



National 5
Coursework
Assessment Task



National 5 Graphic Communication Assignment Assessment task

This document provides information for teachers and lecturers about the coursework component of this course in terms of the skills, knowledge and understanding that are assessed. It must be read in conjunction with the course specification.

Valid for session 2018-19 only.

The information in this publication may be reproduced in support of SQA qualifications only on a non-commercial basis. If it is reproduced, SQA must be clearly acknowledged as the source. If it is to be reproduced for any other purpose, written permission must be obtained from permissions@sqa.org.uk.

Where this publication includes material for which SQA does not own the copyright, this material must only be reproduced on a non-commercial basis for the purposes of instruction in an educational establishment. If it is to be reproduced for any other purpose, it is the user's responsibility to obtain the necessary copyright clearance from the copyright owner. The acknowledgements page lists the owners of copyright items that are not owned by SQA.

This edition: January 2019 (version 1.0)

© Scottish Qualifications Authority 2019

Contents

| | |
|---|---|
| Introduction | 1 |
| Instructions for teachers and lecturers | 2 |
| Instructions for candidates | 5 |

Introduction

This document contains instructions for teachers and lecturers and instructions for candidates for the National 5 Graphic Communication assignment. It must be read in conjunction with the course specification.

This assignment has 40 marks out of a total of 120 marks available for the course assessment.

This is one of two course assessment components. The other component is a question paper.

Instructions for teachers and lecturers

SQA publishes a new assessment task on the secure website each academic year. The task is valid for that year only. Once complete, you must send the assignment responses to SQA to be marked.

You must conduct the assignment under a high degree of supervision and control. This means:

- ◆ candidates must be within your direct sight
- ◆ candidates must not interact with each other
- ◆ candidates must not have access to e-mail, the internet and mobile phones
- ◆ candidates must complete their work independently – no group work is permitted
- ◆ classroom display materials that might provide assistance must be removed or covered
- ◆ no interruption for learning and teaching
- ◆ in a classroom environment

Time

Candidates have 8 hours to complete the assignment, starting at an appropriate point in the course after all content has been delivered. Once candidates begin, they must continue in each subsequent class period until the permitted time allocation has been used up.

You have a responsibility to manage candidates' work, distributing it at the beginning and collecting it at the end of each session, and storing it securely in-between. This activity does not count towards the total time permitted for candidates to complete the assignment.

Resources

This is a closed-book assessment. Candidates must not have access to learning and teaching materials, the internet, notes, exemplar materials, resources on classroom walls or anything similar.

There may be instances where restriction of internet and/or network use is prohibited (for example, if you have a local authority-managed network with specific limitations or CAD software that is web-based). However, it remains your professional responsibility to make every effort to meet the assessment conditions.

Each assessment task includes instructions and details of any equipment or materials required. Candidates can also use normal classroom equipment, software and hardware (such as drawing instruments, CAD and DTP software, and PCs to run the software) to complete the tasks.

Reasonable assistance

Candidates must progress through each stage of the assignment without your intervention or guidance, having acquired the skills earlier in the course.

Once candidates complete the assignment, you must not return it to them for further work. You must not provide feedback to candidates or offer an opinion on the perceived quality or completeness of the assignment response, at any stage.

You can provide reasonable assistance to support candidates with the following aspects of their assignment:

- ◆ Printing, collating, stapling and labelling their evidence to ensure it is in the format specified by SQA.
- ◆ Ensuring candidates have all the materials and equipment required to complete the assignment.
- ◆ Understanding the information outlined in these instructions.

Evidence

All candidate evidence (whether created manually or electronically) must be submitted to SQA in paper-based format.

Each task details what evidence is required and how many pages are expected. This is a guide to ensure that candidates do not produce too much work or spend too long on a single task. Single-sided A3 pages are preferred and are typically the most suitable for the tasks; however, it is acceptable to submit A4 pages, if an A3 printer is not available.

Alteration or adaptation

You must not alter, adapt or modify the assignment in any way. This includes moving the content of the assignment into a different format or workbook. All candidates must undertake the assignment exactly as it is provided.

