Resistors				Quantity
0	0603			
22	0603	22 Ohms ±1% 0.1W, 1/10W Chip Resistor 0603 (1608 Metric) Moisture Resistant Thick Film	RC0603FR-0722RL	
43.2	0603			
68.1	0603			
150	0603			
182	0603			
240	0603			
249	0603			
330	0603			
332	0603			
1k	0603			
1.91k	0603			
4.7k	0603			
10k	0603			
20.5k	0603			
23.7k	0603			
27.4k	0603			
34k	0603			
464k	0603			
0	0805	0 Ohms Jumper Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805ZT0R00	
330	0805	330 Ohms ±1% 0.25W, 1/4W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200, Moisture Resistant Thick Film	RK73H2ATTD3300F	
1k	0805	1 kOhms ±5% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805JT1K00	
1.5k	0805	1.5 kOhms ±1% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805FT1K50	
2.2k	0805	2.2 kOhms ±5% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805JT2K20	
5.1k	0805	5.1 kOhms ±5% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805JT5K10	
10k	0805	10 kOhms ±5% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805JG10K0	
100k	0805	100 kOhms ±5% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805JT100K	
1M	0805	1 MOhms ±1% 0.125W, 1/8W Chip Resistor 0805 (2012 Metric) Automotive AEC-Q200 Thick Film	RMCF0805FG1M00	
Capacitors				Quantity
10 pF	0603	10 pF ±5% 50V Ceramic Capacitor C0G, NP0 0603 (1608 Metric)	0603N100J500CT	
22 pF	0603	22 pF ±5% 50V Ceramic Capacitor C0G, NP0 0603 (1608 Metric)	0603N220J500CT	
.001 uF	0805	1000 pF ±10% 50V Ceramic Capacitor X7R 0805 (2012 Metric)	CL21B102KBANNNC	
.01 uF	0603	10000 pF ±10% 16V Ceramic Capacitor X7R 0603 (1608 Metric)	C0603C103K4RAC7867	
.1 uF	0805	0.1 µF -20%, +80% 25V Ceramic Capacitor Y5V (F) 0805 (2012 Metric)	CL21F104ZAANNNC	
1 uF	0805	1 µF ±10% 50V Ceramic Capacitor X7R 0805 (2012 Metric)	CL21B105KBFNNNG	
4.7 uF	0805	4.7 µF ±10% 25V Ceramic Capacitor X5R 0805 (2012 Metric)	CL21A475KAQNNNE	
10 uF	0805	10 µF ±20% 50V Ceramic Capacitor X5R 0805 (2012 Metric)	GRM21BR61H106ME43L	
33 uF	0805	33 µF ±20% 10V Ceramic Capacitor X5R 0805 (2012 Metric)	C2012X5R1A336M125AC	
Voltage Regulators				Quantity
3.3 V	TO-252	Linear Voltage Regulator IC Positive Fixed 1 Output 1A TO-252-3	AZ1117CD-3.3TRG1	
3.3 V	SOT25	Linear Voltage Regulator IC Positive Fixed 1 Output 600mA SOT-25	AP2112K-3.3TRG1	
5 V	TO-252	Linear Voltage Regulator IC Positive Fixed 1 Output 1A TO-252	BD50FC0FP-E2	

