
	Abteilung	Lehrer	ROOM DESCRIPTION PCB technology centre	
	EL	BAUER		

The PCB technology centre consists of three rooms, which are connected with each other. In room VSS9903 students design the PCB layout (PCB = printed circuit board), room VSS9905 is used to produce it with the help of drilling- and milling machines and in room VS9904 students equip and finally test the printed circuit boards.

WSS9903

Room VSS9903 is a simple IT room, where the application of the software “Altium Designer” used for PCB development is being taught. Thereby, students design their own PCB layout with the help of a simple schematic document and print it on a foil.

WSS9904

This room is used as a multifunctional workspace and consists of three parts.

In the first part, students equip PCBS with their components and solder them afterwards. At the end, they check the function of the board and carry out some measurements.

In the second part of the room, the electric installation of a house is simulated using lamps and many different kinds of switches.

The third part is used for the drilling- and milling machines for the PCB production.

WSS9905

In this room the chemical part of the PCB production is carried out. With the help of a UV light students transfer the PCB layout to the copper-laminated base material. The UV light changes the structure of the UV light-sensitive coating, called “Resist”. In the next step, students remove surplus “Resist” by using brine. The remaining “Resist” protects the copper during the etching process. Thereby, uncovered copper can be removed from the base material with the help of acid. At the end, students can give the PCB board its shape and treat the copper with a special coating to protect it against corrosion.

