



Electrical and  
Computer  
Engineering

ECE Second-year  
Tools and Parts Kit

Student Name: \_\_\_\_\_

E-mail: \_\_\_\_\_



**a place of mind**

**THE UNIVERSITY OF BRITISH COLUMBIA**

List of items included in the ECE Second-year Tools and Parts Laboratory Kit:

Table 1

| Item # | Quantity | Manufacturer                     | Manufacturer Part Number | Description   |
|--------|----------|----------------------------------|--------------------------|---|
| 1      | 2        | Circuit-Test                     | MB-830 / MB-102          | Breadboard, 95x183mm, 830 Holes   |
| 2      | 1        | RP Electronics                   | BR1                      | Solderable Breadboard - 47 x 179mm, 830 points                                      |
| 3      | 1        | Circuit-Test                     | CT-160                   | Wire Stripper   |
| 4      | 1        | Circuit-Test                     | ST-2 or CT-120           | Long Nose Pliers  |
| 5      | 1        | Circuit-Test                     | CT-DRIVER                | Pocket Screwdriver - Phillips #0  |
| 6      | 1        | Circuit-Test                     | CT-140                   | Shear Cutter 5"   |
| 7      | 3        | Circuit-Test                     | 150-310W                 | HOLDER BATTERY 1CELL AA 6"LEAD  |
| 8      | 1        | CUI Inc.                         | PJ-102A                  | CONN PWR JACK 2X5.5MM SOLDER  |
| 9      | 1        | RP Electronics                   | 370-213-2                | Red & Black Banana plugs  |
| 10     | 1        | RP Electronics                   | 33-412-1                 | Red Alligator clip  |
| 11     | 1        | RP Electronics                   | 33-411-1                 | Black Alligator clip  |
| 12     | 5        | Vishay/Draloric/BC Components    | K102K15X7RF53H5G         | K 50V 1NF 10% X7R BULK GREEN AUT  |
| 13     | 5        | TDK Corporation                  | FA18COG2A103JRU06        | CAP CER 10NF 100V COG/NPO RADIAL  |
| 14     | 10       | KEMET                            | C322C104J5R5TA           | CAP CER 0.1UF 5% 50V X7R RADIAL   |
| 15     | 5        | Murata Electronics               | RDER71H105K2M1H03A       | CAP CER 1UF 50V X7R RADIAL  |
| 16     | 2        | Nichicon                         | UVR1V221MPD              | 220 µF 35 V Aluminum Electrolytic Capacitor   |
| 17     | 2        | KEMET                            | ESK107M025AE3EA          | CAP ALUM 100UF 20% 25V RADIAL   |
| 18     | 2        | Nichicon                         | UVR1E102MPD              | CAP ALUM 1000UF 20% 25V RADIAL  |
| 19     | 2        | Panasonic Electronic Components  | ECA-1EM100B              | CAP ALUM 10UF 20% 25V RADIAL  |
| 20     | 3        | Bourns Inc.                      | RLB1014-104KL            | INDUCTOR 100MH T/H RADIAL   |
| 21     | 3        | Texas Instruments                | TL081BCP                 | IC OPAMP JFET 1 CIRCUIT 8DIP  |
| 22     | 2        | Texas Instruments                | LM358P                   | IC - Op Amp - Dual 8-Dip  |
| 23     | 3        | Texas Instruments                | NE555 / LM555            | IC OSC SINGLE TIMER 8-DIP   |
| 24     | 1        | Murata Electronics North America | PV36W104C01B00           | TRIMMER 100K OHM 0.5W TH  |
| 25     | 1        | STMicroelectronics               | L7805CV                  | IC REG LDO 5V 1.5A TO220AB  |
| 26     | 5        | Micro Commercial Co              | 2N3906-AP                | TRANSISTOR PNP GP 40V TO92  |
| 27     | 5        | Micro Commercial Co              | 2N3904-AP                | TRANSISTOR NPN GP 40V TO92  |
| 28     | 4        | Onsemi                           | FQU13N06LTU-WS           | N-Channel 60 V 11A (Tc) 2.5W (Ta), 28W (Tc) I-PAK                                   |
| 29     | 4        | Onsemi                           | FQU8P10TU                | MOSFET P-CH 100V 6.6A IPAK  |
| 30     | 10       | RP Electronics                   | 1N4148-10                | 1N4148 - Diode Signal   |
| 31     | 2        | Vishay General Semiconductor     | 1N5226B-TR               | DIODE ZENER 3.3V 500MW DO35   |
| 32     | 5        | RP Electronics                   | 1N4742A-5                | 1N4742A - Zener Diode 12V 1W  |
| 33     | 10       | RP Electronics                   | 1N4007-10                | 1N4007 - Diode 1A 1000V   |
| 34     | 10       | Würth Elektronik                 | 151031SS04000            | LED RED DIFFUSED 3MM ROUND T/H  |
| 35     | 2        | RP Electronics                   | ICSM-8                   | DIP SOCKET, 8POS, VERTICAL THD, 2.54MM  |
| 36     | 1        | RP Electronics                   | GB-401                   | Resistor Kit, 1/4W, 5%, 10pcs of ea: 10, 51, 100, 1k, 2k, 3k, 3.9k, 5.1k, 10k, 100k |
| 37     | 1        | Uline                            | S-7022                   | Safety Glasses over prescription Glasses  |
| 38     | 1        | Circuit-Test                     | MB-968                   | JUMPER WIRE M TO F 200mm 24AWG - 20 wire  |
| 39     | 1        | Circuit-Test                     | MB-966                   | JUMPER WIRE M TO M 200mm 24AWG - 20 wire  |
| 40     | 1        | Circuit-Test                     | 10-HS22K6-25             | 22AWG Solid Hookup Wire kit w/ dispenser  |
| 41     | 1        | Circuit-Test                     | SR-360                   | Lead Free Silver Solder - 1.0mm, 12g Tube   |
| 42     | 1        | CTS Electrocomponents            | 206-4                    | SWITCH SLIDE DIP SPST 50MA 24V  |
| 43     | 2        | Panasonic Electronic Components  | EVQ-11U04M               | SWITCH TACTILE SPST-NO 0.02A 15V  |
| 44     | 4        | Texas Instruments                | CD74HC00E                | IC GATE NAND 4CH 2-INP 14-DIP   |
| 45     | 2        | Texas Instruments                | SN74HC04N                | IC HEX INVERTER 14-DIP  |
| 46     | 1        | Texas Instruments                | CD74HC173E               | IC FF D-TYPE SNGL 4BIT 16DIP  |
| 47     | 1        | Circuit-Test                     | 150-901                  | STRAP BATT ECON 9V I STYLE 4"LD   |
| 48     | 1        | Circuit-Test                     | 10-HT22-BK/RD-2          | 2m of Red and Black 22 AWG (7 x 30) Stranded Wire                                   |