

Group names	Short description of the project	Parts required	Link to parts (if buying online)	Reason for the need	Quantity	Sum
Jeffrey Cho	An autonomous trail rescue rover that could patrol certain parts of a trail and be able to interface with injured hikers and ping gps location back to a ranger station when medical attention is necessary.	Raspberry Pi 3	<a href="https://www.amazon.com/ELEMENT-Element14-Raspberry-Pi-Motherboard/dp/B07P4LSDYV/">https://www.amazon.com/ELEMENT-Element14-Raspberry-Pi-Motherboard/dp/B07P4LSDYV/</a>	It will serve as the microcontroller for connecting the rover to its different circuits and motors	1	\$33.43
James Tsien		Aluminum Flat Bar	(Home Depot)	3/4 in by 48in flat bars will be cut and joined to build chasis for the components	6	\$40.00
Tobe To		Passive Infrared Sensors (PIR)	<a href="https://www.amazon.com/DIYmail-HC-SR501-Motion-Infrared-Arduino/dp/B012Z24LPM/ref=sr_1_19?dchild=1&amp;keywords=Infrared+Motion+Sensor&amp;qid=1604381642&amp;sr=8-19">https://www.amazon.com/DIYmail-HC-SR501-Motion-Infrared-Arduino/dp/B012Z24LPM/ref=sr_1_19?dchild=1&amp;keywords=Infrared+Motion+Sensor&amp;qid=1604381642&amp;sr=8-19</a>	Detects moving heat signals. This will be useful for detecting active human pressance in front of the rover.	2 packs of 5	\$18.00
Buonkuang Priestley		Adafruit GPS Receiver	<a href="https://www.amazon.com/Adafruit-Ultimate-GPS-Breakout-channel/dp/B01H1R8BK0/ref=sr_1_1">https://www.amazon.com/Adafruit-Ultimate-GPS-Breakout-channel/dp/B01H1R8BK0/ref=sr_1_1</a>	To get GPS data for the rover	1	\$15.66
Johnny Tran		USB-To-TTL Serial Cable	<a href="https://www.amazon.com/ADAFRUIT-Industries-954-Serial-Raspberry/dp/B00DJUHGH/">https://www.amazon.com/ADAFRUIT-Industries-954-Serial-Raspberry/dp/B00DJUHGH/</a>	Used for connecting the GPS receiver to the GPS module	1	\$15.66
	*Note: We will also be applying for UROP funding so we will not need all this money right away.	Micro USB Cable Power Supply 5.25 Volts 3 Amps	<a href="https://www.amazon.com/Argon-Raspberry-Listed-Power-Supply/dp/B07MC7B9X3/ref=pd_jpg_23_t_1/141-5149747-0208054?_encoding=UTF8&amp;pd_rd_i=B07MC7B9X3&amp;pd_rd_r=72fd401-e682-4e0c-b0a5-611d9959e32b&amp;pd_rd_w=FJBYt&amp;pd_rd_wg=s04kD&amp;pf_rd_p=7b36d496-f366-4631-94d3-61b87b52511b&amp;pf_rd_r=DDYENVX38G49RASJ2FQY&amp;psc=1&amp;refRID=DDYENVX38G49RASJ2FQY">https://www.amazon.com/Argon-Raspberry-Listed-Power-Supply/dp/B07MC7B9X3/ref=pd_jpg_23_t_1/141-5149747-0208054?_encoding=UTF8&amp;pd_rd_i=B07MC7B9X3&amp;pd_rd_r=72fd401-e682-4e0c-b0a5-611d9959e32b&amp;pd_rd_w=FJBYt&amp;pd_rd_wg=s04kD&amp;pf_rd_p=7b36d496-f366-4631-94d3-61b87b52511b&amp;pf_rd_r=DDYENVX38G49RASJ2FQY&amp;psc=1&amp;refRID=DDYENVX38G49RASJ2FQY</a>	Power supply for Raspberry Pi testing.	1	\$12.00
		Ultrasonic Sensors	<a href="https://www.amazon.com/SainSmart-HC-SR04-Ranging-Detector-Distance/dp/B004U8TOE6/ref=sr_1_5?dchild=1&amp;keywords=ultrasonic+sensors&amp;qid=1604381906&amp;sr=8-5">https://www.amazon.com/SainSmart-HC-SR04-Ranging-Detector-Distance/dp/B004U8TOE6/ref=sr_1_5?dchild=1&amp;keywords=ultrasonic+sensors&amp;qid=1604381906&amp;sr=8-5</a>	Distance sensors for the rover to detect how far an object is in around it.	6	\$30.00
		5 Inch Raspberry Pi Screen	<a href="https://www.elecrow.com/hdmi-5-inch-800x480-fft-display-for-raspberry-pi-b-p-1384.html">https://www.elecrow.com/hdmi-5-inch-800x480-fft-display-for-raspberry-pi-b-p-1384.html</a>	Large display allows hikers to see text better compared to standard LCD screen	1	\$38.00
		6pcs Button, 4x4 16 Key Matrix	<a href="https://www.amazon.com/Matrix-Membrane-Keybaord-Arduino-MicrocontrollerWishioT/dp/B07B4DR5SH">https://www.amazon.com/Matrix-Membrane-Keybaord-Arduino-MicrocontrollerWishioT/dp/B07B4DR5SH</a>	Buttons for humans to interface with our rover.	2	\$20.00
		Universal PCB Breadboard	<a href="https://www.amazon.com/ELEGOO-Breadbaord-Kit-for-Arduino/dp/B07F61361W">https://www.amazon.com/ELEGOO-Breadbaord-Kit-for-Arduino/dp/B07F61361W</a>	Basis to connect wires to components	1	\$9.00
		5V Brushed DC Motor	<a href="https://www.sparkfun.com/products/11015">https://www.sparkfun.com/products/11015</a>	The motors will provide movement and turning for the wheels.	3	\$15.00
		7" Wheels	Harbor Freight (or similar)	Our rover needs wheels to move.	6	\$36.00
						\$249.30