

**Class** 1MCT1  
**First Name:** Yitro  
**Name** Verstraeten  
**Project Name :** Smart FlowerPot  
**Assembly Revision :** \_\_\_\_\_  
**Approval Date :** \_\_\_\_\_  
**Part Count :** 21  
**Total Cost :** €154

Part #	Part Name	Description	Revision	Qty
1	Raspberry Pi 4 2GB	Raspberry Pi to control the entire system	1	1
2	Flowerpot	The Flowerpot contains the plant.	1	2
3	Temperature sensor DS18B20	Measures the temperature of the room	1	3
4	Moisture Sensor	Measure the moisture of the soil	1	1
5	Light sensor	The light sensor measures the ambient light	1	5
6	12v3A adapter	To power the entire project.	1	1
7	Plant	The reason why I do this project, to keep my plants alive.	1	1
8	Water Pump	To water the plant automatic	1	1
9	OSB plate	To make the enclosure of the Water resevoir and Raspberry pi	1	1
10	Led Strip	To indicate if the water is good and the lichtsning and temperature	1	1

11	IRF520 Mosfet	To control the Led strip and control the water pump.	1	4
12	LCD display	To show some information	1	1
<b>Total</b>				<b>21</b>

## Picture of Assembly



Supplier	also available from	Units	Unit Cost
		1	€ 39,95
<a href="#">Raspberry Pi 4 Model B / 2GB   Allernieuw: Raspberry Pi 4B - 2Gb (raspb</a>		2	€ 1,50
<a href="#">PAPAJA Sierpot, groen - IKEA</a>	<a href="#">SOCKER Sierpot, verzinkt binr</a>	3	€ 3,45
<a href="#">DS18B20 temperatuur sensor - HobbyElec</a>	<a href="#">DS18B20 Temperatuur sensor</a>	1	€ 5,43
<a href="#">Seeed Studio, Grove - Capacitive Moisture</a>	<a href="#">Seeed Studio 101020008, Moi</a>	1	€ 3,31
<a href="#">ywzhushengmaoyi 4Pin photodiodes Sens</a>	<a href="#">Module électronique 4Pin phot</a>	1	€ 16,90
<a href="#">bol.com   LEICKE ULL PSU-voeding 12V 3</a>	<a href="#">Universele AC - DC Adapter -</a>	1	€ 14,90
Local flower shop		1	€ 15,49
<a href="#">Modelcraft brandstof-transmissiepomp 12V V/DC, 0,6 l/min   Conrad.be</a>		1	€ 10,39
local hardware store		1	€ 9,95

[Grundig multicolor ledstrip | Action.com](#)

gjes IRF520NPBF MOSFET 1 N-kanaal 48 W T-ver Mosfet Nieuwe Originele mosfi	4	€	0,58
	1	€	8,95

[HD44780 20x4 LCD display module blauw backlight \(hobbyelectronica.nl\)](http://hobbyelectronica.nl)

Max Cost	Real Cost
€ 39,95	
€ 3,00	
€ 10,35	€ 7,94
€ 5,43	€ 8,13
€ 16,55	€ 22,19
€ 16,90	€ 19,89
€ 14,90	
€ 15,49	€ 15,49
€ 10,39	
€ 9,95	

€ 2,32 € 5,45

€ 8,95

€ **154,18** € 79,08