

	Quantity	Unit Price	Total Price	Vendor	Link
<u>All semester</u>					
Raspberry Pi Pico	100	5.67	567	Digikey	Here
Plug-plug header pins (1x20)	250	0.43976	109.94	Digikey	Here
Breadboards	100	4.76	476	Adafruit via Digikey	Here
Helping hands	10	5.4	54		Here
Micro USB (A to Micro B)	100	2.06	206	Digikey	Here
Pushbuttons packs	10	4.95	49.5	Adafruit	Here
USB to UART converter	100	7.96	796	Adafruit	Here
MM Jumper	100	1.95	195	Digikey	Here
MF Jumper	100	1.95	195	Digikey	Here
FF Jumper	100	1.95	195	Digikey	Here
Solder	10	11.59	115.9	Amazon	Here
VGA cords	50	5.49	274.5	Amazon	Here
VGA screen (640x480)	50	69.99	3500	Amazon	Here
330 Ohm resistors	3	0.1	0.3	Digikey	Here
470 Ohm resistors	100	0.02	2.17	Digikey	Here
USB port expanders	25	6.36	159	Amazon	Here
Debugger	50	12	600	Digikey	Here
Cardboard boxes (14x4x4)	100	1.46	146	Uline	Here
ESD bags	100	0.16	16	Digikey	Here
22 AWG solid-core wire	1000'	95.95	95.95	Digikey	Here
Half-sized protoboard	50	4.5	225	Adafruit	Here
Full-sized prototboard	25	10.95	273.75	Adafruit	Here
<u>Cricket chirp synchronization lab</u>					
MCP 4822 DAC	50	3.5935	179.675	Digikey	Here
Audio sockets	100	0.7568	75.68	Digikey	Here
AUX cables	100	4.35	435	Digikey	Here
Speakers	50	14.99	749.5	Amazon	Here
Microphones	100	6.95	695	Adafruit	Here
<u>Boids animation lab</u>					
N/A (uses materials from all semester)					
<u>Galton Board animation lab</u>					

10k trimpot	100	1.25	125	Adafruit	Here
Inverted pendulum reaction wheel lab					
3D printed wheel (custom 3D print, contact for STL)	50	x	x	x	Here
Lasercut acrylic pendulum arm	50	x	x	x	Here
4N35 opto iso (x2)	200	0.3532	70.64	Digikey	Here
Quik grip clamps 4 pack	13	31.97	415.61	Amazon	Here
330 Ohm (x2)	5	0.1	0.5	Digikey	Here
1 MOhm (x2)	2	0.1	0.2	Digikey	Here
10 kOhm (x2)	2	0.1	0.2	Digikey	Here
LM9110 H-bridge	100	1.5	150	Adafruit	Here
Geared motor	50	5.5	275	SparkFun	Here
MPU 6050 IMU	50	12.95	647.5	Adafruit	Here
0.1 uF	5	0.9	4.5	Digikey	Here
Qwic breakout	50	1.6	80	Sparkfun	Here
Brotex beams pices 500 pieces	8	39.99	319.92	Amazon	Here
M3 socket head screw (packs of 50)	4	13.16	52.64	McMaster	Here
M3 wing nuts (packs of 25)	8	9.72	77.76	McMaster	Here
10-32 hex nuts (packs of 100)	2	2.08	4.16	McMaster	Here
10-32 screws (packs of 10)	20	6.34	128.8	McMaster	Here
Nylon plastic washers (packs of 100)	2	4.62	9.24	McMaster	Here
10-32 wing nuts (packs of 100)	2	16.49	32.98	McMaster	Here
M2.5 screws (packs of 50)	4	7.52	30.08	McMaster	Here
M2.5 nuts (packs of 100)	2	3.9	7.8	McMaster	Here
TT wheel (packs of 2)	30	3.5	105	Sparkfun	Here
PID control of 1D helicopter lab					
Lasercut acrylic arm	50	x	x	x	Here
4N35 opto iso	200	0.3532	70.64	Digikey	Here
Quik grip clamps 4 pack	13	31.97	415.61	Amazon	Here
330 Ohm	5	0.1	0.5	Digikey	Here
1 MOhm	2	0.1	0.2	Digikey	Here
10 kOhm	2	0.1	0.2	Digikey	Here
0.1 uF	5	0.9	4.5	Digikey	Here
MPU 6050 IMU	50	12.95	647.5	Adafruit	Here

Qwic breakout	50	1.6	80	Sparkfun	Here
M2.5 screws (packs of 50)	4	7.52	30.08	McMaster	Here
M2.5 nuts (packs of 100)	2	3.9	7.8	McMaster	Here
No. 4 wood screw	2	4.86	9.72	McMaster	Here
Mortise-Mount Hinge	1	1.8	1.8	McMaster	Here
Split lock washer	2	3.17	6.34	McMaster	Here
Ducted fan	50	8.8	440	AliExpress	Here
Solderboard	50	1.35	67.5	Electronix Express	Here
Power NFET	50	1.57	78.5	Digikey	Here
1N4001 diode	50	0.07	3.5	Digikey	Here
TO-220 heatsink	100	0.34	34	Digikey	Here
6-pin PDIP	120	0.257	30.84	Digikey	Here
SPDT slide switch	100	0.95	95	Adafruit	Here
Screw terminals	100	0.39	39	Digikey	Here
Wooden blocks	10	11.74	117.4	Amazon	Here
Birdsong synthesizer lab					
MCP 4822 DAC	50	3.5935	179.675	Digikey	Here
Audio sockets	100	0.7568	75.68	Digikey	Here
AUX cables	100	4.35	435	Digikey	Here
Speakers	50	14.99	749.5	Amazon	Here
3x4 phone-style matrix keypad	50	8.5	425	Adafruit	Here
330 Ohm resistors	4	0.1	0.4	Digikey	Here