

# Bill of materials

---

## Notes about the microcontroller

This project is intended to be cheap and accesible, and it is based on the microcontroller Arduino Nano 33 BLE Sense. Please don't confuse it with the similarly named Arduino Nano 33 BLE 😊

In addition, it is sold with and without headers. We recommend acquiring the one **with headers** so you can immediately start using it on a breadboard without needing to solder the headers on it.

## Minimum materials

These materials are necessary for all Tiny Trainable Instruments

Item	Quantity	Cost (USD)	Retailer	Comment
<a href="#">Arduino Nano 33 BLE Sense with headers</a>	1	33.40	<a href="https://www.arduino.cc/">https://www.arduino.cc/</a>	Microcontroller
<a href="#">Breadboard</a>	1	5.95	Adafruit	Prototyping
<a href="#">Jumper wires</a>	1	3.95	Adafruit	Connections
<a href="#">Micro USB cable</a>	1	2.95	Adafruit	Power

## Cheaper and easier materials for output

Item	Quantity	Cost (USD)	Retailer	Comment
<a href="#">Piezo buzzer</a>	1	1.50	Adafruit	Output sound
<a href="#">Micro servo</a>	1	5.95	Adafruit	Output movement
<a href="#">LED</a>	1	6.95	Adafruit	Output light

## More complex or expensive materials for output

Outputs, more expensive or more complex

Item	Quantity	Cost (USD)	Retailer	Comment
<a href="#">MIDI DIN</a>	1	1.75	Adafruit	Output MIDI data
<a href="#">Thermal printer</a>	1	61.95	Adafruit	Output printed text
<a href="#">128x32 OLED screen</a>	1	12.50	Adafruit	Output screen