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
Arduino Nano 33 BLE Sense with headers	1	33.40	https://www.arduino.cc/	Microcontroller
Breadboard	1	5.95	Adafruit	Prototyping
Jumper wires	1	3.95	Adafruit	Connections
Micro USB cable	1	2.95	Adafruit	Power

Sound and movement outputs

These are the recommended materials for starters, and are the ones covered in the proposed beginner workshop.

Item	Quantity	Cost (USD)	Retailer	Comment
Piezo buzzer	1	1.50	Adafruit	Output sound
Micro servo	1	5.95	Adafruit	Output movement

Additional outputs

These additional outputs include more expensive or more complex materiales, and they are recommended for more advanced users. These are not covered on the proposed beginner workshop, but are supported by the Tiny Trainable Instrument project and software library.

Item	Quantity	Cost (USD)	Retailer	Comment
LED	1	6.95	Adafruit	Output light
MIDI DIN	1	1.75	Adafruit	Output MIDI data

Item	Quantity	Cost (USD)	Retailer	Comment
Thermal printer	1	61.95	Adafruit	Output printed text
128x32 OLED screen	1	12.50	Adafruit	Output screen