

# AjnaXR Station

India's Only Scalable VR Training  
Simulator

One Simulator for all kinds of skill training



Ajna**Lens**

**Skilling people at the grassroots and creating an ecosystem that  
generates employment**



# **Skill India**

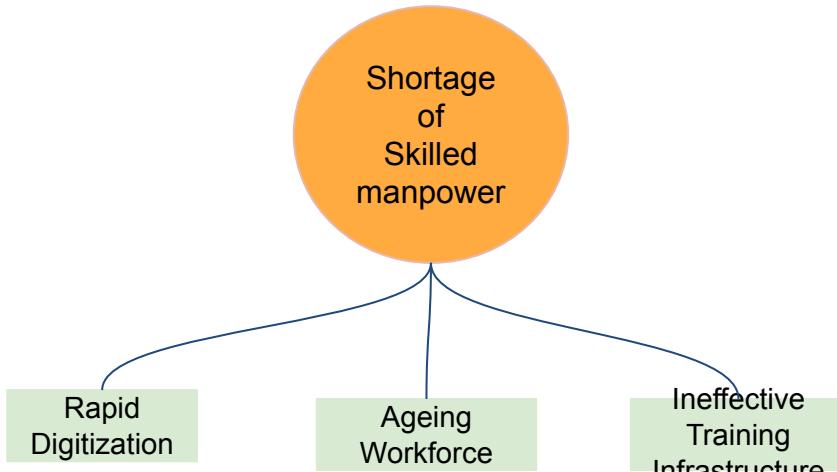
**कौशल भारत - कुशल भारत**

**आत्मनिर्भर भारत की पहली सीढ़ी युवा प्रतिभा को बल और अवसर  
देना है**

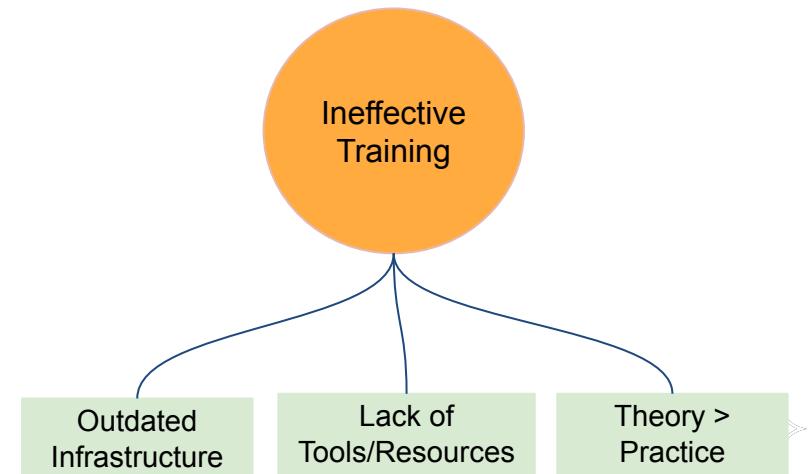
# Country's Biggest Challenge: Skill Gap

Nearly **1 in 2 Indians are not employable** with skill mismatch being the number one reason.

## *Challenges of Enterprises*



## *Challenges of Training Centers*



# Transform the way you train with new age VR training simulator, AjnaXR Station



## AjnaXR Station: Teach | Train | Test

- Simulating life-like training booths
- Providing trade-specific training tools
- Industry-approved training modules
- Virtual Instructor for assisted learning
- Data-driven feedback mechanism

# Data-proven Impact of VR Training

**75%**  
Retention  
rate

**70%**  
Performance  
improvement

**4x**  
Faster  
training

**52%**  
Reduction in  
cost

**43%**  
Lesser injuries

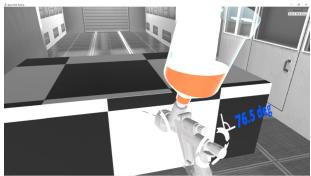
**98.5%**  
Carbon  
reduction

# Know how we stand out from the competition



## Scalable solution:

One simulator that can be extended to all types of skill training



## Best in Class Dexterity training:

Rapidly improve trade proficiency by building muscle memory and enhancing psychomotor skills on actual trade tools



**Unlimited Practice Hours**  
**Train for hours and unlimited times with one of the world's lightest VR headset (without experiencing VR sickness)**



