



Topic: Electronic Speaker Project

Electronic Speaker Project

Design Brief: Design and make an electronic speaker and speaker case/box using acrylic, MDF and electrical components.

Health & Safety

Safe and correct use of workshop tools: Soldering Iron, Fret saw/Hegnar saw, Band facer/Sander, Tenon saw.

Classroom Rules

PPE: Apron, Goggles and Safety Gloves. Safety Rules & training on soldering iron, laser cutter and band facer.

Manufacturing Processes:

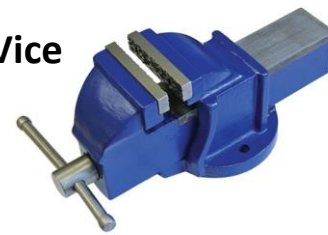
Soldering Iron



Laser Cutter (CAM)



Vice



Sanding: Band Facer



Wire Stripper



Side Cutters



Key Literacy Vocabulary:

Aesthetics- how humans perceive and judge objects according to their attractiveness

Computer aided design (CAD) The process of creating a 2D or 3D design using computer software.

Computer aided manufacture (CAM) The manufacture of a part or product from a computer aided design (CAD) using computer-controlled machinery, such as a 3D printer.

Circuit - circuit is a complete path around which electricity can flow

Components - any basic discrete device or physical entity in an electronic system (LED, switch, resistor)

Conductor-Materials that allow electric current to pass through them easily

Medium-density fibreboard (MDF) – an engineered wood product made from wood fibres and resin binder (glue)

PCB (Printed Circuit Board) - thin board made of fiberglass. Conductive pathways are etched or "printed" onto board, connecting different components on the PCB

Solder- an alloy (usually of lead and tin) used when melted to join two metal surfaces.

<b>A</b>	<b>C</b>	<b>C</b>	<b>E</b>	<b>S</b>	<b>S</b>	<b>F</b>	<b>M</b>
Aesthetics	Cost	Customer	Environment	Size	Safety	Function	Materials
What does the product look like?	How much does it cost to buy and make?	Who will use the product?	Does it affect the environment? How?	How big/small is the product? Why?	How safe is it to use when made?	How does the product work?	What is the product made from?

Existing Products:

