

Task 2 – Manufacture and test

You must:

- a) produce a risk assessment for the construction of the prototype
- b) use a permanent construction method to construct the prototype
- c) test and verify the operation of the completed prototype, recording your findings.

Conditions of assessment:

- the time allocated for this task is **13 hours**
- you must carry out the task on your own, under **controlled conditions**.

Controlled conditions:

- you must only work on the tasks in the allocated times
- assessment evidence must be handed in at the end of each session for secure storage which cannot be accessed
- you must not share or discuss your work with other candidates
- you are not permitted to bring any materials into the assessment session.

What must be produced for marking:

- risk assessment
- prototype
- test and verification records.

Additional evidence for this task:

- assessor observation of the construction of the prototype
- assessor observation of the testing and verification.

To support the comments made within the Practical Observation the assessor must capture the following photographs and videos that must be submitted as supporting evidence for each candidate.

Photographic evidence which shows:

- sequence of photos during the construction of the prototype to include:
 - results of tool selection and usage
 - wiring – dressing of cables
 - control hardware
 - interfaces
 - sub-assemblies
 - final prototype.

Video evidence which shows:

- functionality of the prototype (maximum of five minutes)

Resources:

- copies of completed documentation from task 1
- appropriate materials, components and facilities to produce the prototype
- test environment
- appropriate test and verification equipment, such as multimeters, logic probes etc.

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