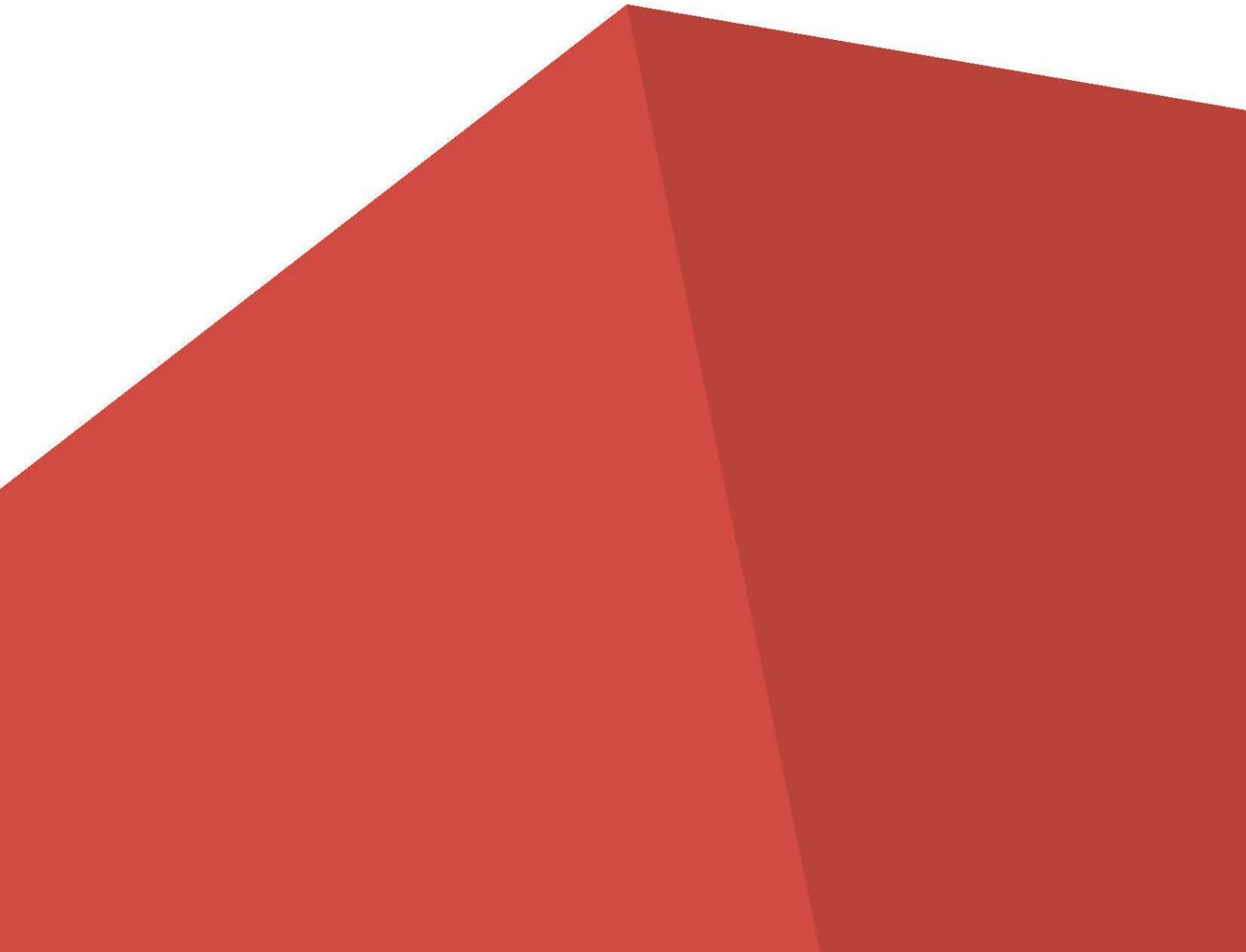
SKILL TECHNICAL DESCRIPTION

Industrial Robotics



WorldSkills Russia "Young Professionals" Union (hereinafter referred to as WSR) in accordance with the charter of the organization and rules of the competition has established the following minimum professional skill command requirements for participation in the skill competitions.

