ESD protection is no more focusing only on correct clothing, shoes and handling aspects but is more and more an issue of robotic process machines in preassembly and assembly processes. While manual handling stations become rare, process automates become faster, include many triboelectric plastic materials and are driven more frequently by pneumatics instead of electric motors. These robotics include many ESD risks which are hardly known even to experienced ESD production line coordinators. Besides electrostatic basics of charge generation, this course presents specific device related failure mechanisms, root causes and methods for successful ESD risk evaluations on process machines, based on the German ESD Forum e.V. guideline 1013. In addition ESD model considerations are presented as well as explaining the differences between ESD and EOS. (Electrical OverStress).