

Class	1MCT3
First Name:	Arno
Name	Van Brussel
Project Name :	S.A.M.
Assembly Revision :	
Approval Date :	
Part Count :	27
Total Cost :	€525

Part #	Part Name	Description	Revision	Qty
1	Gewichtssensor	Gewichtssensor Digital Load Cell Weight Sensor		2
2	HX711	Digitaal-analoog converter om digitaal signaal van gewichtssensor om te		2
3	Raspberry Pi 4 8GB	Raspberry Pi to control the entire project		1
4	Movement sensor	Checks movement around the S.A.M. and sends the info to the pi		1
5	Magnet sensor	magnet sensor sees if door is closed or not and sends the info to the pi		2
6	2 x 5V Relay Module	Keeps the 12V leds separated from the raspberry pi		1
7	Servomotor	The servo opens and closes the lock		3
8	Buttons	To activate the doors		2
9	Jumper wires	To connect the components		1
10	Buzzer	Makes a sound when door locks or unlocks to warn the user		1

11	Power led	The led lights up the compartment	2
12	LCD	Screen shows the pi's IP to connect and instructions to how to operate the S.A.M.	1
13	Scharnier	allows door to open/close	6
14	Door lock	The lock controlled by the servo motor	1
15	rfid sensor	Rfid sensor to let owner open or close the door	1
16	Multiplex 8mm	To make the S.A.M. itself	1
17	Raspbeery pi GPIO expansion board	Allows you to screw the jumper cables to the pi, making them more	1
18	Breadboard	To connect the components	1
19	3D printing	To make the housing of the lcd	1
20	SD card	The pi's os runs on an sd card	1
21	Power supply	Powers the components	1

**Total**

**27**

## Picture of Assembly



Supplier	also available from	Units	Unit Cost
<a href="#">table-Electronic/dp/B0BTKSB2ZH/ref=sr_1_1//www.sparkfun.com/products/</a>		2	12,00 €
<a href="#">ortable-Electronic/dp/B0BTKSB2ZH/ref=sr_1_3/sensors/weight-pressure-force/lo</a>		2	5,00 €
<a href="#">d=1&amp;ie=UTF8&amp;condition=new&amp;tag=tweakersbe-ry-pi/rpi4-modbp-8gb/raspberry-pi-</a>		1	94,95 €
<a href="#">BD%C3%95%C3%91&amp;crd=1YR8LLJGKFJ.elektor.nl/hc-sr501-pir-motion-sen</a>		2	9,94 €
<a href="#">.be/dp/B07DK3PHMW?psc=1&amp;ref=ppx_yo</a> atelectronics.com/mc38-magnetic-		1	4,99 €
<a href="#">.be/dp/B078Q326KT?psc=1&amp;ref=ppx_yo2</a> d=CjwKCAjw-b-kBhB-EiwA4fvKrO		1	5,99 €
<a href="#">om/nl/mg996r-180-digital-metal-gear-servo-11k</a> nl/mechanica-en-actuatoren/motor		1	7,00 €
<a href="#">.be/dp/B09SKZNWDH?psc=1&amp;ref=ppx_yo</a> ry=&gclid=CjwKCAjw-b-kBhB-Eiw		1	13,99 €
<a href="#">.be/dp/B0BMZV9GQH?psc=1&amp;ref=ppx_yo</a> 28?language=en&ac=ProductCas		1	12,69 €
<a href="#">=sr_1_5?crd=GT3JUNDPEXFY&amp;keywords=acti</a> s-online.com/web/p/piezo-buzzers		1	7,92 €

<a href="#">file-Projector-Grille/dp/B07SS81MTM/ref=snenten/power-leds/3-watt/3-watt-w</a>	2	10,99 €
<a href="#">om.be/dp/B075NKWNT1?psc=1&amp;ref=ppx_yo2ovlid=CjwKCAjw-b-kBhB-EiwA4fvKrPt5-stuk/9300000094340970/?bltgh:2393695&amp;gclid=CjwKCAjw-b-kBhB-EiwA4fvKrPt5-stuk/9300000094340970/?bltgh:</a>	1	1,76 €
<a href="#">.8c82be30-0c07-4fa9-ba24-4ca75503881e"&gt;.8c82be30-0c07-4fa9-ba24-4ca75503881e</a> l/assortiment/schuifgrendel-verzin	1	7,56 €
<a href="#">/-/en/dp/B01M28JAAZ/ref=twister_B09Y1CDD9493893/?Referrer=ADVNLGOO00</a>	1	5,99 €
NA	NA	1 48,99 €
<a href="#">om.be/dp/B09PQQNMY3?psc=1&amp;ref=ppx_yo2ovlid=CjwKCAjw-b-kBhB-EiwA4fvKrFl</a>	1	31,99 €
<a href="#">om.be/dp/B08Y8Q94XF?psc=1&amp;ref=ppx_yo2ovlid=CjwKCAjw-b-kBhB-EiwA4fvKrI</a>	1	33,98 €
NA	NA	1 - €
<a href="#">om.be/dp/B09X7BYSFG?psc=1&amp;ref=ppx_yo2ovnc=1&amp;gclid=CjwKCAjw-b-kBhB-Eiv</a>	1	14,99 €
<a href="#">medics.com/dell-pcb030-460w-power-supply-for030-dell-460-watts-power-supply-</a>	1	118,06 €

Max Cost	Real Cost
€ 24,00	
€ 10,00	
€ 94,95	
€ 9,94	
€ 9,98	
€ 5,99	
€ 21,00	
€ 27,98	
€ 12,69	
€ 7,92	

€ 21,98

€ 6,19

€ 10,56

€ 7,56

€ 5,99

€ 48,99

€ 31,99

€ 33,98

€ -

€ 14,99

€ 118,06

**€ 524,74**