Submission

Each piece of work must be labelled with the task number, for example, task 1a, and the back of each page must be clearly labelled with candidate details.

Volume

Candidates should present their work on a maximum of eight single-sided A3 pages.

This figure is given to indicate the volume of evidence required; however, no penalty is applied where candidates exceed this. Full details of evidence requirements are contained within each assessment task.

Specific instructions for teachers and lecturers

You must follow these specific instructions. You must ensure that candidates are aware of the assessment conditions and know what they should do for each task.

Prior to candidates starting the assignment, you must download electronic files for their use. You must keep these files secure and candidates must not access them prior to assessment.

This assignment has three tasks, all of which are mandatory. Candidates must complete the tasks in order.

Each task has a notional time allocated to it. This is not mandatory and is an indication of how long candidates should spend on the task.

Task 1 – 13 marks: producing production drawings for a wireless earbud
(suggested time 2-3 hours)

- ◆ task 1: candidates must produce their production drawings electronically and generate them from a 3D CAD model

Task 2 – 13 marks: producing promotional and preliminary graphics for a wireless earbud. This includes a CAD-rendered wireless earbud and work for a web banner for the earbud.
(suggested time 2-3 hours)

- ◆ task 2a: candidates must complete this electronically
- ◆ task 2b: candidates can complete this manually or electronically
- ◆ task 2b: candidates must identify where they have used unity
- ◆ task 2c: candidates must complete this electronically
- ◆ task 2c: candidates must fully annotate and give justification for two DTP elements and principles
- ◆ task 2c: the final version should be scaled to suit

Task 3 – 14 marks: producing preliminary graphics for a case
(suggested time 2 hours)

- ◆ tasks 3a, 3b and 3c: candidates should complete these manually. If they use an electronic method, it must not be 3D-CAD software, as they will gain no marks.
- ◆ task 3a, 3b and 3c: candidates must not use drawing boards and set squares to complete this task
- ◆ task 3a, 3b and 3c: candidates will gain no marks if there is evidence they have used drawing instruments, other than a straight edge

Note: candidates must not trace drawings for any part of the assignment – they will gain no marks for traced drawings.

All electronically-generated evidence must be printed and compiled for uplift by SQA.

Instructions for candidates

This assessment applies to the assignment for National 5 Graphic Communication.

This assignment has 40 marks out of a total of 120 marks available for the course assessment. It assesses the following skills, knowledge and understanding:

- ◆ demonstrating graphic design skills and creativity
- ◆ using graphic communication technologies
- ◆ producing preliminary, production and promotional graphic items in response to a situation or problem
- ◆ using illustration techniques to create graphics with relevant visual impact
- ◆ producing 2D and 3D production drawings, applying appropriate standards, protocols and conventions (drawing includes manual or electronic production methodologies)
- ◆ reviewing and evaluating your progress, giving justification for your choice of graphic items and the graphic communication techniques employed

This is a closed-booked assessment. Your teacher or lecturer will let you know if there are any specific conditions for doing this assessment.

Note: you must not trace drawings for any part of the assignment – you will gain no marks for traced drawings.

In this assessment, you have to:

- ◆ produce a range of graphics in response to a series of tasks, which will test aspects of the skills and knowledge listed above
- ◆ complete all of the tasks in the order presented

You have 8 hours to complete the assignment, excluding the time required to set up and clear away any equipment you need, and for any printing that is required.

You are not permitted to use any text, images or other item from any other source unless created by yourself within the 8-hour assignment.

The assignment has three tasks, with marks allocated as follows:

Task 1 – 13 marks: producing production drawings for a wireless earbud
(suggested time 2-3 hours)

Task 2 – 13 marks: producing promotional and preliminary graphics for a wireless earbud. This includes a CAD-rendered wireless earbud and work for a web banner for the earbud.
(suggested time 2-3 hours)

Task 3 – 14 marks: producing preliminary graphics for a case
(suggested time 2 hours)

Your teacher or lecturer will provide you with:

- ◆ task sheets 1 to 3, graphic communication briefs, including some initial research information
- ◆ data sheets 1a to 3
- ◆ electronic files for task 2

Submitting your work

You must label each piece of evidence with the task number (for example task 1a) and the back of each page must be clearly labelled with your:

- ◆ name
- ◆ date of birth
- ◆ Scottish Candidate Number (SCN)
- ◆ centre name
- ◆ centre number

Task 1: wireless earbuds

An electronics company is planning to launch new wireless earbuds. A graphic artist has produced a series of sketches to aid the manufacture of the earbuds.

