

Bill Of Materials for: TEAM 7 Anti-Squirrel Birdwatch Feeder

Last modified: 2024-12-01

PCB version: [PCB VERSION 5]

BOM revision: BOM RE P/NP = Place/Not Place (components marked NP are not stuffed on the board)

Cnt	Part References	P/NP	Mfg	Mfg PN	Description	Dist	Dist Part Number	Cost Ea.	Cost Total
	XIAO1		Seeed Studio	113991115	Seeed Studio XIAO ESP32S3 Sense - 2.4GHz Wi-Fi, BLE 5.0, OV2640 camera sensor, digital microphone, 8MB PSRAM, 8MB FLASH, battery charge supported, rich Interface, IoT, embedded ML	Seeed Studio	113991115	\$13.99	\$13.99
1		P							
1	N/A	N/A	DFRobot	DFR0559	Solar Power Manager 5V	DFRobot	DFR0559	\$7.90	\$7.90
1	N/A	N/A	WWZMDiB	NA	1KG Load Cell and Amplifier	Amazon	B0BLNR4S1P	\$6.99	\$6.99
2	N/A	N/A	DFRobot	FIT0600	Semi Flexible Monocrystalline Solar Panel (6V 1A)	DFRobot	FIT0600	\$17.50	\$35.00
1	U1	N/A	Adafruit	5396	VL53L4CX Time of Flight Sensor with STEMMA QT for I²C	Adafruit	5396	\$14.95	\$14.95
					MakerFocus 4pcs 3.7V 1100mAh Lithium Rechargeable				
	N/A	N/A	MakerFocus	UO381121YVC	Battery 1S 1C LiPo Battery with Protection Board, Insulated Rubber Tape and Micro JST 1.25 Plug for Arduino NodeMCU	Amazon	B0867KDMY7	\$4.05	\$4.05
1									
	M1	N/A	DFRobot	SER0043	FSP32 Development Board	DigiKey	1738-1300-ND	\$4.00	\$0.00
1	Q1	P	Diodes Incorporated	DMN2075U-7	SERVOMOTOR RC 4.8-6V	DigiKey	DMN2075U-7DICT-ND - Cut Tape (CT	\$0.34	\$0.34
1	R1	P	Panasonic Electronic Components	RC0805FR-07100RL	MOSFET N-CH 20V 4.2A SOT23-3	DigiKey	311-100CRCT-ND	\$0.10	\$0.10
2	R2, R3	P	YAGEO	ERJ-6GEYJ362V	100 ohm resistor	DigiKey	P3.6KACT-ND	\$0.10	\$0.20
2	R4, R5	P	Panasonic Electronic Components	ERJ-6GEYJ103V	3.6 kohm resistor	DigiKey	P10KACT-ND	\$0.10	\$0.20
1	C2	P	Samsung Electro-Mechanics	CL21A475KAQNNNE	10 kohm resistor	DigiKey	1276-1244-1-ND	\$0.10	\$0.10
1	C1	P	Samsung Electro-Mechanics	CL21B104KBCNNNC	4.7 uF cap	DigiKey	1276-1003-1-ND	\$0.10	\$0.10
1	U1	N/A	STMicroelectronics	VL53L4CXV0DH/1	100 nF cap	DigiKey	97-VL53L4CXV0DH/1CT-ND	\$4.45	\$4.45
3	N/A	N/A	OSH Park	N/A	SENSOR OPTICAL 10-5000MM I2C	OSH Park	N/A	\$6.00	\$18.00
					PCB				
								TOTAL:	\$106.37

VERSION INFO

Rev	Date	Notes
Rev-A	2024-11-13	Initial BOM; needs finalization upon confirmation of circuit schematic.
Rev B	2024-12-01	Added circuit board and confirmed complete parts list.