





# Miller® AugmentedArc® Augmented Reality Weld Training System


## Why AugmentedArc?


For beginner to advanced-level welding students, Miller® AugmentedArc® 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

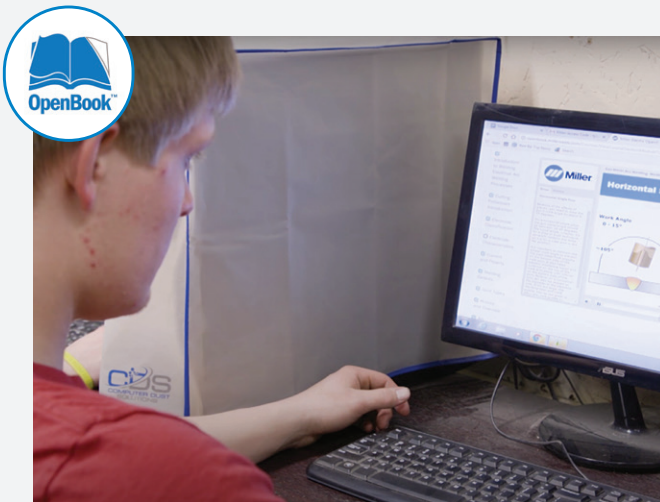
 Minimize material costs

 Welding Levels 1 - 2

 Reduce overall training time

 **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](http://openbook.millerwelds.com)



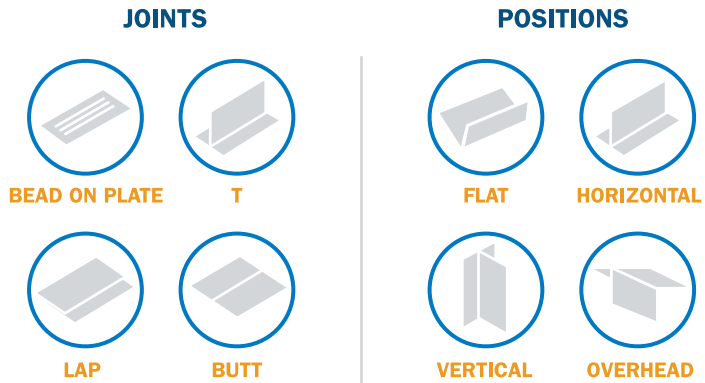
Now integrated with exercises for NCCER (National Center for Construction Education and Research) welding levels 1-2 curriculum. NCCER's curriculum correlates to the AWS SENSE standards and guidelines.

Learn more about NCCER curriculum at [bit.ly/3fDs89f](http://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.

**22**  
Live Welding Exercises



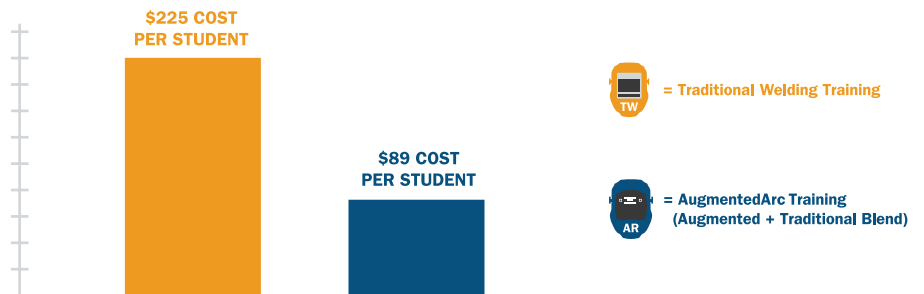
## Benefits experienced by the AugmentedArc Training Group