Using the sketches and information shown on data sheet 1a, 1b and 1c, model and assemble the earbud components using 3D CAD software.

From these models, produce production drawings that will allow the earbuds to be manufactured.

1a Produce suitable component orthographic views of the three parts of one earbud. You must produce a plan, an elevation and an appropriate sectional end elevation for each of the following parts:

- ◆ the earpiece
- ◆ the main body
- ◆ the wireless connector

You must show all views for the three components, complete with appropriate dimensioning, annotations and to a suitable scale.

You must produce views in the same orientation as each individual data sheet.

You must use third-angle projection and show all hidden detail except in the sectional views.

(5 marks)

1b Produce a plan, elevation and a sectional end elevation of the assembled earbud to a suitable scale.

You must produce these as line drawings, using third-angle projection and they must **not** show hidden detail.

You must produce views in the same orientation as data sheet 1c.

The sectional end elevation should cut through all three components, in order to show the wall thickness of the earpiece component.

(3 marks)

1c Produce an exploded isometric view of the earbud.

You must produce this view in the same orientation as shown on data sheet 1a for the earbud assembly.

You must produce this as a line drawing and it must not show hidden detail.

This exploded isometric view must not be rendered.

(2 marks)

1d Include the correct British Standard conventions and line types on all of your drawings.

(3 marks)

Note: you must create the production drawings for task 1 electronically and print them out. You should complete task 1 on a maximum of two or three single-sided A3-sized pages.

You should spend approximately 2 to 3 hours on task 1.

Your completed assignment (tasks 1 to 3) should be on no more than eight single-sided A3-sized pages.

Task 2: wireless earbuds

The wireless earbuds will be manufactured using a combination of plastic and metal components.

The electronics company would like to promote the earbuds through a web banner on its website.

For this task, your teacher or lecturer will provide you with electronic files of the graphics shown on data sheet 2b.

- ◆ You must use at least one of these graphics.
- ◆ You can use the graphics as they are or you can edit them to suit your design.
- ◆ You can incorporate your own design features into your design for the web banner (for example, logo, colour schemes and styling).
- ◆ You must not use any text, images or other item from any other source, unless you created them yourself within the 8-hour assignment.

Using the information on data sheet 2a and data sheet 2b, produce the following preliminary and promotional graphics.

2a Produce a CAD-rendered pictorial illustration of the assembled earbud you modelled in task 1, complete with appropriate colours, materials, highlights and shadows.
(2 marks)

2b Produce two preliminary layouts/thumbnails of the web banner for the wireless earbuds.

Your preliminary layouts/thumbnails must include the design principle of unity and at least two other design elements and principles. You must identify where you have used **unity** in both layout/thumbnails.

Your layout/thumbnails must also contain some suitable extended text (more than one word) and an image.

You can use either manual or electronic methods to complete this task.
(4 marks)

2c Produce a final version of the promotional graphic developed from your preliminary layouts/thumbnails, complete with annotations, extended text and chosen image or images.

You must produce your promotional graphic to the correct dimensions (full size or scaled to suit).

You must annotate this layout referring to two design elements and principles you have used (**other than unity**) and justify why you have used them.
(7 marks)

Note: you should complete task 2 on a maximum of two or three single-sided sheets of A3-sized pages.

You should spend approximately 2 to 3 hours on task 2.

Your completed assignment (tasks 1 to 3) should be on no more than eight single-sided A3-sized pages.

Task 3: packaging

The electronics company wants to produce a plastic case to protect the earbuds.

Using the drawings shown on data sheet 3, produce the following preliminary sketches for the case.

