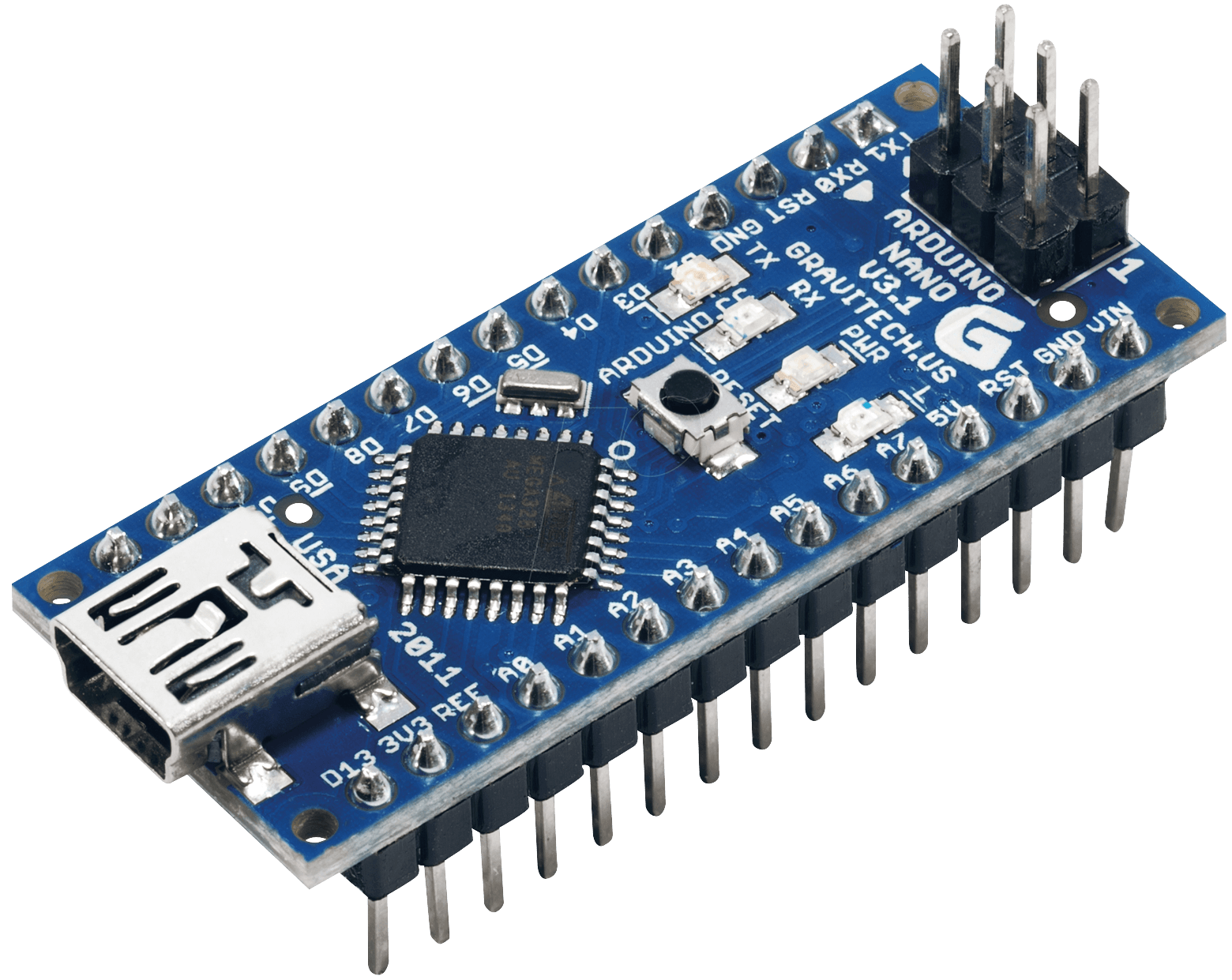
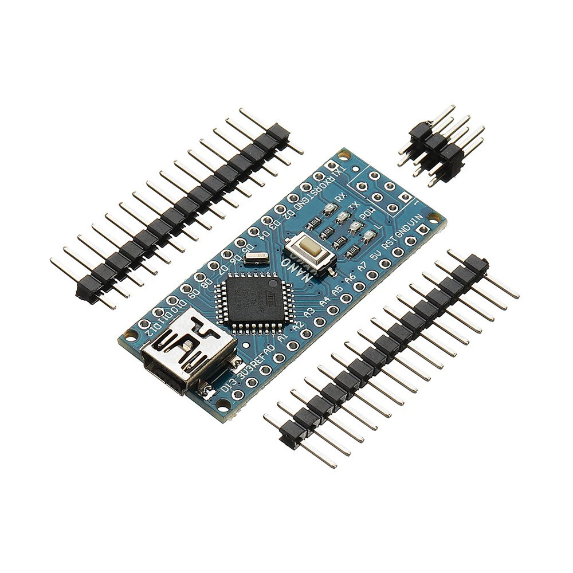
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Recommended Parts List** | | | | |  |
| **Quantity** | **Description** | **Role** | | **Estimated Cost (€)** |  |
| 1 | **PVC water resistant**  **junction box** | Housing and protection | | 4 | F0454987-01.jpg |
| 1 | **Arduino Nano**  **(Genuine or Clone)** | Micro-controller Unit | | 10 | Arduino Nano Mini USB w/ Soldered Headers |
| 1 | **Arduino Nano**  **screw terminal adapter shield** | Connections | | 5 | Nano Screw Terminal Adapter Shield Expansion Board Nano V3.0 Adapter –  diymore |
| 10 | **Female to male Dupont jumper cables** | Connections | | 5 | 1P-1P Male to Female jumper wire/Cable for Arduino Black 10cm (F/M) -  Skroutz.gr |
| 3m | **2x 0.5 mm²**  **Sound cable** | Connections | | 2 |  |
| 1 | **9V USB**  **rechargeable battery** | Power | | 10 | Znter 9V 400mAh USB Rechargeable LiPoly Battery (1pc) |
| 1 | **9V battery clip** | Connections | | 1 | 9Volt Battery Clip Connectors 9V Snap Clip Lead Wire |
| 1 | **Step down (9V to 6V)**  **power supply** | Power | | 4 | DC DC Converter LM2596 Step Down Adjustable 1.5-37V | MPJA.COM |
| 1 | **Voltage sensor**  **(Mini breadboard**  **+ 2 resistors x 10 MΩ**  **/ 0.25 W)** | Measurement | | 3 |  |
| 1 | **AM 2301**  **Temperature and Humidity sensor** | Measurement | | 5 | Capacitive Digital Temperature &amp; Humidity Sensor-AM2301 |