## Industry Relevant Training content

Powered by digital twin, clone and replicate industrial workflows for real-time training



## Phygital Learning:

Train immersively with actual tools in a realistic, life-like job environment

# We are learner-friendly



## Industrial Environment

Teleporting the trainee to actual job site/paint shop/weld environment



## Data-driven feedback

Detailed analytics and performance reports highlighting areas for improvement



## Clear ROI

Reduction in training cost and time with improved job performance



## 24/7 Support

Customer support team for round the clock assistance

## Good for you

- a. Reduced errors and reworks
- b. Improved training outcomes
- c. Enhanced ROI



## Great for the environment

- 1. Minimal wastage of raw materials
- 2. Zero consumable cost
- 3. Reduced Co2 emission



# Scale to Industry-Specific Training Modules

## Industries



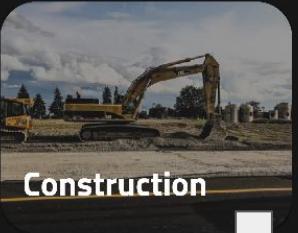
Automobile



Oil & Gas



Aerospace



Construction



Power



Fire Training



Spray Painting



Safety Training



Welding



Heavy Engineering



Mining



Cement



Education



Healthcare



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# Paint VR Dexterity Simulator

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# Spray Paint Simulator

**Recreating spray painting scenarios in a virtual environment,**

AjnaXR Station enables the trainees to learn and practice the art of painting in a realistic manner.

**Hand holding actual spray guns, trainees have the ease to learn and improve hand movements and coordination:**

1. Improve muscle memory
2. Enhance psychomotor skills
3. Boost knowledge retention rate

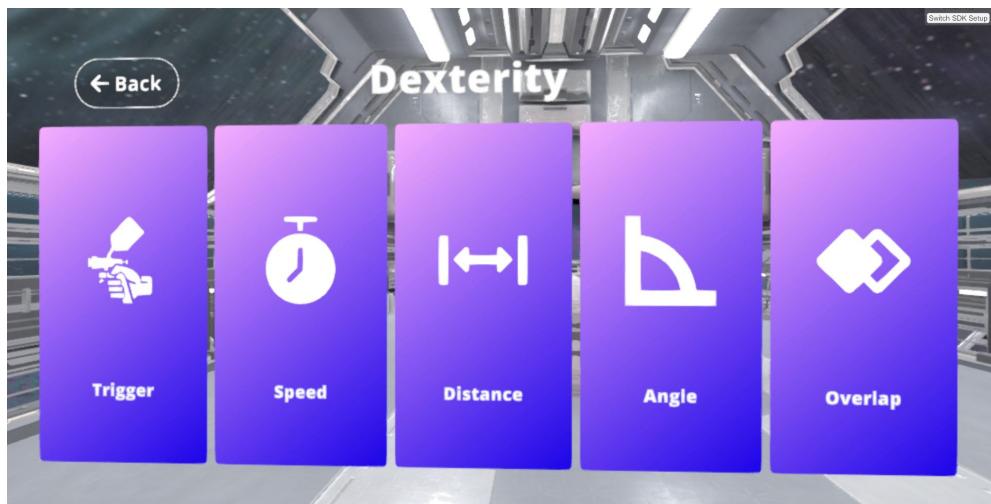


## Dexterity Mode : Train before test

### Paint dexterity training modules:

AjnaXR Station has distinct VR paint dexterity training modules that trains and assists the trainees hand movements.

1. Five different aspects to train and get better
2. Virtual trainer assisting on the right dexterity
3. Level-driven progress



