

Technical Description

Cabinet and Furniture Making

Skill 02



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1 Skill Overview

1.1 Skill Name and Category

Cabinet and Furniture Making, Construction and Building Technology

1.2 Number of Competitors

This is an individual Skill Competition with one competitor.

1.3 Competition Time

The total competition time is 5 hours and consists of the following module:

- Module A: Cabinet and Furniture Making – 5 hours

1.4 Description of the Skill

Cabinet and Furniture Making involves constructing a wooden furniture piece using provided materials, tools, and equipment, in accordance with the given drawings and requirements. Competitors are expected to demonstrate precision, craftsmanship, and safe working practices throughout the competition.

Most work is performed at the workbench using hand tools. Effective use of hand and permitted power tools, along with careful material handling, is essential to complete the task successfully.

2 Task Assignment Overview

2.1 Task Assignment Description and Familiarisation Session

The Task Assignment is the main competition task used to assess the competitors' skills. It defines what the competitors must complete during the competition and forms the basis for all assessments. The final result is evaluated only on the finished work produced during the official competition time.

A familiarisation session is organised on C-1. During this session, competitors may enter the workshop, see the workspace, check the available tools and materials, and ask questions about procedures or practical arrangements. Competitors are not allowed to practise, start, or rehearse any part of the Task Assignment during this session.

2.2 Task Assignment Structure

The competition consists of one module.

Module A: Cabinet and Furniture Making

Competition time: 5 hours

Competitors manufacture a piece of furniture according to the dimensioned drawings and specifications provided on the day of the competition.

The main requirements are:

- Use the partly machined components provided by the Organiser.
- Manufacture and assemble the required furniture components according to the provided drawings and specifications.
- Install the required hardware and fastening components.
- Complete the required sanding and finishing.
- Deliver the completed piece fully assembled but not glued.
- Use primarily birch (*Betula pendula*). The Task Assignment may also include other wood-based materials, such as MDF or plywood.
- Complete a piece with a maximum combined dimension of approximately 1000 mm (height + width + depth).

The work includes three main phases:

- Tracing and marking: Trace the required outlines and reference markings on the prepared components according to the provided drawings and specifications.
- Assembly and hardware installation: Assemble the components and install the required hardware and fastening components.
- Sanding and finishing: Complete the final sanding to achieve the required surface quality and finish.

Competitors are expected to manage their time effectively and complete all three phases within the 5-hour competition time.

The Task Assignment defines the exact requirements, including dimensions, joints, materials, hardware, and finishing requirements, and may include task-specific variations or additional elements.

2.3 Task Assignment Technical Requirements

Competitors require woodworking skills with an emphasis on hand-tool work. The main techniques, methods, and skills required are:

- Technical drawing interpretation
- Measuring, marking, and layout
- Tracing
- Hand-cutting and fitting of joints
- Furniture assembly
- Installation of hardware and fastening components
- Use of hand tools, including chisels and hand saws
- Use of measuring and marking tools
- Use of permitted portable power tools
- Accurate and precise woodworking
- Sanding and surface finishing
- Quality control
- Safe working practices
- Time management

The Task Assignment defines the exact requirements, including the required joints, materials, hardware, dimensions, and surface quality, and may include task-specific variations or additional elements.

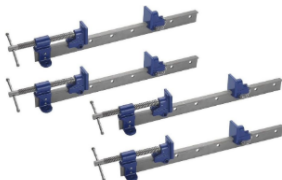
3 Materials and Equipment

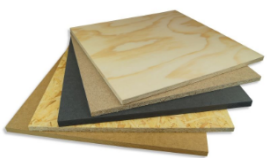
3.1 Materials and Equipment Provided by the Competition Organiser

The Organiser provides the materials, tools, and equipment listed below.

Images are for reference only. They do not indicate a specific brand or model unless otherwise stated in the specifications. Quantities are per competitor unless otherwise stated.

Items will be available at the competitor's workstation or in the designated competition area, as appropriate. Where exact brands, models, or task-specific material details are not specified, these may be confirmed before the competition or defined in the Task Assignment, as appropriate.

