

**Annex. Trainee Assessment Card – Verification of Learning Outcomes with Verification Criteria**

<b>Full name:</b>	
<b>Date of traineeship abroad:</b>	
<b>Name of the evaluating authority/company:</b>	
<b>Name of assessor:</b>	
<b>Name of the profession:</b>	<b>mechatronics technician</b>

1 – very rare or not at all      2 – rarely      3 – occasionally      4 – Frequently      5 – always or very often

‘not applicable’ – is not part of the tasks assigned to the pupil in the course of the traineeship and is therefore not subject to verification and does not count towards the maximum number of points to be obtained

Unit of learning outcomes: “Health and safety at work”							
Learning outcomes	Verification criteria	Result of verification					
Complies with rules on health and safety at work, fire protection, environmental protection and ergonomics.	uses terminology on health and safety at work, fire protection and environmental protection	1	2	3	4	5	not applicable
	organises work with the required level of protection of health and life against risks in the working environment	1	2	3	4	5	not applicable
	describes fire protection rules	1	2	3	4	5	not applicable
	identifies fire safety information signs	1	2	3	4	5	not applicable
	pays attention to others implementing principles of health and safety at work, fire safety, environmental protection and ergonomics;	1	2	3	4	5	not applicable
	uses personal protective equipment in the exercise of professional tasks	1	2	3	4	5	not applicable
	applies the rules for the organisation of workstations related to the use of equipment	1	2	3	4	5	not applicable
	uses instructions for the use of technical equipment in the performance of professional tasks	1	2	3	4	5	not applicable

Unit of learning outcomes: "Installation of mechanical components, sub-assemblies and assemblies"							
Learning outcomes	Verification criteria	Result of verification					
Characterises components, subassemblies and mechanical assemblies	recognises components, subassemblies and mechanical assemblies, e.g. shafts, axles, bearings and clutches, transmissions, mechanisms and springing elements	1	2	3	4	5	not applicable
	determines the use of components, sub-asesemblies and mechanical assemblies	1	2	3	4	5	not applicable
	selects components, sub-asesemblies and mechanical assemblies for assembling mechatronic equipment and systems	1	2	3	4	5	not applicable
	selects parts of machinery and equipment	1	2	3	4	5	not applicable
Performs measurements of the geometrical size of machinery elements	selects control and measurement instruments for measuring the geometrical dimensions of machinery elements	1	2	3	4	5	not applicable
	applies the principles for measuring the geometrical dimensions of machinery elements	1	2	3	4	5	not applicable
	selects methods for measuring the size of the geometrical elements of machines	1	2	3	4	5	not applicable
Plans and carries out manual and mechanical work	selects tools for manual work, e.g. marking-out tools, cutting tools, bending, straightening, files, blades, threaders, rivets and drills	1	2	3	4	5	not applicable
	selects machine tools, e.g. knives, drills and friezes	1	2	3	4	5	not applicable
	performs manual work, e.g., routing, cutting, sawing, straightening, bending, drilling, reaming and threading	1	2	3	4	5	not applicable
	performs machine work, e.g. turning, milling, drilling and grinding	1	2	3	4	5	not applicable
Selects methods of combining metals and their alloys	prepares materials necessary for making separable and inseparable connections	1	2	3	4	5	not applicable
	makes separable and inseparable connections	1	2	3	4	5	not applicable
Assembles and disassembles components and mechanical assemblies	selects instruments for assembling and disassembly of mechatronic components and assemblies, e.g. measures, callipers, micrometers, microscopes, mirrors, auxiliary instruments, fixtures and devices for carrying out repair work	1	2	3	4	5	not applicable