Where dimensions are missing on the data sheet, you must suggest and include suitable dimensions in your responses to the task.

You will not gain any marks if you measure, trace or use any drawing instruments (other than a straight edge).

3a Produce preliminary orthographic sketches of each part of the case.

Your sketches should be complete with enough information and dimensions to enable the case and the plastic insert to be modelled using 3D CAD software.

You must use third-angle projection and show all hidden detail.

(5 marks)

3b Produce preliminary orthographic sketches of the plan, elevation and end elevation of the assembled component parts of the complete case.

You must use third-angle projection, but **do not** show any hidden detail.

(4 marks)

3c Produce a rendered pictorial sketch of the base and insert assembled, showing appropriate colour, highlights, shadows and materials.

You should render the plastic insert in a different colour from the base.

You **do not** need to show the lid or the hidden detail.

(5 marks)

Note: you should complete task 3 on a maximum of two or three single-sided sheets of A3-sized pages.

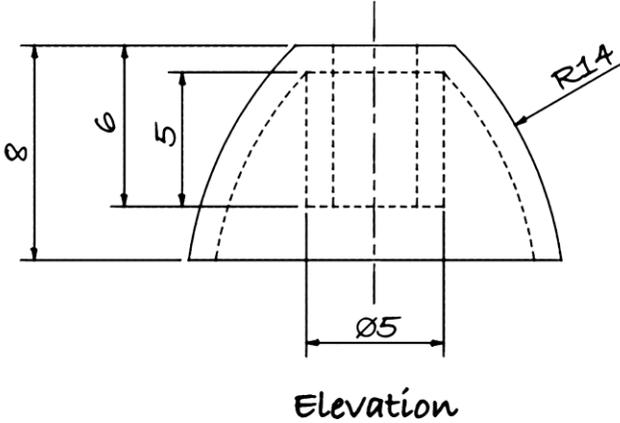
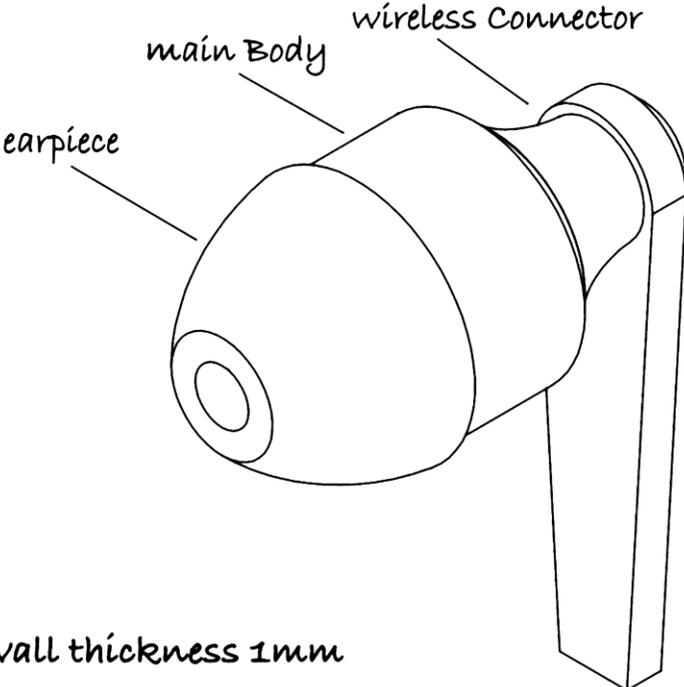
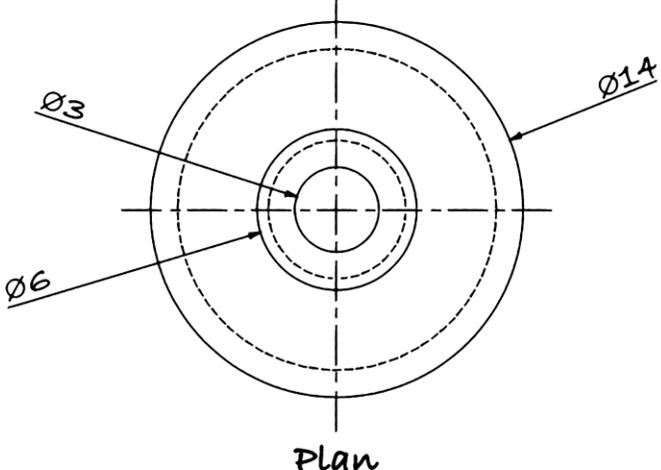
You should spend approximately 2 hours on task 3.

