Lesson Plan

Electronics



Skill

Developing your basic through-hole soldering technique and reflect on the quality and speed of work

Duration

Approximately 2 hours

Suitable for:

Students undertaking a Level 3 Electronic Engineering Qualification with either analogue or digital modules



Resources needed:

- 1. video & LMS access (link)
- task brief and drawing
- 3. electronics build kit
- 4. marking criteria and drawing
- 5. infrastructure List
- 6. h&S Checklist
- 7. skill factsheet.



Learning outcomes

Students will:

- think about how to set up a solder work station
- recognise the importance of creating excellent soldering technique
- identify components to be used and the importance of correct tip size
- learn how to create accurate circuits to a high standard.

Section	Timings	Key teaching points
Infrastructure & H&S checklist	10 minutes	Ensure all equipment is ready to use and that students have access to the software and a storage drive to create a folder/project file.
Introduction	10 minutes	Read through material and check understanding and all resources in place.
Demonstration videos	15 minutes	Demonstration of soldering technique: Students watch the training video and take notes.
Task brief	15 minutes	Students sort through components and set out in build order (Take a photo of the components)
Complete task	30 minutes	Students solder and create Logic Alarm kit.
Marking criteria	30 minutes	A marking scheme and marking drawing is provided to record your scores. Do not forget to feedback to WorldSkills UK!



Preparation:

- make sure that you have printed all of the resources
- ensure you have access to the technology to play a video demo and access LMS
- ensure students have access to the required solder build kits
- all hand tools and soldering equipment is available.

Differentiation/meeting individual needs

You may need to support some learners who do not have access to the right technology or do not have internet access.