

CLASS: 1NMCT-6
NAME: Christiaens
FIRSTNAME: Alexandra
Assembly Name : _____
Assembly Revision : _____
Approval Date : _____
Part Count : 78
Total Cost : €132

Part #	Part Name	Description	Revision	Qty
1	Raspberry Pi 3 Model B	Raspberry Pi 3 Model B for capturing the data and running the webserver.		1
2	Raspberry Pi Power Supply 5.1V/2.5A - Black - MicroUSB - EU/UK Plug	Power cable for Raspberry Pi		1
3	microSD 16 GB	Transcend 16GB microSD Premium 400x Class 10 UHS-I + Adapter - 60MB/s		1
4	ethernet cable	Ethernet cable to connect the Raspberry Pi with your PC.		1
5	9V battery	9V batteries to make sure the RGB led and speaker get enough Voltage and Ampère.		2
6	9V battery clip	Battery clips to easily attach the batteries to the rest of the components.		2
7	GPIO 40 pin expansion board for Raspberry Pi	GPIO pins to connect and program everything		1
8	GPIO ribbon cable	GPIO ribbon cable to connect the Raspberry Pi and the GPIO board		1
9	BB830 Solderless Plug-in Breadboard	Breadboard to attach diverent components together without having to solder everything.		2
10	Arduino Uno	Arduino to program the 4*7 segment display.		1

11	4 digit 7 segment display (https://www.adafruit.com/product/1269)	4 digit 7 segment display to display the time	1
12	DS18B20	Temperature sensor to determine the temperature in the room.	1
13	TSL2561 Luminosity Sensor	Luminosity sensor to determine light in the room	1
14	1602A LCD display	LCD display to show the next alarm, ip and some settings.	1
15	Level converter	Level converter to safely communicate between the Raspberry Pi and the Arduino.	1
16	Shift register	Shift register to diminish the amount of GPIO pins needed to communicate with the LCD-screen.	1
17	rotary encoder	rotary encoder to manually adjust the LED's	1
18	Power RGB LED	RGB LEDs to emulate the sun rising	1
19	Speaker	Speaker to play sounds to wake you up.	1
20	337B Transistors	Transistors to give the RGB LED and speaker enough Ampère.	4
21	diode	Diode to safely connect the speaker.	1
22	Button	Button to end the alarm when pressed.	1
23	xl4005 31	Led drivers to give the right Voltage to each colour of the RGB LED.	3
24	resistors	Different kinds of resistors to safely connect everything.	7
25	jumper wires	per wires to connect everything.	40

26

Multiplex wood panel

Multiplex wood panel to
make the box.

1

Total**78**

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(picture can only be added with END delivery of pro

Supplier	also available from	Units	Unit Cost
[1]	[2]	1	37.95 €
[1]	[3]	1	9.95 €
[1]	[4]	1	8.95 €
[1]	[5]	1	3.75 €
[6]	[7]	1	13.49 €
[1]	[8]	20	0.29 €
[1]	[9]	1	1.57 €
[1]	[10]	1	1.63 €
[1]	[11]	1	0.89 €
[1]	[12]	1	3.94 €

[13]	[14]	1	8.7817
[1]	[15]	1	0.47 €
[16]	[17]	1	1.71 €
[1]	[18]	1	12.50 €
[1]	[19]	1	0.25 €
[1]	[20]	20	0.04 €
[1]	[21]	1	2.31 €
[22]	[23]	10	0.32 €
Scavenged from some old speakers.	[24]	1	0.84 €
[1]	[25]	100	0.01 €
[1]	[26]	100	0.01 €
[1]	[27]	20	0.05 €
[28]	[29]	3	1.23 €
[1]	[30]	500	0.01 €
[1]	[31]	120	0.087158

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	Max Cost	Real Cost
€	37.95	37.95 €
€	9.95	9.95 €
€	8.95	8.95 €
€	3.75	3.75 €
€	26.98	13.49 €
€	0.57	5.70 €
€	1.57	1.57 €
€	1.63	1.63 €
€	1.78	0.89 €
€	3.94	3.94 €

€ 8.78 8.78 €

€ 0.47 0.47 €

€ 1.71 1.71 €

€ 12.50 12.50 €

€ 0.25 0.25 €

0.04 € 0.80 €

2.31 € 2.31 €

0.32 € 3.16 €

0.84 € 0.84 €

0.04 € 0.90 €

0.01 € 0.70 €

0.05 € 0.92 €

3.69 € 3.69 €

0.04 € 2.75 €

3.49 € 10.46 €

4.95 € 4.95 €

€ 131.60 31.73 €

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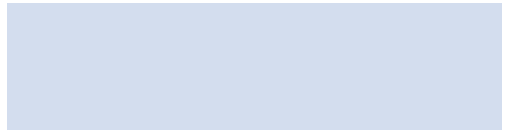
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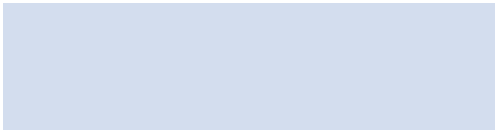


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