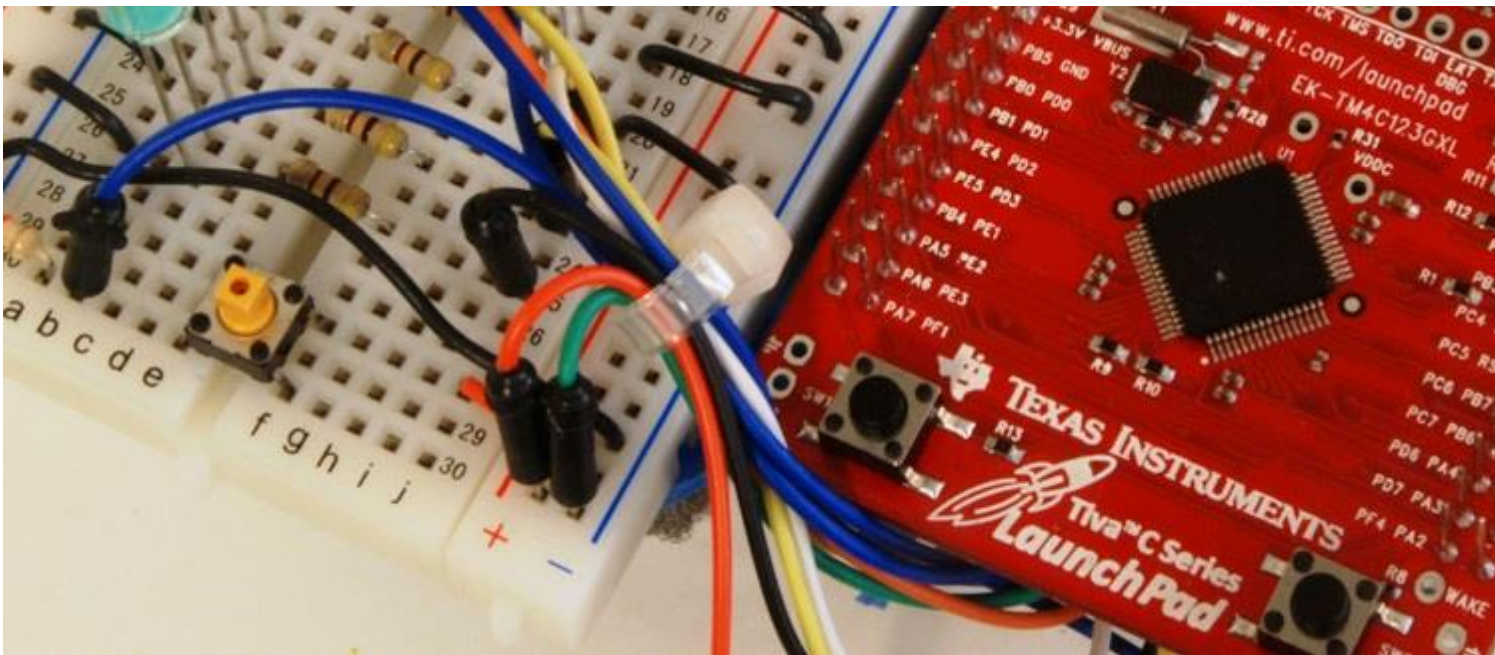# KIT BUYING INSTRUCTIONS FOR WORLDWIDE DISTRIBUTION

For the class you will need a microcontroller board and a set of extra electronic parts. The microcontroller board can be either a Stellaris LaunchPad or Tiva LaunchPad. Below is a list of international suppliers with solid reputations for service. These international distributors are suggested retailers with one click carts provided. That said, if you can find a better price on the parts elsewhere then by all means please do.

