

Harchester

Design Answer Booklet

Design in the Built Environment



A close up of a device

Description automatically generated

A picture containing text

Description automatically generated

A picture containing indoor, bed, sitting, cat

Description automatically generated

A close up of a building

Description automatically generated

A close up of text on a white background

Description automatically generated

A picture containing table, indoor, cake, small

Description automatically generated

Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DT Group: \_\_\_\_\_\_\_

**a) DESIGN SPECIFICATION – 4 Marks MARK SCHEME**

* Four requirements – 1 mark for each point *1 Mark x 4*
* i.e. reference to materials, easy to assemble, need to fit into car, safe, attractive,

reflect strong brand image, attract customers, portable, not too heavy, stable.

* Understanding of brief reflected in statement

**b) RESEARCH – 10 Marks**

* Wide Range – very well presented & annotated, clear thinking & good information *10- 9 Marks*
* Range – well presented & annotated, clear thinking & reasonable information *8-6 Marks*
* One or two sources. Some reasonable thinking, limited analysis *5-3 Marks*
* Limited, little real thought and no analysis *2-1 Marks*

**c) INITIAL IDEAS – 12 Marks**

* Range – very well drawn & annotated, clear thinking & good solutions to problem *12-10 Marks*
* Range – well drawn & annotated, clear thinking & reasonable solutions to problem *9-7 Marks*
* Ideas – vary a little. Some reasonable thinking, will probably work *6-4 Marks*
* Vague idea or two, little real thought and will not really work *3-1 Marks*

**d) DEVELOPMENT – 12 Marks**

* Quality idea, which shows progress & improvement, sizes/materials sorted *12-10 Marks*
* Sound idea showing improvement & progression some development *9-7 Marks*
* Some improvement, but limited progression some consideration such as materials *6-4 Marks*
* Idea improved little, if at all. Idea redrawn with more detail *3-1 Marks*

**e) FINAL DESIGN – 8 Marks**

* Clear details of all relevant aspects i.e. appearance, materials, size, construction *8-6 Marks*
* Some details in most areas, reasonable and realistic *5-3 Marks*
* Vague details in some areas, little if any information or annotation *2-1 Marks*

**f) PRODUCT TESTING – 4 Marks**

* 2 Tests, which are clear, well-reasoned & explained *1 Marks each*
* Test with no real explanation *0.5 Mark each*
* Two tests required
* Specification points checked *0.5 x 4*

**Tests – Suitable Responses**

* Safety tests, material tests for durability, observational/questionnaire, user tests, rating tests, descriptive tests, assessment of product by a specialist.

**Specification Points – Suitable responses**

* Yes/No answer, with comment *0.5 x 4*
* Yes/No answer only *0.25 x 4*

**TOTAL 50**

1. **Design Specification**

List **four** design requirements for the specification of the product you are designing.

Requirement 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Requirement 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Requirement 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Requirement 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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*(4 marks)*

List **two** places you can find information from (If using the internet, be specific with regards to the site):

Source 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Source 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Mark:

**(b) Research**

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List down **four** things you have learned from the research which would help your designing

Element 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Element 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Element 3: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Element 4: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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*(10 marks)*

Mark:

**(c) Show a range of Initial Ideas**

**(c) Show a range of Initial Ideas**

*(12 marks)*

Mark:

**(d) Development of Initial Idea(s)**

**(d) Development of Initial Idea(s)**

*(12 marks)*

Mark

**(e) Final Design - Include all necessary detail**

*(8 marks)*

Mark:

**(f) Product Testing**

Explain **two** different methods of testing your final design.

Method 1: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Method 2: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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Evaluate your final design against the Design Specification, does it answer each point?

If so how?

Design Requirement 1: Yes/No\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Design Requirement 2: Yes/No\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Design Requirement 3: Yes/No\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Design Requirement 4: Yes/No\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Mark:

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*(4 marks)*

|  |  |
| --- | --- |
| Total | % |
| Final Grade |  |

|  |  |  |
| --- | --- | --- |
| Design Specification | 4 |  |
| Research | 10 |  |
| Initial Ideas | 12 |  |
| Development | 12 |  |
| Final design | 8 |  |
| Product Testing | 4 |  |

Grade Mark Level

A\* 90 – 100 8/9

A 70 – 89 7

B 60 – 69 5/6

C 50 – 59 4

D 40 – 49 3

E 30 – 39 2

F/G 20 – 29 1