## Scale with progress: Because not every student builds up at the same time

### Basic components to advanced painting

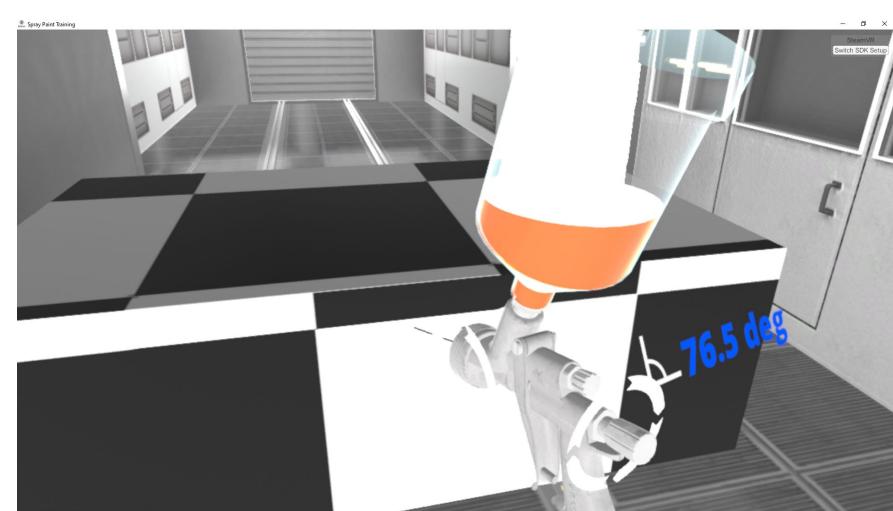
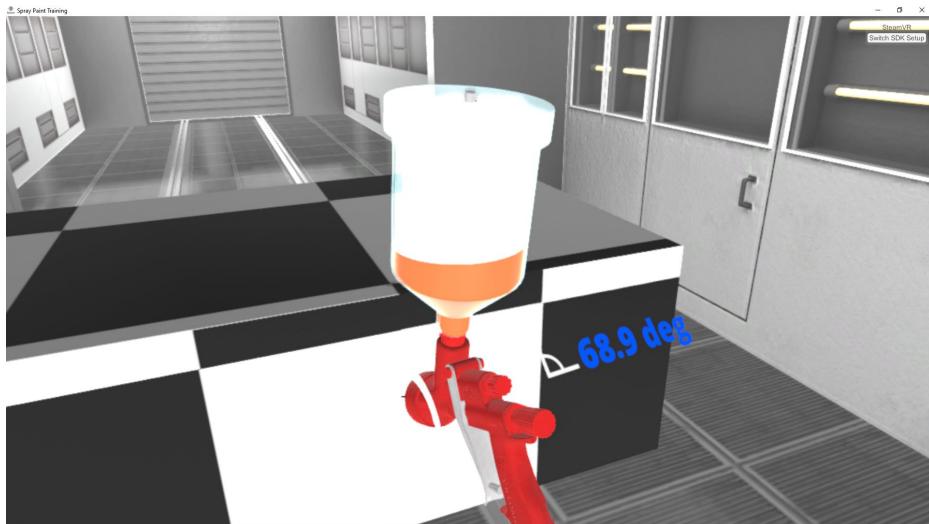
**modules:** Catering to the skill proficiency of each and every trainee.

1. Level 1 for Freshers
2. Level 2 for trainees having hold over basic components,
3. Level 3 to train on advanced parts and prepare for the industry.



## Virtual Trainer: Guiding you all throughout the course

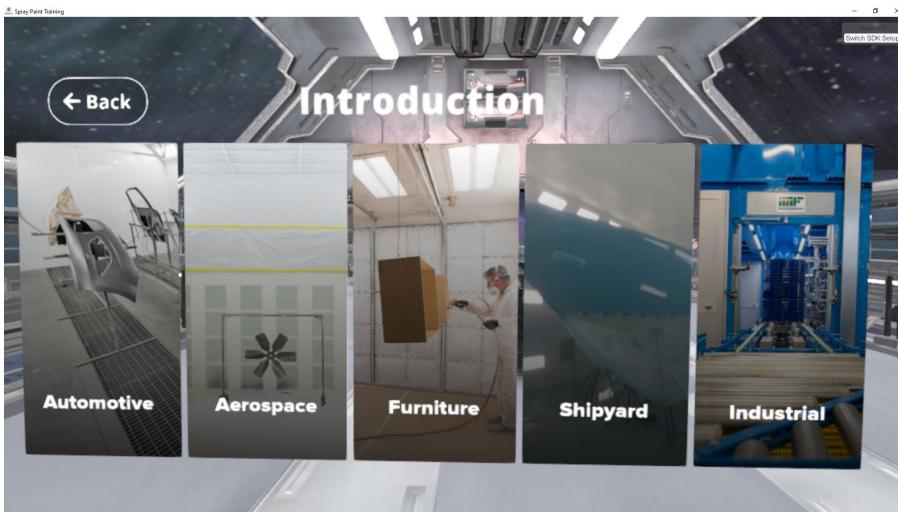
**Guided Training:** Know at what angle the gun is to be held to avoid overspraying and sags in the finish



