

## Kosten teus

datum	omschrijving	leverancier	ex btw	prijs incl verzending
3-05-17	Micro SD kaart 32 GB	TinyTronics	€ 9,92	€ 14,50
1-05-17	Grove dust sensor PPD42NS	Kiwi Electronics	€ 18,95	
	Arduino Uno Rev3 ATmega328	Kiwi Electronics	€ 23,95	
	Grove Mega Shield V1.2 Arduino	Kiwi Electronics	€ 11,95	€ 59,80
10-04-17	Accu 12V HJB-12680	Fijnstofmeter	€ 35,35	€ 42,35
3-04-17	Grove proto shield 2X	Kiwi Electronics	€ 5,00	
	grove relay	Kiwi Electronics	€ 4,95	€ 9,90
	Grove Green wrapper 4 pack	Kiwi Electronics	€ 2,95	
	4-channel I2C logic converter BSS138 2X	Kiwi Electronics	€ 4,95	€ 26,30
3-04-17	5V fan	Ben's Electronics	€ 3,99	
	krimpkaus	Ben's Electronics	€ 3,45	
	DC jack kabel 2X	Ben's Electronics	€ 0,70	
	DC power jack	Ben's Electronics	€ 0,45	
	I2C logic converter	Ben's Electronics	€ 1,49	€ 2,98
	KIS3R33S USB buck converter 3A	Ben's Electronics	€ 3,00	
3-04-17	mini USB board	Ben's Electronics	€ 1,25	€ 18,98
23-03-17	Grove temp/hum/baro BME280	Kiwi Electronics	€ 19,50	€ 21,50
	weerstand 1K/100/33K	Kiwi Electronics	€ 3,00	
15-03-17	Grove led 2X	Kiwi Electronics	€ 4,50	€ 12,45
15-03-17	Pushbutton/led 2X	Sossolutions	€ 7,95	
	SMA uFL/u RF Adapter cable	Sossolutions	€ 6,95	
	Through-Hole resistors 22K	Sossolutions	€ 3,75	
16-03-17	rooster 2X	Karwei	€ 22,63	€ 27,38
8-03-17	Grove button	Kiwi Electronics	€ 2,50	
	3-weg JST SM female/male connector	Kiwi Electronics	€ 1,90	€ 3,80
	waterdichte kabel set	Kiwi Electronics	€ 2,95	€ 2,95
	weerstand 33K 15K	Kiwi Electronics	€ 2,00	
	Grove 4 pin female conv cable	Kiwi Electronics	€ 4,95	€ 19,25
24-02-17	GrovePI+ Raspberry Pi shield	Kiwi Electronics	€ 34,95	
	Grove green wrapper 4 pack	Kiwi Electronics	€ 2,95	
	Grove 4 pin cable 5 pack	Kiwi Electronics	€ 3,50	€ 49,30
6-02-17	USB-TTL cable CP2102	Kiwi Electronics	€ 11,95	
	40-pin GPIO header ADA-1979	Kiwi Electronics	€ 2,95	€ 17,40
5-02-17	RP-SMA uFI RF cable ADA-852	Kiwi Electronics	€ 4,95	
	Grove 4-pin 10-pack connectors	Kiwi Electronics	€ 1,75	
	Grove green wrapper 4 pack	Kiwi Electronics	€ 2,95	
	Grove loudness	Kiwi Electronics	€ 7,95	
	Grove relay	Kiwi Electronics	€ 4,95	
	Grove 4-pin cables 4-pack	Kiwi Electronics	€ 3,50	
	Grove dust sensor PPD42NS	Kiwi Electronics	€ 17,95	
	Grove Pi+ Raspberry Pi shield	Kiwi Electronics	€ 34,95	
	Grove I2C hub	Kiwi Electronics	€ 3,50	
	Grove protoshield	Kiwi Electronics	€ 2,50	€ 84,95
13-02-17	Grove GPS	Kiwi Electronics	€ 35,95	
	Arduino Uno wifi	Kiwi Electronics	€ 39,95	
	Grove Mega Shield V1.2 Arduino	Kiwi Electronics	€ 11,95	
	Raspberry Pi 3 + behuizing/voeding 16GB	Kiwi Electronics	€ 64,95	
13-02-17	32 GB micro SD card	Kiwi Electronics	€ 16,95	€ 169,75