5 V	SOT23-5	Linear Voltage Regulator IC Positive Fixed 1 Output 300mA SOT-23-5	TPS7A2050PDBVR	
Diodes				**Quantity**
N/A	DO-214AC (SMA)	Diode 40 V 5A Surface Mount DO-214AC (SMA)	CDBA540-HF	
N/A	SOT23-3 (TO-236)	Diode Array 1 Pair Series Connection 30 V 200mA (DC) Surface Mount TO-236-3, SC-59, SOT-23-3	BAT54SLT1G	
TVS DIODE	SOT-143-4	8.5V Clamp Ipp Tvs Diode Surface Mount SOT-143-4	SP0503BAHTG	
Zener Diode	DO-214AA, SMB	Zener Diode 5.6 V 3 W ±5% Surface Mount SMB	1SMB5919BT3	
LED (Red)	1206	Red 638nm LED Indication - Discrete 1.8V 1206 (3216 Metric)	LTST-C150CKT	
MOSFET, Op Amp, & Misc. Components				**Quantity**
Comparator	8SOIC	IC COMP DUAL OFFSET LV 8SOIC	LM393DR2	
Timer	8SOIC	555 Type, Timer/Oscillator (Single) IC 2.7MHz 8-SOIC	TL555CDT	
Fuse		2 A 125 V AC 125 V DC Fuse Board MountSurface Mount 2-SMD, Square End Block	0451002.MRL	
Ferrite Bead	805	40 Ohms @ 100 MHz 1 Power, Signal Line Ferrite Bead 0805 (2012 Metric) 2A 50mOhm	MI0805K400R-10	
IC OP AMP	8-SOIC	General Purpose Amplifier 2 Circuit Rail-to-Rail 8-SOIC	LMV922MX	
OP AMP	8SOIC	General Purpose Amplifier 1 Circuit 8-SOIC	UA741CDT	
SS8050-G	SOT-23-3	Bipolar (BJT) Transistor NPN 25 V 1.5 A 100MHz 300 mW Surface Mount SOT-23-3	SS8050-G	
IC Gate Driver	8-TSSOP, 8-MSOP E-Pad	Low-Side Gate Driver IC Non-Inverting 8-HVSSOP	UCC27324DGNRG4	
Transistor Driver	8-TSSOP, 8-MSOP	Boost, Flyback, Forward Converter Regulator Controller IC	UCC25705DGKTR	
MOSFET N-CH	SOT23	N-Channel 30 V 5.3A (Ta) 1.3W (Ta) Surface Mount Micro3™/SOT-23	IRLML0030TRPBF	
MOSFET N-CH	SOT-23-3	N-Channel 60 V 115mA (Tc) 200mW (Ta) Surface Mount SOT-23-3	2N7002MTF	
MOSFET N-CH	8SOIC	N-Channel 30 V 12.5A (Ta) 2.5W (Ta) Surface Mount 8-SOIC	FDS6680A	
MOSFET N-CH	D-Pak	N-Channel 150 V 18A (Tc) 110W (Tc) Surface Mount D-Pak	IRFR18N15DPBF	
MOSFET N-CH	SO-8	N-Channel 150 V 4A (Ta) 1.9W (Ta) Surface Mount PowerPAK® SO-8	SI7846DP-T1	
MOSFET N-CH	SOT-223	N-Channel 55 V 2A (Ta) 1W (Ta) Surface Mount SOT-223	IRLL014NTRPBF	
MOSFET P-CH	SOT23	P-Channel 20 V 4.3A (Ta) 800mW (Ta) Surface Mount SOT-23-3	DMP2045U-7	
Planar Transformer		Np:Ns1:Ns2=12T:3T:3T Np=240µH±30% Lk=0.5µH Np=80 Ns1,Ns2 =20 fig2	SMTER15-12T6CT	
Planar Transformer		Np:Ns1:Ns2=12T:3T:3T Np=240µH±30% Lk=0.5µH Np=80 Ns1,Ns2 =20 fig3	SMTER19	
Microcontrollers				**Quantity**
ATmega328p	32-TQFP	AVR AVR® ATmega Microcontroller IC 8-Bit 20MHz 32KB (16K x 16) FLASH 32-TQFP (7x7)	ATMEGA328P-AUR	
ESP32-S3-WROOM	41-SMD Module	Bluetooth, WiFi 802.11b/g/n, Bluetooth v5.0 Transceiver Module 2.4GHz PCB Trace Surface Mount	ESP32-S3-WROOM-1-N16	
STM32F401RBT6	64-LQFP	ARM® Cortex®-M4 STM32F4 Microcontroller IC 32-Bit Single-Core 84MHz 128KB (128K x 8) FLASH 64-LQFP (10x10)	STM32F401RBT6	
STM32F103C8	48-LQFP	ARM® Cortex®-M3 STM32F1 Microcontroller IC 32-Bit Single-Core 72MHz 64KB (64K x 8) FLASH 48-LQFP (7x7)	STM32F103C8T6TR	
ATmega32u4	44-TQFP	AVR AVR® ATmega Microcontroller IC 8-Bit 16MHz 32KB (16K x 16) FLASH 44-TQFP (10x10)	ATMEGA32U4-AUR	
Micro USB-B Connector	N/A	USB - micro B USB 2.0 Receptacle Connector 5 Position Surface Mount, Right Angle; Through Hole	10118194-0001LF	
Headers, Connectors, Switches and Test Points				**Quantity**
4 Position Female Dupont	N/A	4 Position Header Connector 0.100" (2.54mm) Through Hole Tin	PPTC041LFBN-RC	
3 Position Female Dupont	N/A	3 Position Header Connector 0.100" (2.54mm) Through Hole Gold	PPPC031LFBN-RC	
3x2 Programming Header	N/A	Connector Header Through Hole 6 position 0.100" (2.54mm)	61200621621	
5x2 Programming Header	N/A	Connector Header Through Hole 10 position 0.100" (2.54mm)	302-S101	
Edge Launch SMA Connector	N/A	SMA Connector Jack, Female Socket 50 Ohms Board Edge, End Launch Solder	SMA-J-P-H-ST-EM1	
2 position terminal block (15A)	N/A	2 Position Wire to Board Terminal Block Horizontal with Board 0.200" (5.08mm) Through Hole	1715721	
Switch Tactile	N/A	Tactile Switch SPST-NO Top Actuated Surface Mount	PTS645SL43SMTR92 LFS	
PC TEST POINT MULTIPURPOSE	N/A	Yellow PC Test Point, Multipurpose Phosphor Bronze Silver Plating Through Hole Mounting Type	5014	