The Technical Description includes the following sections:

1. INTRODUCTION

1.1. PROFESSIONAL SKILL NAME AND DESCRIPTION

1.1.1 Professional skill name:

Industrial Robotics

1.1.2 Professional skill description.

Specialists in the field of industrial robotics deal with the design of engineering systems in the sphere of industrial automation. Robotics includes elements of mechanics, electronics, and computer technologies. Computer technologies used in robotics include elements of information technologies, programming of robot-assisted management systems, and technologies that provide communication between robotics systems, peripheral process equipment, and humans.

Specialists in the mechatronics field must have knowledge and skills in pneumatic automation, hydraulics, mechanics, electronically controlled systems, programming, robotics, and the development of automated systems. Specialists in the field of robotics develop, construct, carry out adjustment and commissioning works, perform technical maintenance, localize and eliminate faults of robot-assisted complexes, and program control systems for industrial robots.

High-class specialists comply with all the requirements of their profession, they carry out technical maintenance and designing of robot-assisted systems. They also collect and examine information about new technical innovations, such as components of robot-assisted systems, sensors, data buses, PLCs, safety systems, and other peripheral equipment. Professional duties of a high-class specialist include the skills of installation and design of application sections, set-up, repair, and debugging of industrial robots as well as the ability to program and communicate with automated control systems.

The following types of automation serve as an example of widespread robot-assisted systems: the automation of welding processes; mechanical processes;

painting processes; loading/unloading of CNC machines; palletizing of finished products, etc.

1.2. RELEVANCE AND SIGNIFICANCE OF THIS DOCUMENT

This document contains information about the standards required to compete in the skill competition, the assessment principles, methods, and procedures that govern the competition. WSR hereby acknowledges the WorldSkills International (WSI) copyright. Furthermore, WSR acknowledges WSI intellectual property rights regarding scoring principles, methods, and procedures.

Each Expert and Competitor shall be familiar with and understand this Technical Description.

1.3. ASSOCIATED DOCUMENTS

Since this Technical Description contains only skill-specific information, it must be used in association with the following documents:

- WSR, Competition Standing Orders
- WSR, online resources as indicated in this document
- WSR, policy and statutory regulations
- Skill-specific OHSE instructions

2. WORLDSKILLS STANDARDS SPECIFICATION (WSSS)

2.1. GENERAL INFORMATION ON WORLDSKILLS STANDARDS SPECIFICATION (WSSS)

The WSSS specifies the knowledge, understanding, and specific skills that underpin international best practice in technical and vocational performance. It should reflect a shared global understanding of what the associated work role(s) or occupation(s) represent for industry and business.

The skill competition is intended to reflect international best practice as described by the WSSS and to the extent that it is able to be implemented. The WSSS is, therefore, a guide to the required training and preparation for the skill competition.

In skill competitions, knowledge and understanding will be checked through assessment of the performance of practical work. There will be no separate theoretical tests of knowledge and understanding.

The WSSS is divided into clearly-defined sections with numbers and headings.

Each section is assigned a percentage of the total marks to indicate its relative importance within the WSSS. The sum of all the percentage marks is 100.

The Marking Scheme and the Test Project will assess only those skills that are set out in the WSSS. They will reflect the WSSS as comprehensively as possible within the constraints of the skill competition.

The Marking Scheme and the Test Project will reflect the allocation of marks within the WSSS to the maximum possible extent. A variation of 5% is allowed, provided that this does not distort the weightings assigned by the WSSS.

Section		Importance (%)
1	**Work organization and management**	**10**
	A specialist shall know and understand: • Principles and methods of safe work execution • The purposes, use, care, and maintenance of all equipment and materials together with their safety implications • environmental and safety principles and their application to good housekeeping in the work area; • Principles and methods for work organization, control, and management • Principles of communication and collaboration • The scope and limits of one's own and other's roles, responsibilities, and duties, both individually and collectively • Parameters within which activities need to be planned • Principles and techniques for time management	
	A specialist shall be able to: • Prepare and maintain a safe, tidy, and efficient work area • prepare self for the tasks in hand, including full regard to health and safety;	

	• Schedule work to maximize efficiency and minimize disruption • Apply (or surpass) the health and safety standards relative to the environment, equipment, and materials • Restore the work area to an appropriate condition • Contribute to teamwork and organizational performance both in general and specifically • Give and accept feedback and support	
2	**Assembly, debugging, and programming of robotics systems**	**30**
	A specialist shall know and understand: • The basics and laws of industrial robotics • Field of application of industrial robotics • Components of a robot-assisted system, control system configuration, connection of peripheral devices (by means of field bus), use of sensors, safety devices • Industrial robot, robot launching, description and design, robot mechanics, location of main axes, absolute accuracy and repeatability • Robot control system basics, applications, and data bus systems • Robot movement basics, robot coordinate system • Commissioning basics of industrial robots, robot-adjustment principles, loading parameters, instrument calibration, base calibration, requests for a robot's current position in the system • Robot program execution principles, program selection and run, creating and processing program modules • Execution control basics for programs, cycles, determined commands, and various situations • Basic operation of industrial robots with an upper-level control system • Basics for preparing programs for startup from the PLC, establishing connection with the PLC, configuration and application of external automation mode • Pneumatic automation and operating principles of pneumatic system elements • Basic electronics, electrotechnics, and operation principles of electrical and electronic system elements • Basics of electrically-actuated systems and electrical machinery operation principles • Operation principles of PLC-based control systems	
	A specialist shall be able to:	

	• Select the required robot • Select the actuating organ/instrument • Select the energy-saving system • Determine efficiency of energy use • Use the control panel, read and interpret the robot control system messages, select and establish operating modes and the robot coordinate system • Create and alter programmed displacements, create new displacement commands, create displacements with clock time optimization (axial displacement), create a trajectory-specific displacement, change commands • Apply logic functions in a robot's program and program waiting functions, simple switching functions, and trajectory functions switching • Use subprograms and functions, work with local and global subprograms, transmit parameters to the subprogram • Program and configure a robotics system using software packages designed for configuring robotics systems, open projects, compare projects, merge systems, export projects into the robot control system • Develop and commission industrial robotics systems according to process descriptions • Assemble equipment according to drawings and technical documentation • Perform electrical and pneumatic distribution according to production standards • Install, adjust, and debug mechanical, electronic, and sensor systems • Fit out robotics systems with additional equipment, adjust and connect new system components to a PLC according to standards and technical documentation	
3	**Industrial controllers**	**20**
	A specialist shall know and understand: • PLC and HMI operation principles • Structure and functions of industrial controllers • PLC and HMI configuration principles, connection between the program code (program structure) controlling a machine, action of actuating mechanisms	
	A specialist shall be able to: • Connect the controller to the robotics system • Configure PLC and HMI • Set-up and configure PLC and HMI controllers in	

	accordance with electrical connection diagrams to ensure correct robotics system operation	
4	**Programming**	**40**
	A specialist shall know and understand: • The process of program development for industrial equipment • Connection between the program code (program structure) controlling a robot and actions of actuating mechanisms	
	A specialist shall be able to: • Write a robotics system control program, visualize an industrial robot operation process with use of software • Program PLCs, perform software processing of digital and analog signals, apply fieldbus technologies	
5	**Metrology (measurement and control)**	**10**
	A specialist shall know and understand: • The nomenclature of measuring instruments and devices, and application; • Main methods/ways measurement.	
	A specialist shall be able to: • Select the appropriate measuring instrument and apply it correctly; • Measure the threaded elements.	
	Total	**100**

3. ASSESSMENT STRATEGY AND TECHNICAL FEATURES OF ASSESSMENT

3.1. MAIN REQUIREMENTS

The Strategy establishes the principles and techniques to which WSR assessment and marking must conform.

Expert assessment is the cornerstone of WSR competitions. For this reason, it is the subject of continuous professional development and scrutiny. The growth of expertise in assessment will inform the future use and direction of the main assessment instruments used by WSR competitions: the Marking Scheme, Test Project, and Competition Information System (CIS).

Assessment at WSR competitions falls into two broad types: measurements and judgment. For both types of assessment, the use of explicit benchmarks against which to assess each aspect is essential to guarantee quality.

The Marking Scheme must follow the weightings within the WSSS. The Test Project is the assessment vehicle for the skill competition and should also follow the WSSS. The CIS enables marks to be recorded in a timely and accurate manner, which contributes to the proper organization of the competition.

