

270-1789 VEX AE Cortex Kit vs 270-7789 VEX AE V5 Kit vs 270-7248 V5 AE Upgrade Kit Comparison

Part #	Item Description	PLTW VEX Custom AE Kit - Cortex (part# 270-1789)	PLTW VEX V5 AE Custom Kit (part# 270-7789)	PLTW VEX V5 AE Custom Upgrade Kit (part# 270-7248)
276-4810	V5 Robot Brain		1	1
276-2194	Cortex Robot Brain	1		
276-4840	V5 Smart Motor		5	5
276-2177	Cortex Motor 393	5		
276-4811	V5 Brain Battery		1	1
276-1456	Cortex 7.2V Robot Brain Battery 2000mAh	1		
276-4831	V5 Robot Radio		1	1
276-3245	Cortex VEXnet Key 2.0	2		
276-4820	V5 Controller		1	1
276-2192	Cortex Controller	1		
276-4812	V5 Robot Battery Charger		1	1
276-2520	Cortex Smart Charger v2	1		
276-4852	V5 Distance Sensor*		1	1
276-7043	V5 Optical Sensor**		1	1
276-6364	V5 Smart Cables (Starter Pack)		1	2
USB	USB Cable	2	2	1
228-3510	Rubber Shaft Collar (30-Pack)		1	
276-6481	1-Post Hex Nut Retainer w/ Bearing Flat (10-pack)		1	
276-6482	1-Post Hex Nut Retainer (10-pack)		1	
276-2156	Optical Shaft Encoder	1		
276-2154	Line Tracker	1		
276-2158	Light Sensor	1		
276-2155	Ultrasonic Range Finder	1		
276-2193	Cortex Motor Controller 29	5		
276-2332	Analog Accelerometer v1.0	1		
276-2186	Programming Hardware Kit	1		
276-2210	Flashlight	1		
276-1622	8-Bay Battery Charger	1		
276-1696	AAA NiMH Rechargeable Battery (6-pack)	1		
276-2243	VEXnet Backup Battery Holder	1		
276-2520	Power Cord - North America	1		
<i>The items below are all in both the AE Cortex and the AE V5 Full Kits (not in upgrade kit)</i>				
275-1030	3/32" Hex Key (8-pack)	1	1	
275-1031	5/64" Hex Key (8-pack)	1	1	
276-1395	3-Wire Extension Cables (Small Bundle)	1	1	
276-1424	3-Wire Extension Cables (Large Bundle)	1	1	
276-2162	3-Wire Servo	1	1	
276-2174	Limit Switch (2-pack)	1	1	
276-2184	Advanced Gear Kit	1	1	
276-2216	Potentiometer (2-pack)	1	1	
276-4858	Bumper Switch v2 (2-pack)	1	1	
276-2176	LED Indicator Pack	1	1	
276-2166	Sprocket & Chain Kit (276-2166,6557)	1	1	

276-2168	Tank Tread Kit (276-2168, 6558)	1	1	
276-1149	Drive Shaft 12" (4-pack)	1	1	
276-1496	2.75" Wheel (4-Pack)	1	1	
276-2232	Booster Kit	1	1	
276-6929	Clawbot Kit, No Motors	1	1	

*The V5 Distance Sensor is a new sensor that provides a laser based rangefinder

**The V5 Optical Sensor is a new sensor that can detect colors, grayscale, and proximity

Note: Kit Contents Shown Above Effective 1/4/2021