	Item	Core SKU	Description
Required	Raspberry Pi Pico H (With Headers)	CE08702	The brains of the operation
	USB 2.0 Cable Type A to Micro B (1m)	CE09108	Can program the Pico, power it and get serial data if you're tethering it to a computer
	PiicoDev Atmospheric Sensor BME280	CE07503	Measures temperature, humidity, and barometric pressure
	PiicoDev Cable 50mm	CE07772	Male to Male 4-wire cable to connect Piicodev modules
	PiicoDev Expansion Board for Pico (Non-Recharging)	CE08677	Allows for easy interfacing of Piicodev modules with the Pico, can also accept power via its JST connector from a battery
Optional			
Battery Power			
	PiicoDev LiPo Expansion Board for Raspberry Pi Pico	CE07693	Similar to the non-recharging varient, but will allow for the battery to be charged when the Pico is powered from another source
	Makerverse Nano Power Timer HAT for Raspberry Pi Pico	CE08492	Periodically cycles power to the Pico, allows for a single cell LiPo battery to be used for power, can also charge the battery when the Pico is powered from another source.
	Polymer Lithium Ion Battery (LiPo) 3.7V 120mAh	CE04374	LiPo battery, this can be charged by both the Makerverse Nano timer hat and the Piicodev LiPo expansion board, this is the smallest capacity option 400, 1100, 2000, 2400, 4400 and 6000mAh options are available
Solar			
	Monocrystalline Solar Panel (5V 1A)	FIT0601	Solar panel with built in 5V regulator
	5V 0.3W Mini Solar Panel - ETFE - Voltaic P122	ADA5855	Unregulated solar panel, you will need a controller to not damage the other electronics, you will also need to solder wire to the pads to get power out.
	Sunflower: Solar Power Manager 5V	DFR0559	Solar power management board, allows for 4.5 - 6V input from a solar panel either via Micro USB or wires, with options to charge a single cell LiPo and also to output 5V via USB.
Sensors			
	PiicoDev Air Quality Sensor ENS160	CE08560	Measures Volatile Organic Compounds (VOCs), Equivalent CO2 (eCO2) and Air Quality Index (AQI-UBI)
	PiicoDev Ambient Light Sensor VEML6030	CE07692	Measure the intensity of ambient light.
	Gravity: Tipping Bucket Rainfall Sensor	SEN0575	Measures rainfall
	Gravity: Lightning Sensor	SEN0290	Detects Lighting up to 40km away, can also detect approx how far the storm is away
DIY Sensors			
Anemometer			
	A3213 Hall Effect Sensor	014-A3213EUA-T	Measures magnetic fields, we will pair it with a magnet on a spinning shaft to calculate windspeed
	Magnet Square - 0.125"	COM-08644	Small rare earth magnet
	1611 Series Flanged Ball Bearing (6mm ID x 14mm OD, 5mm Thickness) - 2 Pack	GB-1611-0514-0006	6mm ID flanged bearing
	2100 Series Stainless Steel Round Shaft (6mm Diameter, 50mm Length)	GB-2100-0006-0050	6mm OD steel shaft 50mm length
Wind Direction			
	PiicoDev Magnetometer QMC6310	CE07937	Measures magnetic fields, intented use will be wind direction.
	Magnet Square - 0.125"	COM-08644	Small rare earth magnet
	1611 Series Flanged Ball Bearing (6mm ID x 14mm OD, 5mm Thickness) - 2 Pack	GB-1611-0514-0006	6mm ID flanged bearing
	2100 Series Stainless Steel Round Shaft (6mm Diameter, 50mm Length)	GB-2100-0006-0050	6mm OD steel shaft 50mm length
Rainfall Sensor			
	A3213 Hall Effect Sensor	014-A3213EUA-T	Measures magnetic fields, we will pair it with a magnet on the side of a 3D printed bucket to determine rainfall
	Magnet Square - 0.125"	COM-08644	Small rare earth magnet
	1611 Series Flanged Ball Bearing (6mm ID x 14mm OD, 5mm Thickness) - 2 Pack	GB-1611-0514-0006	6mm ID flanged bearing
	2100 Series Stainless Steel Round Shaft (6mm Diameter, 50mm Length)	GB-2100-0006-0050	6mm OD steel shaft 50mm length