dotMG (Pro Micro) BOM

Ref	Purpose	Description	Mfr/Vendor	P/N	DigiKey P/N	Qty	Unit Price	Ext Price	Vendor Link	Note
BZ1	Buzzer	AUDIO PIEZO TRANSDUCER 30V TH	TDK Corporation	PS1240P02CT3	445-5229-1-ND	1	$ 0.67	$ 0.67	https://www	
D1, D2	Power selection diodes	DIODE SCHOTTKY 20V 1A DO41	ON Semiconductor	SB120	SB120FSCT-ND	2	$0.43	$ 0.86	https://www	
J1	Game cartridge connector	CART SOCKET 2X14P (28P)	4UCON	7861		1	$4.50	$ 4.50	http://www.4	Possible alternative from AliExpress: https://www.aliexpress.com/item/4001146953252.html
J2	EXT header	1X10 RIGHT ANGLE FEMALE HEADER	Adafruit Industries Inc.	1542		1	$0.30	$ 0.30	https://www	
R1	Reset button pull-up	RES 10K OHM 1/6W 5% AXIAL	Yageo	CFR-12JB-52-10K	10KEBK-ND	1	$0.10	$ 0.10	https://www	
RV1	Volume wheel	POT 10K OHM THUMBWHEEL CERM ST	Bourns Inc.	3352T-1-103LF	3352T-103LF-ND	1	$ 2.14	$ 2.14	https://www	
SW1	Power switch	SWITCH SLIDE SPDT 300MA 6V	E-Switch	EG1270	EG1847-ND	1	$0.81	$ 0.81	https://www	
SW2	Reset button	SWITCH TACTILE SPST-NO 0.05A 24V - RIGHT ANGLE	TE Connectivity	1825027-5	450-1662-ND	1	$ 0.18	$ 0.18	https://www	
SW3, SW4, SW5, SW6, SW7, SW8	A/B/up/down/left/right buttons	SWITCH TACTILE SPST-NO 0.05A 24V	Omron Electronics Inc.	B3F-1050	SW404-ND	6	$ 0.32	$ 1.92	https://www	1 million cycle lifespan
U1	Battery charger module	MICRO LIPO USB	Adafruit Industries Inc.	1904		1	$ 6.95	$ 6.95	https://www	Polarity MUST match Adafruit battery, if buying elsewhere
U2	Screen	2.42" OLED DISPLAY	DIY More	030526LV		1	$ 20.99	$ 20.99	https://www	Should come with 7-pin header
	A/B button caps	CAP TACTILE ROUND BLACK	Omron Electronics Inc.	B32-2010	SW1139-ND	2	$ 0.76	$ 1.52	https://www	
	D-pad button caps	KEY CAP BLACK	Omron Electronics Inc.	B32-2110	Z8523-ND	4	$ 0.92	$ 3.68	https://www	
	Microcontroller	ARDUINO PRO MICRO 5V 16MHZ	Amazon			1	$ 7.33	$ 7.33	https://www	1 needed per game cart, should come with headers
	Rechargeable battery	500 MAH RECHARGEABLE LIPO	Adafruit Industries Inc.	1578		1	$ 7.95	$ 7.95	https://www	Any 3.7V LiPo will do. Recommended capacity 500mAh or more. **Just be sure the wiring polarity matches the battery in this BOM.** Longer wire needed for dotMG Advance (about 4.5"). Can be extended by hand or with a JST extender, if needed.
	Charger board header	1X4 STRAIGHT MALE HEADER	Adafruit Industries Inc.	392		1	$ 0.06	$ 0.06	https://www	
	Charger board support	1X1 RIGHT ANGLE FEMALE HEADER	Adafruit Industries Inc.	1542		1	$0.03	$ 0.03	https://www	Mechanical support only. No electrical function.
	Battery mounting tape	1" FOAM MOUNTING SQUARE	Amazon			1	$ 0.12	$ 0.12	https://www	$2.99 for 24-pack
	Front shell standoffs	7MM M2.5 MALE-FEMALE NYLON STANDOFF				4	$ 0.10	$ 0.40		Good combo option from Adafruit (though screws are NOT countersink): https://www.adafruit.com/product/3299
	Back shell standoffs	10MM M2.5 FEMALE-FEMALE NYLON STANDOFF				4	$ 0.10	$ 0.40		
	Shell screws	6MM (TOTAL LENGTH) M2.5 COUNTERSINK NYLON SCREW				8	$ 0.10	$ 0.80		Also easy to find these on AliExpress
							TOTAL	$ 61.71		