

Welding

Steps to prepare:

1. Turn on phone by pressing the black button on the side of the phone.
2. Check the back of the phone to see if it is positioned for right hand or left hand.
3. Place phone onto the torch.
4. Turn torch on.
5. Click Mobile Arc icon.
6. Tap and press and hold trigger (black box on the bottom left).

Welcome students to welding. Ask the following questions:

- **What is welding?** Welding is like using a super-strong, very hot glue to stick two pieces of metal together, so they become one. A welder uses a tool that makes a lot of heat, which melts the edges of the metal. They often add a special filler metal that also melts and fills in the space between the two pieces.
- **Can you name industries that use welding?** Manufacturing, Construction, Automotive, Shipping Railroad, Agriculture, Military, Oil & Gas
- **Safety - Welders protect themselves from the heat and electricity generated by the welding process. Can you name some of those safety items?** flame resistant gloves, safety glasses, welding helmet, long-sleeved welding jacket, flame resistant clothing, steel-toed shoes.

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- **Today you will be able to practice with three different types of welding: See chart.**

- **Butt Joint**
- **T-Joint**
- **Lap Joint**

7. Tap on one of three welding options on the screen: Butt Joint, T-Joint, Lap Joint. I would use the single panel with the groove first (Butt Joint).
8. Pull and hold trigger to start simulation.
9. Locate weld plate. Set up plates according to welding choice.
10. Hold over groove until you see the yellow dotted line. All indicators on the screen should be green before welding and keep pace with the two blue arrows. (It will still work without doing these things, but the outcome will not be as good.)
11. If the phone restarts, just wait for it to come back.
12. When finished, tap on results.
13. X out and reset trigger.
14. Now you are back to the beginning. Follow steps 7-14.

Once completed, students may try welding using the helmet. Phone is removed from welding torch and secured into the front of the helmet.

1. Before placing the phone on the helmet, repeat steps 7 & 9.
2. Screen is turned inward.
3. Have students wear a protective cap.
4. Place helmet on head and complete steps 9-14.
5. The torch can be used by the students to start simulation.

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