Your completed assignment (tasks 1 to 3) should be on no more than eight single-sided A3-sized pages.

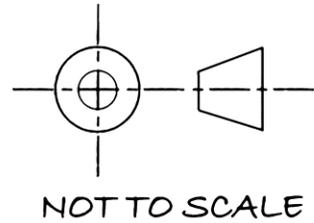
Data sheet 1a

The following graphics will help you produce the component parts and the assembly of a wireless earbud. You should model this using 3D CAD software and then create production drawings using electronic methods.

Earpiece



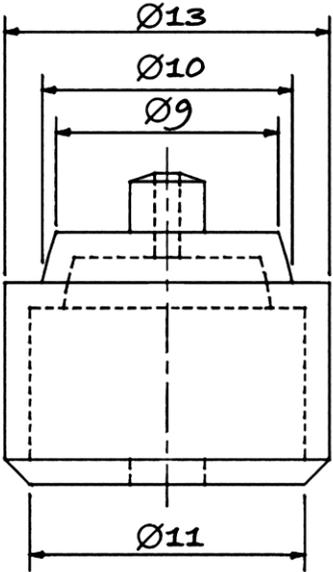
wall thickness 1mm



Data sheet 1b

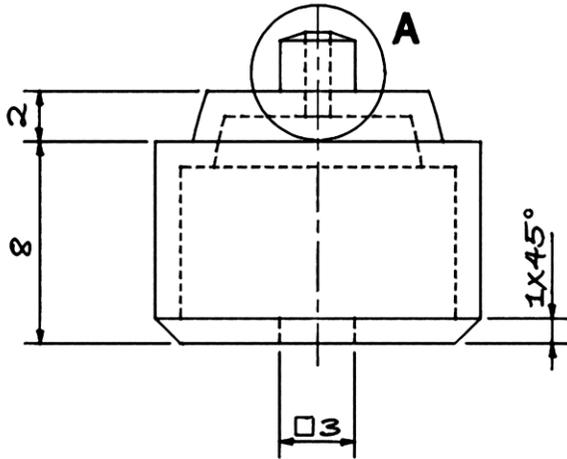
The following graphics will help you produce the component parts and the assembly of a wireless earbud. You should model this using 3D CAD software and then create production drawings using electronic methods.

