Adventurer’s Rescue Alarm – Manufacturing Processes

Injection Moulding

This is the main process for manufacturing items in plastic as it can produce complicated products at a very fast rate. The problem with it is the cost of setting up. The machine is expensive and so are the moulds, as they have to withstand the pressure of the molten plastic being injected into them.

Main Materials used for Manufacture

Polystyrene – Would probably be the main material for the casing as it is rigid but would give a bit especially if dropped.

PCB – Printed Circuit Board used to hold the electronic components

LCD – Liquid Crystal Display used for the screen

Electronic Components – Would be bought in from specialist electronics companies and the whole soldering process would be automated.

Modelling Materials we used

Blue Modelling Foam

Used to make quick 3D concept models, it is supposed to be like sketching in 3D. Pink is available, but it is much harder to use. It is extruded polystyrene and is made for the construction industry for insulation and can be known as Styrofoam.

Jelutong

Hardwood from Indonesia – Low Density, Straight Grain and fine texture. It can be shaped easily by files and glass paper.