Table of costs and bills (the shopping list)

datum	omschrijving	leverancier	ex btw	prijs incl verzending	sensor kit nr 1	sensor kit nr 2	LoRa Gateway	Lora VW '17 SDS011 DHT22	LoRa 1 node SDS011 BME280	Lora 2 node PMS7003 BME680	
3-05-17	Micro SD kaart 32 GB	TinyTronics	€ 9,92	€ 14,50	€ 12,00	€ 12,00	for some prices the average is taken *				
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		€ 3,57	€ 3,57					
	4-channel I2C logic converter BSS138 2X	Kiwi Electronics	€ 4,95	€ 26,30							
3-04-17	5V fan	Ben's Electronics	€ 3,99								
	krimpkous	Ben's Electronics	€ 3,45		€ 1,04	€ 1,04					
	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	€ 23,60	€ 23,60					
	weerstanden 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 resisters 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							
	weerstanden 33K 15K	Kiwi Electronics	€ 2,00		€ 0,50	€ 0,50					
	Grove 4 pin female conv cable	Kiwi Electronics	€ 4,95	€ 19,25	€ 5,99	€ 5,99					
24-02-17	GrovePI+ Raspberry Pi shield	Kiwi Electronics	€ 34,95		€ 34,95	€ 34,95					
	Grove green wrapper 4 pack	Kiwi Electronics	€ 2,95								
	Grove 4 pin cable 5 pack	Kiwi Electronics	€ 3,50	€ 49,30	€ 4,24	€ 4,24					
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		€ 9,62						
	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		€ 43,50						
	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							
3-01-17	Raspberry PIi3 incl voeding/16 GB	Kiwi Electronics	€ 53,68		€ 64,95	€ 64,95					
	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		€ 9,79	€ 9,79		€ 9,79			DHT22
	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		€ 17,95	€ 17,95			€ 5,35	€ 5,35	Oled display *
	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	€ 22,36						
16-07-17	PL2303TA 3.3v-5v TTL USB Serial 2X	Tiny Electronics	€ 8,68	€ 10,50							
14-08-17	Grove GP5 + antenne	Kiwi Electronics	€ 33,80	€ 40,90		€ 40,90					
14-08-17	Plantower PMS7003 dust sensor	AliExpress	€ 20,50		€ 20,30	€ 20,50				€ 20,50	PMS7003 *
1-07-17	Nova SDS011 dust sensor	Miniinthebox	€ 30,00			€ 30,00		€ 30,00	€ 30,00		SDS011 *
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		€ 36,15	€ 36,15					
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								
8-11-17	Grove BME280 temp/rv/pres sensor	Kiwi Electronics	€ 20,50						€ 16,79		BME280 *
	passieve GPS antenne 1 Dbi ADA-2461	Kiwi Electronics	€ 4,95								
	Grove GPS SS-113020003	Kiwi Electronics	€ 35,95						€ 27,83	€ 27,83	GPS *
5-09-17	Antenne 868 Mhz 5 dBi omni LoRaWan	Domotica	€ 12,95								
20-09-17	Marvin LoRa dev. Board	Conrad	€ 84,70					€ 84,70			Marvin LoRa
22-09-17	PyCom LoPy wifi,ble module	PyCom	€ 35,95								
	PyCom LoRa SigFox antennakit	PyCom	€ 9,00	€ 65,94							
2-09-17	LoRaWan Lite Gateway	IMST Gmbh	€ 248,65				€ 248,65				LoRa Gateway
	Oled display geel/blauw 2X	Ali$Express	€ 2,44	€ 4,88							
	USB TTL serial FTDI FT232RL 2X	AliExpress	€ 1,44	€ 2,88							
	Dust sensor PMS7003	AliExpress		€ 17,14							
	sensor hum/temp/press BME280 3X	AliExpress	€ 2,71	€ 8,13							
	LoRaWan+Oled display SX1276 ESP+ant	Aliexpress		€ 14,18							
	ESP8266 CH340 NodeMcu V3 2X	AliExpress	€ 3,19	€ 6,38							
8-11-17	BME280 meteo sensor	Kiwi Electronics	€ 24,81	€ 61,40							
	GPS antenna	Kiwi Electronics	€ 5,99								
	Grove GPS	Kiwi Electronics	€ 43,50								
13-11-17	SSD1306 SPI oled display 2 X	Ali$Express	€ 2,44	€ 6,24							
20-11-17	MPS7003 Plantower dust sensor	Ali$Express		€ 17,14							
24-11-17	GrovePI+ Raspberry Pi shield	Kiwi Electronics		€ 33,71							
26-11-17	BME280 meteo sensor 3 X	Kiwi Electronics	€ 2,71	€ 10,04							
5-12-17	PyCom Lopy-4 +exp board+antenna	PyCom		€ 81,54					€ 73,64	€ 73,64	LoPy *
8-12-17	Sensorkit case PVC air pipe	InterChalet	€ 29,49								
8-12-17	Measurement case 100 mm air tube	Praxis	€ 10,75								
	measurement case leave filter	Praxis	€ 1,55								
	measurement case 100-110 tube	Praxis	€ 3,45								
	measurement case bull eye	Praxis	€ 1,11								
	measurement case 100 mm brace	Praxis	€ 1,25								
19-12-17	LoRa ESP32 wifi+antenna	AliExpress		€ 14,18							
10-12-17	CH340 Lua wifi dev board 2 X	AliExpress	€ 2,33	€ 6,38							
22-01-18	BME680 AQI/temp/hum/press sensor 2 X	AliExpress	€ 20,95	€ 43,90						€ 21,95	BME680
22-01-18	GrovePI+ Raspberryi shield	Kiwi Electronics		€ 40,90							
2-02-18	IC bridge USB-UART 2 X	DigiKey.com	€ 23,72	€ 61,64							
	FT232H USB to GPIO/SPI/I2C 2 X	DigiKey.com	€ 24,06								
3-02-18	SSD1306 oled display I2C 2 X	AliExpress	€ 2,05	€ 5,78							
24-02-18	kabeldoos sensor case	InterChalet	€ 5,39						€ 5,39	€ 5,39	Case
1-04-18	LoPy-4	Tiny Electronics	€ 50,82	€ 77,75							
	PyCom expansion board 2.0	Tiny Electronics	€ 22,99								
	PyCom SigFox antenna LoRa	Tiny Electronics	€ 12,71								
	DuPont jumper draad 4 X	Tiny Electronics	€ 4,54								
16-04-18	SSD1306 I2C oled display	TinyTronics.nl		€ 9,50							
20-02-18	4 ports USB hub 2 X	AlleKabels	€ 13,93	€ 27,85							
25-03-18	transparant krimpkous 3 X	AliExpress		€ 3,96					€ 1,00	€ 1,00	wiring*