The device meets all the requirements to succeed in the engineering goal.

The device is contained on a single multi-layered PCB thus the device can be easily manufactured as PCB fabrication is a very fast and cheap process.

There is no off the shelf components used in the device resulting in a steep drop in the price per unit.

All the components are surface mount components these types of components are the most common type components used in factories, it can easily be assembled by pick and place machines minimizing the need for human involvement in production (which further decreases production cost).

The device uses SMS to communicate with the user. Thus, it does not require a subscription to a third party.

The device is modular. The code of the device can be changed and there are 3 programmable pins available for use by other modules added later.

The case can easily be slid into other modules using the grooves on the sides of the case.

The device has a battery life of over 48 hours on a 2350 mAh according to tests done.

The device costs only R293.47 to manufacture.