DF16 – Introduction to Electronics

Week 1: Health and Safety.
Understand how electricity behaves and how it flows in a circuit.

Week 2: Learn and understand electronic circuit symbols used in electrical / wiring diagrams.
Design simple electrical / wiring diagrams.

Week 3: Understand voltage, current and resistors.
Learn how to use and understand meters and multimeters

Week 4: Understand and locate short circuits and open circuits.
Learn how to solder properly.

Week 5: Understand and distinguish between circuits in series and parallel.
Draw and build circuits in series and parallel.

Week 6: Learn how to calculate voltage, current and resistance using Ohm's Law.
Learn how Ccomponents / transducers such as LDRs and thermistors work.

Week 7: Learn and understand how transistors work and how to use them in a circuit.
Learn how to calculate the resistance of various combinations of resistors in series and in parallel.

Week 8: Design / Draw out and build a parking light circuit where the light will come on automatically in the dark.

Week 9: Learn and understand how a Darlington Pair works and how to use it in a circuit.
Learn and understand how a capacitor works.
Learn and understand how to use Diodes and LEDs in a circuit.

Week 10: Design / Draw out and build a fire alarm circuit that will detect fire and set off a warning alarm.