The Marking Scheme, on the whole, is a critical factor for the Test Project development process. During further development, the Marking Scheme and the Test Project will be designed and developed through an iterative process to ensure their joint optimization within the framework of the WSSS and the Assessment Strategy. They will be submitted to the Skill Competition Manager for approval together to demonstrate their quality and conformity with the WSSS.

4. MARKING SCHEME

4.1. GENERAL GUIDANCE

This section describes the role and place of the Marking Scheme, how the Experts will assess the competitor's work demonstrated through the Test Project performance, and the procedures and requirements for marking.

The Marking Scheme is the main tool of WSI competitions and determines the compliance of the Test Project assessment with the WSSS. It is designed to allocate marks for each assessed aspect of performance, which refers to just one WSSS module.

By reflecting the weightings specified in the WSSS, the Marking Scheme sets out the Test Project development parameters. Depending on the nature of the skill and its assessment requirements, it can be helpful to develop the Marking Scheme in detail early on so that it can be used as a guide for development of the Test Project. Otherwise, the Test Project shall be developed based on the generalized Marking

Scheme. Further development of the Test Project is accompanied by the development of assessment criteria.

Section 2.1 specifies the maximum acceptable variation percentage and the Test Project Marking Schemes based on the weightings provided in the Standards Specification.

The Marking Scheme and the Test Project may be developed by one person, or a group of experts, or a third-party developer. The detailed and final Marking Scheme and Test Project shall be approved by the Skill Competition Manager.

Furthermore, all experts are encouraged to submit their proposals for the development of Marking Schemes and Test Projects to the Discussion Forum for further review by the Skill Competition Manager.

In all cases, a complete Marking Scheme approved by the Skill Competition Manager shall be entered into the CIS at least two days prior to the competition, with the use of a standard CIS spreadsheet or other agreed-upon methods. The Chief Expert is responsible for this process.

4.2. ASSESSMENT CRITERIA

The main headings of the Marking Scheme are the assessment criteria. In some skill competitions, the assessment criteria may be similar to the section headings in the WSSS; in others, they may be completely different. There are usually from five to nine assessment criteria; that said, there should be at least three assessment criteria. Whether or not they match the headings, the Marking Scheme must reflect the weightings specified in the WSSS.

The Assessment Criteria are created by the person(s) developing the Scoring Scheme, who is free to define the criteria they consider most suited to the assessment of the Test Project performance.

The Mark Summary Form generated by the CIS will comprise a list of the assessment criteria.

The marks allocated to each criterion will be calculated by the CIS. This will be the cumulative sum of marks given to each aspect within that assessment criterion.

4.3. SUBCRITERIA

Each assessment criterion is divided into one or more subcriteria. Each subcriterion becomes a heading in the Marking Scheme.

Each marking form (subcriteria) specifies a certain date on which it will be filled.

Each marking form (subcriteria) contains the aspects to be assessed. Each marking method is assigned to a special marking form.

4.4. ASPECTS

Each Aspect defines in detail a single item to be assessed and marked together with the marks or instructions for how the marks are to be awarded.

The marking form lists in detail every aspect to be marked together with the mark allocated to it.

The sum of the marks allocated to each aspect must fall within the range of marks specified for that section of the skill in the WSSS. It will be displayed in the Mark Allocation Table of the CIS in the following format:

Criteria									Total points for the WSSS section	WSSS MARKS PER SECTION	VARIANCE
WorldSkills Standard Specification (WSSS) Sections		A	B	C	D	E	F	G	H			
	1	10						10		20	20	0
	2			10					10	20	20	0
	3		13							13	13	0
	4		12		5	15	15			47	47	0
Total marks for criterion		10	25	10	5	15	15	10	10	100	100	0

4.5. JURY'S OPINION (JUDGMENT MARKING)

Decisions are made using a scale of 0–3. To apply the scale with rigor and consistency, judgment must be carried out using:

- Benchmarks (criteria) for detailed guidance for each aspect
- 0–3 scale, where:
  - 0: performance does not meet the industry standard,
  - 1: performance meets the industry standard,
  - 2: performance meets and in some aspects exceeds the industry standard,
  - 3: performance wholly exceeds the industry standard and is judged as excellent.