Main body

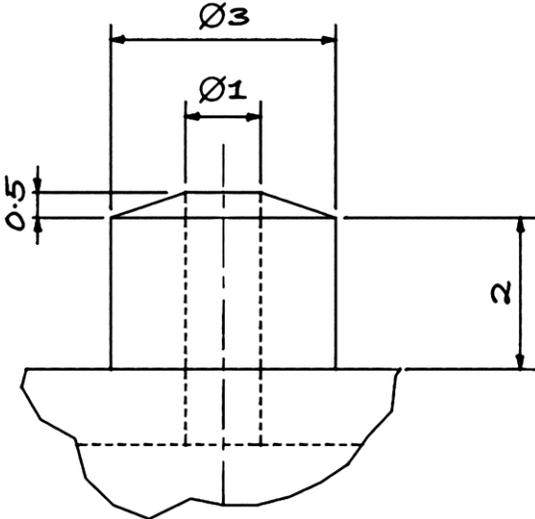


Elevation

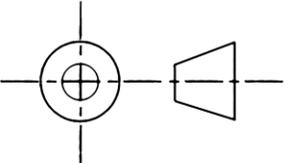
wall thickness 1mm



End Elevation



enlarged view A

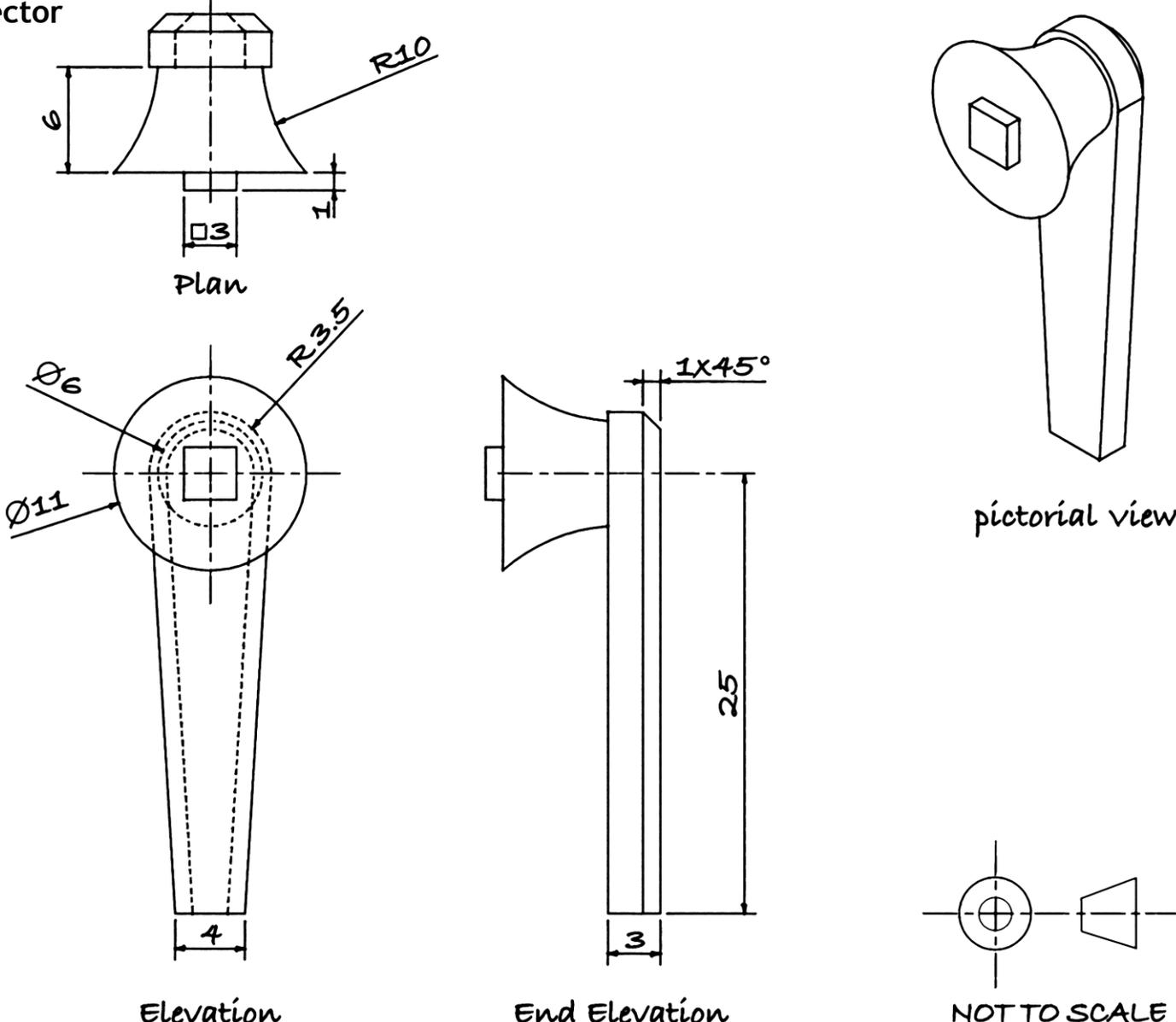


NOT TO SCALE

Data sheet 1c

The following graphics will help you produce the component parts and the assembly of a wireless earbud. You should model this using 3D CAD software and then create production drawings using electronic methods.

