InMobVET
Social Inclusion through Mobility in Vocational Education and Training

SCRIPT

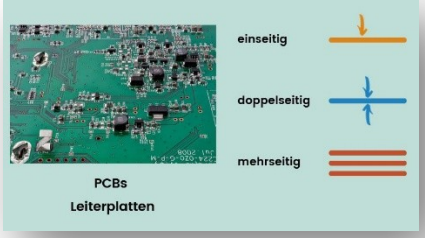
SECTOR: ELECTRONICS AND ELECTRICAL ENGINEERING IN GERMANY

TOPIC: GET TO KNOW THE GENERAL TOOLS AND EQUIPMENT IN ELECTRONICS AND THE NECESSARY VOCABULARY IN GERMAN

In an electronic lab or as an electronic technician you will have to work with electronics and their applications in appliances maintenance Anlagenwartung, industrial applications Industrieanwendungen and networks' installation Netzwerkinstallation, installation of radio transmitting and receiving systems Funkübertragungs- und Empfangssysteme and the installation of security systems Sicherheitssysteme.

When you enter an electronics lab you must be sure that you have taken the appropriate safety measures. You must wear antistatic gloves antistatische Handschuhe or antistatic wrist bands antistatische Armbänder and check that the room is properly aerated, lightened and climatised.

Then you can start working on your project. The appropriate equipment and the tools Werkzeuge should be easily accessible on, below, or over the laboratory bench Werkbank. The bench should be clean, keeping everything on it in proper and functional condition and the most important, off current if they are not in use.



The most common electronic component you have to work with as an electronic technician is the PCBs, Leiterplatten. They support and connect electronic components using conductive tracks. PCBs could be single-sided einseitig, double-sided doppelseitig or multi-layer mehrseitig.

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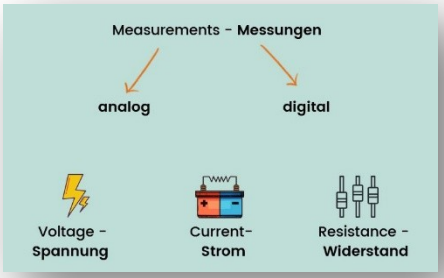
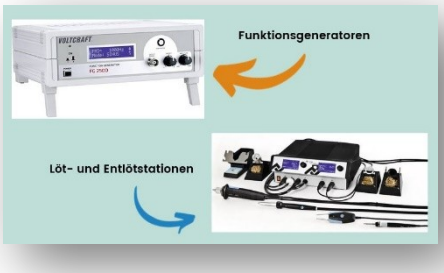
The most common tools for an electronics technician are the hand tools Handwerkzeuge. These tools are wire cutters Kabelmesser, wire strippers Abisolierer, normal pliers Zange and long nose pliers Spitzzange, plug crimping pliers Krimpzange, tweezers Pinzetten, and screwdrivers for electronics Schraubendreher.

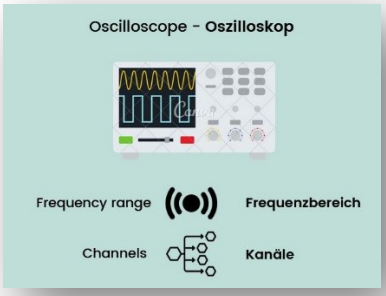
As the duties you have to carry out will become more advanced you will have to use power tools elektrische Werkzeuge such as drills, electric screwdrivers Akkuschrauber, glue guns Klebepistolen, electric trimmers elektrische Trimmer etc.



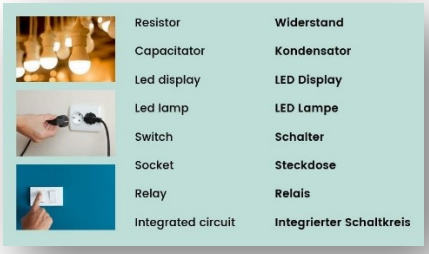
As an electronic technician, you will have to take measurements Messungen. Either analog analog or digital digital. Multimeters will be used for measurements of voltage Spannung, resistance Widerstand and current Strom. The multimeter can be either portable or benchtop. Other common measuring devices are clamp-on meters, battery analysers, voltage testers and insulation testers.



Other instruments you will use are Function Generators Funktionsgeneratoren and soldering and desoldering stations Löt- und Entlötstationen.



The oscilloscope Oszilloskop is a state of the art instrument for an electronics laboratory. You will either use an analogue or a digital one. It is important to know which frequency range Frequenzbereich you want to work with. How many channels Kanäle you need for measuring and the accessoiries that will be useful to carry out the tasks.



There are many electronics components and consumables and it is worth keeping them stored properly in the lab to be easily searchable and accessible. The most common are:
solder wire Lötdraht
fuse Sicherung
cable Kabel
fan Ventilator
speaker Lautsprecher
microphone Mikrofon
camera Kamera
batteries Batterien
resistor Widerstand
capacitor Kondensator
led display LED Anzeig
led lamp LED Lampe
switch Schalter
socket Steckdose
relay Relais
Integrated Circuit (IC) Integrierter Schaltkreis

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LIST OF VOCABULARY

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GERMAN	*YOUR LANGUAGE*
Anlagenwartung	
Industrieanwendungen	
Netzwerkinstallation	
Funkübertragungs- und Empfangssysteme	
Sicherheitssysteme	
antistatische Handschuhe	
antistatische Armbänder	
Werkzeuge	
Werkbank	
Leiterplatten	
einseitig	
doppelseitig	
mehrseitig	
Handwerkzeuge	
Kabelmesser	
Abisolierer	
Zange	
Krimpzange	
Pinzetten	
Schraubendreher	
elektrische Werkzeuge	
Akkuschrauber	
Klebepistolen	
elektrische Trimmer	
Messungen	
analog	
digital	
Spannung	
Widerstand	
Strom	

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Funktionsgeneratoren	
Löt- und Entlötstationen	
Oszilloskop	
Frequenzbereich	
Kanäle	
Lötdraht	
Sicherung	
Kabel	
Ventilator	
Lautsprecher	
Mikrofon	
Kamera	
Batterien	
Widerstand	
Kondensator	
LED Anzeige	
LED Lampe	
Schalter	
Steckdose	
Relais	
Integrierter Schaltkreis	