Each aspect is assessed by three experts, each expert must perform assessment, after which the allotted marks will be compared. If the expert assessments vary by more than 1 point, they must discuss the assessment of this particular aspect and eliminate the difference.

4.6. ASSESSMENT BY MEASUREMENT

Each aspect will be assessed by three experts. Unless otherwise specified, only the maximum mark or zero points will be awarded. If within some aspect it is possible to award marks below the maximum, it shall be described in the Marking Scheme with the measurable parameters specified.

4.7. USE OF MEASUREMENT AND JUDGMENT

The final concept of measurement and judgement assessment will become available after the approval of the Marking Scheme and the Test Project. The table provided contains approximate information and is intended for the development of the Marking Scheme and the Test Project.

Criteria		Points		
		Jury's opinion	Measurable	Total
A	**Robotic welding**		**16**	**16**
B	**Milling**		**16**	**16**
C	**Machine loading/unloading**		**16**	**16**
D	**Palletizing**		**16**	**16**
E	**Painting articles**		**16**	**16**

F	**Project presentation**	**20**		**20**
Total		**20**	**80**	**100**

4.8. SKILL ASSESSMENT SPECIFICATION

The Test Project assessment will be based on the following criteria (modules):

A. Commissioning and programming of the task "Robot controlled welding," 100% measurement

A1 Commissioning (measurement)

A2 Writing the program (measurement)

B. Commissioning and programming of the task "Milling," 100% measurement

B1 Commissioning (measurement)

B2 Writing the program (measurement)

C. Commissioning and programming of the task "Machine loading/unloading," 100% measurement

C1 Commissioning (measurement)

C2 Writing the program (measurement)

D. Commissioning and programming of the task "Palletizing," 100% measurement

D1 Commissioning (measurement)

D2 Writing the program (measurement)

E. Commissioning and programming of the task "Product painting," 100% measurement

E1 Commissioning (measurement)

E2 Writing the program (measurement)

F. Industrial robots project, 100% Judgment

F1 Project (judgment)

F2 Presentation (judgment)

4.9. ASSESSMENT STANDING ORDERS

The Chief Expert and Deputy Chief Expert shall discuss and divide the experts into groups (each group is composed of at least three people) for marking. Each group shall include at least one experienced expert. An expert shall not assess any competitor from their own organization.

Consistent marking is used for each completed module.

To ensure transparency, a copy of the judgment assessment form identical to that used by experts is provided to each competitor.

5. TEST PROJECT

5.1. MAIN REQUIREMENTS

Sections 2, 3, and 4 govern the development of the Test Project (TP). The recommendations in this section provide additional explanation for the TP content. Module F in the Test Project is secret, the actual assignment is sent by the competencies manager on day C-1—or alternatively by the person responsible—to the Chief Expert on site.

The Test Project performance shall take no less than 15 and no more than 22 hours.

Competitors must be between the ages of 17 and 22 years old to perform this Test Project.

Regardless of the number of modules, the TP shall include the scoring for each of the WSSS sections.

The Test Project shall not fall outside of the WSSS.

The participant's knowledge shall be assessed and marked exclusively in the practical performance of the Test Project.

The Test Project will not assess knowledge of WSR rules and regulations.

5.2. TEST PROJECT STRUCTURE

The Test Project contains 3 modules:

1. Module A. Commissioning and programming of the task "Robot controlled welding"
2. Module B. Commissioning and programming of the task "Milling"
3. Module C. Commissioning and programming of the task "Machine loading/unloading"
4. Module D. Commissioning and programming of the task "Palletizing"
5. Module E. Commissioning and programming of the task "Product painting"
6. Module F. Industrial robots project

5.3. TEST PROJECT DEVELOPMENT REQUIREMENTS

General requirements:

- Modularity
- The task to be possible to perform using the tools, materials, and equipment provided at the competition, taking into account the competitors' knowledge and time for its implementation
- The Test Project to be tested before the competition
- Availability of relevant documentation for complex process equipment
- Availability of photographs and drawings in the documentation and instructions

Competition workshop requirements:

The competition workshop infrastructure consists of:

- Competitor workstations
- Locker rooms for competitors
- Expert room (depending on the number of experts, including independent ones)
- Briefing area
- Fencing, entrances and exits, passages for competitors and experts

