

Bill of Materials based on my GBA mod. By /u/Ryzee

<http://imgur.com/a/kjFmS>

https://www.reddit.com/r/DIY/comments/4zbqwr/this_is_my_attempt_at_making_a_portable_emulator/

Build at your own risk!

Qty	Value	Device	Parts	Digikey part
3	100k	RES SMD 100K OHM 1% 1/8W 0805	R5, R6, R14	RMCF0805FT100KCT-ND
6	100n	CAP CER 0.1UF 25V X7R 0805	C1, C3, C11, C12, C16, C17	1276-1099-1-ND
7	10u	CAP ALUM 10UF 20% 16V SMD	C2, C5, C6, C13, C14, C15, C18	493-2100-1-ND
1	1k	RES SMD 1K OHM 1% 1/8W 0805	R4	RMCF0805FT1K00CT-ND
1	220n	CAP CER 0.22UF 16V X7R 0805	C4	1276-1284-1-ND
2	270R	RES SMD 270 OHM 1% 1/8W 0805	R8, R15	RMCF0805FT270RCT-ND
2	27R	RES SMD 27 OHM 1% 1/8W 0805	R2, R3	RMCF0805FT27R0CT-ND
1	430k	RES SMD 430K OHM 1% 1/8W 0805	R9	P430KCCT-ND
1	330n	CAP CER 0.33UF 50V X7R 0805	C8	1276-1123-1-ND
1	3R9	RES SMD 3.9 OHM 1% 1/8W 0805	R10	RMCF0805FT3R90CT-ND
1	4.7uH	FIXED IND 4.7UH 1.72A 82 MOHM	L4	732-1021-1-ND
1	47k	PVZ3A473C01R00	R11 (Use 10K version if out of stock)	490-7795-1-ND
3	47uF	CAP ALUM 47UF 20% 16V SMD	C9, C10	P15090CT-ND
1	600 Ohm	FERRITE BEAD 600 OHM 0805 1LN	L1	240-2390-1-ND
2	620R	RES SMD 620 OHM 1% 1/8W 0805	R12, R13	1276-5260-1-ND
1	976k	RES 976K OHM 1/8W 1% 0805	R7	311-976KCRCT-ND
1	AZV321	IC OPAMP GEN PURP SOT25	U7	AZV321KTR-G1DICT-ND
2	DFLS130L	DIODE SCHOTTKY 30V 1A POWERDI123	D1, D2	DFLS130LDICT-ND
1	XZMDKVG54W-4	LED GREEN/RED DUAL LED CLEAR 0805 SMD	D3	1497-1182-1-ND
1	FT230X	IC USB SERIAL BASIC UART 16SSOP	U2	768-1154-5-ND
1	LM4875	IC AMP AUDIO PWR 1W MONO 8SOIC	U4	296-35282-1-ND
1	MCP1642B-ADJ	IC REG BOOST ADJ 0.8A SYNC 8MSOP	U3	MCP1642B-ADJI/MS-ND
1	MIC7211	IC COMPARATOR R-R INPUT SOT23-5	U6	576-1318-1-ND
1	IRLML6401TRPBF	MOSFET P-CH 12V 4.3A SOT-23	Q1	IRLML6401PBFCT-ND
1	CLS0231MA-1-L15	SPEAKER 8OHMS .5W 23MM 6" LEADS	SP1	102-1553-ND
1	MIC5365-2.8YC5-T	IC REG LDO 2.8V 0.15A SC70-5	U5	576-3187-1-ND
1	FLAT FLEX	HF18U-02-ND CABLE FLAT FLEX 18POS 1MM 2"	-	HF18U-02-ND
1	GBA_TFT_CON	CONN FFC BOTTOM 18POS 1.00MM R/A	TFT1	609-1911-1-ND
1	TFT DISPLAY	3.2" 18P SPI TFT ILI9341 320x240	-	Aliexpress
1	27k	Nintendo VOLUME ADJUST POT	R1	Taken out of old GBA
1	HEADPHONE	Nintendo HEADPHONE	X2	Taken out of old GBA
2	L+R SHOULDER	Nintendo BUTTON	SW1	Taken out of old GBA
1	LINK_SOCKET	Nintendo LINK_SOCKET	X1	Taken out of old GBA
1	PWR_SWITCH	Nintendo PWR_SWITCH	SW3	Taken out of old GBA
1	RPI-ZERO	RPI-ZERO	U1	-
2	AA Batteries	Recommendation is ENERGIZER L91 Lithium or equivalent good quality lithium AA's		-
1	GBA Link cable	Needs to be modified with a USB male connector on one end		eBay
1	TFT_ADAPTER_PCE	ADAPTER PCB FOR TFT FLAT FLEX CABLE	-	OHSPark Direct Link

NOTE: THESE ARE ALL BARE **MINIMUM** QUANTITIES. I RECOMMEND GETTING SPARES BECAUSE SMALL COMPONENTS CAN FLY AWAY AND THEY'RE USUALLY LOST FOREVER