

Class	1MCT1
First Name:	Wiebe
Name	Cloet
Project Name :	Motivation Lock
Assembly Revision :	_____
Approval Date :	_____
Part Count :	457
Total Cost :	€302

Part #	Part Name	Description	Revision	Qty
1	Raspberry Pi 4B - 4gb	Pi to control the lock for the closet,run the front and back and an control	1	1
2	ESP 32	Used to control ledstrip	1	1
3	MPU6050	Accelerometer to check if you are moving	1	1
4	Hartslag sensor	Heartrate sensor	1	1
5	DS18B20 TO92 Temperatuur sensor	Temprature sensor to measure body heat	1	1
6	Programmable ledstrip	Ledstrip to show progress	1	1
7	Male-Male cables	to connect everything	1	40
8	Raspberry Pi T-cobbler	Breakout board for raspberry pi	1	1
9	Resistors	Resistors	1	400

10	Arm belt for sporting	To hold wearable	1	1
11	Storage box	To hold raspberry back and to put an object in	1	1
12	Parallax Continuous Rotation Ser	To Rotate the lock	2	1
13	Bolts and nuts	To keep everything in place	2	6
14	Arduino, Uno Rev 3	Wearable	2	1
15	Little wooden beams (30x30x450mm)	To make a fake wooden bottom	2	2
16	Wooden plank	To be the fake wooden bottom	2	1
17	Capacitor	To fix needing to press boot with ESP 32	2	1
18	Limitswitch	To check if the servo motor needs to stop spinning	2	1
	Lock	To lock box	2	1
Total			457	



(picture can only be added with END delivery of project!)

Supplier	also available from	Units	Unit Cost	Max Cost
https://www.hobbyelectronica.nl/product/wireless-4gb-765756931182.html?utm_source=Raspb%3Aronics.nl/raspberry-pi-4-model-b-4gb-765756931182.html		1	€ 59.90	€ 59.90
https://www.reichelt.com/be/nl/core-processor/?gclid=Cj0KCQiA1pyCBhQl-pc&currency=EUR&currency=EUR&currency=EUR		1	€ 8.99	€ 8.99
https://www.reichelt.com/be/nl/gclid=CjwKCAjw_JuGBhBkEiwA1xmbRanoFhtml?PROVID=2812&gclid=CjwKCAjw_JuGBhBkEiwA1xmbRanoFhtml		1	€ 3.94	€ 3.94
https://www.hobbyelectronica.nl/hartslag-sensor.html?source=or-open-source-hardware-ontwik		1	€ 9.95	€ 9.95
https://www.reichelt.com/be/nl/thermometer/?gclid=Cj0KCQiA7YyCBhD_ARIp/nl/sensoren/ds18b20-to-92-the		1	€ 0.99	€ 0.99
https://www.hobbyelectronica.nl/product/eurolite-led-pixel-53.html?utm_source=googleshopping&utm_medium=op.nl/product/eurolite-led-pixel-53.html		1	€ 7.93	€ 7.93
https://www.reichelt.com/be/nl/6651716522-9200000114046698&gclid=CjwKCAjw_JuGBhBkEiwA1xmbRanoFhtml		1	€ 5.74	€ 5.74
https://www.reichelt.com/be/nl/D=2812&gclid=Cj0KCQiA7YyCBhD_ARIsAyword%7D&ext_cid=shgooaqbee		1	€ 3.91	€ 3.91
https://www.hobbyelectronica.nl/product/wireless-4gb-765756931182.html	https://www.reichelt.com/be/nl/	1	€ 3.95	€ 3.95

https://www.grandado.com/products/floven	https://nl.grandado.com/product	1	€ 9.99	€ 9.99
https://www.bol.com/nl/p/stanley-1-79-216-	https://speelgoedfamilie.nl/wone	1	€ 15.69	€ 15.69
https://www.parallax.com/product/parallax-	https://www.distrelec.be/en/ser	1	€ 19.29	€ 19.29
https://www.gamma.be/nl/assortiment/gam	https://www.gamma.be/nl/assor	2	€ 6.29	€ 12.58
https://benl.rs-online.com/web/p/arduino/71	https://www.bol.com/nl/p/uno-r	1	€ 19.48	€ 19.48
https://nubuiten.be/douglas-regel-40-x-60-5	https://www.afwerkingshop.be/l	1	€ 8.25	€ 8.25
https://www.gamma.be/nl/assortiment/tuing	https://www.hubo.be/nl/p/plan-k-geschaafd-180x14x1-5-cm/357415.html	1	€ 7.99	€ 7.99
https://www.kiwi-electronics.nl/10uf-63v-co	https://www.conrad.be/p/kemo	1	€ 0.95	€ 0.95
https://benl.rs-online.com/web/p/limit-switches/1258469/?cm_mmc=BE-PI		2	€ 47.10	€ 94.20
https://www.onlinedeurbeslagshop.nl/Hangslot-Grendel-Met-Schoot-en-Sl		1	€ 7.95	€ 7.95
				€ 301.67