### COST SAVINGS



60% reduction in material waste and expense on coupons

TOTAL COUPON COST PER SEMESTER

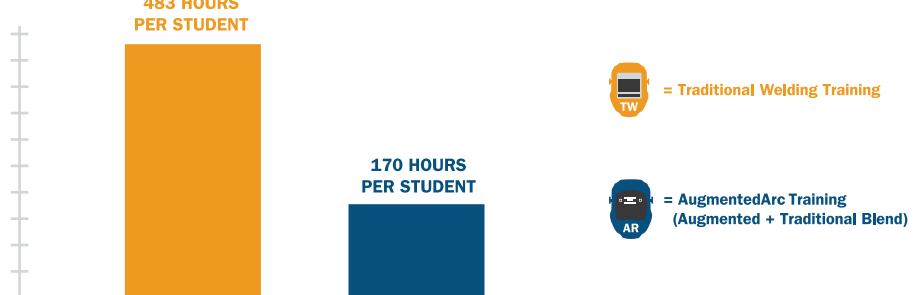


### TIME SAVINGS



65% fewer training hours for the AugmentedArc Group

TOTAL TRAINING HOURS PER SEMESTER



## 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

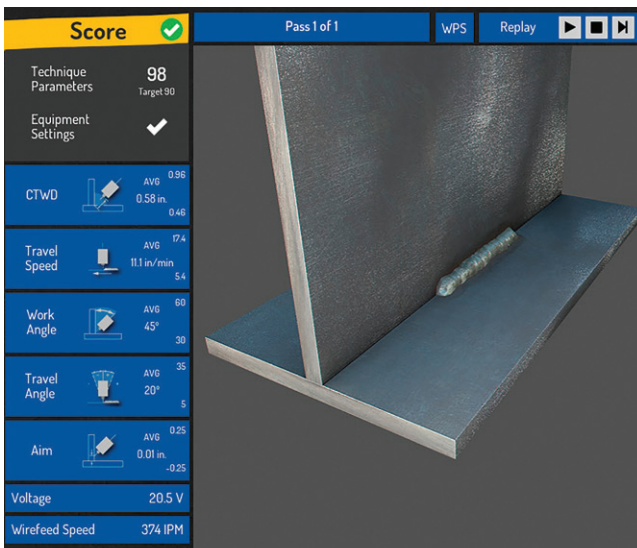
- User's performance is scored, graphed and recorded for playback to help correct errors and reinforce proper welding techniques
- Video is stored and available for replay for student and instructor to review via teacher software



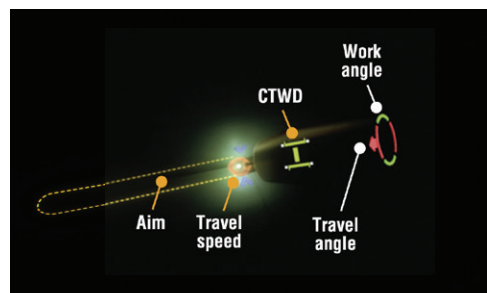
Learn the benefits of using an AugmentedArc System and how you can create a virtual classroom:  
[bit.ly/AugmentedArc](http://bit.ly/AugmentedArc)

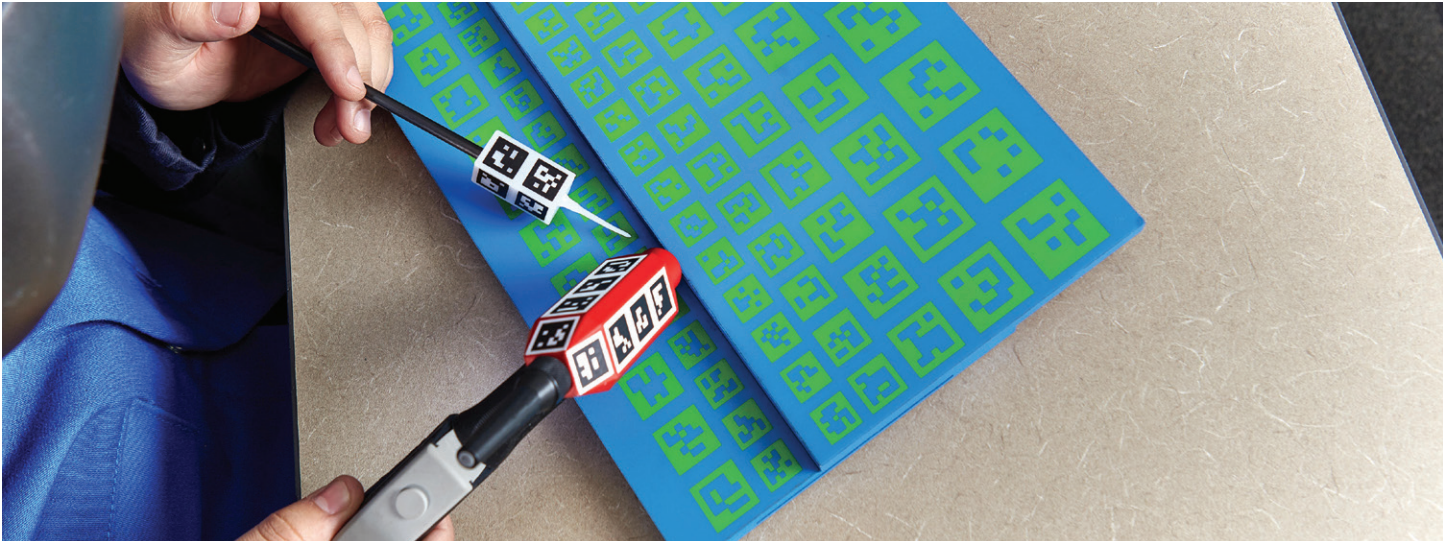
### Welding Processes

-  MIG (GMAW)
-  Flux-Cored (FCAW)
-  Stick (SMAW)
-  TIG (GTAW)



