Session 2 – The Systems Approach

Real-life electronics systems are often really complicated. Because of this complexity, it is often easier to consider the system in terms of basic sections:

- an input section - this starts the system working
- a process section - this changes the input in some way
- an output section - this gives the required result

We can represent these as **electronic system diagram.** They give a pictorial way of describing the technical aspects of the system.

The input block of the system is a means of generating a voltage or electric current. The process block of the system modifies this voltage or current. The output block of the system turns the modified voltage or current into a useful output.

Watch this video from BBC Bitesize which explains this a bit more:

https://www.bbc.co.uk/bitesize/guides/zh8ck2p/video

The following links give a bit more detail, so read each of them to find out more:

Systems: https://www.bbc.co.uk/bitesize/guides/zh8ck2p/revision/1

Input Devices: https://www.bbc.co.uk/bitesize/guides/zh8ck2p/revision/2

Process Devices: https://www.bbc.co.uk/bitesize/guides/zh8ck2p/revision/3

Output Devices: https://www.bbc.co.uk/bitesize/guides/zh8ck2p/revision/6

And if all that made some sense, try looking at the next set of notes –

Feedback: https://www.bbc.co.uk/bitesize/guides/zh8ck2p/revision/7

Question 1 – can you draw a block diagram for a burglar alarm? You will probably have more than one Output (e.g. sound, light), and may have more than one Input device and there may be several blocks in the Process section.

Question 2 – How do house central-heating systems make use of ***feedback***?