2.3.1 Materials Research

INTRO: Explain here the importance of research, experimentation, and testing in the development of the project.

The materials for the Illuminate project are split into **?** sections:

Light Source | E.g. Main Body | E.g. Wall Mount | E.g. Base

Material 1: LED Strip

An LED strip light is a thin, flexible strip with small LEDs used for efficient, customisable lighting.

Advantages	Disadvantages
• Energy efficient – uses less power, • Long lifespan – up to 50,000 hrs. • Flexible – easy to shape or cut. • Low heat – safer to use. • Easy install – adhesive backing. • Customisable – colours, brightness, effects.	• Higher upfront cost. • Needs correct power supply. • Voltage drop on long strips. • Adhesive can fail. • Not always waterproof. • Cheap brands = poor quality.

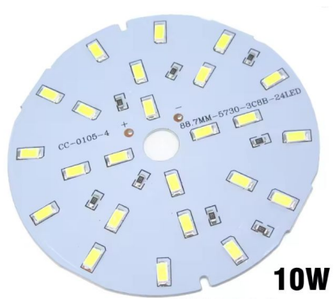
Material 2: 12V Bulb

Description of bulb here.

Advantages	Disadvantages
•	•

Material 3: LED Lamp Plate

Description of light source here.



Advantages	Disadvantages
•	•

Material 4: ???

Description of light source here.

Advantages	Disadvantages
•	•

ONGOING EVALUATION: .....

2.3.1 Materials Research

The materials for the Illuminate project are split into **?** sections:

Light Source | E.g. Main Body | E.g. Wall Mount | E.g. Base

Material 1: ???

Description here.

Advantages	Disadvantages
•	•

Material 2: ???

Description here.

Advantages	Disadvantages
•	•

Material 3: ????

Description here.

Advantages	Disadvantages
•	•

Material 4: ???

Description here.

Advantages	Disadvantages
•	•

ONGOING EVALUATION: .....

2.3.1 Materials Research

The materials for the Illuminate project are split into **?** sections:

Light Source | E.g. Main Body | E.g. Wall Mount | E.g. Base

Material 1: ???

Description here.

Advantages	Disadvantages
•	•

Material 2: ???

Description here.

Advantages	Disadvantages
•	•

Material 3: ????

Description here.

Advantages	Disadvantages
•	•

Material 4: ???

Description here.

Advantages	Disadvantages
•	•

ONGOING EVALUATION: .....

2.3.1 Materials Research

The materials for the Illuminate project are split into **?** sections:

Light Source | E.g. Main Body | E.g. Wall Mount | E.g. Base

Material 1: ???

Description here.

Advantages	Disadvantages
•	•

Material 2: ???

Description here.

Advantages	Disadvantages
•	•

Material 3: ????

Description here.

Advantages	Disadvantages
•	•

Material 4: ???

Description here.

Advantages	Disadvantages
•	•

ONGOING EVALUATION: .....

2.3.2 Tools and Techniques Research

Tool/Technique 1: ???

Description here.

Advantages	Disadvantages
•	•

Tool/Technique 3: ???

Description here.

Advantages	Disadvantages
•	•

Tool/Technique 2: ???

Description here.

Advantages	Disadvantages
•	•

Tool/Technique 4: ???

Description here.

Advantages	Disadvantages
•	•

ONGOING EVALUATION: .....

2.3.3 Experimentation

Experiment 1: ???

Intro: The introduction explains why you are doing these experiments. It should say what you're trying to decide.

Aim: What are you trying to find out?

Hypothesis: What do you predict will happen and why?

Method: What steps will you follow to conduct this experiment? What specific measurements or tools will you use.

Results:

Criteria	Scroll Saw	Band Saw	Drop Saw
Accuracy of Cut (Was the cut clean and did it follow the line?)			
Smoothness of Edge (Was the finishing cut, rough, slightly smooth or clean?)			
Ease of use? (Was the machine easy to use during the cut?)			
Speed of cut? (How quickly was the cut completed?)			
Best use in Project (Relevant to your own project is it good for specific parts such as curved edges or straight edges.			
Rating /5			

Experiment 2: ???

Intro: The introduction explains why you are doing these experiments. It should say what you're trying to decide.

Aim: What are you trying to find out?

Hypothesis: What do you predict will happen and why?

Method: What steps will you follow to conduct this experiment? What specific measurements or tools will you use.

Results:

Criteria	???	???	???
Rating /5			

ONGOING EVALUATION: .....

2.3.3 Experimentation

Experiment 3: ???

Intro: The introduction explains why you are doing these experiments. It should say what you're trying to decide.

Aim: What are you trying to find out?

Hypothesis: What do you predict will happen and why?

Method: What steps will you follow to conduct this experiment? What specific measurements or tools will you use.
Results:

Criteria	???	???	???
Rating /5			

Experiment 4: ???

Intro: The introduction explains why you are doing these experiments. It should say what you're trying to decide.

Aim: What are you trying to find out?

Hypothesis: What do you predict will happen and why?

Method: What steps will you follow to conduct this experiment? What specific measurements or tools will you use.
Results:

Criteria	???	???	???
Rating /5			

ONGOING EVALUATION: .....