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3-01-17	Raspberry Pli3 incl voeding/16 GB	Kiwi Electronics	€ 53,68	
	Adafruit DHT22 temp/hum	Kiwi Electronics	€ 10,95	€ 75,90
5-01-17	Adafruit GPS mini kit	Kiwi Electronics	€ 49,95	
	GPS antenne sma	Kiwi Electronics	€ 14,95	
	40-pin GPIO header ADA-1979	Kiwi Electronics	€ 2,95	
	Adafruit Feather ESP8266 wifi	Kiwi Electronics	€ 18,95	
	GPS accu CR1220	Kiwi Electronics	€ 1,95	
	Adafruit BME280 temp/hum/baro	Kiwi Electronics	€ 22,50	€ 111,25
1-01-17	DHT22 temp/hum	Miniinthebox	€ 9,79	
	DHT11 hum/temp	Miniinthebox	€ 2,93	
	Raspberry Pi breakout board	Miniinthebox	€ 19,59	€ 34,15
24-02-17	RS232 verloopsteker	Alle Kabels	€ 8,22	€ 9,95
13-09-16	LoRaWan Things Network gateway	Things Network	€ 250,00	
	LoRaWan temp node	Things Network	€ 70,00	€ 395,07
23-12-16	Dylos DC1100 150+280 US\$	Amazon USA		€ 400,00
21-06-17	Grove OLED display 2X I2C-bus	Kiwi Electronics	€ 14,83	
	Grove proto shield 2X	Kiwi Electronics	€ 2,07	
	Grove 4 pin female cable 5 pack	Kiwi Electronics	€ 3,93	
	Grove 4 pin male cable 5 pack	Kiwi Electronics	€ 2,89	€ 51,15
9-07-17	soldier station + soldier mate5rials	Conrad		€ 39,07
6-07-17	Grove GPS module GY-NE6MV2	Tiny Electronics	€ 15,70	€ 19,00
14-07-17	Plantower PMS7003 dust sensor	Alibaba		€ 22,36
16-07-17	PL2303TA 3.3v-5v TTL USB Serial 2X	Tiny Electronics	€ 8,68	€ 10,50
14-08-17	Grove GPS + antenne	Kiwi Electronics	€ 33,80	€ 40,90
14-08-17	Plantower PMS7003 dust sensor	AliExpress		€ 20,50
1-07-17	Nova SDS011 dust sensor	Miniinthebox		€ 30,00
19-08-17	gutter collect case 70mm	Praxis		€ 24,90
	gutter end piece 2*100mm + 4*65mm	Praxis		€ 14,60
	PVC glue, white paint, RvS screws	Praxis		€ 18,10
	PVC air sprout 70mm	Praxis		€ 14,70
31-08-17	Pi adapter + cable (small sized)	Hema		€ 19,00
1-09-17	Pi Zero V1.3 + sd mem card + HDMI plug	Sossolutions		€ 24,90
	<b>Totaal</b>	Hagen		€ 1.959,54
	Gas sensor (estimated)	AlphaSense		€ 55,00
	transport costs			€ 15,00
	Cables, ...			€ 10,00
	other materials			€ 50,00
	<b>estimated total</b>			
	Pro memorie Fontys GreenTechLab	Coenders		€ 2.040,25
2017/08/20	Last date of update			

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sensor kit nr 1	sensor kit nr 2	LoRaWan ga- teway + node	Lorawan node
€ 12,00	€ 12,00	€ 12,00	€ 12,00
€ 3,57	€ 3,57	€ 3,57	€ 3,57
€ 1,04	€ 1,04	€ 1,04	€ 1,04
€ 23,60	€ 23,60	€ 23,60	€ 23,60
€ 0,50	€ 0,50		
€ 5,99	€ 5,99		
€ 34,95	€ 34,95	€ 34,95	€ 34,95
€ 3,57	€ 3,57		
€ 4,24	€ 4,24		
€ 9,62			
€ 43,50			

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€ 64,95	€ 64,95	€ 64,95	€ 64,95
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€ 9,79	€ 9,79		
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		€ 250,00	€ 70,00
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€ 17,95	€ 17,95	€ 17,95	
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€ 22,36		€ 22,36	€ 22,36
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	€ 40,90	€ 40,90	€ 40,90
€ 20,30	€ 20,50	€ 20,50	€ 20,50
	€ 30,00	€ 30,00	€ 30,00

€ 36,15	€ 36,15		
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	€ 19,00		
	€ 24,90		

