

# Aggie Robotics Parts List

## Microcontrollers

Item	Unit Price	Quantity	Total Price	Purchase Link
Adafruit Motor/Stepper/Servo Shield	\$17.96	20	\$359.20	<a href="https://www.adafruit.com/product/1438">https://www.adafruit.com/product/1438</a>
Arduino Uno	\$24.95	20	\$499.00	<a href="https://www.adafruit.com/product/50">https://www.adafruit.com/product/50</a>
Arduino Nano	\$3.95	40	\$158.13	<a href="http://amzn.to/2xFsVQf">http://amzn.to/2xFsVQf</a>

## Boards

Item	Unit Price	Quantity	Total Price	Purchase Link
Solderless Breadboard	\$4.76	100	\$476.00	<a href="https://www.adafruit.com/product/239">https://www.adafruit.com/product/239</a>
Solderless Breadboard with Power	\$19.95	5	\$99.75	<a href="https://www.adafruit.com/product/443">https://www.adafruit.com/product/443</a>
Universal Perfboard	\$4.46	50	\$223.00	<a href="https://www.adafruit.com/product/2670">https://www.adafruit.com/product/2670</a>

## Components

Item	Unit Price	Quantity	Total Price	Purchase Link
Resistor Kit	\$7.95	1	\$7.95	<a href="https://www.sparkfun.com/products/10969">https://www.sparkfun.com/products/10969</a>
Capacitor Kit	\$6.95	1	\$6.95	<a href="https://www.sparkfun.com/products/13698">https://www.sparkfun.com/products/13698</a>
LED Starter Kit	\$29.95	5	\$149.75	<a href="https://www.sparkfun.com/products/13234">https://www.sparkfun.com/products/13234</a>
Thumb Joystick	\$3.75	50	\$187.50	<a href="https://www.sparkfun.com/products/9032">https://www.sparkfun.com/products/9032</a>
Tactile Button Assortment	\$4.95	10	\$49.50	<a href="https://www.sparkfun.com/products/10302">https://www.sparkfun.com/products/10302</a>
Magnetic Door Switch Set	\$2.95	10	\$29.50	<a href="https://www.sparkfun.com/products/13247">https://www.sparkfun.com/products/13247</a>
Rocker Switch	\$0.50	50	\$25.00	<a href="https://www.sparkfun.com/products/11138">https://www.sparkfun.com/products/11138</a>
Discrete Semiconductor Kit	\$8.95	5	\$44.75	<a href="https://www.sparkfun.com/products/13682">https://www.sparkfun.com/products/13682</a>

Item	Unit Price	Quantity	Total Price	Purchase Link
8 pin socket (3 pack)	\$0.75	5	\$3.75	<a href="https://www.adafruit.com/product/2202">https://www.adafruit.com/product/2202</a>
16 pin socket (3 pack)	\$0.95	5	\$4.75	<a href="https://www.adafruit.com/product/2203">https://www.adafruit.com/product/2203</a>
28 pin socket (3 pack)	\$1.25	5	\$6.25	<a href="https://www.adafruit.com/product/2205">https://www.adafruit.com/product/2205</a>
40 pin socket (3 pack)	\$1.50	5	\$7.50	<a href="https://www.adafruit.com/product/2207">https://www.adafruit.com/product/2207</a>
Header Pins	\$0.50	50	\$25.00	<a href="https://www.adafruit.com/product/3002">https://www.adafruit.com/product/3002</a>
DC Motor	\$1.76	50	\$88.00	<a href="https://www.adafruit.com/product/711">https://www.adafruit.com/product/711</a>

