

Electronics Budget Report

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POSSIBLE STORES AND MARKETS FOR SOURCING MATERIALS

In Kenya, the most suitable store is **Nerokas Engineering Solutions**. It's an open hardware facilitator, providing the tools, equipment, electronic components and guidance and expertise necessary for electronics projects and tasks.

All prices listed in the budget are sourced from their online store, **Nerokas Online Store**, at <https://store.nerokas.co.ke/>

Another shipping destination is China using the **Ali Express Online Store**, at <https://aliexpress.com>

BUDGET

The total estimated budget in the electronics department amounts to approximately an **estimated price of $\approx \text{Ksh}9700$** =

It should however come to notice that some of the materials can be outsourced by some members who are willing to contribute their own electronics hardware/accessories to the project hence making the financial burden a little lighter.

CATEGORIES OF MATERIALS TO BE USED

Estimated Budget Price \approx Ksh9700/ =

- **Prototyping and Designing Materials**

Estimated Price \approx @3900/ =

- Breadboard; *one breadboard*; @200/ =
- Jumper wires; (*one bundle*); @150/ =
 - * *To be used for testing out circuits before making the final circuit.*
- Copper clad board; @200/ =
 - * *To be used for the final circuit.*
- Solder Wire 0.8mm 50g; @330/ =
- Soldering Iron (Price range); @1000/ = to @3000/ =)

- **Electronic Components**

Estimated Price \approx @5800/ =

- **Timers;** (microcontrollers or development boards); timing and handling events.

Estimated Price \approx @1200/ =

- * Arduino Uno R3; @1200/ =

- **Altimeters;** (Altitude and Pressure sensors)

Estimated Price \approx @1250/ =

- * BMP180 Barometric Pressure/Temperature/Altitude Sensor @150/ =
- * BME280 Atmospheric Sensor Breakout @1100/ =

- **Locators;**

Estimated Price \approx @1400/ =

- * NEO-6M GPS Module with EEPROM @800/ =
- * GPS Active Antenna @600/ =

- **Energy Sources;**

Estimated Price \approx @700/ =

- * 2 X AAA Battery Holder @50/ =
- * 9V Battery Clip @20/ =
- * 9V Battery Holder @100/ =
- * Alkaline Battery 9V @150/ =
- * Lithium Ion Cylindrical Battery 3.7V - 18650 Cell (2600mAh) @380/ =

- **Motors and Actuators;** to be used for ignition and deployment stages.

Estimated Price \approx @250/ =

- * Servo Motor SuperLight Micro servo @250/ =

- **Electronic Components;**

The circuit quantity will vary a lot in these category depending on circuit specs and development over time making it difficult to pin point an exact number. The components are however cheap, ranging from Ksh1.00 to Ksh50.00, so we can at the moment put a reasonable collective estimate for all the components.

Estimated Price \approx @1000/ =

- * Resistors
- * Capacitors
- * Diodes
- * LEDs