Part	Description	Quantity	Value	Supplier	Reference Number	Cost (1)			
Raspberry Pi 3 Bundle	Quad-Core Broadcom BCM2837 64bit ARMv8 processor 1.2GHz	1		Canakit	BCM2837(Broadcom processor)	\$99.99			
Breadboard	Testing circuit ensure all parts work	1		Elenco Breadboar d		Included with parts kit			
Printed Circuit Board(PCB)	Connect parts onto a circuit board	1							
Infrared Sensor for avoidance	Detect motion when objects come near	2		Uxcell	US-SA-AJD-83865	\$4.56			
Infrared LED (Receiver and Emitter)	940nm	20	940nm	Gikfun	IR333C	\$9.58			
Photodiode	Converts light to eletrical current	20		Uxcell	PD333-3C	\$4.55			
Resistors		10	150Ω ,4.7kΩ,10 kΩ,	Elegoo	CFR-12JR-10K	Included with			
Solder	To connect all the parts together onto the PCB	1	0.032mm		738-13949				
Wires		10				Included with parts kit			
LM741 OP Amp	Invert received signal to ampliyify signal, ensure it stays at +5v or +0v	2			http://www.ti.com/lit/ds/ symlink/lm741.pdf (Op Amp Datasheet)	Included with parts kit			
	: https://www.amazon.ca/Gikfun-Ir								
	nazon: https://www.amazon.ca/Rou ://www.amazon.ca/uxcell%C2%AE-I								avoidance
in sensor for avoluance: https	.//www.amazon.ca/uxcen%C2%AE-I	iii areu-Obstaci	le-Avoluance-:	sensor/ap/800V	vw/51v0/161=81_1_2:5=111&16=UTF	-oxyiu=1500/038/4	+asi –1-2akeywords=Int	rareu+sensor+	avoluance
					Subtotal	\$118.68			
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