

Union College Robotics Crew 2018-2019 Parts List

TEAM 1

QTY	ITEM(S) ORDERED	UNIT PRICE	TOTAL
1	Teensy USB Board, Version 3.6 https://www.pjrc.com/store/teensy36.html	\$29.25	\$29.25
1	Adafruit Feather nRF52 Bluefruit LE - nRF52832 https://www.adafruit.com/product/3406?gclid=EAlaIqobChMlisGuzLI3QIVeIuGCh2bjQuMEAAAYASAAEgK7kvD_BwE	\$24.95	24.95
8	Analog IR Sensors (2-15cm) https://www.pololu.com/product/2450	\$11.23	89.84
1	Mini Slide Switch: 3-Pin, SPDT, 0.3A (3-Pack) https://www.pololu.com/product/1408	\$1.25	1.25
2	Half-Sized Breadboards https://www.digikey.com/products/en?mpart=64&v=1528	\$5.00	10.00
1	Tamiya 70145 Narrow Tire Set https://www.pololu.com/product/63	\$5.95	5.95
1	Tamiya 70097 Twin-Motor Gearbox Kit https://www.pololu.com/product/61	\$10.40	10.40
1	Encoder Pair for Tamiya Twin Motor Gearbox https://www.robotshop.com/en/encoder-pair-tamiya-twin-motor-gearbox.html	\$16.97	16.97
1	L298N MDV Dual 2A DC Motor Controller https://www.digikey.com/catalog/en/partgroup/l298n-mdv-dual-2a-dc-motor-controller/67069?utm_adgroup=Programmers%20Dev&slid=&gclid=EAlaIqobChMI7Oz08ZzK3QIVwouzCh0Pbg_WEAAYASAAEgIhFfD_BwE	\$3.33	3.33
1	Ball Caster Omni-Directional Metal https://www.sparkfun.com/products/320	5.95	5.95
1	Anker PowerCore 10000	\$29.99	\$29.99
1	USB 2.0 A to Mini 5 pin B Cable	\$5.89	\$5.89
2	Turnigy 2200mAh 3S 25C Lipo Pack https://hobbyking.com/en_us/turnigy-2200mah-3s-25c-lipo-pack.html	\$10.99	\$22
1	Teensy 3.x Feather Adapter https://www.adafruit.com/product/3200?gclid=EAlaIqobChMIm6_opoKJ3gIVjcDACH2ZgQhOEAYAYABEgLvD_BwE	\$5.95	5.95
		TOTAL	\$261.72

Team 2

Type	Part Number/Description	Link	Price	Quantity	Total
Microcontroller	Arduino Mega	Arduino	\$38.50	1	\$38.50
IR sensors	Sharp GP2Y0A51SK0F Analog Distance Sensor 2-15cm	pololu	\$11.23	5	\$56.15
IR sensor connectors	3-Pin Female JST ZH-Style Cable (30cm) for Sharp GP2Y0A51 Distance Sensors	pololu	\$0.89	1	\$8.90
DC Motor	30:1 Gear Motor (6V) with Extended Motor Shaft	pololu	\$16.95	3	\$50.85
Encoder	Magnetic Encoder Pair Kit, 12 CPR, 2.7-18V (HPCB compatible)	pololu	\$8.96	3	\$26.88
Battery	Turnigy 1000mAh 2S 30C Lipo Pack	hobbyking	\$6.95	2	\$13.90
Motor Driver Shield	Pololu DRV8835 Dual Motor Driver Shield	pololu	\$6.95	1	\$6.95
Velcro Tape	Self Adhesive Hook and Loop Tape roll	amazon	\$11.98	1	\$11.98
XT60 male-to-female	Nylon XT60 Connectors Male/Female	hobbyking	\$4.15	1	\$4.15
XT-60 to JST adapter	XT-60 to JST Charging Adapter (2pc)	hobbyking	\$2.14	2	\$4.28
Motor Brackets	Micro Metal Bracket	pololu	\$4.99	1	\$4.99
Chassis	Pololu 5" Robot Chassis RRC04A	pololu	\$7.95	1	\$7.95
Ball Caster	Pololu Ball Caster with 3/8" Metal Ball	pololu	\$1.99	1	\$1.99
Wheel	Pololu Wheel 32×7mm Pair	pololu	\$4.98	1	\$4.98
Competition Registration Fees		Brown IEEE Micromouse Competition		1	\$45
				Total	\$287.45