## Tools

Item	Unit Price	Quantity	Total Price	Purchase Link
Ethernet Crimping Tool	\$16.59	3	\$49.77	<a href="http://amzn.to/2fvZc4k">http://amzn.to/2fvZc4k</a>
Craftsman Precision Screwdriver Set	\$57.47	3	\$172.41	<a href="http://amzn.to/2xPviSV">http://amzn.to/2xPviSV</a>
Greenlee PA1123	\$27.54	3	\$82.62	<a href="http://amzn.to/2fvlhQm">http://amzn.to/2fvlhQm</a>
Greenlee PA1176	\$12.79	3	\$38.37	<a href="http://amzn.to/2wncJlm">http://amzn.to/2wncJlm</a>

## Soldering

Item	Unit Price	Quantity	Total Price	Purchase Link
Weller WXP65 with Stand	\$273.00	6	\$1638.00	<a href="http://bit.ly/2xPB0Uy">http://bit.ly/2xPB0Uy</a>
Weller WXDP120 with Stand	\$418.00	2	\$836.00	<a href="http://bit.ly/2xOq0Hg">http://bit.ly/2xOq0Hg</a>
Weller SP25NKUS	\$20.20	10	\$202.00	<a href="http://bit.ly/2xFIaZx">http://bit.ly/2xFIaZx</a>
Weller WSA350 Smoke Absorber	\$72.70	3	\$218.10	<a href="http://bit.ly/2fUgAjb">http://bit.ly/2fUgAjb</a>
Weller WSA250F Pads (3 pack)	\$7.60	2	\$15.20	<a href="http://bit.ly/2yJyIVj">http://bit.ly/2yJyIVj</a>
Spool 0.031" Solder	\$7.55	30	\$226.50	<a href="https://www.sparkfun.com/products/9325">https://www.sparkfun.com/products/9325</a>
Helping Third Hand	\$6.00	4	\$24.00	<a href="https://www.adafruit.com/product/291">https://www.adafruit.com/product/291</a>

Item	Unit Price	Quantity	Total Price	Purchase Link
PCB Vise	\$28.00	2	\$56.00	<a href="https://www.adafruit.com/product/151">https://www.adafruit.com/product/151</a>
Solder Sucker	\$4.50	10	\$45.00	<a href="https://www.adafruit.com/product/148">https://www.adafruit.com/product/148</a>
Solder Wick	\$2.70	12	\$32.40	<a href="https://www.adafruit.com/product/149">https://www.adafruit.com/product/149</a>
Solder Flux	\$15.95	6	\$95.70	<a href="https://www.adafruit.com/product/2667">https://www.adafruit.com/product/2667</a>
Solder Stand	\$11.35	30	\$340.50	<a href="https://www.sparkfun.com/products/14232">https://www.sparkfun.com/products/14232</a>
Hookup Wire Set 22AWG	10	\$24.75	\$247.50	<a href="https://www.adafruit.com/product/3174">https://www.adafruit.com/product/3174</a>

## OtherMill

Item	Unit Price	Quantity	Total Price	Purchase Link
Double-sided Circuit Board Blanks (25 pack)	\$32.00	8	\$256.00	<a href="http://bit.ly/2wnLgQm">http://bit.ly/2wnLgQm</a>
Pulley Belt Set 0.0005"	\$3.00	2	\$6.00	<a href="http://bit.ly/2fw0I6w">http://bit.ly/2fw0I6w</a>
Engraving Bit (10-pack)	\$216.00	2	\$432.00	<a href="http://bit.ly/2fuNwhW">http://bit.ly/2fuNwhW</a>
Scotch Double-sided Tape (2 pack)	\$6.10	10	\$61.00	<a href="http://amzn.to/2wo39P1">http://amzn.to/2wo39P1</a>
12 Volt Vacuum	\$59.00	1	\$59.00	<a href="https://thd.co/2wndvyM">https://thd.co/2wndvyM</a>
12 Volt Battery w/ Charger	\$69.00	1	\$69.00	<a href="https://thd.co/2wZ1t2W">https://thd.co/2wZ1t2W</a>

