Development Board

Item	Description	Qty	Reference(s)	Value	Manufacturer	MPN	Distributor	DPN	Unit Cost	Extended Cost	LibPart	Footprint	Datasheet
1	Decoupling capacitors	4	C1, C2, C3, C4	10µ	Samsung Electro	CL21A106KOQN	Digikey	1276-6455-1-ND	$0.11	$0.44	Device:C	Capacitor_SMD:(	~
2	LED (VIN) - Red	1	D1	LED (R)	Dialight	5988110107F	Digikey	350-2038-1-ND	$0.29	$0.29	Device:LED	LED_SMD:LED_	~
3	LEDs (MCU) - Green	4	D2, D3, D4, D5	LED (G)	Dialight	5988170107F	Digikey	350-2044-1-ND	$0.29	$1.16			
4	LEDs (FPGA) - Blue	3	D6, D7, D8	LED (B)	Dialight	5988191107F	Digikey	350-4359-1-ND	$0.58	$1.74			
5	Mounting Holes	4	H1, H2, H3, H4	MountingHole	N/A					$0.00	Mechanical:MountingHole_Pad	MountingHole:Mc	~
6	Screw terminal for VIN	1	J1	Screw_Terminal_01x02	Phoenix Contact	1935161	Digikey	277-1667-ND	$0.49	$0.49	Connector:Screw_Terminal_01x02	TerminalBlock_Pl	https://media.digi
7	Male pins for jumper	1	J2	Conn_01x03						$0.00	Connector_Generic:Conn_01x03	Connector_PinHe	~
8	Male pins for jumper	1	J3	Conn_02x08_Top_Bottom	Sullins Connecto	PREC008DAAN-	Digikey	S2012EC-08-ND	$0.35	$0.35	Connector_Generic:Conn_02x08_Odd_Even	Connector_PinHe	~
9	Header for ribbon cable	1	J4	Conn_02x20_Odd_Even	Sullins Connecto	SBH11-PBPC-D2	Digikey	S9175-ND	$0.73	$0.73	Connector_Generic:Conn_02x20_Top_Bottom	Connector_PinHe	~
10	PMOD female sockets	1	J5	Conn_01x06	Sullins Connecto	PPPC061LGBN-	Digikey	S5481-ND	$0.66	$0.66	Connector_Generic:Conn_01x06	Connector_PinSc	~
11	Male pins for jumper	1	J6	Conn_01x02						$0.00	Connector_Generic:Conn_01x02	Connector_PinHe	~
12	10k resistors	2	R2, R3	10k	Stackpole Electro	RNCP0805FTD1	Digikey	RNCP0805FTD1	$0.10	$0.20	Device:R_US	Resistor_SMD:R	~
13	1k resistors	9	R1, R4, R5, R6, I	1k	Stackpole Electro	RNCP0805FTD1	Digikey	RNCP0805FTD1	$0.10	$0.90	Device:R_US	Resistor_SMD:R	~
14	Push buttons	6	SW0, SW1, SW2	SW_Push	APEM Inc.	MJTP1230	Digikey	679-2428-ND	$0.10	$0.60	Switch:SW_Push	Button_Switch_T	https://www3.pan
15	4 pin DIP switch	1	SW4	SW_DIP_x04	Grayhill Inc.	78B04ST	Digikey	GH7184-ND	$1.37	$1.37	Switch:SW_DIP_x04	Button_Switch_T	https://www.grayl
16	MCU dev board	1	U1	NUCLEO-LxxxKx	ST Microelectron	NUCLEO-L432K	Digikey	497-16592-ND	$10.99	$10.99	E155:NUCLEO-LxxxKx	E155 Footprints:	https://content.ar
17	Headers for MCU board	2	U1	Conn_01x24	Sullins Connecto	PPTC241LFBN-F	Digikey	S7022-ND	$1.37	$2.74			
18	FPGA dev board	1	U2	UPduino_v3.1	tinyVision.ai	UPduino v3.1	tinyVision.ai	UPduino v3.1	$25.00	$25.00	E155 Symbols:UPduino_v3.1	E155 Footprints:	https://upduino.re
19	Headers for FPGA board	2	U2	Conn_01x15	Sullins Connecto	PPTC151LFBN-F	Digikey	S7013-ND	$0.98	$1.96			
20	5 V low dropout voltage regulator	1	U3	5 V LDO	onsemi	NCP1117DT50R	Digikey	NCP1117DT50RI	$0.63	$0.63	Regulator_Linear:L7805	Package_TO_SC	http://www.st.com
21	3.3 V low dropout voltage regulator	1	U4	3.3V LDO	onsemi	NCP1117DT33T	Digikey	NCP1117DT33T5	$0.67	$0.67	Regulator_Linear:LD1086DT33TR	Package_TO_SC	https://www.st.co
22	Headers for MikroBUS socket	2	U5	mikroBUS_SOCKET	Sullins Connecto	PPPC081LFBN-F	Digikey	S7041-ND	$0.67	$1.34	E155:mikroBUS_SOCKET	E155 Footprints:I	
23	Jumpers	11			Sullins Connecto	QPC02SXGN-R(	Digikey	S9337-ND	$0.11	$1.21			
24	Breakaway male pin header (40 pins; for J2, J3, .	1			Sullins Connecto	PREC040SFAN-	Digikey	S1212EC-40-ND	$0.43	$0.43			
25	PCB	1			PCBWay				$6.31	$6.31			
								Subtotal		$60.21			

Breadboard Adapter

Item	Description	Qty	Reference(s)	Value	Manufacturer	MPN	Distributor	DPN	Unit Cost	Extended Cost	LibPart	Footprint	Datasheet
1	Male headers (1x20)	2	J1, J3	Conn_01x20	Sullins Connecto	PREC020SFAN-	Digikey	S1212EC-20-ND	$0.43	$0.86	Connector_Generic:Conn_01x20	Connector_PinHe	~
2	Keyed 2x20 ribbon cable connector	1	J2	40-pin Ribbon Cable Connector	Sullins Connecto	SBH11-PBPC-D2	Digikey	S9175-ND	$1.26	$1.26	Connector_Generic:Conn_02x20_Odd_Even	E155_Footprints:	~
3	PCB	1			PCBWay				$5.00	$5.00			
								Subtotal		$7.12			

Cable

Item	Description	Qty	Reference(s)	Value	Manufacturer	MPN	Distributor	DPN	Unit Cost	Extended Cost	LibPart	Footprint	Datasheet
1	40-pin ribbon cable - 50' (ft)	1			3M	3365/40 300	Digikey	3M157807-50-NI	$1.00	$1.00			
2	40-pin ribbon cable connectors	2			Sullins Connecto	SFH210-PPPC-L	Digikey	S9294-ND	$1.26	$2.52			
1	Anti-static bags	1			Botron Company	B12068	Digikey	2071-B12068-NI	Subtotal		$3.52			
1	USB-A to Micro B 2.0 Cable	1			Monoprice	39910	Monoprice	39910	1.99	$1.99			