

Miller® AugmentedArc Augmented Reality Weld Training System

Why AugmentedArc?

For beginner to advanced-level welding students, Miller Augmented Arc simulates multiple welding processes, blending real-world and computer-generated images into a unique, augmented reality environment.



Optimize instructor efficiency



Distance Learning Mode



Deliver real-time feedback



Welding exercises for OpenBook™ MIG, Stick and TIG and for NCCER



Minimize material costs



Welding Levels 1 - 2



Reduce overall training time

7

Did you know that instructors are saving up to 60% on coupons/consumables and are seeing a reduction of up to 65% in training time for trainees by using a combination of AugmentedArc and traditional welding training vs just traditional welding training?

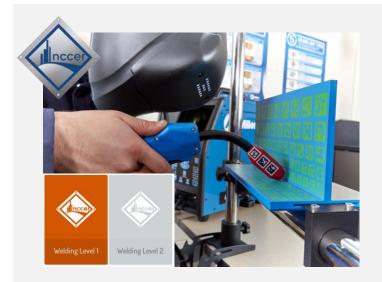
NCCER and OpenBook™ Exercises



Take training to the next level and implement materials that fit your curriculum and learning objectives.

OpenBook™ gives you access to welding content, e-learning modules, weld lab activities and more.

Try for FREE today at openbook.millerwelds.com

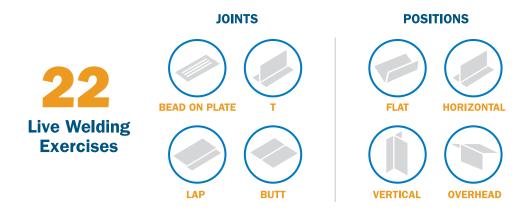


Now integrated with exercises for NCCER (National Center for Construction Education and Research) welding levels 1-2 curriculum. NCCER's curriculum correlates to the AWS SENSE standards and guidelines.

Learn more about NCCER curriculum at bit.ly/3fDs89f

2018 Gateway College Study Overview

20 Students with a novice level of welding knowledge participated in the study over one semester. They were split into two groups each using a different method of training: traditional welding training vs. a blend of AugmentedArc + traditional training.



Benefits experienced by the AugmentedArc Training Group



How it Works

AugmentedArc Display

- Helmet's external optical sensor captures and sends images of coded devices and workpieces directly to the AugmentedArc simulator
- Simulator generates 3-D images of the metal workpieces, augmenting them into a real-world environment
- Even replicates realistic arc sounds to create a truly immersive experience for the student

Post-Weld Feedback Screen

- User's performance is scored, graphed and recorded for playback to help correct errors and reinforce proper welding techniques
- Video is stored and available for replay for student and instructor to review via teacher software



Welding Processes



MIG (GMAW)



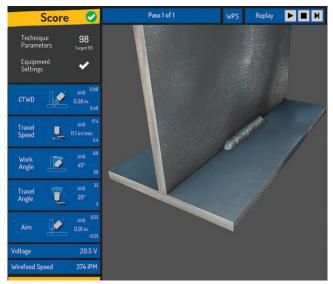
Flux-Cored (FCAW)



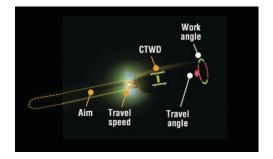
Stick (SMAW)

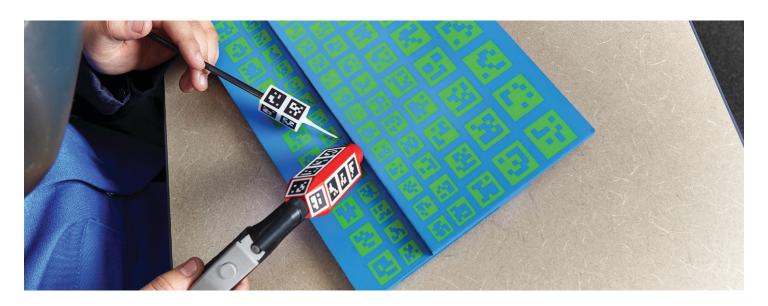


TIG (GTAW)