The competitor workstations must be laid out in accordance with the Infrastructure List. Below is a reference sample:

- A robot cell as per the Infrastructure List
- A desk with a PC and internet access
- Chair
- PPE
- Set of tools
- 8 GB flash drive
- Flash drive with software for saving the image of the robotics system

Locker rooms for competitors

Shall be equipped with:

- Coat hangers
- Chairs and one table for 2 competitors
- Water dispenser (hot and cold water) with disposable cups
- Fire extinguisher

Expert Room

Shall be equipped with:

- Work desk (one per 2 experts)
- Chair (one for each expert)
- Water dispenser (hot and cold water) with disposable cups
- Office supplies: pens, pencils, paper, scotch tape (transparent, masking, double-sided), stapler, box cutter, scissors, A4 sheet holder, spare MFD cartridge, eraser
- fire extinguisher

CHIEF EXPERT'S ROOM

Shall be equipped with:

- Discussion table

- Laptop, color printer for A4 paper
- Office supplies (sketchbooks, pens, pencils)

Briefing area

Shall be equipped with:

- Large screen with a projector and laptop
- Microphone with speakers
- Chairs (depending on the number of competitors + experts)
- Water dispenser (hot and cold water) with disposable cups
- fire extinguisher

Fencing, entrances and exits, passages for competitors and experts

- Exhibition fencing up to 1 m high
- Entrances and exits from the site to be sufficiently wide (to enable loaders to bring in materials on pallets with swings and rolling doors)
- A walkway (no less than 80 cm) for experts around the perimeter of the site, between the fence, and the competitor's workstation

5.4. TEST PROJECT DEVELOPMENT

The Test Project is developed based on the samples provided by the Skill Competition Manager on the WSR forum (http://forum.worldskills.ru). The Test Project samples provided shall be changed once a year.

5.4.1. WHO DEVELOPS THE TEST PROJECT/MODULES

The Skill Competition Manager is responsible for the overall management and approval of the Test Project. The following individuals may be involved in the Test Project development:

- Certified WSR experts
- Manufacturers of industrial robots
- Other concerned parties.

If 30% changes are made to the Test Project, the following individuals shall participate in the preparation process for each competition:

- Chief Expert
- Certified Skill Expert (if present at the competition)
- Experts taking part in assessment (if required to be involved by the Chief Expert)

The introduced 30% changes to the Test Project must be approved by the Skill Competition Manager.

When 30% changes are made to the Test Project, the above mentioned persons shall be guided by the principles of objectivity and impartiality. The changes shall not affect the complexity of the Test Project or relate to other professional areas not described in the WSSS or exclude any WSSS units. Furthermore, the changes introduced shall be performable using the approved Infrastructure List for the competition.

5.4.2. HOW THE TEST PROJECT IS DEVELOPED

Test Projects for each competition shall be developed based on the unified Test Project approved by the Skill Competition Manager and posted on the Discussion Forum. Test Projects can be developed both as a whole or in modules. The Discussion Forum is the main tool for developing the Test Project.

5.4.3. WHEN THE TEST PROJECT IS DEVELOPED

The Test Project is developed in accordance with the following schedule that defines the documentation preparation periods for each competition type.

Time frames	Local competition	Qualifying competition	National competition
Test Project template	The Test Project from the previous National Competition shall be taken from the Discussion Forum in unmodified form	The Test Project from the previous National Competition shall be taken from the Discussion Forum in unmodified form	Developed based on the previous competition taking into account the skill competition experience and the industry standards 6 months prior to the competition

Approval of the Chief Competition Expert responsible for TP development	2 months prior to the competition	3 months prior to the competition	4 months prior to the competition
TP publication (if applicable)	1 month prior to the competition	1 month prior to the competition	1 month prior to the competition
Introduction of 30% changes made to the TP and approval by the Skill Competition Manager	On Day C-2	On Day C-2	On Day C-2
Submission of proposals on the Discussion Forum regarding the modification of TP, AC, IL, TD, EN, GR	On Day C+1	On Day C+1	On Day C+1

5.5 TEST PROJECT APPROVAL

The Chief Expert and the Skill Competition Manager shall decide whether all modules are able to be performed. Time and materials shall be taken into consideration.

The Test Project can be approved in any form convenient for the Skill Competition Manager.