Real Cost

€ 59.90

€ 8.99

€ 3.94

€ 9.95

€ 0.99

€ 7.93

€ 5.74

€ 3.91

€ 3.95

€ 9.99

€ 17.89

€ 19.29

€ 12.58

€ 29.56

€ 8.25

€ 7.99

€ 3.45

€ 112.00

€ 7.95

Bill of Materials for LEGO® Design

EXAMPLE on how to list parts of your project

Assembly Name :	Mini X-Wing™
Assembly Number :	Custom
Assembly Revision :	
Approval Date :	
Pieces :	46
Total Cost :	\$5.85



Category	Part #	Elem ID	Part Name	Color	Qty	Supplier
Bricks, Sloping	50746	4504369	ROOF TILE 1X1X2/3, ABS	1 - White	1	nephew
Plates	3024	302401	PLATE 1X1	1 - White	1	nephew
Plates	3023	302301	PLATE 1X2	1 - White	2	nephew
Plates	3023	4211398	PLATE 1X2	194 - Medium Stone Grey	1	nephew
Plates	3794	379401	PLATE 1X2 W. 1 KNOB	1 - White	1	nephew
Plates	3623	362301	PLATE 1X3	1 - White	1	nephew
Plates	3623	362321	PLATE 1X3	21 - Bright Red	1	nephew
Plates	94148	302201	PLATE 2X2	1 - White	1	nephew
Plates, Special	6141	4210633	PLATE 1X1 ROUND	199 - Dark Stone Grey	1	nephew
Plates, Special	3070	307021	FLAT TILE 1X1	21 - Bright Red	4	nephew

Plates, Special	2412	241201	RADIATOR GRILLE 1X2 1 - White		1	nephew
Plates, Special	6019	4538353	PLATE 1X1 W/HOLDER VERTICAL	1 - White	4	nephew
Plates, Special	2431	4558168	FLAT TILE 1X4	1 - White	1	nephew
Plates, Special	63868	4535737	PLATE 2X1 W/HOLDER,VERTICAL	1 - White	4	nephew
Plates, Special	2540	4211632	PLATE 1X2 W. STICK	194 - Medium Stone Grey	4	nephew
Plates, Special	3176	4225733	COUPLING PLATE 2X2	199 - Dark Stone Grey	1	nephew
Bricks, Special	49668	4224793	PLATE 1X1 W/TOOTH	5 - Brick Yellow	1	nephew
Technic	32123	4211573	1/2 BUSH	194 - Medium Stone Grey	4	nephew
Technic	6590	4211622	BUSH FOR CROSS AXLE	194 - Medium Stone Grey	8	nephew
Accessories	3957	4211473	STICK/AERIAL	194 - Medium Stone Grey	4	nephew

Total

46



Alternative available from	Action?	Units	Picture	Unit Cost	max Cost	Real Cost
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.20	\$ 0.20
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.15	\$ 0.15	\$ 0.15
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set		each		\$ 0.10	\$ 0.40	\$ 0.40

4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.15	\$ 0.60	\$ 0.60
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.20	\$ 0.20	\$ 0.20
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.15	\$ 0.60	\$ 0.60
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.15	\$ 0.60	\$ 0.60
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.20	\$ 0.20	\$ 0.20
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.10	\$ 0.10	\$ 0.10
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.10	\$ 0.40	\$ 0.40
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.15	\$ 1.20	\$ 1.20
4500069: Plate 1X2 W. 1 Knob Brickset: LEGO set	each		\$ 0.10	\$ 0.40	\$ 0.40
				\$ 5.85	\$ 5.85