	organises a workstation for assembling and dismantling components and mechanical assemblies	1	2	3	4	5	not applicable
	assembling compression, threading and shape joints	1	2	3	4	5	not applicable
	assembling slip, roller and susceptible components	1	2	3	4	5	not applicable
	disassembles of compression, thread and shape joints	1	2	3	4	5	not applicable
	disassembles slip, roller and susceptible components	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Installation of pneumatic and hydraulic components, sub-assemblies and assemblies"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Characterises the construction of pneumatic and hydraulic components, sub-assemblies and assemblies	distinguishes between pneumatic components, sub-assemblies and assemblies, e.g. compressors, filters, valves, motors, engines, air preparation unit, dryer, lubricator...	1	2	3	4	5	not applicable
	distinguishes hydraulic components, sub-assemblies and assemblies, e.g. batteries, pumps, actuators, motors, valves, filters and regulators	1	2	3	4	5	not applicable
	selects components, components and pneumatic assemblies for assembly	1	2	3	4	5	not applicable
	selects components, components and hydraulic assemblies for assembly	1	2	3	4	5	not applicable
Selects size measuring instruments for pneumatic and hydraulic systems	distinguishes between size measuring instruments in pneumatic systems, e.g. pressure indicators, manometers, thermometers, liquid level indicators, flow indicators, flow meters, pressure transducers, analogue and digital sensors on the basis of symbols, markings and appearance	1	2	3	4	5	not applicable
	distinguishes between size measuring instruments in hydraulic systems, e.g. pressure indicators, manometers, thermometers, liquid level indicators, flow rate, flow meters, revolution counters, analogue and digital sensors based on symbols, markings and appearance	1	2	3	4	5	not applicable
	performs volume measurements in pneumatic and hydraulic systems	1	2	3	4	5	not applicable

Assembles and disassembles pneumatic and hydraulic components, sub-assemblies and assemblies	selects tools for assembling and dismantling pneumatic and hydraulic components, sub-assemblies and assemblies	1	2	3	4	5	not applicable
	performs assembly and disassembly operations of pneumatic and hydraulic components, sub-assemblies and assemblies	1	2	3	4	5	not applicable
	assesses the correct assembly of pneumatic and hydraulic components, sub-assemblies and assemblies	1	2	3	4	5	not applicable
	uses the technical documentation when assembling pneumatic and hydraulic components, sub-assemblies and assemblies	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Installation of electrical and electronic components and sub-assemblies"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Selects electrical and electronic sub-components and components for installation in mechatronic devices and systems	selects electrical and electronic components and sub-assemblies for installation in mechatronic devices and systems according to the diagram	1	2	3	4	5	not applicable
	selects electrical and electronic components and sub-assemblies for installation in mechatronic devices and systems as intended	1	2	3	4	5	not applicable
Assembles and disassembles electrical and electronic components and sub-assemblies	selects tools for assembling and disassembly electrical and electronic components and subassemblies, e.g. side pliers, flat and circular pliers, insulation shovels, wire and cable cutting shears, keys and screwdrivers	1	2	3	4	5	not applicable
	selects measuring instruments used when assembling electrical and electronic components and components, e.g. amperometers, voltmeters, watt-meters, analogue universal meters, digital multimeters and oscilloscopes...	1	2	3	4	5	not applicable
	uses measuring instruments when assembling electrical and electronic components and sub-assemblies	1	2	3	4	5	not applicable
	specifies the technical condition of electrical and electronic components and sub-assemblies prepared for assembly	1	2	3	4	5	not applicable
	assembles electrical and electronic components and sub-assemblies	1	2	3	4	5	not applicable
	disassembles electrical and electronic components and sub-assemblies	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Operation of mechatronic equipment and systems"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					

Activates mechatronic equipment and systems in accordance with instructions	examines technical and operational documentation on the activation of mechatronic equipment and systems	1	2	3	4	5	not applicable
	activates functional blocks of mechatronic equipment and systems in the specified sequence	1	2	3	4	5	not applicable
	activates mechatronic equipment and systems in accordance with documentation	1	2	3	4	5	not applicable
	checks the correct functioning of mechatronic equipment and systems	1	2	3	4	5	not applicable
	applies safety rules when starting mechatronic devices and systems	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Conservation of mechatronic equipment and systems"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Performs maintenance work on components, sub-assemblies and assemblies of equipment and mechatronic systems	visually examines components, sub-assemblies and assemblies of equipment and mechatronic systems	1	2	3	4	5	not applicable
	chooses the maintenance of electrical, electronic, pneumatic, hydraulic and mechanical appliances	1	2	3	4	5	not applicable
	carries out maintenance work on components, sub-assemblies and assemblies of equipment and mechatronic systems	1	2	3	4	5	not applicable
	assesses the quality of the maintenance work carried out on components, sub-assemblies and assemblies of equipment and mechatronic systems	1	2	3	4	5	not applicable
	draws up a record of the maintenance work carried out	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Service of mechatronic equipment and systems"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Applies the operating rules to mechatronic equipment and systems	operates of mechatronic equipment and systems	1	2	3	4	5	not applicable
	complies with the rules governing operating mechatronic equipment and systems	1	2	3	4	5	not applicable
	operates mechatronic equipment and systems	1	2	3	4	5	not applicable