Wireless connector

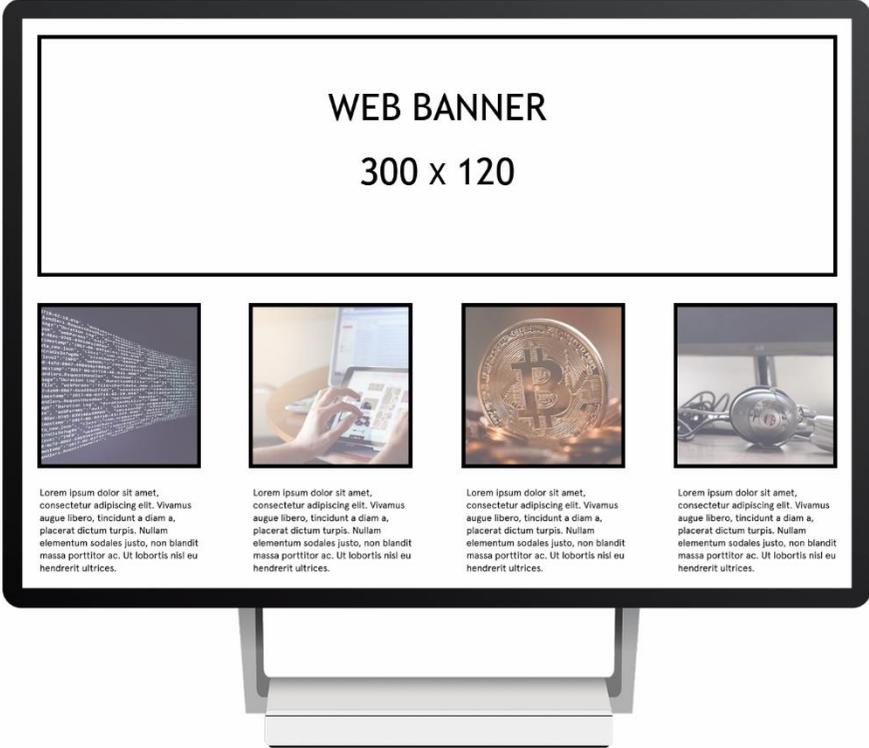


Data sheet 2a

To attract customers, the electronics company would like to promote the wireless earbuds through a web banner on its website.

The website designer has requested that a paper copy of the banner is produced to the following dimensions 300mm x 120mm.

The banner is laid out in landscape orientation, as shown in the example below.

