0-4		Item Quantity Per	r Cost Per Number of										
Category	Vendor	Item Number Description Quantity Per Package	Cost Per Number of Package Packages	Item Total Cost Link	Comments								
	Amazon	B00451Y26I Energizer 9V Bat	1 \$5.89 1	\$5.89 https://www.ama;	9V Battery large, requires battery pack, would like to replace 9V Battery Holder								
					- 9V Battery Holder								
Power	Amazon	B07BXBS93X LAMPVPATH (Pa	2 \$5.99 1	1 \$5.99 https://www.ama;	- also large, has strayed wires that break off quickly - used for mouse 4.4								
					- Terminal Block Connector								
	Digikey	609-3918-ND TERM BLK 2P SI	1 \$0.75 3	\$2.25 https://www.digik	Terminal Block Connector Works well, prefer JST to avoid wire to board altogether used for mouse 4.4								
					Wheels, 55.9mm diameter for DAGU motor shafts								
	Adafruit	3757 Skinny Wheel for	1 \$2.50 2	\$5.00 https://www.adafr	- unused - Wheels, 32mm diameter, 3mm D output shaft								
					- works well, relatively small - used for mouse 4.4								
	Pololu	1087 Black plastic whe	2 \$4.95 1										
				https://www.digik	 big digikey wheels, 66mm diameter also for DAGU motor shafts 								
Motor Related	Digikey				- Gear motors 90rnm w/ encoders								
Motor Related					- works well, mouse rather slow at 90rpm - firm gears at 90rpm - used for mouse prototype								
	Servocity	638097 Gear Motor with I	1 \$19.99 2	2 \$39.98 https://www.servi	- irm gears at surpm - used for mouse prototype								
					- Gear motors, 900rpm w/ encoders								
	Servocity	638103 Gear Motor with I	1 \$19.99 2	200.00	Gear motors, 900rpm w/ encoders works well, mouse speed just right w/ adjustment loose gears, prone to shifting around used for mouse 4.4								
	Servocity	638103 Gear Motor With I	1 \$19.99 2	2 \$39.96 <u>https://www.servi</u>	- used for mouse 4.4 - H Bridge 7V supply min								
	Diaitee	296-9519-5-ND IC MTR DRV BIP	1 \$4.29 1	SA 20 https://www.digits	- H Bridge, 7V supply min - works well - used for mouse 4.4								
	Digikey	250-50 IS-0-ND IC MIR DRV BIP	1 94.25 1	94.25 <u>Imps.remw.urgik</u>	used for modes 4.4								
	Adafruit	3948 20mm Height Me	1 \$1.95 1	1 \$1.95 https://www.adafr	- Ball caster, small but wide mount								
		3340 ZUIIIII REIGHT ME	, φ1.00 1		- big ball caster for OPS								
	Mouser			https://www.mour									
					 just right size for 3D printed bracket to PCB 								
	Servocity	632282 M1.6 x 8mm with	6 \$2.99 2	2 \$5.98 https://www.serw	- used for mouse 4.4 - M1.6 screws, brackets to motors, 4mm								
Ball Caster	L .				M1.6 screws, brackets to motors, 4mm just right size for ServoCity motors used for mouse 4.4								
Ball Caster, nuts, screws	Servocity	632276 M1.6 x 4mm with	6 \$2.99 2	\$5.98 https://www.serve	- used for mouse 4.4 - metal ballcaster 3/8"								
	L				 came w/ rusted ball, otherwise works well 								
	Pololu	950 Ball Caster Plaste	1 \$2.49 1		- used for mouse 4.4 - M1.6 washers								
	McMaster Co.	95610A310 M2.0 Plastic Was 10	00 \$4.73 1	\$4.73	- meded to prevent screwhead contact w/ PCB traces - unused								
	mutiaster-Carr	DOD TO AGE OF MELO PRESIDE WAS 1	oo \$4.73 1		- Nuts for M1.6 screws								
	Amezon	B09SWZ2XSF M1.6 x .35 Hex N 10	00 \$9.48 1		- works well, just right size								
	rendZUII	DUSCHILLAGE MILUA JU FIEA N	30.40	• 99.40 шур.ли\\.3ПЗ	- used for mouse 4.4								
					R Reciever used in OPS Arduino reads every receiver differently on mouse 4.4								
	Digikey	1080-1159-ND PT334-6C	1 \$0.40 3	3 \$1.20 https://www.digik	- may be caused by soldering angle or manufacturing error								
	Digikey	1080-1109-ND F1334-0C	1 90.40 3		ID Conition would in ODC								
