

ControllerSchematicBOM

Cost	Where can they be obtained?	Role in Project	Part	Value	Device	Package	Description
	0 Already have one lying around	Expanding inputs to the arduino	IC1	4021N	4021N	DIL16	8-bit static SHIFT REGISTER
\$12.00	Amazon (\$11-12 for 5 pcs)	Providing haptic feedback	M1	MOTOR10MM	MOTOR10MM	VIBE-MOTOR-10MM	Motor (Single-Phase)
	0 Already have these	Pull-down resistor for button	R1	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R2	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R3	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R4	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R5	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R6	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R7	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R8	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R9	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R10	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R11	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R12	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have potentiometers as well	Potentiometer for trigger	R13	1623760-2	1623760-2	POT_1623757-2	
	0 Already have potentiometers as well	Potentiometer for trigger	R14	1623760-2	1623760-2	POT_1623757-2	
	0 Already have these	Pull-down resistor for button	R15	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
	0 Already have these	Pull-down resistor for button	R16	4.7k	R_AXIAL-7.2MM-PITCH	RESAD724W46L381D178B	Resistor Fixed - Generic
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Face button	S1	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Face button	S2	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Face button	S3	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Face button	S4	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Direction on the hat	S5	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Direction on the hat	S6	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Direction on the hat	S7	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Direction on the hat	S8	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
	0 Already have these	Thumbstick to place on top	S9	JOYSTICK_THUMB	JOYSTICK_THUMB	JOYSTICK	Analog Thumb Joystick
	0 Already have these	Thumbstick to modify for full-size stick	S10	JOYSTICK_THUMB	JOYSTICK_THUMB	JOYSTICK	Analog Thumb Joystick
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Bumper	S11	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Bumper	S12	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Start	S13	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$0.40	Breadboard-friendly/Through hole: Amazon (\$8 for 20pcs)	Select	S14	B3U-3000P(M)-B	B3U-X000B3U3000P(M)-B3000P(M)-B	B3U-3000P(M)-B	Ultra-small Tactile Switch
\$15.00	Amazon (\$15)	Programmable microcontroller	U\$1	ARDUINOMICRO	ARDUINOMICRO	ARDUINOMICRO	
	0 Already have them	Connecting components together		Breadboard			
	0 Already have them	Connecting components together		Jumper wires			