

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/](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	<a href="#">RMCF0805FT100KCT-ND</a>
6	100n	CAP CER 0.1UF 25V X7R 0805	C1, C3, C11, C12, C16, C17	<a href="#">1276-1099-1-ND</a>
7	10u	CAP CER 10UF 10V X7R 0805	C2, C5, C6, C13, C14, C15, C18	<a href="#">1276-2934-1-ND</a>
1	1k	RES SMD 1K OHM 1% 1/8W 0805	R4	<a href="#">RMCF0805FT1K00CT-ND</a>
1	220n	CAP CER 0.22UF 16V X7R 0805	C4	<a href="#">1276-1284-1-ND</a>
2	270R	RES SMD 270 OHM 1% 1/8W 0805	R8, R15	<a href="#">RMCF0805FT270RCT-ND</a>
2	27R	RES SMD 27 OHM 1% 1/8W 0805	R2, R3	<a href="#">RMCF0805FT27R0CT-ND</a>
1	430k	RES SMD 430K OHM 1% 1/8W 0805	R9	<a href="#">P430KCCT-ND</a>
1	330n	CAP CER 0.33UF 50V X7R 0805	C8	<a href="#">1276-1123-1-ND</a>
1	3R9	RES SMD 3.9 OHM 1% 1/8W 0805	R10	<a href="#">RMCF0805FT3R90CT-ND</a>
1	4.7uH	FIXED IND 4.7UH 1.72A 82 MOHM	L4	<a href="#">732-1021-1-ND</a>
1	10k	TC33X-2-103E	R11	<a href="#">TC33X-103ECT-ND</a>
3	47uF	CAP ALUM 47UF 20% 16V SMD	C9, C10	<a href="#">P15090CT-ND</a>
1	600 Ohm	FERRITE BEAD 600 OHM 0805 1LN	L1	<a href="#">240-2390-1-ND</a>
2	620R	RES SMD 620 OHM 1% 1/8W 0805	R12, R13	<a href="#">1276-5260-1-ND</a>
1	976k	RES 976K OHM 1/8W 1% 0805	R7	<a href="#">311-976KCRCT-ND</a>
1	AZV321	IC OPAMP GEN PURP SOT25	U7	<a href="#">AZV321KTR-G1DICT-ND</a>
2	DFLS130L	DIODE SCHOTTKY 30V 1A POWERDI123	D1, D2	<a href="#">DFLS130LDICT-ND</a>
1	XZMDKVG54W-4	LED GREEN/RED DUAL LED CLEAR 0805 SMD	D3	<a href="#">1497-1182-1-ND</a>
1	FT230X	IC USB SERIAL BASIC UART 16SSOP	U2	<a href="#">768-1154-5-ND</a>
1	LM4875	IC AMP AUDIO PWR 1W MONO 8SOIC	U4	<a href="#">296-35282-1-ND</a>
1	MCP1642B-ADJ	IC REG BOOST ADJ 0.8A SYNC 8MSOP	U3	<a href="#">MCP1642B-ADJ/MS-ND</a>
1	MIC7211	IC COMPARATOR R-R INPUT SOT23-5	U6	<a href="#">576-1318-1-ND</a>
1	IRLML6401TRPBF	MOSFET P-CH 12V 4.3A SOT-23	Q1	<a href="#">IRLML6401PBFCT-ND</a>
1	CLS0231MA-1-L152	SPEAKER 8OHMS .5W 23MM 6" LEADS	SP1	<a href="#">102-1553-ND</a>
1	MIC5365-2.8YC5-TRIC	REG LDO 2.8V 0.15A SC70-5	U5	<a href="#">576-3187-1-ND</a>
1	FLAT FLEX	<a href="#">HF18U-02-ND</a> CABLE FLAT FLEX 18POS 1MM 2"	-	<a href="#">HF18U-02-ND</a>
1	GBA_TFT_CON	CONN FFC BOTTOM 18POS 1.00MM R/A	TFT1	<a href="#">609-1911-1-ND</a>
1	TFT_DISPLAY	3.2" 18P SPI TFT ILI9341 320x240	-	<a href="#">Aliexpress</a>
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_PCB	ADAPTER PCB FOR TFT FLAT FLEX CABLE	-	<a href="#">OHSPark Direct Link</a>

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