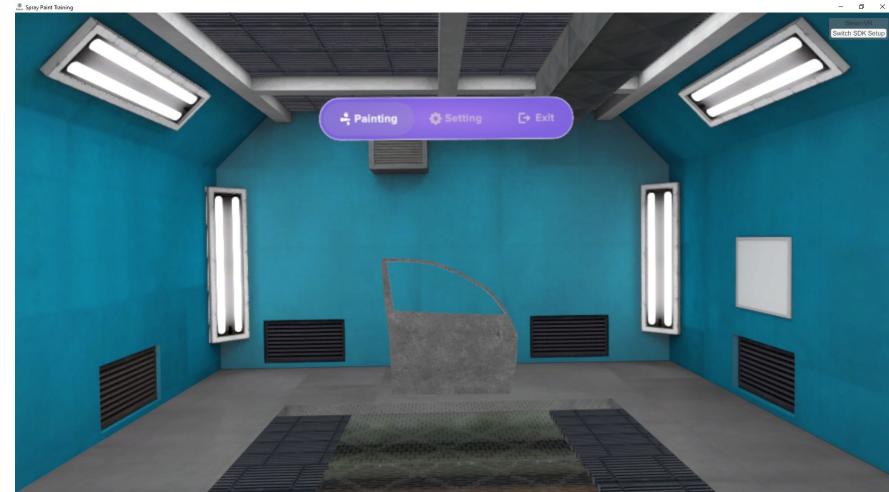
Trainee must score at least 80% proficiency to qualify for industrial training.

# Industrial Training: Immersive Learning Environment and Assessment

**Comprehensive suite of industries to select from and train like you would do in an actual paint shop**



**Simulating industry-specific paint workshop:** Combine the best of both AR and VR, offering real-time training in a virtual environment



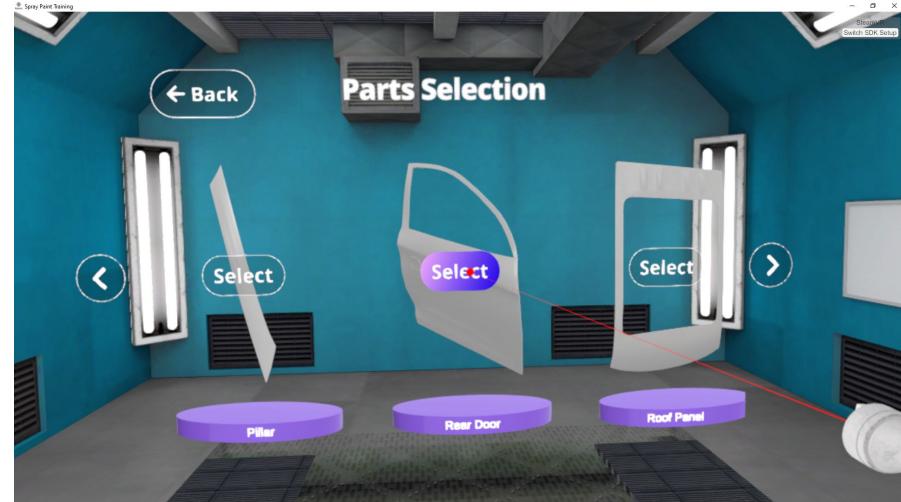
**Additional:** Custom industries and components can be designed as per request.

