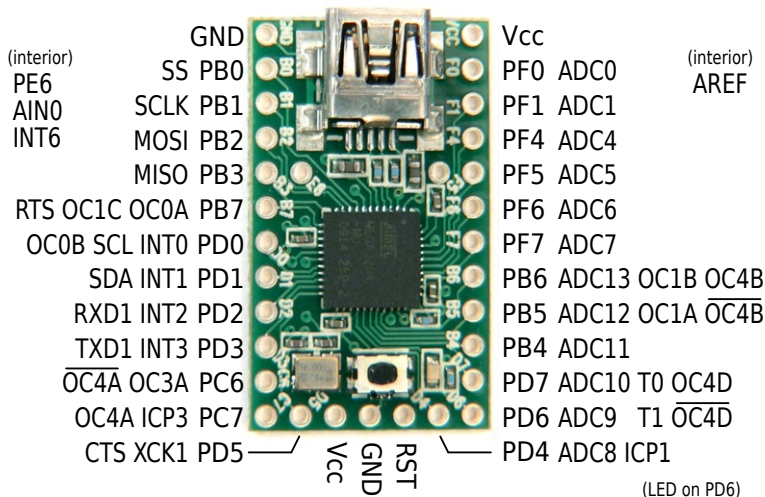# Welcome to Teensy
With C Language

Programming Teensy with C provides access to all features. Experience with the C language and reading technical specifications is helpful. For a beginner oriented environment, Arduino may be a better choice.

To begin using Teensy with C, please visit the website and click Getting Started.

http://www.pjrc.com/teensy

Pin Assignments
Using C Language

(interior)
PE6
AIN0
INT6

GND
SS PB0
SCLK PB1
MOSI PB2
MISO PB3
RTS OC1C OC0A PB7
OC0B SCL INT0 PD0
SDA INT1 PD1
RXD1 INT2 PD2
TXD1 INT3 PD3
$\overline{OC4A}$ OC3A PC6
OC4A ICP3 PC7
CTS XCK1 PD5

Vcc
GND
RST

Vcc
PF0 ADC0
PF1 ADC1
PF4 ADC4
PF5 ADC5
PF6 ADC6
PF7 ADC7
PB6 ADC13 OC1B $\overline{OC4B}$
PB5 ADC12 OC1A $\overline{OC4B}$
PB4 ADC11
PD7 ADC10 T0 OC4D
PD6 ADC9 T1 $\overline{OC4D}$
PD4 ADC8 ICP1

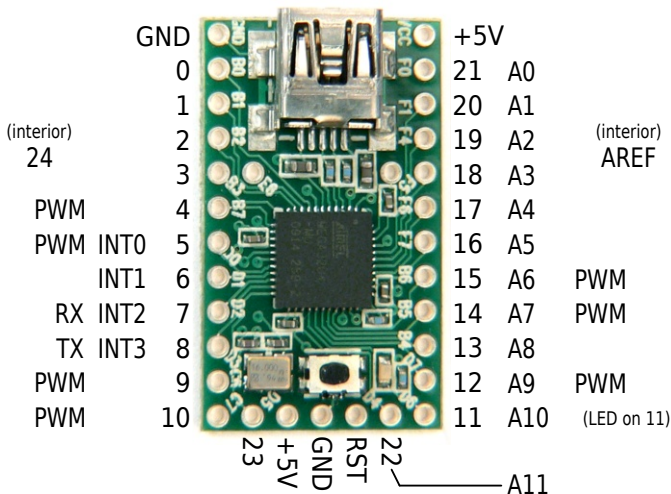(interior)
AREF

(LED on PD6)

Welcome to Teensy
With Arduino Software

Programming Teensy with Arduino Software provides a simple and easy environment that is best for beginners. For access to all advanced features, C language may be a better choice.

To begin using Teensy with Arduino Software, please visit the website, click Teensyduino, and then click Tutorial.

http://www.pjrc.com/teensy

Pin Assignments
Using Arduino Software

GND	+5V
0	21 A0
1	20 A1
(interior) 24	2	19 A2	(interior) AREF
3	18 A3
PWM 4	17 A4
PWM INT0 5	16 A5
INT1 6	15 A6 PWM
RX INT2 7	14 A7 PWM
TX INT3 8	13 A8
PWM 9	12 A9 PWM
PWM 10	11 A10 (LED on 11)

23 +5V GND RST 22

A11

Welcome to Teensy 3.1

To begin using Teensy, please visit the website & click Getting Started.

http://www.pjrc.com/teensy

Digital Pins
digitalRead
digitalWrite
pinMode

Analog Pins
analogRead
analogReference
analogReadRes

PWM Pins
analogWrite
analogWriteRes

Touch Sense Pins
touchRead

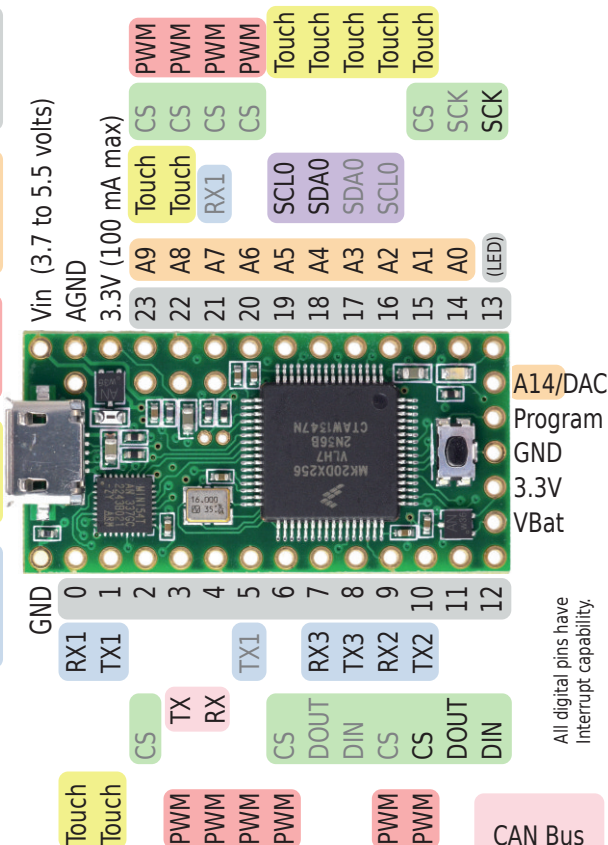**Serial Ports**
Serial1
Serial2
Serial3

I2C Port
Wire Library

SPI Port
SPI Library

Vin (3.7 to 5.5 volts)
AGND
3.3V (100 mA max)

A14/DAC
Program
GND
3.3V
VBat

GND

All digital pins have Interrupt capability.

CAN Bus

Welcome to Teensy 3.1

To begin using Teensy, please visit the website & click <u>Getting Started</u>.

http://www.pjrc.com/teensy

Digital Pins	Analog Pins	Touch Sense Pins	Serial Ports
digitalRead	analogRead	touchRead	Serial1
digitalWrite	analogReference		Serial2
pinMode	analogReadRes		Serial3

SCL1 SDA1 TX2 PWM

A18 A19 A20 Touch Touch

29 30 31 32 33 3.3V A13 A11 A10 AREF VUSB

Cut to separate VIN from VUSB, if using a battery charger or external power for USB Device mode.

DAC/A14
Program
GND
3.3V
VBat

Use 3V coin cell for Real Time Clock.

28 27 26 25 24 GND A12

A17 A16 A15 Touch

RX2 PWM

Add 32.768 kHz Crystal for Real Time Clock.

Add 150 µF Capacitor for USB Host mode.