

Class

First Name: CTAI
Name: Joran Thienpont
Project Name : AI fretboard trainer
Assembly Revision :
Approval Date : 16-Jun-26
Part Count : 17
Total Cost : €546

Part #	Part Name	Description	Revision	Qty
1	Raspberry Pi 5 8GB	Raspberry Pi to control the entire system	1	1
2	OLED display	To display notes from sheet music(128 x 64 pixels)	1	1
3	Raspberry Pi 5 active cooler	To give additional cooling	1	1
4	Logitech LGT-C270 V2 Webcam Usb 2.0 3 Mpixel 720p	Captures images to send to AI	1	1
5	Falcon Eyes Buisblem + Veerklem NCLG-30 + CL-35 57,5 cm	Flexible arm equipped with a large spring clamp on one side and a table clamp on the other side.	2	1
6	SALVADOR CORTEZ CC-22 Solid Cedar Top	classical guitar	2	1
7	Green LED	Correct note indicator	3	1
8	Red LED	Wrong note indicator	3	1
9	Yellow LED	Fret direction indicator	3	2
10	Rocker switch	On/off switch	1	1

11	breadboard	electronics	1	1
12	RFID module (RC522)	Let's user login	1	1
13	Toggle switch	Toggle between practice and free play	4	1
14	colored strings	So yolo can more easily detect string that is played	4	1
15	Raspberry Pi 5 USB-C voeding wit (27W)	power supply	2	1
16	Raspberry Pi - MicroSD-kaart, A2-Klasse, 32 GB	SD card	2	1
17	3mm ABS sheet	For building the enclosure	1	1

Total

18

Supplier	also available from	Units	Unit Cost
raspberrystore.nl	kiwi-electronics.com	1	\$ 174,95
aliexpress.com	amazon.com.be	1	\$ 14,69
raspberrystore.nl	kiwi-electronics.com	1	\$ 5,95
bol.com	aliexpress.com	1	\$ 24,90
bol.com	saake-shop.be	1	\$ 24,29
muziekhandeloudenaarde.com	clicktrackmusic.be	1	\$ 225,00
allekabels.be	123-3d.nl	1	\$ 0,22
allekabels.be	conrad.be	1	\$ 0,22
allekabels.be	otronic.nl	1	\$ 0,22
allekabels.be	kiwi-electronics.com		\$ 1,89

amazon.com.be	123-3d.nl	1	\$	4,99
conrad.be	amazon.com.be	1	\$	9,49
allekabels.be	kabeldirect.nl	1	\$	0,64
fruugo.be		1		9,95
123-3d.nl	kiwi-electronics.com	1		16,65
reichelt.com		1		19,91
Howest Industrial Design Center shop		1		11,7

Picture of



Max Cost	Real Cost
----------	-----------

€ 174,95	
----------	--

€ 14,69	
---------	--

€ 5,95	
--------	--

€ 24,90	
---------	--

€ 24,29	
---------	--

€ 225,00	
----------	--

€ 0,22	
--------	--

€ 0,22	
--------	--

€ 0,44	
--------	--

€ 1,89	
--------	--

€ 4,99

€ 9,49

€ 0,64

€ 9,95

€ 16,65

€ 19,91

€ 11,70

545,88

f Assembly