# Realistic Painting Experience

**Industry-specific tools:** Facilitate life-like training with actual spray painting guns and relevant tools

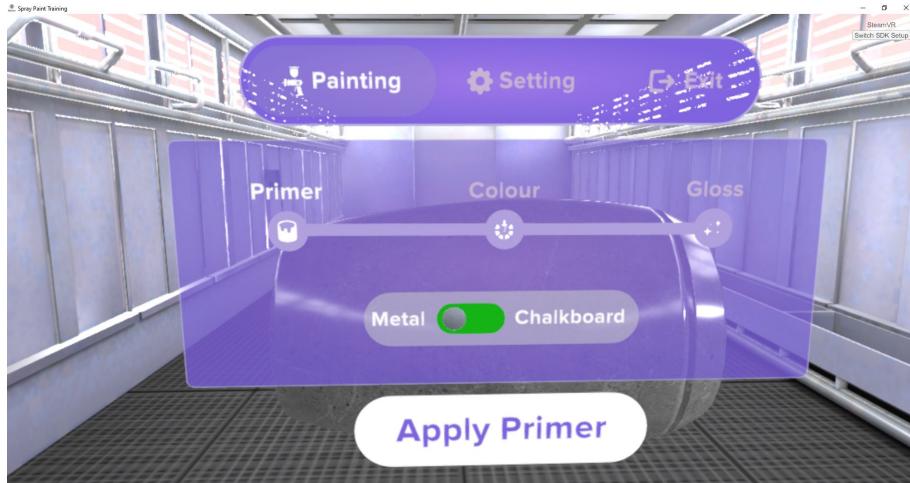


**Practice on actual industrial parts:** Empower trainees to get hands on learning, painting on various components

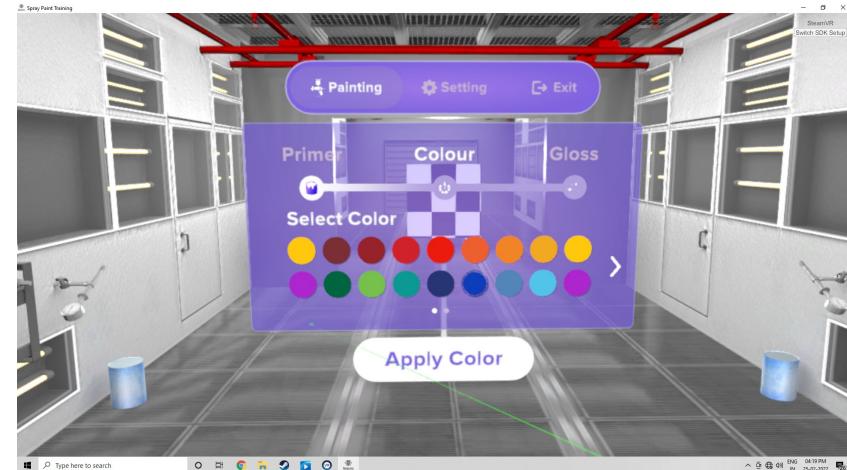


# 3 Step Paint Process

**Practice before being perfect:** Train and practice on metal first and chalkboard next

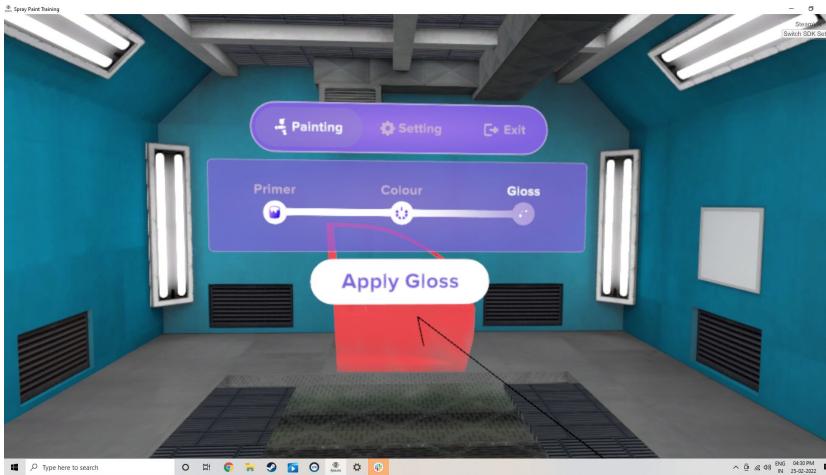


**Color Palette:** Various shades to pick and paint the product



## Adjust Paint Gun Settings

**Giving it the final touch:** Finishing the paint job process with a glossy touch in the end



**Diverse processes:** Give trainees a life-like painting experience, enabling paint pattern selection and flow adjustments



