

Some of the Lab 8/11/12 parts will be distributed in the first batch. Come see me if you want the parts before then. In particular, each group of two will get (to keep):

- 1- 78M05 0.5 amp +5V regulator [Jameco 192233] (78m05.pdf) \$0.17
- 1- JACK DC Power MALE 2.1mm [Jameco 101179] (2.1mmJack.pdf) \$0.55
- 3- resistor 1/6W 5% [Digikey 2.7KEBK-ND] \$0.01247
- 6- resistor 1/8W 5% 10K OHM [Jameco 108126] \$0.0069
- 1- resistor 1/8W 5% 10M OHM [Jameco 108274] \$0.0069
- 2- CAP CERM DISC 22pF 50V 20% [ Jameco 15405, Digikey P4841-ND ] \$0.054
- 1- 52 pin PLCC socket [Jameco 72442] (Plcc.pdf) \$0.99
- 1- 28 pin machine-pin IC socket \$0.64
- 1- 8 MHz crystal [Jameco P/N 14728]
- 2- 0.47 uF Tantalum 35V 10% caps [Jameco 33531, 332137] (0.1in footprint) (tantalumCap.pdf) \$0.17
- 4- 0.1uF ceramic capacitors, bypass cap for each chip, (0.1in footprint) \$0.05
- 3- B3F tactile push button switch (B3f-1059.pdf) [Digikey SW405-ND] \$0.135
- 3- 1.6V 1mA HLMP-D150 LED (LEDHLMP-D150.pdf Digikey 516-1323-ND) \$0.27
- 1- 5 pin, 3" jumpers with matching pcb mount, All Electronics CON-55, \$1.35
- 1- 2-pin header with 2-pin jumper
- 1- Black test point [Digikey 5001K-ND] \$0.29
- 1- Red test point [Digikey 5000K-ND] \$0.29
- 2- Orange test points [Digikey 5003K-ND] \$0.29

You can have additional switches, test points, PN2222A, 74HC595, 15k, 10k, 1k, 220 ohm, connectors, low current Red/Yellow/Green LEDs and high power Red/Yellow/Green/Orange/Blue LEDs after the boards come in, and you are ready to solder. I have 14-pin and 16-pin SIP sockets for the LCD display. Please consider the mechanical configuration during Lab 8 if you plan to use a LCD. I.e., you should collect all the connectors and sockets and attach them to your Lab 8 mockup. The statically sensitive parts will also be given later.

- 1- MC68HC11E1CFN3 [Jameco#:248604] (M68hc11e.pdf, 6811techref.pdf) \$6.55
- 1- 28C64BL-12 120ns 8K by 8 EEPROM [Mouser 698-CAT28C64BL-12] (28C64B.pdf) \$2.45
- 1- MC34164-005 reset circuit (Mc34164.pdf, MC34164b.pdf) \$0.54
- 1- 74HC573 [Jameco 46076] (74hc573.pdf) \$0.32
- 1- 74HC138 [Jameco 45330 ] (74hc138.pdf) \$0.30

Jameco Order #: 14681137

- IC,7406 Jameco#:49091 Qty: 100 \$53.00
- @ RESISTOR,1/4W 5%,10K OHM,  
(SOLD IN BAGS OF 100) Jameco#:29911 Qty: 5 \$5.25
- @ RESISTOR,1/4W 5%,12K OHM,  
(SOLD IN BAGS OF 100) Jameco#:30074 Qty: 10 \$5.90
- @ RESISTOR,1/4W 5%,1.5K OHM,  
(SOLD IN BAGS OF 100) Jameco#:29760 Qty: 10 \$5.70
- IC,78M05  
Jameco#:192233 Qty: 50 \$9.50
- SOCKET,PLCC,52PIN,SOLDERTAIL  
Jameco#:72442 Qty: 50 \$34.00
- JACK,DC PWR,MALE,2.1mm,  
SE TERM,PC MOUNT Jameco#:101179 Qty: 50 \$22.00
- @ RESISTOR,1/8W 5%,10MEG OHM  
(SOLD IN BAGS OF 100) Jameco#:108274 Qty: 4 \$2.76
- @ RESISTOR,1/8W 5%,15K OHM  
(SOLD IN BAGS OF 100) Jameco#:108134 Qty: 8 \$5.52
- IC,MCU,MC68HC11E1CFN3,8-BIT  
PLCC-52,38 I/O,3MHZ Jameco#:248604 Qty: 50 \$435.00
- CRY,8MHz,50ppm,SERIES,  
4mW MAX,HC49/U,HC18/U Jameco#:14728 Qty: 100 \$31.00
- CAP,TANT,0.47UF,50V,10%  
Jameco#:332137 Qty: 200 \$52.80

