2024 Workforce Development for Teachers and Scientists (WDTS) Pathway Summer Institute (PSI)
Sensor Labs - Bill of Materials (BOM)

Vendor	Part #	Description	Unit Cost	Specific Lab
Adafruit	5905	Proto Under Plate PiCowBell for Pico - Reset Button & STEMMA QT	$ 4.50	
Adafruit	5477	Adafruit ESP32-S3 Feather with 4MB Flash 2MB PSRAM - STEMMA QT	$ 17.50	
Adafruit	5525	Raspberry Pi Pico H - Pico with Headers Soldered	$ 5.00	
Adafruit	4254	Quad Side-By-Side FeatherWing Kit with Headers	$ 9.95	
Adafruit	2830	Stacking Headers for Feather - 12-pin and 16-pin female headers	$ 1.13	
Adafruit	328	Lithium Ion Polymer Battery - 3.7v 2500mAh	$ 14.95	
Adafruit	3064	JST 2-pin Extension Cable with On/Off Switch for LiPo Battery	$ 2.95	
Adafruit	3650	INA219 FeatherWing (Current Sensor)	$ 7.95	Ohm's Law
Adafruit	4650	FeatherWing OLED - 128x64 OLED Add-on For Feather	$ 14.95	
Adafruit	3632	Joystick FeatherWing for all Feathers	$ 9.95	
Adafruit	4022	Triple-axis Magnetometer - MLX90393 - 50 mT - 16 bit	$ 9.95	Magnetometer
Adafruit	5640	Si5351A Clock Generator with STEMMA QT - 8KHz to 160MHz	$ 7.95	Wave Generator
Adafruit	367	Tactile Button Switch (6mm) x 20 pack	$ 2.50	
Adafruit	1312	Breadboard-friendly RGB Smart NeoPixel (4 Pcs)	$ 7.95	
Adafruit	935	MCP4725 12-Bit DAC with STEMMA QT	$ 4.46	LED Energy
Adafruit	5384	STEMMA QT / Qwiic JST SH 4-Pin Cable - 300mm long	$ 1.25	
Adafruit	5018	Premium Female/Male 'Extension' Jumper Wires - 10 x 12" (300mm)	$ 1.76	
Adafruit	756	NPN Bipolar Transistors - PN2222 - (10 Pcs)	$ 1.95	Transistors in Action
Adafruit	550	Little Rubber Bumper Feet - (4 Pcs)	$ 0.95	
Adafruit	4754	9-DOF IMU Fusion BNO085 STEMMA QT	$ 24.95	Interial Measurement
Adafruit	2928	8-Channel PWM or Servo FeatherWing	$ 9.95	Interial Measurement
Adafruit	1143	Micro Servo - MG90D High Torque Metal Gear	$ 9.95	Interial Measurement
Adafruit	2922	Adalogger FeatherWing - RTC + SD Add-on - $8.95 - ID 2922	$ 8.95	Weather Station
Adafruit	5046	BME688 - PHT and Gas Sensor - STEMMA QT	$ 19.95	Weather Station
Adafruit	3133	Ultimate GPS FeatherWing	$ 24.95	Weather Station
SparkFun	15217	SparkFun LiPo Charger Plus	$ 11.50	
Amazon	B07JDGJ3QN	Unbreakable N52 Neodymium Magnets 2x1x1/2" - Plastic Coated	$ 18.58	Magnetometer
Amazon	B0797NRXZY	LiCB CR1220 3V Lithium Battery (10 Pcs)	$ 5.99	
Amazon	B00KLDQ0YG	Colorful Square Tactile Button Switch Assortment (15 Pcs)	$ 9.00	
Amazon	B07WF76VHT	QTEATAK 20 Pcs 6mm 2 Pin Momentary Push Button (20 Pcs)	$ 5.99	
Amazon	B073QMYKDM	DiCUNO 450pcs (5 Colors x 90pcs) 5mm LED White/Red/Yellow/Green/Blue	$ 11.99	
Amazon	B09154XMGS	AITRIP AD9833 Sine Square Wave DDS Signal Generator (4 Pcs)	$ 16.99	Wave Generator
Amazon	B07QG1VL1Q	EDGELEC 100 ohm Resistor 1/2w ±1% Tolerance (100 Pcs)	$ 5.99	
Amazon	B07QJB31M7	EDGELEC 10K ohm Resistor 1/2w ±1% Tolerance (100 Pcs)	$ 5.99	
Amazon	B07PBQXQNQ	BOJACK 24 Value Electrolytic Capacitor Kit (40 Pcs of 10uF 25V)	$ 16.99	Decay Rates
Amazon	B00FZVPX10	IRIS USA Large Plastic Clear Box (13.5"L x 5.2"W x 2.5"H) (10 pcs)	$ 15.99	
Amazon	B07JLLTXQ9	GODSHARK Antistatic Bag (4 X 6 inches) Resealable (100 Pcs)	$ 9.99	
Amazon	B07TSFYXBC	CanaKit 3.5A Raspberry Pi 4 Power Supply (USB-C)	$ 9.99	
Amazon	B0BXCLHTVV	MESHA White Glossy Bracelet Boxes for Jewelry Gift 3.5x3.5x1'' (40 Pcs)	$ 22.99	Magnetometer
Amazon	B0040Z1ERO	BusBoard BB400 Solderless Plug-In BreadBoard	$ 6.75	
Amazon	B004W0MSWM	WeldingCity 10-pk Premium TIG Welding Tungsten Electrode Rod (10 Pcs)	$ 37.95	Geiger Counter
Amazon	B0749KGY81	3.3V Portable Geiger Counter	$ 58.99	Geiger Counter
Amazon	B00TYX5PHW	Specimen Density Set Cube (8 Pcs)	$ 37.49	Spectrophometry
Amazon	B0BKBYXKYR	Simply Tidy Photo Storage Box - Black (12 Pcs)	$ 52.82	Spectrophometry