PC TEST POINT MULTIPURPOSE	N/A	Orange PC Test Point, Multipurpose Phosphor Bronze Silver Plating Through Hole Mounting Type	5013	
PC TEST POINT MULTIPURPOSE	N/A	White PC Test Point, Multipurpose Phosphor Bronze Silver Plating Through Hole Mounting Type	5012	
PC TEST POINT MULTIPURPOSE	N/A	Black PC Test Point, Multipurpose Phosphor Bronze Silver Plating Through Hole Mounting Type	5011	
PC TEST POINT MULTIPURPOSE	N/A	Red PC Test Point, Multipurpose Phosphor Bronze Silver Plating Through Hole Mounting Type	5010	

**The E-Shop also has a wide variety of the following Surface Mount components that may be picked up without TA approval.

1206 Resistors (.18Ω-681kΩ)

1206 and larger capacitors. Wide variety of values

1008CS Chip Inductors (10-8200 nH)

0603CS Chip Inductors (1.6-39nH)

Micro Air Core Inductors 0906/1606 (1.65-12.55 nH)

1812CS Chip Inductors (1-33µH)

Maxi Air Core Inductors 132xxSM (90-538nH)

Midi Air Core Inductors 1812SMS (22-150nH)

Mini Air Core Inductors AxxT/BxxT (2.5-43nH)

Low Profile Mini 1508/2508 (5.5-27nH)

080xSQ/0908SQ Air Core Inductors (3.5-27.3nH)

1111SQ Air Core Inductors (27-47nH)

1515SQ/2222SQ/2929SQ Air Core Inductors (47-500nH)

PWB Wideband Transformers (1, 1.5, 2, 4, and 16 to 1)

P3LP/P7LP Series Low-Pass LC Filter Modules (0.30-500 MHz)

Miscillaneous Planar Transformers

The Student Self Service inventory list can be found on the E-Shop Webpage https://ece.illinois.edu/about/eshop. These drawers contain various through hole components (resistors, capacitors, diodes, etc.), IC's, a variety of Surface Mount Components, and various other components that may be useful for your projects.