Purchase the complete kit (microcontroller board + extra electronic parts)

element14 Worldwide Landing Page

[Digi-Key Worldwide Landing Page](#)

[Mouser Worldwide Landing Page](#)

Purchase the microcontroller board

Every student will need either a Stellaris LaunchPad or a Tiva LaunchPad. All the projects we will develop in this course will run on either of these microcontroller boards. There are many places one can go to get the board. For a full list of sources from which you can get the board go to**www.octopart.com** and search for either [EK-LM4F120XL](#) or [EK-TM4C123GXL](#).

Store	Tiva Launchpad	Price
TI eStore	[EK-TM4C123G](#)	$12.99 USD
Digi-Key	[296-35760-ND](#)	$13.49
Mouser	[595-EK-TM4C123GXL](#)	$12.99 USD
Newark	[73W9275](#)	$13.38 USD
Farnell	[2314937](#)	£10.68 GBP
element14 APAC	[2314937](#)	$21.11 SGD

Extra electronic parts

The extra electronic parts includes: a solderless breadboard with at least 400 holes, six LEDs with current at 2mA, six 470 ohm resistors, one 1k resistor, three 1.5k resistors, three 12k resistors, four 10k resistors, four B3F tactile switches, at least 16 male-male solid wires ranging from 5 to 10 cm in length, one 3.5 mm audio jack, and one slide potentiometer. The typical specifications for the resistors are through-hole 5% 1/4W, but any resistor less than or equal to 1/2W and 10% will be acceptable. These distributors have all earned high praises for service and reputation. All prices are listed in USD.

[element14 Worldwide Landing Page](#)

This landing page is maintained by our friends at element14 with the lowest price on parts automatically selected based on your region. The price quoted on their page may vary from that listed below. Please check their page for the latest pricing information.

Quantity	Description	Manufacturer	Manufacturer Part
1	Solderless breadboard + wires	Twin Industries	TW-E41-1020
2	Green LED 1.8V 2mA 5mm	Everlight	HLMP-4740
2	Red LED 1.8V 2mA 5mm	Everlight	HLMP-4700
2	Yellow LED 1.8V 2mA 5mm	Everlight	HLMP-4719
6	Carbon 1/4W resistor, 5%, 470	Multicorp	MCF 0.25W 470R
1	Carbon 1/4W resistor, 5%, 1.0k	Multicorp	MCF 0.25W 1K
3	Carbon 1/4W resistor, 5%, 1.5k	Multicorp	MCF 0.25W 1K5
3	Carbon 1/4W resistor, 5%, 12k	Multicorp	MCF 0.25W 12K
4	Carbon 1/4W resistor, 5%, 10k	Multicorp	MCF 0.25W 10K
4	B3F tactile push button switch	Omron	B3F-1052
1	Stereo Jack 3pin 3.5mm	Multicorp	SPC21348
1	Slide Potentiometers 15mm	Bourns	PTA6043-2015DPB

Digi-Key Landing Page

This landing page is maintained by our friends at Digi-Key. They have been gracious enough to provide us with an academic pricing discount.

Quantity	Description	Manufacturer	Manufacturer Part
1	Solderless breadboard + wires	Twin Industries	TW-E41-1020
2	Green LED 1.8V 2mA 5mm	Everlight	HLMP-4740
2	Red LED 1.8V 2mA 5mm	Everlight	HLMP-4700
2	Yellow LED 1.8V 2mA 5mm	Everlight	HLMP-4719
6	Carbon 1/4W resistor, 5%, 470	Yageo	CFR-25JB-52-470R
1	Carbon 1/4W resistor, 5%, 1.0k	Yageo	CFR-25JB-52-1K
3	Carbon 1/4W resistor, 5%, 1.5k	Yageo	CFR-25JB-52-1K5
3	Carbon 1/4W resistor, 5%, 12k	Yageo	CFR-25JB-52-12K
4	Carbon 1/4W resistor, 5%, 10k	Yageo	CFR-25JB-52-10K
4	B3F tactile push button switch	Omron	B3F-1052
1	Stereo Jack 3pin 3.5mm	CUI	SJ1-3553NG
1	Slide Potentiometers 15mm	Bourns	PTA2043-2015CPB1