Team 3

Type	Part Number/Description	Link	Price	Note	Quantity	Total
Microcontroller	Arduino Micro	Pololu	\$24.95		1	\$24.95
IR sensors	Sharp GP2Y0A51SK0F Analog Distance Sensor 2-15cm	Pololu	\$7.95		5	\$39.75
IR sensor connectors	3-Pin Female JST PH-Style Cable (30 cm) with Male Pins for 0.1" Housings	Pololu	\$1.12		10	\$11.20
Stepper Motor	Stepper Motor: Bipolar, 200 Steps/Rev, 28×32mm, 3.8V, 0.67 A/Phase	Pololu	\$15.95		3	\$47.85
Dual Stepper Motor Driver Shield	Dual Step Motor Driver Shield For Arduino	Robotshop	\$12.80		1	\$12.80
Stepper Motor Driver Carrier	A4988 Stepper Motor Driver Carrier with Voltage Regulators	Pololu	\$9.95		3	\$29.85
Ball Caster	Pololu Ball Caster with 3/4" Metal Ball	Pololu	\$2.99		2	\$5.98
Battery	Turnigy 1500mAh 3S 20C Lipo Pack	Hobbyking	\$11.54	white plug (JST) for charging	2	\$23.08
XT60 male-to-female	Nylon XT60 Connectors Male/Female (5 pairs) GENUINE	Hobbyking	\$4.15	pack of 5	1	\$4.15
XT-60 to JST adapter	XT-60 to JST Charging Adapter (2pc)	Hobbyking	\$2.14	pack of 2	2	\$4.28
Mounting Hub	Pololu Universal Aluminum Mounting Hub for 5mm Shaft, #4-40 Holes (2-Pack)	Pololu	\$7.49	pack of 2	2	\$14.98
Wheel	Pololu Wheel for FEETECH FS90R/FT90R Micro Servo, 60×8mm Pair - Black	Pololu	\$4.75		2	\$9.50
Competition Registration Fees		Brown IEEE Micromouse Competition		fee per team	1	\$45
						\$273.37

Team 4

Type	Part Number/Description	Link	Price	Note	Quantity	Total
Microcontroller	Arduino Uno	pololu	\$24.95		1	\$24.95
IR sensors	Sharp GP2Y0A51SK0F Analog Distance Sensor 2-15cm	pololu	\$7.95		5	\$39.75
IR sensor connectors	3-Pin Female JST ZH-Style Cable (30cm) for Sharp GP2Y0A51 Distance Sensors	pololu	\$0.89		10	\$8.90
Stepper Motor	Stepper Motor: Bipolar, 200 Steps/Rev, 28×32mm, 3.8V, 0.67 A/Phase	pololu	\$15.95		3	\$47.85
Dual Stepper Motor Driver Shield	ITEAD Dual Step Motor Driver Shield Expansion Board Kit For Arduino - Red	itead	\$12.00		1	\$12.00
Ball Caster	Pololu Ball Caster with 3/4" Metal Ball	pololu	\$2.99		2	\$5.98
Battery	Turnigy 1500mAh 3S 20C Lipo Pack	hobbyking	\$11.54	white plug (JST) for charging	2	\$23.08
XT60 male-to-female	Nylon XT60 Connectors Male/Female (5 pairs) GENUINE	hobbyking	\$4.15	pack of 5	1	\$4.15
XT-60 to JST adapter	XT-60 to JST Charging Adapter (2pc)	hobbyking	\$2.14	pack of 2	2	\$4.28
Mounting Hub	Pololu Universal Aluminum Mounting Hub for 5mm Shaft, #4-40 Holes (2-Pack)	pololu	\$7.49	pack of 2	2	\$14.98
Wheel	Pololu Wheel for FEETECH FS90R/FT90R Micro Servo, 60×8mm Pair - Black	pololu	\$4.75		2	\$9.50
Competition Registration Fees		Brown IEEE Micromouse Competition		fee per team	1	\$45
						\$240.42