# Immediate Skill Evaluation & Feedback: Know where you need to improve

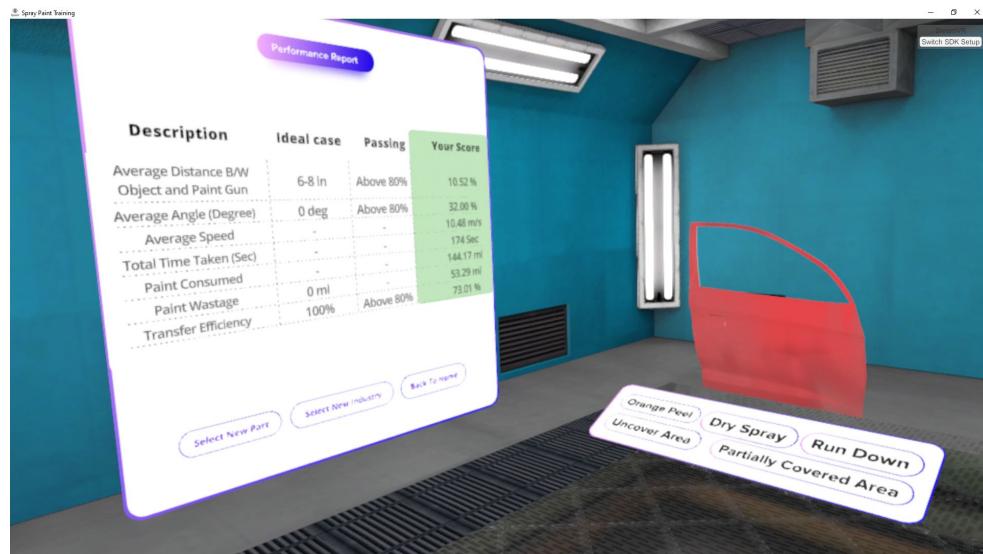
## Detailed report on trainees paint job performance

- a. Distance between the gun and the body
- b. Angle at which gun is held
- c. Speed at which coating is applied

## Defect Report indicating areas of improvement

- d. Report for the defects produced during practice

PS: Trainee must score at least 90% proficiency to further practice in actual spray paint booth.



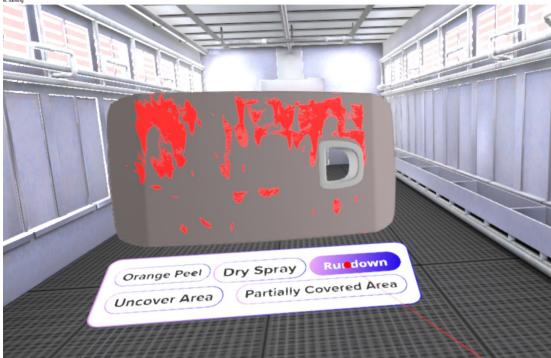
# Projecting Common Paint Defects: You learn from your mistakes



Dried spray paint with a bumpy texture caused when the speed or the angle is incorrect.

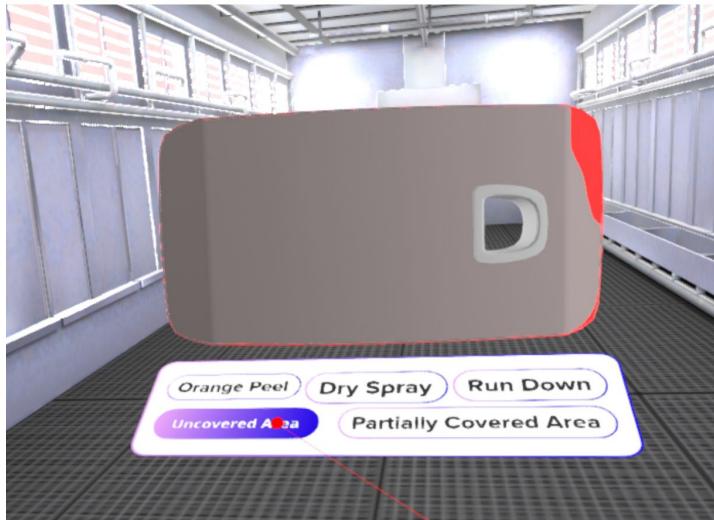


Fine, and cloudy haze, caused when the paint is applied too heavy, too fast or at an insufficient distance.