| 1 | **BH1750**  **Ambient light sensor** | Measurement | | 5 | fashionhome Digital Light Sensor BH1750FVI Module Board Illuminance Sensor  Light Ball Tools for Arduino | Walmart Canada |
| 1 | **Micro SD card module** | Data storage | | 5 |  |
| 1 | **8 GB (or more)**  **Micro SD card** | Data storage | | 6 |  |
|  | | **ESTIMATED TOTAL COST (€)** | **< 70 €** | |  |

**(\*) You should not buy any microcontrollers or sensors with unsoldered connectors unless you are familiar with soldering and you have enough time to spare. The slightly lower price is not worth the trouble.**

**For example:**

**Buy this:**

****

**Not this :**

**Dimensions: 150mm X 116mm X 67mm**

**Wall-mount**

**IP66**

**This is a good starter box for our teaching unit. You should void buying a much bigger or smaller box and anything worse than IP54. Make sure that it possesses 6-12 intakes with non threaded rubber (not plastic) cable glands. Only the bottom side glands will be used for all the wiring as they are less prone to water pooling.**

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**IP** 66 :

**IP** stands for **I**nternational **P**rotection (from electrical junction boxes to smartwatches)

1st **6** means maximum dust protection

2nd **6** means protection against powerful water jets (but not immersion in water)

(Source: <https://en.wikipedia.org/wiki/IP_Code>)