

# Project Hint and Tips

## Capstone Design Project

# Buying Parts

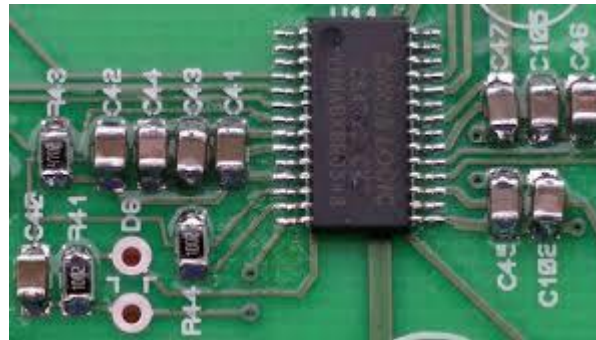
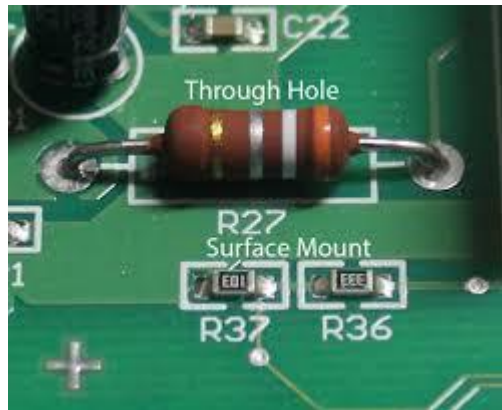
- Creatron - Retail and online, 2 locations, 349 College Street and in Scarborough
- Sayal - Retail and online, 7 Locations, 3791 Victoria Park Ave., 7701 Woodbine Ave., 1350 Matheson Blvd. East
- Digikey – Online
- Newark – Online
- Mouser – Online
- Jamico – Online

# Buying Parts

- A-1 Electronic Parts - 196 North Queen Street
- Electronic Surplus Industries Ltd. - 53 Sheffield St, North York
- <http://wheretobuy.klab.ca/>
- [www.ee.ryerson.ca/~jkoch](http://www.ee.ryerson.ca/~jkoch) Click Info Links Click Supplier Links

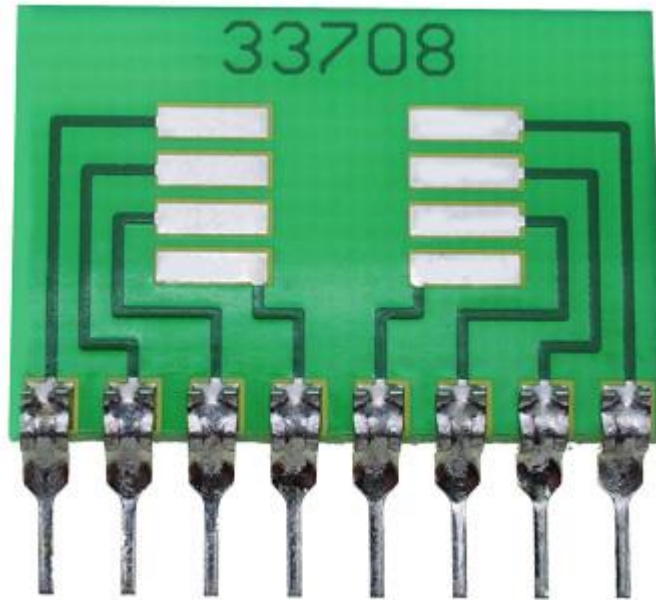
# Buying Parts: Make sure you get the correct part

- Surface mount devices – very small next to impossible to hand solder.
- Through hole devices – easy to solder.



# Buying Parts

- Surface mount device adapters
  - When you can't get a through hole device.
  - Allows you to use a bread board.



# Buying Parts: Experience has shown.

- Buy 3.
  - The first one you blow up because you didn't read the data sheet. Or connected it wrong the first time.
  - The second one gets blown up the night before your demo because you are tired and in a panic.
  - This leaves you one to get through your demo.
- Buy as soon as you have defined your need.
  - Parts may be out of stock with several weeks/months lead time to delivery.
- Buy from a reputable dealer.
- Check manufactures sites for free samples.

# Buying Parts: Donated items

- From time to time we get parts donated to the department.
  - Check with Jim Koch to see if what you need is available.

# Machine Shop

- We have a small shop in the department.
  - Tools available include table saw, drill press, hand drill, metal shear, bending break.
  - SOP training must be done with Jim Koch before you can use the tools.



# Circuit Boards

- We have a small milling machine in the department.
  - At the moment the machine is out for repair, not sure when we will be operational again.
  - for creating circuit board is available under Applications/Engineering/Eagle 6.5.
  - Before you start see Jim Koch, there are some tips he will pass on regarding designing boards that will be cut on the machine.
  - There are many online tutorials on how to use Eagle.
  - There is a small charge for supplies if you have a board done by the department.

# 3D Printing

- The department has purchased a Makerbot 3D printer.
  - Info on printing is on the departments web site.
  - <https://www.ee.ryerson.ca/~jkoch/3dprint.html>
  - 3D printing will be free but limited to a 7 hour printing time and 1 print per week.
- Isaac Olowolafe Jr. Digital Media Experience Lab
  - SLC 308.
  - 3D printing is free at the DME.
- <https://library.ryerson.ca/dmelab/3d-printing-faq/>

# Help and Advice

- The Engineering Support staff is here to help if you need help with test equipment.
- We can offer advice but we won't do the project for you.
- <https://www.ee.ryerson.ca/~jkoch/links.html>
- <https://www.ee.ryerson.ca/~jkoch/manuals.html>
- <https://www.ee.ryerson.ca/~jkoch/safety.html>

# Thank You