Mouser shopping cart

Quantity	Description	Manufacturer	Manufacturer Part
1	Solderless breadboard + wires	Twin Industries	TW-E41-1020
2	Green LED 1.8V 2mA 5mm	Everlight	HLMP-4740
2	Red LED 1.8V 2mA 5mm	Everlight	HLMP-4700
2	Yellow LED 1.8V 2mA 5mm	Everlight	HLMP-4719
6	Carbon 1/4W resistor, 5%, 470	Xicon	291-470-RC
1	Carbon 1/4W resistor, 5%, 1.0k	Xicon	291-1K-RC
3	Carbon 1/4W resistor, 5%, 1.5k	Xicon	291-1.5K-RC
3	Carbon 1/4W resistor, 5%, 12k	Xicon	291-12K-RC
4	Carbon 1/4W resistor, 5%, 10k	Xicon	291-10K-RC
4	B3F tactile push button switch	Omron	B3F-1052

1	Stereo Jack 3pin 3.5mm	Kycon	STX-3120-3BM
1	Slide Potentiometers 15mm	Bourns	PTA2043-2015CPB

Optional Nokia 5110 LCD Display & Header

As stated on the [Kit overview](#) page the Nokia 5110 LCD display is an optional component for the course. Also listed is a 8x1 100mil header that makes connecting the Nokia 5110 LCD to the breadboard very easy, as opposed to soldering fly wires. As with the rest of the parts we encourage you to find the best price, providers listed below have a solid reputation for service.

Store	Nokia 5110 LCD	Price (USD)
Adafruit	[ADA338](#)	$10 USD + shipping
Sparkfun	[RTL-10773](#)	$10.95 USD + shipping
Amazon	[nokia 5110 lcd](#)	$5+ USD + shipping
Ebay	[nokia-5110-lcd](#)	$5+ USD + shipping

Any one of these headers will work, please order which ever is cheapest for you. We have listed the cheapest part for each distributor, as well as links to the octopart page for several headers. Please choose which ever is cheapest for you based on shipping and who you are ordering with. A short list of the parts we considered was [Molex 22-03-2081](#), [TE Connectivity 3-644456-8](#), [Areva 54101-S08-08](#), [FCI 68000-208HLF](#), [3M 961108-6404-AR](#), [Molex 22-28-4080](#).

Store	Header	Price (USD)
Newark	[20M2207](#)	$0.19 USD
Mouser	[538-22-28-4080](#)	$0.34 USD
Digi-Key	[FCI 68000-208HLF](#)	$0.43 USD

Optional Wireless Booster Pack

The CC3100 Booster Pack is an optional component for the course. Chapter 16 has a lab where the LaunchPad is converted into an **Internet of Things** platform. Order this booster pack if you wish to complete Lab 16. The CC3100 booster pack plugs onto the LaunchPad and provides wireless (IEEE802.11) communication to an access point. To complete Lab 16 you will need a wireless access point (AP) that is connected to the internet. This AP can be encrypted or unencrypted. You do not need the CC3100EMU emulation board.

Store	CC3100	Price (USD)
TI store	[CC3100](#)	$19.99 USD
element14	[CC3100BOOST](#)	$19.99 USD + shipping
Digikey	[296-37769-ND](#)	$20.39+ USD + shipping
Mouser	[595-CC3100BOOST](#)	$20.39+ USD + shipping

Trouble with high-price shipping?

Some places in the world have expensive shipping from the US. One option to purchase the LaunchPad board is to buy the board from a flexible seller like [Amazon](#), and then use a local shipper to ship the board to your country. For example, Transexpress will ship from Amazon into **El Salvador** http://www.transexpress.com.sv/ Another shipping option for South and Central America is [Aerocasillas](#). Either the EK-LM4F120XL board or EK-TM4C123GXL board will work for this class.

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