



**Comsats University Islamabad
Abbottabad Campus**

**Real Time Embedded System
Lab Task # 2**

Submitted by,

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Submitted to,


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Task 2:

Setting up Multitasking applications in Energia MT

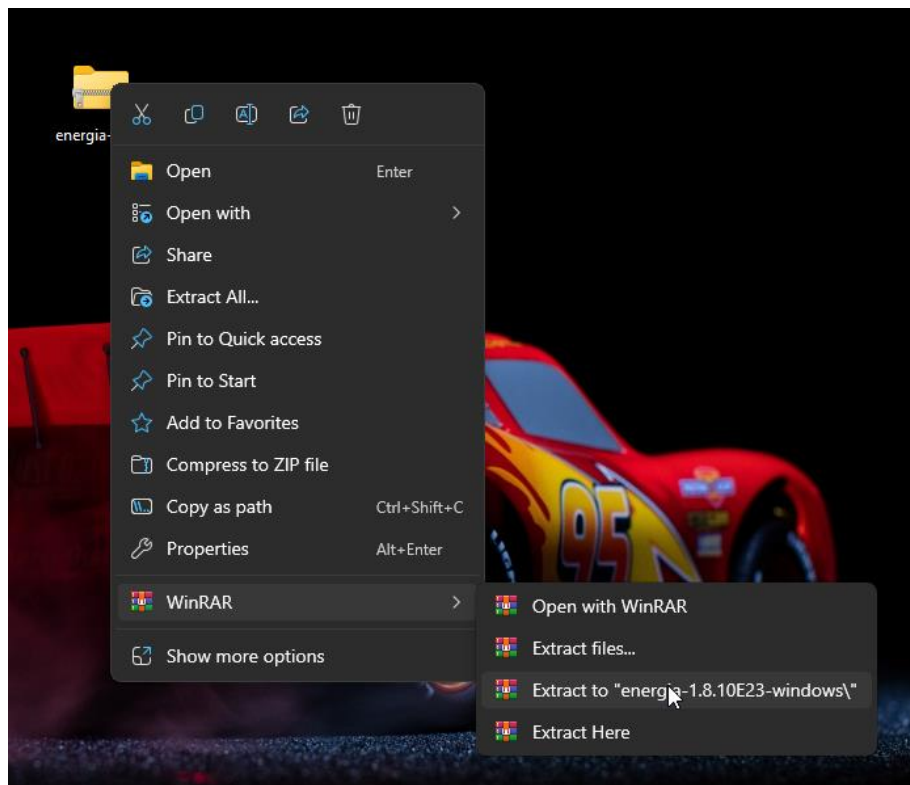
Here is the link: <https://energia.nu/download/>. You can download this software based on your operating system.

 [Home](#) [Download](#) [Guide](#) [Pin Maps](#) [Reference](#) [Getting Help](#) [Contact](#)

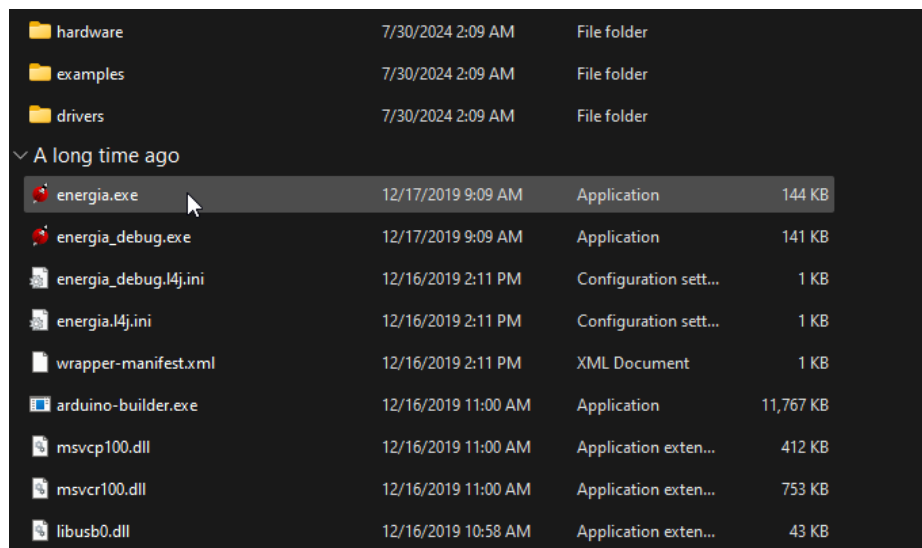
Board and library manager!
Energia release 23 (aka Energia 1.8.10E23) and up feature the new board (core) / library manager. By default the Energia installation comes with support for the MSP430. Other cores such as CC1310, CC13x2, CC3220, TivaC, CC3200 and MSP432 can be installed through the board manager by selection Tools → Board → Board Manager. For more details on how to install additional cores/boards see the [board manager guide](#). The cores included in the board manager are: MSP430, MSP432 (MT, TI-RTOS based multitasking), CC3200 and TivaC. The CC3200 (MT) TI-RTOS based multitasking based core will be made available in the near future through the board manager. CC2650 has been removed from Energia due to the lack of BLE support that could not be enabled because of licensing issues with the BLE stack.

