

Minimal Node Design	Price in USD	estimated Power cons	Buy Link	Instructables	
Solarcell	0.45	0-60mA	https://de.aliexpress.com/item/33022165680.html?spm=a2g0o.productlist.0.0.61e51507c4c0&algo_expvid=003a0556-f8e-48dc-9150-d418065a26a&algo_expid=003a0556-f8e-48dc-9150-d418065a26a-1&tsid=a349a973-2046-4cb2-bbc1-23adbc58ba1d&ws_ab_test=searchweb0_0_searchweb201602_9_searchweb201603_52		
most cell sensor	0.22	<20mA	https://de.aliexpress.com/item/32900755584.html?spm=a2g0o.productlist.0.0.66e56f100xc0&algo_expvid=8ba279e9-5105-475e-b7e7-2b895298aaf&algo_expid=8ba279e9-5105-475e-b7e7-2b895298aaf-1&tsid=65a4af74-e8af-4d49-98b3-cefbdc0b17c&ws_ab_test=searchweb0_0_searchweb201602_9_searchweb201603_52		
Light	KY-018	0.2	https://de.aliexpress.com/item/32900036368.html?spm=a2g0o.productlist.0.0.3f014341e1Y9&algo_expvid=0d845fe-c092-4d62-8bd9-78f8f1b50&algo_expid=0d845fe-c092-4d62-8bd9-78f8f1b50-1&tsid=0f5bae62-aaf7-4aa1-a91c-dbe705d21d&ws_ab_test=searchweb0_0_searchweb201602_9_searchweb201603_52		
Batterie	TR 5000mAh 14500 3.7 V Lithur	0.33	https://de.aliexpress.com/item/4000215881979.html?spm=a2g0o.productlist.0.0.17184791a1UjJ&algo_expvid=1af38cf-e6bf-48df-42c4-29527e1bcb&algo_expid=1af38cf-e6bf-48df-42c4-29527e1bcb&tsid=0a852d38-6e85-4623-85e3-9a1e23b5a5c7&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52		
LoRa Communication	lora nr4338	2.87	<100mA <13mA	https://de.aliexpress.com/item/32883370118.html?spm=a2g0o.productlist.0.0.25f45f5v4zW2&algo_expvid=7df3e882-27f5-473e-966c-e2dc739ecd2&algo_expid=7df3e882-27f5-473e-966c-e2dc739ecd2-4&tsid=37a2efe2-1dbb-4aa1-8b7a-7265174e5859&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52	
Attiny85	Attiny85	1.07	2mA	https://de.aliexpress.com/item/32674596029.html?spm=a2g0o.productlist.0.0.13b75838wp0RwM&algo_expvid=0047f43-b07-41b4-840c-e49bc425f29c3&algo_expid=0047f43-b07-41b4-840c-e49bc425f29c3&tsid=2e9ee964-9610-4406-9473-74e50992ef7c&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52	
Hygrometer / Temperature	DHT11	0.57		https://de.aliexpress.com/item/1859001606.html?spm=a2g0o.productlist.0.0.c8a159e6wPmJua&algo_expvid=59e47c54-cb51-4d6b-ba6d-9c0d27893c1&algo_expid=59e47c54-cb51-4d6b-ba6d-9c0d27893c1-6&tsid=69a5b55-6d51-4810-b597-01295781c2&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52	
Air Pressure / Temperature	BMP280	0.49		https://de.aliexpress.com/item/32988169737.html?spm=a2g0o.productlist.0.0.4546cc6dmX7Q&algo_expvid=2d60cb14-8642-463c-8ea6-c0f233a48a2&algo_expid=2d60cb14-8642-463c-8ea6-c0f233a48a2-0&tsid=6254d772-9d74-4ed3-82ad-c3a78a27c2&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52	
		6.2 \$			
Geophone Node Design					
additional to the parts above:					
Piezo Vibration Sensor	LDT0-02K8	3.67	https://de.aliexpn https://www.instrg https://github.com/olewo/Geophone		
ATmega	atmega2560	4.93	https://www.aliexpress.com/item/32971374634.html?spm=a2g0o.productlist.0.0.1e44507bcb0D&algo_expvid=519668b5-0948-4d4e-a3fb-1c30a9657d4&algo_expid=519668b5-0948-4d4e-a3fb-1c30a9657d4-7&tsid=3313b3f0-33f4-46a3-90a2-152b2128&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52		
		13.73 \$			
Central Node					
Raspberry Pi Zero W		12.11	https://www.aliexpress.com/item/4000214503901.html?spm=a2g0o.productlist.0.0.17ad335cbmM5v&algo_expvid=1621f1ef-2310-453b-8329-2f632002b8c2&algo_expid=1621f1ef-2310-453b-8329-2f632002b8c2-20&tsid=21bae627-a0e7-4216-b216-888c073de051&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52		
TouchScreen 320x480		8.99	https://www.aliexpress.com/item/32587995145.html?spm=a2g0o.productlist.0.0.76512defPvyp&algo_expvid=4893ad0a-5625-49b7-9e91-57632311f90&algo_expid=4893ad0a-5625-49b7-9e91-57632311f90-0&tsid=8f533212-0907-4081-9969-494011b4d848&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52		
GSM / GPS - Module		12.8	https://www.aliexpress.com/item/32267847055.html?spm=a2g0o.productlist.0.0.42241f6eqpYs&algo_expvid=0d1ba363-9625-447b-9247-4214c0b8d8de&algo_expid=0d1ba363-9625-447b-9247-4214c0b8d8de-0&tsid=02097f0a-180c-485d-43ee-2aac7571edc&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52		
LoRa Communication		2.87	https://de.aliexpress.com/item/32883370118.html?spm=a2g0o.productlist.0.0.25f45f5v4zW2&algo_expvid=7df3e882-27f5-473e-966c-e2dc739ecd2&algo_expid=7df3e882-27f5-473e-966c-e2dc739ecd2-4&tsid=37a2efe2-1dbb-4aa1-8b7a-7265174e5859&ws_ab_test=searchweb0_0_searchweb201602_1_searchweb201603_52		
		36.77 \$			