IC,74HC573

Jameco#:46076 Qty: 50 \$15.60

IC,74HC138

Jameco#:45330 Qty: 50 \$13.75

Subtotal of Items: \$691.78

Extra stuff, Jameco

0- resistor 1/6W 5% 2K OHM [Jameco xxx] \$0.0069

0- resistor 1/6W 5% 220 OHM [Jameco xxx] \$0.0069

Extra stuff, Digikey

516-1326-ND LED 5MM 583NM YLW DIFF HLMP-4719 0.17300 (2mA)

516-1327-ND LED 5MM 565NM GRN DIFF HLMP-4740 0 0.17300 (2mA)

S7047-ND CONN HEADER FEMALE 14POS .1" GOLD EE345L 0 0.37000 (for LCD socket)

Dear Tony,

I would like to give away about \$3000 in parts to students in EE345L and EE319K this semester. This is a little lower than last semester, because I have some left over parts. In summary, I want

For EE345L

ExpressPCB \$1342.00 (In November)

Jameco \$ 199.40

Digikey \$ 323.57

All Electronics \$ 186.00

Mouser \$ 154.50

\$2205

For EE319K

Jameco \$132.76

Digikey \$260.70

Mouser \$196.00

\$589.46

ExpressPCB

22 orders at \$61 = \$1342

Fall 2008 order

**Jameco** (EE345L = \$227.65)(EE319K=\$132.76) Total \$360.41 Jameco Order #: 14889968

200- CAP CERM DISC 22pF 50V 20% [ Jameco 15405 ] \$10.80

100- 78M05 0.5 amp +5V regulator [Jameco 192233] \$17.00

100- JACK DC Power MALE 2.1mm [Jameco 101179] \$45.00

500- RESISTOR, 1/8W 5%,1K OHM, [Jameco 1849639], \$4.00

100- 52 pin PLCC socket [Jameco 72442] (Plcc.pdf) \$57.00

100- 0.47 uF Tantalum 35V 10% caps [Jameco 33531] \$34.60

50- 74HC573 [Jameco 46076] \$0.32 \$16.00

5- 74HC138 [Jameco 45330 ] (74hc138.pdf) \$15.00

200 1N914A, [Jameco 655269] \$3.00

25 MC34119P, 8-DIP, LP AUDIO AMP,500mW 316865 , \$25.25

200 7406 [ Jameco 49091] \$0.40

12 RESISTOR, 1/4W 5%, 220 OHM, Jameco 12 30471 \$7.56

10 RESISTOR, 1/4W 5%, 10K OHM, Jameco 10 29912 \$6.30

10 Resistor, 1/4W 5%, 12K ohm, Jameco 30075 \$6.50

10 Resistor, 1/4W 5%, 1.5K ohm, Jameco 29760 \$0.0057 each

1 0.1 uF capacitor ceramic Z5U Jameco 200 25523 \$0.04

**Digikey** (EE345L = \$414.47)(EE319K=\$260.70) Total \$675.17  
1000- B3F tactile push button switch [Digikey SW405-ND] \$121.50  
500- 1.6V 1mA HLMP-D150 LED (Digikey 516-1323-ND) \$135.00  
200- Black test point [Digikey 5001K-ND] \$58.70  
200- Red test point [Digikey 5000K-ND] \$58.70  
200- White test point [Digikey 5001K-ND] \$58.70  
1000 resistors- resistor 1/6W 5% 2.7K OHM [Digikey 2.7KEBK-ND] \$12.47  
1000- Red LEDs, T1 3/4, 20mA Digikey 160-1087-ND \$46.40  
1000- Yellow LEDs, T1 3/4, 20mA Digikey 160-1088-ND \$46.40  
1000- Green LEDs, T1 3/4, 20mA Digikey 160-1089-ND \$46.40  
25- AD623ANZ-ND IC INSTRUMENT AMP R-R 5V 8-DIP \$90.90

**All Electronics** (EE345L = \$186.00)

135- 5 pin, 3" jumpers with matching pcb mount, All Electronics CON-55, \$1.35  
100- 2pin SBC-2, \$27  
100- 2pin SBH-2, \$10  
100- 2-pin SJ-1 jumper, \$14

**Mouser** (EE345L = \$154.50) (EE319K=\$196.00) Total \$350.50

50 698-CAT28C64BL-12 Catalyst PDIP-28 (8x8) 64K 5V 120ns - 122.50  
50- 863-MC34164P-5RPG reset circuit \$32  
200- 30mm slide pot, Alpha RA300BF-10-20D1-B54 Mouser# 312-9100F-50K, \$196.00