5.6. PROPERTIES OF MATERIALS AND MANUFACTURER INSTRUCTIONS

If it is necessary for the competitor to study a particular material user manual or manufacturer's equipment manual to perform the Test Project, they will receive this/these in advance by decision of the Skill Competition Manager and the Chief Expert. If necessary, the Technical Expert may organize an on-site demonstration.

Materials selected for the modules that are to be used by the competitors (except where materials are brought by the competitors themselves) shall be available

from a variety of manufacturers and able to be bought freely in the region of the competition.

6. SKILL MANAGEMENT AND COMMUNICATION

6.1 DISCUSSION FORUM

All precompetition discussions take place on the special forum (http://forum.worldskills.ru). Decisions on skill development shall only be made after a preliminary discussion on the forum. In addition, information on all important skill related events shall be provided on the forum. This forum is moderated by an International Expert and/or a Skill Competition Manager (or an Expert nominated by them).

6.2. INFORMATION FOR COMPETITORS

The information for competitors is published in accordance with the Standing Orders for the competition. Information may consist of:

- Technical description;
- Test projects;
- Infrastructure list;
- Occupational Health and Safety instructions
- Additional information

6.3. ARCHIVE OF TEST PROJECTS

Test projects are available at http://forum.worldskills.ru.

6.4. SKILL MANAGEMENT

General skill management is carried out by the International Expert and the Skill Competition Manager with the potential involvement of the expert community.

Skill management within a specific competition is carried out by the Chief Skill Expert in accordance with the Competition Standing Orders.

7. OHSE REQUIREMENTS

7.1 OHSE REQUIREMENTS AT THE COMPETITION

See the occupational health and safety documentation provided by the Skill Management Team.

7.2 SKILL-SPECIFIC OCCUPATIONAL HEALTH, SAFETY, AND ENVIRONMENTAL REQUIREMENTS

When carrying out work involving the use of an industrial robot, one has to use personal protective equipment in accordance with OHSE documentation.

Each step taken by the competitor to put the equipment into operation shall be approved by the Technical Expert who is responsible for this equipment. At the expert's command, the competition participant must demonstrate the program they have written on the control panel of the robotics system.

The competitor shall strictly comply with the instructions of the Technical Expert responsible for the equipment. If an emergency situation arises, the competitor must press the emergency shutdown button on the panel and immediately call the expert responsible for the equipment.

During an emergency situation, the competitor is expressly prohibited from taking independent action.

During the processing, the following actions are banned:

- Passing or receiving any objects through the work zone of the manipulator
- Removing or installing fencing
- Attaching accessories and appliances

8. MATERIALS AND EQUIPMENT

8.1. INFRASTRUCTURE LIST

The Infrastructure List includes all the infrastructure, equipment, and consumables needed for the Test Project. The Infrastructure List must contain an

example of such equipment and a clear description of the corresponding features if it is possible to acquire equivalent equipment.

During the development of the Infrastructure List for a specific competition, the process must be guided by the Infrastructure List posted on the Discussion Forum by the Skill Competition Manager and/or by the International Expert. All changes made to the Infrastructure List must be agreed upon by the Skill Competition Manager and/or the International Expert.

At each competition, the Technical Expert should maintain a record of infrastructure elements. The list should not include elements that were asked to be included by the experts or the competitors or prohibited elements.

Following the competition, if necessary, the Technical Expert and the Chief Expert shall provide recommendations for changes to be made to the Infrastructure List to the Competition Organizing Committee, Skill Competition Manager, and International Expert.

