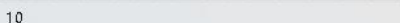
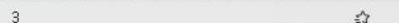


2026 年甘肃省国家级教学成果奖培育成果

成果应用及效果证明材料

教学课件

项目名称	五实赋能·一点辐射·育训并举：应用型高校电子技术实践教学体系创新与实践
项目类别	教学改革
项目负责人	边玉国
承担学校	兰州工业学院



课程内容 • 电子工艺实习内容与目的

1. 电子工艺实习内容

(1) 电子工艺实习是工艺性、实践性的技术基础课知识课程，课程目标是培养学生动脑能力和解决复杂工程问题的能力。它既注重基本知识和工艺知识入门引导，又重视精神修养的培养，即**团队协作能力的培养**，既注重理工各相关专业知识的应用，也是学生思维教育的重要环节之一。

(2) 电子工艺实习是使学生自己动手，掌握一定操作技能并亲手制作电子产品为特色，使学生在实践中巩固新知识、新技能、新方法。

2. 电子工艺实习目的

(1) 常用电子元器件的识别与检测。

(2) 常用电子元器件的焊接与检测。

(3) 简单电子产品安装与焊接工艺训练。

(4) 了解简单电子产品检测与调试。

通过教学自主训练，掌握基本工艺、电路基本理论。

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课程内容 • 常用元器件识别与检测

1. 电阻器 (R10, R20)

常用阻值电阻器：R10, R20, R30, R40 (电阻值：阻值10~100k) 等。

1.1 电阻的符号

电阻：千欧、兆欧、欧、欧姆

0.1k 0.2k 0.3k 0.4k 0.5k 0.6k 0.7k 0.8k 0.9k 1k 1.2k 1.5k 1.8k 2k 2.2k 2.4k 2.7k 3k 3.3k 3.6k 3.9k 4.3k 4.7k 5.1k 5.6k 6.2k 6.8k 7.5k 8.2k 9.1k 10k 11k 12k 15k 18k 20k 22k 24k 27k 30k 33k 36k 39k 43k 47k 51k 56k 62k 68k 75k 82k 91k 100k 110k 120k 150k 180k 200k 220k 240k 270k 300k 330k 360k 390k 430k 470k 510k 560k 620k 680k 750k 820k 910k 1M 1.1M 1.2M 1.5M 1.8M 2M 2.2M 2.4M 2.7M 3M 3.3M 3.6M 3.9M 4.3M 4.7M 5.1M 5.6M 6.2M 6.8M 7.5M 8.2M 9.1M 10M 11M 12M 15M 18M 20M 22M 24M 27M 30M 33M 36M 39M 43M 47M 51M 56M 62M 68M 75M 82M 91M 100M 110M 120M 150M 180M 200M 220M 240M 270M 300M 330M 360M 390M 430M 470M 510M 560M 620M 680M 750M 820M 910M 1G 1.1G 1.2G 1.5G 1.8G 2G 2.2G 2.4G 2.7G 3G 3.3G 3.6G 3.9G 4.3G 4.7G 5.1G 5.6G 6.2G 6.8G 7.5G 8.2G 9.1G 10G 11G 12G 15G 18G 20G 22G 24G 27G 30G 33G 36G 39G 43G 47G 51G 56G 62G 68G 75G 82G 91G 100G 110G 120G 150G 180G 200G 220G 240G 270G 300G 330G 360G 390G 430G 470G 510G 560G 620G 680G 750G 820G 910G 1T 1.1T 1.2T 1.5T 1.8T 2T 2.2T 2.4T 2.7T 3T 3.3T 3.6T 3.9T 4.3T 4.7T 5.1T 5.6T 6.2T 6.8T 7.5T 8.2T 9.1T 10T 11T 12T 15T 18T 20T 22T 24T 27T 30T 33T 36T 39T 43T 47T 51T 56T 62T 68T 75T 82T 91T 100T 110T 120T 150T 180T 200T 220T 240T 270T 300T 330T 360T 390T 430T 470T 510T 560T 620T 680T 750T 820T 910T 1P 1.1P 1.2P 1.5P 1.8P 2P 2.2P 2.4P 2.7P 3P 3.3P 3.6P 3.9P 4.3P 4.7P 5.1P 5.6P 6.2P 6.8P 7.5P 8.2P 9.1P 10P 11P 12P 15P 18P 20P 22P 24P 27P 30P 33P 36P 39P 43P 47P 51P 56P 62P 68P 75P 82P 91P 100P 110P 120P 150P 180P 200P 220P 240P 270P 300P 330P 360P 390P 430P 470P 510P 560P 620P 680P 750P 820P 910P 1E 1.1E 1.2E 1.5E 1.8E 2E 2.2E 2.4E 2.7E 3E 3.3E 3.6E 3.9E 4.3E 4.7E 5.1E 5.6E 6.2E 6.8E 7.5E 8.2E 9.1E 10E 11E 12E 15E 18E 20E 22E 24E 27E 30E 33E 36E 39E 43E 47E 51E 56E 62E 68E 75E 82E 91E 100E 110E 120E 150E 180E 200E 220E 240E 270E 300E 330E 360E 390E 430E 470E 510E 560E 620E 680E 750E 820E 910E 1000E 1100E 1200E 1500E 1800E 2000E 2200E 2400E 2700E 3000E 3300E 3600E 3900E 4300E 4700E 5100E 5600E 6200E 6800E 7500E 8200E 9100E 10000E 11000E 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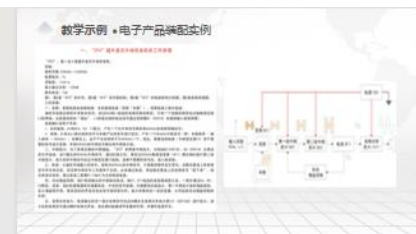
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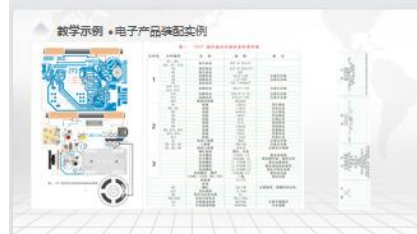
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