## Prototype Computing

Item	Unit Price	Quantity	Total Price	Purchase Link
Raspberry Pi 3	\$35.00	20	\$700.00	<a href="https://www.adafruit.com/product/3055">https://www.adafruit.com/product/3055</a>
16 GB Class 10 MicroSD Card	\$18.95	30	\$379.00	<a href="https://www.sparkfun.com/products/13833ad">https://www.sparkfun.com/products/13833ad</a>
Raspberry Pi 3 Case	\$11.95	20	\$239.00	<a href="https://www.adafruit.com/product/2619">https://www.adafruit.com/product/2619</a>
Raspberry Pi Power Supply	\$7.50	25	\$187.50	<a href="https://www.adafruit.com/product/1995">https://www.adafruit.com/product/1995</a>
Raspberry Pi Display	\$44.95	20	\$899.00	<a href="https://www.adafruit.com/product/2441">https://www.adafruit.com/product/2441</a>

Item	Unit Price	Quantity	Total Price	Purchase Link
Keyboard, Mouse, HDMI for Raspberry Pi	\$22.95	20	\$459.00	<a href="https://www.adafruit.com/product/2129">https://www.adafruit.com/product/2129</a>
USB SD Card Reader	\$9.99	5	\$49.95	<a href="http://amzn.to/2xQfYpb">http://amzn.to/2xQfYpb</a>

## Office Supplies

Item	Unit Price	Quantity	Total Price	Purchase Link
Dymo Label Printer	\$10.68	1	\$10.68	<a href="http://amzn.to/2k6Pqe4">http://amzn.to/2k6Pqe4</a>
Cat6 Ethernet Cable Spool	\$325.74	1	\$325.74	<a href="http://bit.ly/2xJUbyR">http://bit.ly/2xJUbyR</a>
16 Port Ethernet Switch	\$48.99	1	\$48.99	<a href="http://amzn.to/2xP0jpZ">http://amzn.to/2xP0jpZ</a>
CO2 Fire Extinguisher	\$134.57	1	\$134.57	<a href="http://amzn.to/2xOI2y">http://amzn.to/2xOI2y</a>
ANSI First Aid Kit	\$27.88	1	\$27.88	<a href="http://amzn.to/2xP5XIT">http://amzn.to/2xP5XIT</a>
Board Markers	\$7.98	2	\$15.96	<a href="http://amzn.to/2hBIKVz">http://amzn.to/2hBIKVz</a>
White Board Cleaning Cloth	\$4.34	2	\$8.68	<a href="http://amzn.to/2fuY4xA">http://amzn.to/2fuY4xA</a>

## Hardware

Item	Unit Price	Quantity	Total Price	Purchase Link
Spacer/Standoff Screw Sets	\$12.97	2	\$25.94	<a href="http://amzn.to/2yL21qw">http://amzn.to/2yL21qw</a>
Electrical Tape (10 pack)	\$12.70	1	\$12.70	<a href="http://amzn.to/2xFuuh5">http://amzn.to/2xFuuh5</a>
Crimp Terminal Set	\$28.99	1	\$28.99	<a href="http://amzn.to/2ycC1ae">http://amzn.to/2ycC1ae</a>

## Electrical Equipment

Item	Unit Price	Quantity	Total Price	Purchase Link
DC Power Supply	\$79.99	3	\$239.97	<a href="http://amzn.to/2x04v79">http://amzn.to/2x04v79</a>
Function Generator	\$318.89	1	\$318.89	<a href="http://amzn.to/2xBRs1v">http://amzn.to/2xBRs1v</a>
Digital Oscilloscope	\$379.00	3	\$1137.00	<a href="http://amzn.to/2fCwv9o">http://amzn.to/2fCwv9o</a>

## Robot Components

Item	Unit Price	Quantity	Total Price	Purchase Link
Vex Classroom Bundle	\$5299.99	1	\$5299.99	<a href="http://bit.ly/2fENpEh">http://bit.ly/2fENpEh</a>
Vex Advanced Sensor Kit	\$99.99	6	\$599.94	<a href="http://bit.ly/2fvmuHo">http://bit.ly/2fvmuHo</a>