- GMAW/FCAWwork angle, travel angle, travel speed, contact-tip-to-work distance and aim
- SMAW: work angle, travel angle, travel speed, arc length and aim
- GTAW:travel speed, arc length, work angle, travel angle, filler rod angle, and aim

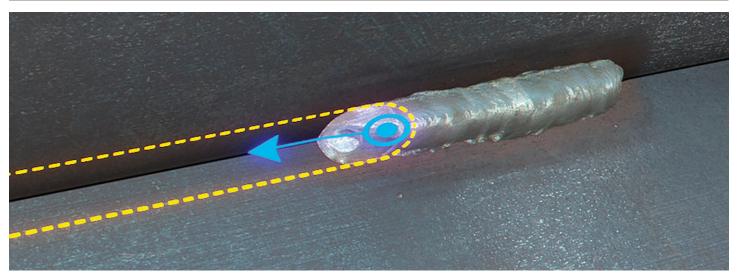




Specifications

- Ability to place work piece in the following positions: horizontal, vertical, flat and overhead
- Includes the following base material selection: Carbon steel, stainless steel, aluminum
- Includes beginner, intermediate and advanced welding settings that automatically set upper and lower limits for individual technique scoring
- Includes standard video display
- Includes the ability to connect external video monitor and speaker
- Provides networking abilities

| Input Power | Processes | Welding Positions | Joints | Dimensions | Net Weight | Voltage/ Amperage Selection |
|--|------------------------------|----------------------|---|---|---|--|
| 115 V, 15 A, 60 Hz 230 V, 10A, 50Hz | GMAW FCAW SMAW GTAW | 1F-4F, 1G-6G | Bead on Plate, T-Joint, Butt Joint, Lap Joint, Pipe-to-Plate, Butt Pipe, V-groove with Backing, V-groove without Backing | Simulator H: 21 in. (533mm) W: 9.38 in. (238mm) D: 17.25 in. (438mm) | Simulator 20.7 lb. (9.4 kg) Welding helmet 1.97lb. (0.9kg) | GMAW 10–38 V 50–425 A FCAW 10–38 V 50–425 A SMAW 50–425 A GTAW 50–425 A |



Included with the Standard System

AugmentedArc System – #951823

- · Augmented reality welding simulator main unit
- FREE teacher software includes exercise selection, customizable settings, exercise playback and available in English, French and Spanish
- Black Infinity™ AR helmet with premium headgear
- Internal router
- · Work stand for out-of-position applications
- SMAW stinger
- SMAW electrode
- TIG torch with AR tip
- 2 electrodes / filler rods with AR tips
- · MIG gun with AR tip
- · Butt joint workpiece
- T-joint workpiece
- Butt pipe workpiece
- Pipe-to-plate workpiece
- Lap joint workpiece
- V-groove with backing workpiece
- V-groove without backing workpiece
- FREE lifetime software updates
- 1-year warranty parts/labor



Optional Components

- AugmentedArc simulator controller for multiple system connectivity #301395
- Heavy-duty transportation case for simulator set #951775
- GTAW (TIG) foot pedal #286033



AugmentedArc® Controller



TIG Foot Pedal Kit





Heavy-Duty Transportation Cases

Teacher Software

Teacher software is a user-friendly and exible learning management system (LMS) that maximizes the usefulness of the AugmentedArc. It allows instructors to create a virtual classroom with customized curriculum, quizzes and weld exercises. Instructors also have the ability to view real-time results to track student progress.

Welding Curriculum

- · Create and manage your own welding curriculum
- Create quizzes, theory and welding simulation exercises
- Use pre-developed exercises or fully customize your own exercise parameters, technique and scoring criteria
- Offline mode allows you to manage the content from anywhere
- New assignments for NCCER welding level 1 2 curriculum which can be modified and assigned to students

Student Progress

- Review the complete history and detailed results of student activities
- View real-time results of welding simulations
- View statistics and download reports for individual students or entire class







Gain full access to our step-by-step instructional videos and learn how to setup and manage the teacher software: bit.ly/TeacherSoftware



In Canada, Miller Educational products sold exclusively by:

Progressive Educational Systems Inc. 1-888-256-0715 sales@progressiveinc.ca

