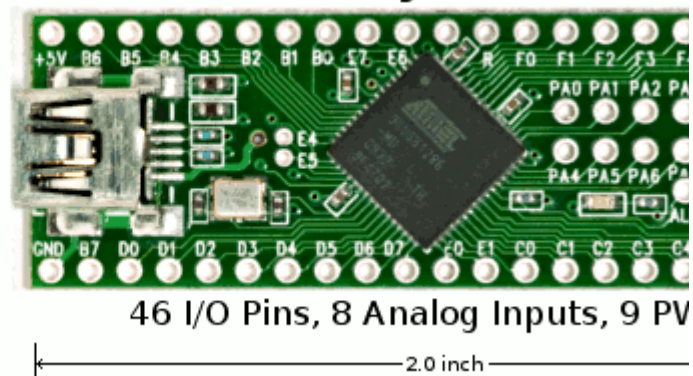
Teensy 3.0



Teensy 2.0



Teensy++ 2.0



Specification	Teensy 2.0	Teensy++ 2.0	Teensy 3.0	Teensy 3.1
Processor	ATMEGA32U4 8 bit AVR 16 MHz	AT90USB1286 8 bit AVR 16 MHz	MK20DX128 32 bit ARM Cortex-M4 48 MHz	MK20DX256 32 bit ARM Cortex-M4 72 MHz
Flash Memory	32256	130048	131072	262144
RAM Memory	2560	8192	16384	65536
EEPROM	1024	4096	2048	2048
I/O	25, 5 Volt	46, 5 Volt	34, 3.3 Volt	34, 3.3V, 5V tol
Analog In	12	8	14	21
PWM	7	9	10	12
UART,I2C,SPI	1,1,1	1,1,1	3,1,1	3,2,1

Key Features:

- USB can be any type of device
- AVR processor, 16 MHz
- Single pushbutton programming
- Easy to use Teensy Loader application
- Free software development tools
- Works with Mac OS X, Linux & Windows
- Tiny size, perfect for many projects
- Available with pins for solderless breadboard

Teensy Loader Application



The [Teensy Loader](#) makes getting code into your Teensy easy. Just press and release the reboot button and the processor runs the HalfKay bootloader, which is automatically detected. Teensy Loader lets you download your code and reboot to it.

Automatic mode downloads and reboots to your code the instant your computer detects HalfKay. The latest version of your code is always used. Just press the button and within 1 to 2 seconds your latest code is running!

Software Development Tools

[WinAVR](#) C compiler.

[Teensyduino](#), add-on for Arduino IDE.

[Simplified USB Examples](#) or [Dean Camera's LUFA library](#).

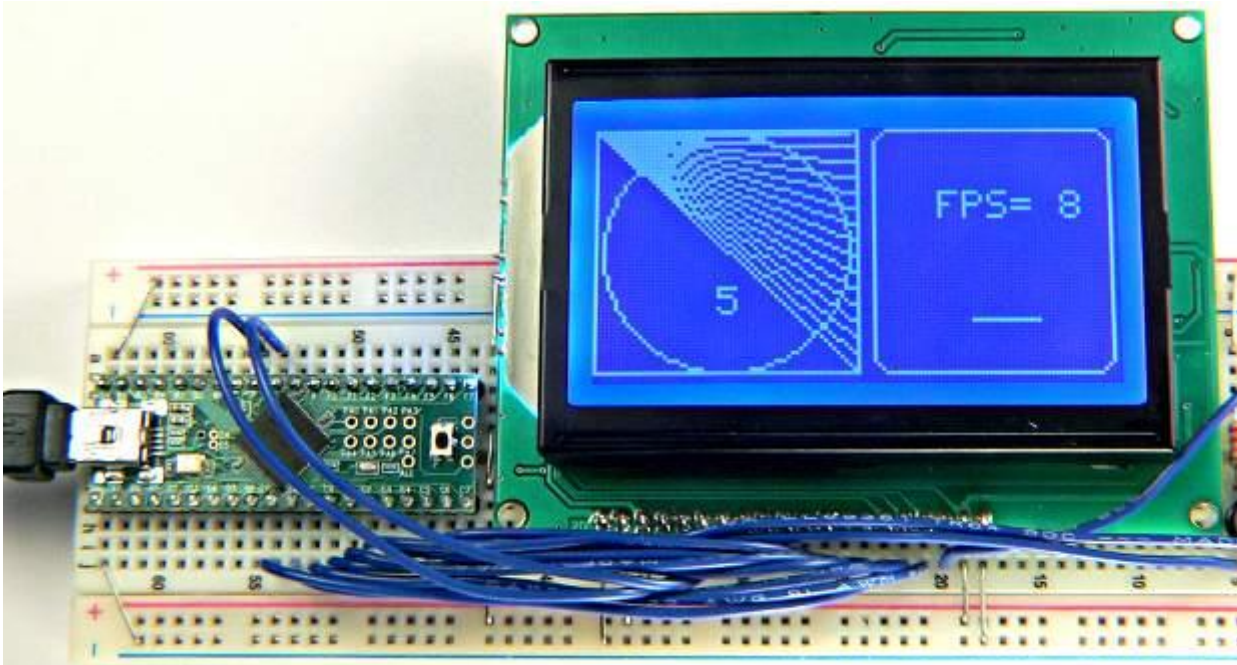
Breadboard Usage

The Teensy is available [with header pins](#), for direct no-soldering-required use on a breadboard, which can also be run from the +5 volt from the [USB cable](#). Standard Teensy boards come with solder pads. Either way, all Teensy boards come fully assembled and tested, so no surface mount soldering is needed.



The Teensy with header pins is easy to use with a solderless breadboard

The [128x64 Graphics LCD](#) can be used with Teensy 2.0 and Teensy++ 2.0 and Teensyduino using this [GLCD library](#). They fit together nicely on a single breadboard.



Teensy++ 2.0 with 128x64 Graphics LCD