

What are the inputs of the system? (2 minimum)

- Microphone
- Unity
- Accelerometer
- Joystick

What are the outputs of the system? (2 minimum)

- Unity
- Speaker
- Vibrating Motor

Material Requirements

Part Name	Link to Part	Input / Output	Pin Requirements <ul style="list-style-type: none"> • Power Requirements • Specific Pins Required • Analog Pins • Digital Pins 	Communication Protocol (if applicable)	Peripherals required (Specific capacitors, drivers, resistors etc)	Cost
Common Cathode RGB LED [example]	https://www.sparkfun.com/products/105	Output	Power & Ground GND 3 digital PWM pins (D3, D5, D6, D9, D10, D11)	N/A	3 220Ω resistors	
Analog 2-axis Thumb Joystick	https://www.adafruit.com/product/512	Input	Power & Ground GND, VCC->5V 2 digital PWM pins VRx->A0, VRY->A1			\$5.95
Bluetooth	https://www.adafruit.com/product/512	Input	Power & Ground	Bluetooth protocol		

	afruit.com/product/1697		5V, GND D8, D10, D11, D12, D13			
Accelerometer	https://www.afruit.com/product/1120	Input	5V & GND A5, A4			14.95 USD
Microphone	https://www.afruit.com/product/1713	Input	3-5V -> VDD, GND Gain->VDD, OUT->any digital pin	N/A	1uF-100uF capacitor connecting with OUT	\$7.95
Unity	https://unity3d.com/get-unity/download	Output				free
Haptic Motor Controller	https://www.afruit.com/product/2305	Output	Vin: 5V, GND, SCL -> A5, SDA -> A4			7.95 USD
DC Motor	Dc motor built in vibration	Output				10.69 USD
Sound	https://www.afruit.com/product/3968	Output				4.95 USD

Circuit Diagram

Based on the pin requirements of your components, design a circuit diagram with all of them correctly wired.