No.	Equipment / Material	Picture	Specifications	Quantity
01	Workbench		930 × 700 × 1700 mm (height × width × length); with vise and clamp holders	1 per competitor
02	Stool		Height: 680 mm	1 per competitor
03	Hand clamps		Various sizes; brand to be confirmed	1 set per skill area
04	Bar clamps		Various lengths; brand to be confirmed	1 set per skill area
05	Dowels		Sizes according to the Task Assignment	1 set per skill area

No.	Equipment / Material	Picture	Specifications	Quantity
				
06	Wood material		Birch (<i>Betula pendula</i>); partly pre-machined	1 set per competitor
07	Board material		Materials according to the Task Assignment; may include MDF, plywood or chipboard	1 set per competitor
08	Cordless drill		Brand to be confirmed	5 per skill area
09	Random orbital sander		Brand to be confirmed	3 per skill area
10	Sanding discs		Various grits	3 sets per skill area
11	Vacuum cleaner		Suitable for random orbital sanders and other portable power	3 per skill area

No.	Equipment / Material	Picture	Specifications	Quantity
			tools; brand to be confirmed	
12	Hand sanding paper		Various grits	1 set per skill area
13	Twist drill bit set		Set: 1–10 mm	3 sets per skill area
14	Brad-point drill bit set		Set: 3–10 mm	3 sets per skill area
15	Screwdriver bits		Set	5 sets per skill area
16	Countersink wood drill bit set		Set	5 sets per skill area

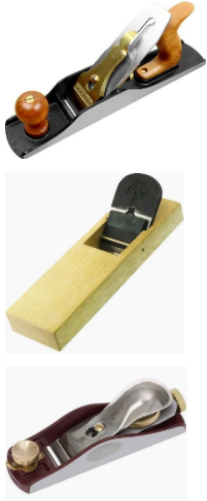
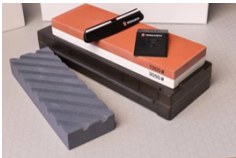
No.	Equipment / Material	Picture	Specifications	Quantity
17	Dowel centre-point pins		Set: 6 mm, 8 mm and 10 mm	3 sets per skill area
18	Biscuit joiner		Brand to be confirmed	1 per skill area
19	Biscuits		Sizes 0–20	1 set per skill area
20	Notebook / paper		A4 and/or A5	1 set per competitor

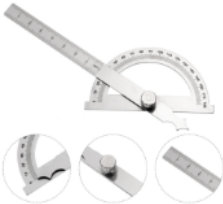
3.2 Materials and Equipment Supplied by Competitors

Competitors may bring only the materials, tools, and equipment listed below. Personal tools and equipment must fit within a toolbox or tool case suitable for checked luggage, with a maximum total weight of 23 kg, including the toolbox or case. This requirement does not apply to clothing, footwear, personal protective equipment (PPE), or equipment required due to the competitor's condition or special needs and agreed in advance with the Organiser.

Images are for reference only. They do not indicate a specific brand or model unless the specifications state otherwise. Quantities are per competitor unless otherwise stated.

No.	Equipment	Picture / Alt text	Specifications	Quantity
01	Chisel set		Competitor's choice	Competitor's choice

No.	Equipment	Picture / Alt text	Specifications	Quantity
02	Hand saws		Competitor's choice	Competitor's choice
03	Hand plane		Competitor's choice	Competitor's choice
04	Hammer and/or mallet		Competitor's choice	Competitor's choice
05	Sharpening materials		Competitor's choice	Competitor's choice
06	Marking gauge		Competitor's choice	Competitor's choice
07	Set square		Competitor's choice	1
08	Bevel gauge		Competitor's choice	1
09	Protractor / angle finder		Competitor's choice	1

No.	Equipment	Picture / Alt text	Specifications	Quantity
				
10	Measuring tape		Competitor's choice	Competitor's choice
11	Ruler		Competitor's choice; 500 mm recommended	1
12	Pencils		Competitor's choice	Competitor's choice
13	Sanding block and sandpaper		80–180 grit	Competitor's choice
14	Calculator		Basic four-function calculator	1
15	Screwdrivers		Set of different screwdrivers or multi-bit screwdriver	Competitor's choice
16	Knife		Competitor's choice	1

No.	Equipment	Picture / Alt text	Specifications	Quantity
				
17	Personal protective equipment (PPE)		As specified in Section 4.1	1 set

3.3 Prohibited Materials and Equipment

Competitors may use only the materials, tools, and equipment listed in Sections 3.1 and 3.2, unless otherwise authorised by the Skill Manager or Chief Judge. This restriction does not apply to clothing, footwear, or personal protective equipment (PPE) required in Section 4.1, or to equipment required due to the competitor's condition or special needs and agreed in advance with the Organiser.