- **GMAW/FCAW:** work 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

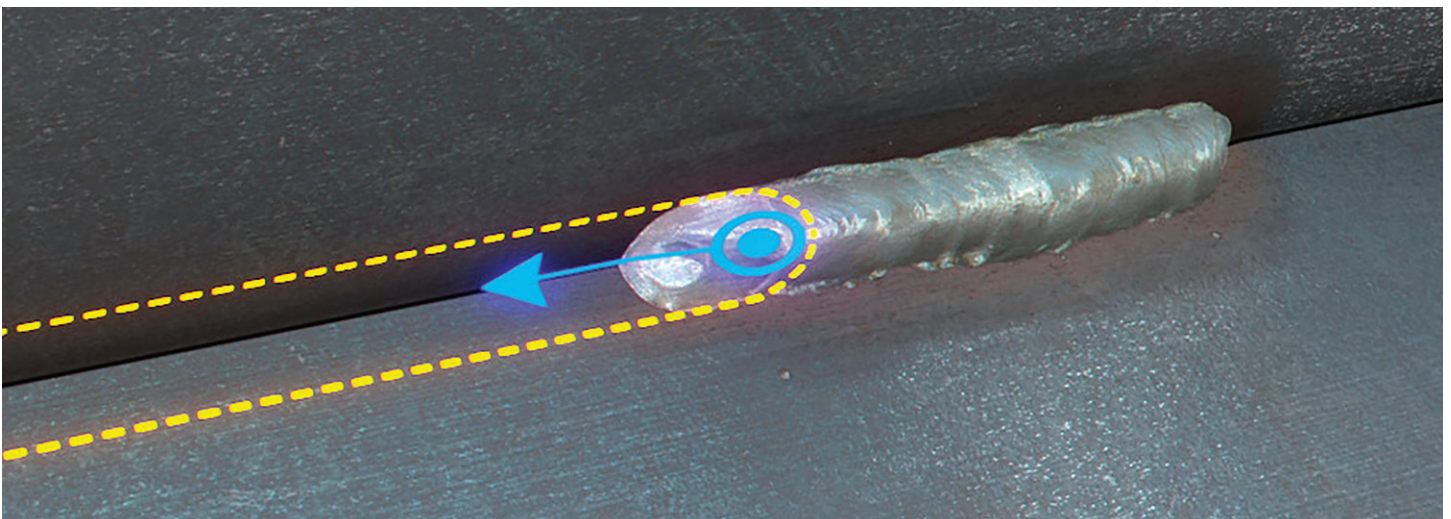




## Specifications

- 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	<b>Simulator</b> H: 21 in. (533mm) W: 9.38 in. (238mm) D: 17.25 in. (438mm)	<b>Simulator</b> 20.7 lb. (9.4 kg) <b>Welding helmet</b> 1.97lb. (0.9kg)	<b>GMAW</b> 10-38 V 50-425 A <b>FCAW</b> 10-38 V 50-425 A <b>SMAW</b> 50-425 A <b>GTAW</b> 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

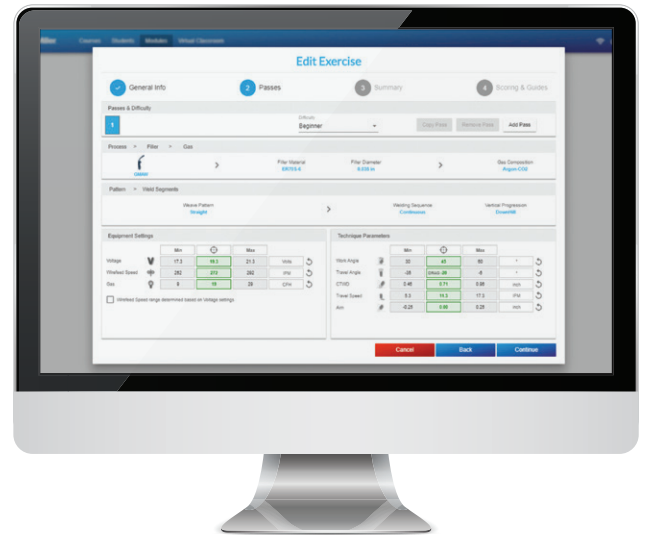


## Teacher Software

Teacher software is a user-friendly and flexible 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](https://bit.ly/TeacherSoftware)

# Transform Your Classroom

You're one step away from transforming your classroom! A valuable transition tool to actual welding, Miller AugmentedArc helps students learn the basics of weld positioning and techniques, reducing training time and welding-related costs.

Call us toll-free at **(866) 931-9730** or get in touch with an authorized Miller Electric Education Product Distributor to get your hands on an AugmentedArc Weld Training System and provide your students with a truly immersive experience.



[Request a Demo](#)