					- maybe causing reading issues together w/ receiver - soldering angle may be adding error - used in mouse 4.4								
	Digikey	475-2919-ND SFH 4545	1 \$0.75 3	\$2.25 https://www.digik	- used in mouse 4.4								
					- 330 Ohm Resistor, SMD 0805								
	Digikey	2019-RK73B2AT RES 330 OHM 5	1 \$0.10 6	\$ \$0.60 https://www.digik	- works well, easy to solder - unused								
					- 10k Ohm Resistor, SMD 0805 - works well, easy to solder								
	Digikev	RNCP0805FTD1 RES 10K OHM 1	1 \$0.10 6	\$0.60 https://www.digik	- works well, easy to solder - pull-down resistor for receiver - used in mouse 4.4								
IR Sensing	Digikey	RNCF0000F1D1RE3 10R OHM 1	1 40.10 0		200 Ohm Decistor CMD 0906								
					- works well, easy to solder								
	Digikey	RNCP0805FTD2 RES 200 OHM 1	1 \$0.10 6	\$ \$0.60 https://www.digik	- works well, easy to solder - current limits emitter - used in prototype mouse								
	Distance.	2019-RK73H2AT RES 130 OHM 1	1 \$0.10 6	***************************************	- works well, easy to solder - current limits emitter - used in mouse 4.4								
	Digikey	2019-RK/3H2AT RES 130 OHM 1	1 \$0.10 6	5 \$0.60 <u>https://www.digik</u>	- used in mouse 4.4 - 0.1uF capacitor, SMD 0805								
					- 0.1uF capacitor, SMD 0805 - works well, easy to solder - paralell wire entitler to increase refresh rate? - used in mouse 4.4								
	Digikey	1276-1003-1-ND CAP CER 0.1UF	1 \$0.10 6	\$0.60 https://www.digik	- used in mouse 4.4								
					- 4 7uF capacitor SMD 0805								
	Dinikev	1278-1244-1-ND CAP CER 4.7UF	1 \$0.10 6	3 \$0.60 https://www.digik	- works well, easy to solder - paralell w/ emitter to increase refresh rate? - used in mouse 4.4								
	Digikey	12.0-1244-1-ND CAP OEK 4./UP	, go.10 6	, quio mps://www.digik	- 4300 = 110050 4.4	 						+ + + - +	
Microcontroller					 - Arduino Nano - works well, comes w/ oxidized pins- required cleaning w/ alcohol - rathler large, to be replaced w/ different controller - used in mouse 4.4 								
Microcontroller or Processor	Amoror	DOZDOGADOO Mini N	1 \$12.99 1	612.00	- rather large, to be replaced w/ different controller								
	Amazon	B07R9VWD39 Mini Nano V3.0 A	1 \$12.99 1	1 \$12.99 <u>https://www.ama;</u>	- useu in mouse 4.4							+	
					15pin header for Arduino works well, very tall allows for components to be placed under arduino used in mouse 4.4								
Connectors					- works wer, very tall - allows for components to be placed under arduino								
	Digikey	S7013-ND CONN HDR 15PI	1 \$0.98 2	2 \$1.96 https://www.digik	- used in mouse 4.4			_				+	
po-					- solid and cheap PCB vendor								
PCB	JLC PCB	n/a PCB prototype:Y	5 \$2.00 1	\$2.00 https://jicpcb.com	 solid and cheap PCB vendor no issues so far, purple nice and deep purple used in mouse 4.4 								
			total cost:	\$54.61									
			total colst.	404.01									
	resistors:	https://www.distley.com/onloads.ats***	nister ausfann manus (F22a-b) (1-122-	oEuoDikanahaCuasaEssanii??	ADYBWAFaGYORdfABwBcoQBIFqJwEsA7AOYqAvviBI4JJJDRY8h	EIRAROCIRI INIMAE II-4DAVI CA AAAA	Dane ZanDiVDeVEAlt 4 -1 = 4	CoEstablished AV Co.	THE PROPERTY OF THE PROPERTY O	ODLIEVO ACMIDE VANIMEN CHILIFER (CS. C	a al 7 d A an 7 C lOEN as Dan A 15 t Co - C	PoAioODIJAA	
	resistors: headers:	https://www.digikey.com/en/products/filter/rectang	ular-connectors/headers-receptacles-	-female-sockets/315?s=N4loiCBcoG	ADYBWAFgGYOBdfABWBcoOHIFgJWE\$A7AOYgAvvjBl4LUDRYBF wJxVAYygMwlYBsDOBTANCAPZQDaIALGGABxwDsIAuoQA4AuU	IAyuwE4BLAHYBzEAF9CNGohApIG	HAWJkQDAKxgAzMzadiPfsLG	SQAWgBMs%2Bfw	CuykpHLrmpswmhyodh6ohM3GG	tvPntCR3idANMgzwEAEy4zMAAGCD0uEEJ2A	9WXC50bBRxcSA	-yopposition	