Sets process parameters in mechatronic equipment and systems	changes the setting of the components of the adjustment systems	1	2	3	4	5	not applicable
	sets process parameters in mechatronic devices	1	2	3	4	5	not applicable
	fixes the characteristics of mechatronic devices over the communication network	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Development of technical documentation for mechatronic equipment and systems"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Prepares technical documentation for mechatronic equipment and systems using computer programs to support the design and production of CADs	distinguishes computer programs supporting CAD design and production	1	2	3	4	5	not applicable
	uses computer programs to support CAD design and production	1	2	3	4	5	not applicable
	establish technical documentation for mechatronic equipment and systems using computer programs supporting the design and production of CADs	1	2	3	4	5	not applicable
Compiles documentation for the assembly, dismantling and operating of mechatronic equipment and systems	creates documentation for assembly and dismantling of mechatronic equipment and systems	1	2	3	4	5	not applicable
	draws up instructions for the use of mechatronic equipment and systems	1	2	3	4	5	not applicable
	draws up instructions for the maintenance of mechatronic equipment and systems	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: "Basics for the programming of mechatronic equipment and systems"</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Uses software to programme mechatronics machinery	describes software for programming of mechatronics	1	2	3	4	5	not applicable
	uses software to programme PLC controllers	1	2	3	4	5	not applicable
Tests the performance of programmes for mechatronics	launches programs to programme PLC controllers	1	2	3	4	5	not applicable
	tests the operation of programmes for PLC controllers	1	2	3	4	5	not applicable
Checks process parameters in equipment	checks process parameters in equipment and mechatronic systems controlled by PLC controllers	1	2	3	4	5	not applicable

programmes and mechatronic systems	changes process parameters in PLC controlled mechatronic programs and systems	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: “Communication in English”</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Uses basic vocabulary in English enabling the professional activities to be carried out	understands simple oral, explicit and standard English language	1	2	3	4	5	not applicable
	examines and interprets short written texts relating to the performance of typical professional activities	1	2	3	4	5	not applicable
	identify and apply language measures to carry out professional activities	1	2	3	4	5	not applicable
	formulates short and understandable words and written texts on its own;	1	2	3	4	5	not applicable
	uses formal English	1	2	3	4	5	not applicable
	simplifies (if necessary) statements, replaces unknown words with others, uses non-verbal means	1	2	3	4	5	not applicable
	completes the Log of Practice in English	1	2	3	4	5	not applicable
<b>Unit of learning outcomes: “Personal and social competences”</b>							
<b>Learning outcomes</b>	<b>Verification criteria</b>	<b>Result of verification</b>					
Respects the principles of personal culture and professional ethics	applies the principles of proper behaviour	1	2	3	4	5	not applicable
	applies generally accepted standards of behaviour in the working environment, taking into account the culture of the host country	1	2	3	4	5	not applicable
	complies with the principles of dress-code in the workplace	1	2	3	4	5	not applicable
Respects the principles of personal culture and professional ethics	shows willingness to acquire new skills on its own initiative	1	2	3	4	5	not applicable
	improves performance of professional tasks (e.g. in terms of quality/speed of work)	1	2	3	4	5	not applicable
<b>CONCLUSION</b>							

<b>Sum of points accumulated</b>	
<b>Maximum number of points to be awarded</b>	

The apprentice's evaluation shall be based on a five-step scale of assessments:

<b>very good</b>	<b>(5)</b>	acquired at least 85 % of the maximum number of points to be awarded
<b>good</b>	<b>(4)</b>	acquired at least 70 % of the maximum number of points to be awarded
<b>acceptable</b>	<b>(3)</b>	acquired at least 55 % of the maximum number of points to be awarded
<b>allowing</b>	<b>(2)</b>	acquired at least 30 % of the maximum number of points to be awarded
<b>insufficient</b>	<b>(1)</b>	acquired of less than 30 % of the maximum number of points to be awarded

<b>Final evaluation</b>	
<b>Signature and stamp</b>	