Energia 1.8.10E23 (12/17/2019)
Mac OS X: Signed Binary release version 1.8.10E23 (12/17/2019).
Download here: [energia-1.8.10E23-macosx-signed.zip](#)
Windows: Binary release version 1.8.10E23 (12/17/2019).
Download here: [energia-1.8.10E23-windows.zip](#)
Linux 64-bit: Binary release version 1.8.10E23 (12/17/2019).
Download here: [energia-1.8.10E23-linux64.tar.xz](#)

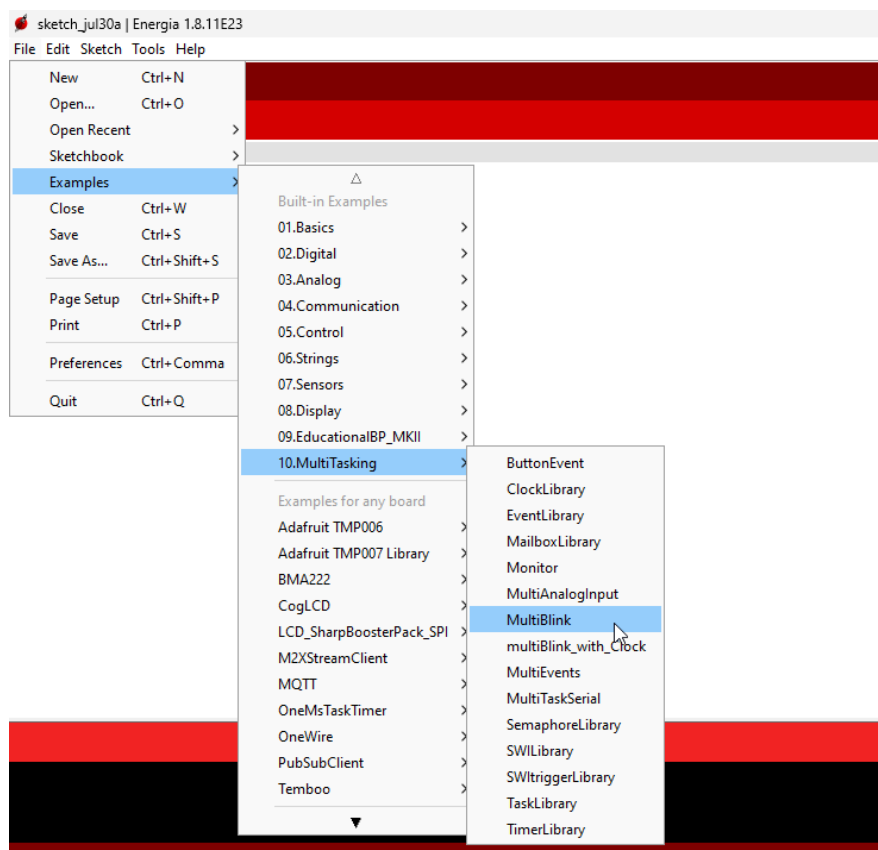
After installing extract the file.



After extracting open the folder and double click on energia.exe.



After the software opens click on File → Examples → MultiTasking → MultiBlink



The new window will pop up which contains four tabs as shown



Now you can perform multitasking,

Tab1



Tab2

```

File Edit Sketch Tools Help

MultiBlink BlueLed$ GreenLed$ RedLed$

#undef LED
#define LED GREEN_LED

void setupGreenLed() {
  // initialize the digital pin as an output.
  pinMode(LED, OUTPUT);
}

// the loop routine runs over and over again forever as a task.
void loopGreenLed() {
  digitalWrite(LED, HIGH); // turn the LED on (HIGH is the voltage level)
  delay(500); // wait for half a second
  digitalWrite(LED, LOW); // turn the LED off by making the voltage LOW
  delay(500); // wait for half a second
}

```

Tab3

```

File Edit Sketch Tools Help

MultiBlink BlueLed$ GreenLed$ RedLed$

#undef LED
#define LED RED_LED

void setupRedLed() {
  // initialize the digital pin as an output.
  pinMode(LED, OUTPUT);
}

// the loop routine runs over and over again forever as a task.
void loopRedLed() {
  digitalWrite(LED, HIGH); // turn the LED on (HIGH is the voltage level)
  delay(1000); // wait for a second
  digitalWrite(LED, LOW); // turn the LED off by making the voltage LOW
  delay(1000); // wait for a second
}

```