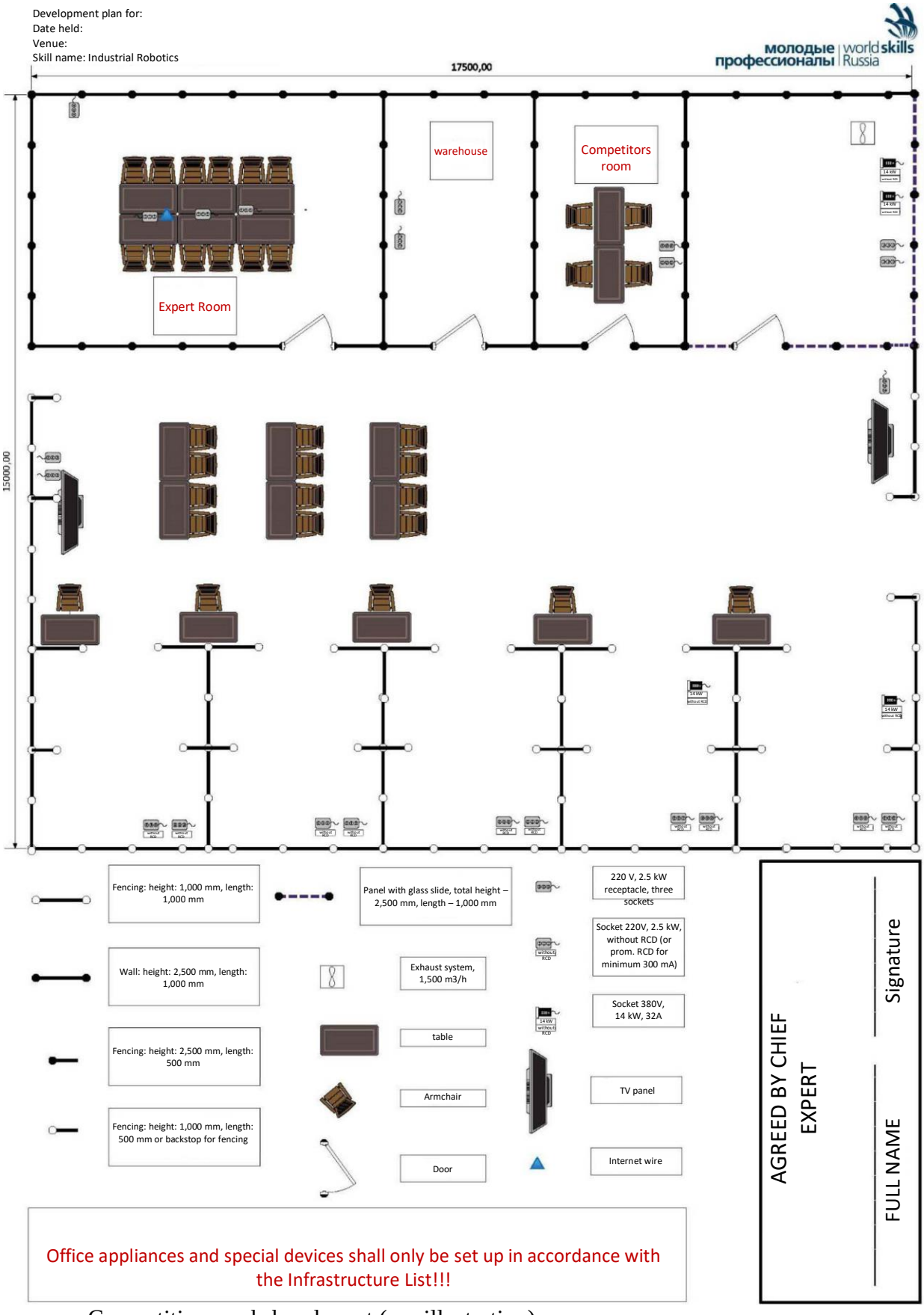
8.2. MATERIALS, EQUIPMENT, AND TOOLS SUPPLIED BY COMPETITORS IN THEIR TOOLBOX

Toolbox: zero (not required).

8.3. MATERIALS AND EQUIPMENT PROHIBITED IN THE WORKSHOP

Any materials and equipment brought by competitors shall be declared (presented) to the Experts. The Experts may prohibit the use of any items that are not related to the execution of the task or that may give the competitor an unfair advantage.

8.4. PROPOSED COMPETITION WORKSHOP LAYOUT



Competition workshop layout (see illustration).

9. SPECIAL RULES FOR THE 12–14 and 14–16 AGE GROUPS

The test project performance time shall not exceed 5 hours per day.

During the development of the Test Project and Marking Scheme, it is required to consider the specific features and limitations of the applied OHSE rules for this age group. It is also necessary to take into account the anthropometric, psychophysiological, and psychological characteristics of this age group. In this way, the Test Project and Marking Scheme may cover not all the WSSS units and areas depending on the specific features of the skill.