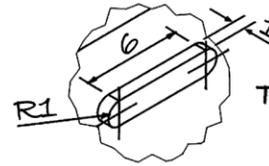


Data sheet 2b



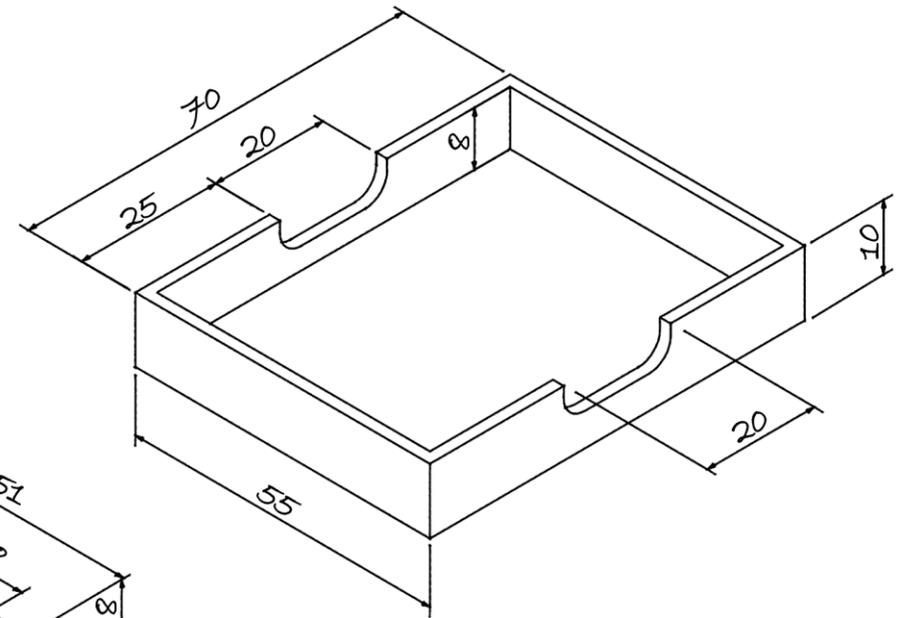
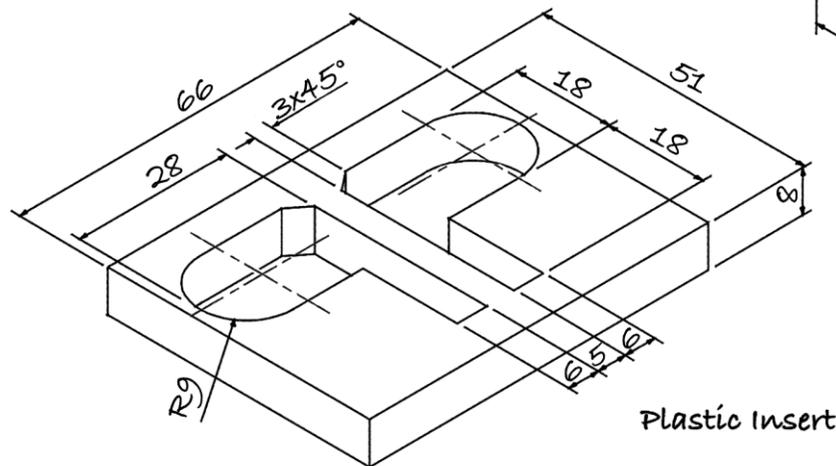
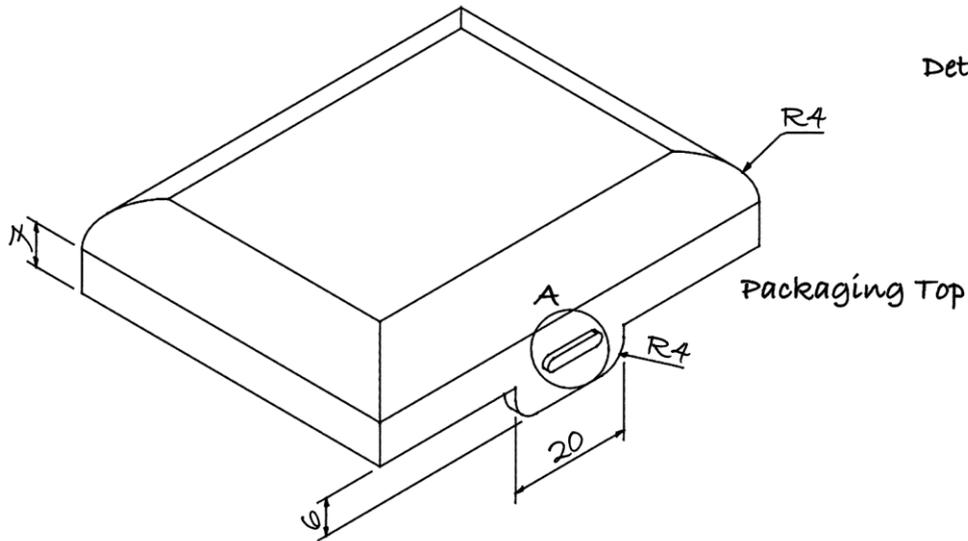
Data sheet 3

The following data will help you produce the sketches of the case. The top and base have a 2mm wall thickness. The top fits exactly on top of the base with no gaps or overlaps.



This detail is found on both sides of the top.

Detailed view A



Packaging Base

Plastic Insert

Acknowledgement of copyright

Pages 15 and 16: copyright Pixabay – Creative Commons Zero License

Administrative information

Published: January 2019 (version 1.0)

History of changes

| Version | Description of change | Date |
|---------|-----------------------|------|
| | | |
| | | |
| | | |
| | | |

Security and confidentiality

This document can be used by practitioners in SQA approved centres for the assessment of National Courses and not for any other purpose.