All other materials, tools, and equipment are not permitted.

4 Skill-Specific Requirements

4.1 Skill-Specific Requirements

The Skill-Specific Requirements below apply to this Skill Competition and must be followed in addition to the Abilympics Competition Rules. The Skill Manager or Chief Judge may provide additional instructions, as needed, to ensure the competition is conducted safely and fairly.

Topic	Skill-Specific Requirements
Materials and tools provided by the Organiser	The Organiser provides one workbench and stool per competitor, the materials required for the Task Assignment, and the shared tools and equipment listed in Section 3.1. Competitors must check all materials, tools, and equipment before the competition begins. If any item is missing, damaged, or defective, competitors must immediately inform the Judges. No replacements will be provided once competition time has commenced, unless authorised by the Judges. If equipment provided by the Organiser fails and the failure is confirmed not to have been caused by the competitor, the Chief Judge may grant additional time.
Use of personal tools	Competitors may bring and use only the personal tools and equipment listed in Section 3.2. No other personal tools or equipment are permitted. This restriction does not apply to equipment required due to the competitor's condition or special needs and agreed in advance with the Organiser.
Personal protective equipment (PPE)	Everyone in the workshop must wear the required PPE and comply with the workshop safety and PPE requirements. The following PPE is required: • Safety glasses suitable for woodworking • Hearing protection (earmuffs or earplugs) when using or working near noisy power tools or machinery • Safety footwear complying with EN ISO 20345, minimum S1 • Dust mask / respiratory protective equipment suitable for wood dust when sanding or carrying out other dust-producing work Each person must bring their own required PPE.
Clothing / Uniform	There is no mandatory uniform. Competitors must wear clean, comfortable clothing suitable for woodworking. Clothing must allow the competitor to work safely and effectively at the workstation. Loose

Topic	Skill-Specific Requirements
	clothing and shorts are not permitted. Long hair must be tied back securely. Clothing must not display large commercial logos or promotional branding. Small, non-distracting brand marks are permitted.
Sideline coaching	Competitors must remain at their workstations or within the designated competition area during competition time, unless authorised to leave by the Judges. Competitors may not communicate with other competitors or members of the public during competition time. Competitors may communicate with Judges, Interpreters, personal assistants, and other authorised persons when required. The role and permitted involvement of a personal assistant must be agreed in advance with the Organiser based on the competitor's condition or special needs.
Use of technology	Competitors may not use personal laptops, tablets, mobile phones, smartwatches, or other personal communication or electronic devices during competition time. Competitors must store such devices away and may access them only during the lunch break or at the end of the competition day. This restriction does not apply to devices required due to the competitor's condition or special needs and agreed in advance with the Organiser. Judges and Interpreters may use devices required for their official duties only as agreed by the Skill Manager and the Chief Judge. The Skill Manager and the Chief Judge may use devices required for competition management and will specify any additional restrictions or permitted device use within the competition area.

5 Assessment Framework

5.1 Assessment Principles

All Abilympics Skill Competitions are marked out of 100 points.

Points are divided between criteria that reflect the required skills and expected outcomes.

Two methods of assessment are used:

- **Measurement:** objective, factual scoring (e.g., size, accuracy).
- **Judgement:** expert evaluation of quality, technique, and artistic choices.

5.2 Assessment Areas

Detailed marking criteria and scoring are provided in the Task Assignment.

Assessment focuses on the following key areas:

Assessment Area	Points
Dimensions	20
Quality of joints	37
Quality of assembly and finishing	39
Overall accuracy and compliance	4
Total	100