

## Assignment 4: 555 Design Project Bill-of-Materials

For this assignment, upload a detailed Bill-of-Materials for each vendor that you will use. We will limit purchases to a small set of vendors (Digikey, Sparkfun, Adafruit and Amazon). Please note the guidelines for each vendor



[www.digikey.com](http://www.digikey.com)

First, make sure that any item you add to your cart is **“In Stock”** and that you exclude **“Marketplace Products”**.

View Prices At:

Stocking Options

☒ In Stock

☐ Normally Stocking

☐ New Product

Media

☐ Datasheet

☐ Photo

☐ EDA/CAD Models

Environmental Options

☐ RoHS Compliant

☐ Non-RoHS Compliant

Marketplace Product

☒ Exclude

Apply All

6,760 Remaining

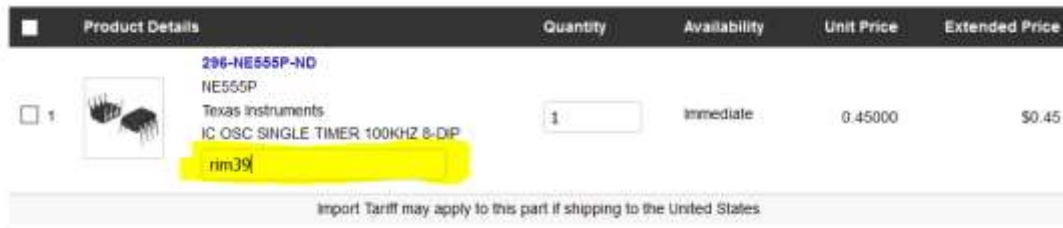
## Search filters

Also make sure that the components are available in **minimum quantities** that we are reasonable for acquisition (e.g. purchases with just 1 unit is allowable, some components require 1000s).

Compare Parts	Image	Digi Key Part Number	Manufacturer Part Number	Manufacturer	Description	Quantity Available	Unit Price USD	Minimum Quantity
<input type="checkbox"/>		<a href="#">PPC160W3TR-ND</a>	<a href="#">PS200022-0001AR50</a>	Vishay SensuFlow/Chassis/RC Components	RES 1K 0401 2W 5% AXIAL	450,000 - Immediate	\$0.04845	5,000
Minimum quantity too high								
<input type="checkbox"/>		<a href="#">PPC160W3CT-ND</a>	<a href="#">PS200022-0001AR50</a>	Vishay SensuFlow/Chassis/RC Components	RES 1K 0401 2W 5% AXIAL	453,005 - Immediate	\$0.40906	1
Minimum quantity acceptable								
<input type="checkbox"/>		<a href="#">2097-203-470W-RC-ND</a>	<a href="#">203-470W-RC</a>	Fuqua/Devol	12W CARBON FILM RESISTOR 470K 12W	1,338 - Immediate	\$0.10000	10

### Checking for acceptable minimum quantities

For Digikey, all you have to do is add everything you want to a **shopping cart**, add your Pitt username in the **customer reference box** for all of the products you want



**Example showing where to add Pitt username. (Please do this for each item!)**

Finally, export your cart as a .csv file,



**Shopping Cart Export. Please select CSV!**

After you have exported your file, **REMOVE THE TOP ROW** and select **"Shift cells up"** so we can easily append them, and submit it. An example below shows what your spreadsheet should look like before submitting. Rename the file **[USERNAME]\_Digkey\_[DATE]\_BOM.csv** where USERNAME is your Pitt ID and DATE is the 6 digit representation of today's date (e.g. 9/7/20 → 090720)

	A	B	C	D	E	F	G	H	I	J
1	1	1	296-NE555P-ND	NE555P	IC OSC SINGLE TIMER 100KHZ 8-DIP	rim39	1	0	0.45	0.45
2	2	2	PPC10KW-2CT-ND	PR02000201001R500	RES 1K OHM 2W 5% AXIAL	rim39	2	0	0.43	0.86

**Example exported shopping cart (RIM39\_Digkey\_090720\_BOM.csv)**

## Ordering from other Sparkfun, Adafruit and Amazon

Digikey will be our preferred vendor. However, often times they may not have what we need (It is also not browser friendly). The next place we should look for parts is [www.sparkfun.com](http://www.sparkfun.com) and [www.adafruit.com](http://www.adafruit.com), which are two well-known sites that caters to hobbyists and makers.



After locating parts on these sites, double check to see if the same parts are available on Digikey (often times they are and can be found by copy/pasting the part number)



Finally, you may need to acquire a non-standard part that can be found on Amazon. If this is the case for you, please ensure that your item is available via **AMAZON PRIME**. Non-prime orders are unpredictable and unreliable.

For each of these sites, create a **SEPARATE CSV FILE FOR EACH VENDOR** that has the following format:

Quantity	Link	Description	Pitt User ID	Unit Price	Extended Price USD
2	<a href="https://www.sparkfun.com/products/16473">https://www.sparkfun.com/products/16473</a>	555 Timer	rim39	0.45	0.90

**Example BOM for Sparkfun.com**

Again, after finishing the spreadsheet **REMOVE THE TOP ROW** (Quantity, Link...) and select "Shift cells up" so that your first order is on the first row. This allows us to easily combine orders. Rename the file **[USERNAME]\_[VENDOR]\_[DATE]\_BOM.csv** where **USERNAME** is your Pitt ID, **VENDOR** is Sparkfun, Adafruit or Amazon and **DATE** is the 6 digit representation of today's date (e.g. 9/7/20 → 090720)

**IT IS POSSIBLE TO ORDER FROM OTHER VENDORS, BUT BEFORE DOING SO, PLEASE OBTAIN PERMISSION FROM THE INSTRUCTOR**