

Class	1MCT6
First Name:	Tom
Name	Maenhoudt
Project Name :	Smart Card
Assembly Revision :	2.0
Approval Date :	
Part Count :	20
Total Cost :	€101

Part #	Part Name	Description	Revision	Qty
1	Stepper motor with ULN 2003 outbreak board	Motor to change shooting direction.	2	1
2	Ultrasonic sensor	A sensor to detect if cards are placed.	2	1
3	LDR	Resistor that changes with the amount of light that shines on it.	1	1
4	Tilt sensor	Sensor to detect if the device stands in its right position.	1	1
5	5V DC motor	Motor to shoot cards	2	1
6	Raspberry Pi 4	A small and powerfull mini computer.	1	1
7	Cables	Wire to connect everything.	1	10
8	Display	Display to show the IP adress from the Raspberry Pi.	1	1
9	SD card 16GB	SD card for the Raspberry Pi.	1	1
10	Raspberry PI T-cobbler	Outbreak piece for the Raspberry Pi.	1	1

Transistor (NPN)	Transistor to connect the 5V DC motor	2	1
<b>Total</b>			<b>20</b>



Supplier	also available from	Units	Unit Cost
Telehome	D'tron	1	€ 4.00
Telehome	<a href="https://www.amazon.com/HC-5">https://www.amazon.com/HC-5</a>	1	€ 4.23
Telehome	D'tron	1	€ 2.94
Telehome	D'tron	1	€ 7.00
Telehome	D'tron	2	€ 2.79
		1	€ 54.00
	<a href="https://www.alternate.be/Raspberry-Pi-Fou">https://www.alternate.be/Raspberry-Pi-Fou</a> <a href="https://www.bol.com/nl/p/raspb">https://www.bol.com/nl/p/raspb</a>		
Telehome	D'tron	10	
Telehome	<a href="https://www.amazon.de/dp/B07">https://www.amazon.de/dp/B07</a>	1	€ 6.99
	<a href="https://www.alternate.be/SanDisk/microSD">https://www.alternate.be/SanDisk/microSD</a> <a href="https://www.bol.com/nl/p/sams">https://www.bol.com/nl/p/sams</a>	1	€ 7.99
Telehome	D'tron	1	€ 8.00

Telehome

D'tron

1 \$ 0.35

Max Cost	Real Cost
€ 4.00	€ 3.40
€ 4.23	€ 4.23
€ 2.94	€ 2.36
€ 7.00	€ 5.99
€ 2.79	€ 3.95
€ 54.00	€ 46.99
€ 3.00	€ 1.25
€ 6.99	€ 6.99
€ 7.99	€ 4.99
€ 8.00	€ 9.99

€ 0.35 € 0.35

€ 101.29

# Revision History

Whenever there are things that change in the original BOM you note this down here!

Project Name :

Revision	Revision Summary	Approval Date
Laser sensor	Laser sensor is replaced with HC-SR04 ultrasonic sensor due to issues with laser sensor.	
Stepper motor	Reduced the amount to one and is now used to change shooting direction.	
Servo motor	Servo motor is replaced with one 5V DC motor to shoot cards.	

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