€ 314,07	€ 309,70	€ 565,72	€ 323,87
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€ 165,00	€ 165,00		
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€ 15,00	€ 15,00	€ 15,00	€ 15,00
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€ 10,00	€ 10,00	€ 10,00	€ 10,00
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€ 5,00	€ 5,00	€ 5,00	€ 5,00
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€ 550,02	€ 545,65	€ 602,02	€ 360,17
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## kosten GreenTechLab maart

<b>Naam</b>	<b>Prijs per stuk</b>	<b>Aantal</b>
SDS011	42 \$	2
824-HTU21D	10,48 €	2
Raspberry Pi 3 Model B	32,99 €	2
Raspberri PI Zero W	11 €	1
CO Sensor Pinned Package	20 \$	2
NO2 Sensor Pinned Package	20 \$	2
O3 Sensor Pinned Package	20 \$	2
H2S Sensor Pinned Package	20 \$	2
NO2 B43F	78 \$	2
CO B4	78 \$	2
OX A431	95 \$	2
NH3 B1	90 \$	2
4NH3-500	95,5 £	2
<b>Total</b>	<b>1.164,93 €</b>	

**Link**

<https://de.aliexpress.com/store/product/nova-PM-sensor-SDS011-High-precision-laser-pm2-5-air-quality-detection-sensor>  
[http://www.mouser.de/search/refine.aspx?Ntk=P\\_MarCom&Ntt=%20143795740](http://www.mouser.de/search/refine.aspx?Ntk=P_MarCom&Ntt=%20143795740)  
<http://uk.rs-online.com/web/p/processor-microcontroller-development-kits/8968660/>  
<https://www.kiwi-electronics.nl/raspberry-pi-zero/raspberry-pi-zero-w>  
<https://www.spec-sensors.com/product/co-carbon-monoxide-sensor-1000-ppm/>  
<https://www.spec-sensors.com/product/no2-nitrogen-dioxide-sensor-20-ppm-pinned-package/>  
<https://www.spec-sensors.com/product/ozone-o3-sensor-20-ppm-pinned-package/>  
<https://www.spec-sensors.com/product/h2s-hydrogen-sulfide-sensor-50-ppm-pinned-package/>  
[http://www.isweek.com/product/no2-b43f-nitrogen-dioxide-sensor-4-electrode-no2-b43f\\_1901.html](http://www.isweek.com/product/no2-b43f-nitrogen-dioxide-sensor-4-electrode-no2-b43f_1901.html)  
[http://www.isweek.com/product/co-b4-carbon-monoxide-sensor-4-electrode-co-b4\\_1791.html](http://www.isweek.com/product/co-b4-carbon-monoxide-sensor-4-electrode-co-b4_1791.html)  
[http://www.isweek.com/product/ox-a431-oxidising-gas-sensor-ozone-nitrogen-dioxide-4-electrode-ox-a431\\_1904.html](http://www.isweek.com/product/ox-a431-oxidising-gas-sensor-ozone-nitrogen-dioxide-4-electrode-ox-a431_1904.html)  
[http://www.isweek.com/product/nh3-b1-ammonia-sensor-nh3-b1\\_1712.html](http://www.isweek.com/product/nh3-b1-ammonia-sensor-nh3-b1_1712.html)  
<http://euro-gasman.com/ammonia-nh3-ss-gas-sensor-816.html>

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odule-Super-dust/421570\_32317805049.html

## kosten GreenTechLab juni

<b>Product</b>	<b>Price per Piece [€]</b>	<b>Pieces</b>	<b>Price total [€]</b>
SPECK Pinned Package Sensors	17,76	8	142,08
SPEC Digital Sensors	67,11	4	268,44
Alphasense 4-electrode ISB	86,00	1	86,00
Alphasense Ammonia Sensor NH3-B1	64,00	1	64,00
DHT22	6,00	2	12,00
SDS011	39,95	2	79,90
Raspberry Pi	39,50	2	79,00
SD Karten	8,00	2	16,00
Arduino UNO	12,00	2	24,00
GPS Modul	23,99	1	23,99
Cabels	6,89	1	6,89
Wood	25,00	1	25,00
Screw	9,45	2	18,90
Hinge	6,18	2	12,36
Fly Screen	1,79	2	3,58
Totaal			<b>862,14</b>
 RN2483	 13,18	 1	 13,18
 Totaal			 875,32