Paint drop falling like a spider's web, caused when paint is applied too thickly or at a high a pressure.

# Projecting Common Paint Defects: You learn from your mistakes



Losing out on sides and body portions, caused when painting too fast.



Missing final touches and paint coatings, caused when the paint applied is too thin.

# Student Dashboard: Centralized CMS for Progress Tracking

Central hub to track all the past performance of the student.

The dashboard features a header with a logo and navigation links: Admin Dashboard, Admin Corporate, and Trainee Report. A main chart titled "Total Corporate Play Count Per Week" shows a line graph of corporate play counts over the last 7 weeks. Below the chart, a section titled "All Corporates" displays four cards with user profiles: Avish Singh (1 user), ITI (40 users), Sourav Sharma (20 users), and Hitesh Jain (24 users). A search bar labeled "Search Corporates" is also present.

S.No	Date	Time	Distance	Speed	Angle	Scene Type	Gun Type	Mode Type	Details
1	22-02-2022	12:20PM	10	17m/s	0 deg		Air Spray	Industrial	<button>View Detail</button>
2	22-02-2022	11:33AM	N/A	1.44 m/s	N/A	Speed	Air Spray	Dexterity	<button>View Detail</button>
3	22-02-2022	11:32AM	0.00 %	13.13 m/s	59.62 %	Shipyard	Airless Spray	Industrial	<button>View Detail</button>
4	22-02-2022	11:30AM	13.17 %	10.48 m/s	43.76 %	Industrial Area	Airless Spray	Industrial	<button>View Detail</button>
5	22-02-2022	11:28AM	N/A	1.19 m/s	N/A	Speed	Air Spray	Dexterity	<button>View Detail</button>
6	22-02-2022	11:27AM	N/A	0.68 m/s	N/A	Speed	Air Spray	Dexterity	<button>View Detail</button>
7	22-02-2022	11:25AM	N/A	N/A	N/A	Trigger	Air Spray	Dexterity	<button>View Detail</button>
8	21-02-2022	7:00PM	N/A	N/A	N/A	Trigger	Air Spray	Dexterity	<button>View Detail</button>
9	21-02-2022	6:59PM	6.98 %	24.18 m/s	61.25 %	Aerospace	Air Spray	Industrial	<button>View Detail</button>
10	21-02-2022	11:40AM	17.30 inch	N/A	N/A	Distance	Air Spray	Dexterity	<button>View Detail</button>

Export scorecard and performance reports as standard skill proficiency review.

The report header shows the user's name, Aakash Makhija, and email, aakash@ajnalens.com. It includes a search bar for dates. The main content is a table with 10 rows of performance data, each with a "View Detail" button.

S.No	Date	Time	Distance	Speed	Angle	Scene Type	Gun Type	Mode Type	Details
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# Spec Sheet

<b>Physical Spray Guns</b>	Airless Spray gun, Air Spray Gun
<b>Process Support</b>	High volume low pressure (HVLP) Airless spray
<b>Consumables Options</b>	White Primer Spray paint Colours options: Red, Blue, etc Gloss Coating
<b>Base Material Options</b>	Checker & Metal
<b>Geometric Shapes</b>	Plate Circle
<b>Practice Panels</b>	Non-Metallic Workpiece

Take data from specs sheet - see notes

## **About us:**

AjnaLens is a Mumbai-based XR hardware and software company building solutions primarily for the Defence, Enterprise and Training sectors. Founded in 2014 in IIT-Bombay, AjnaLens is committed to advancing the capabilities of humans and empowering them to progress towards higher awareness. Being on a mission of making world-class products in India for the world, AjnaLens is the first XR hardware OEM to manufacture augmented reality and virtual reality glasses in India. AjnaLens has filed 15+ National and International patents in AR, VR, MR and allied fields. We are a family of 50 people sharing the same vision of making India, one of the strongest and powerful nations in the world.

## **Awards**

## **Clients:**

## **Contact Details**

QR Code

# Awards and Recognition



## Top 5 Hardware Startup

selected for Qualcomm Design Challenge in India, 2018



## Winning start-ups, selected for “India Innovation Hub”

by Facebook and T-hub



## Recognized as Top Selected StartUp

Pioneering Defence Innovations in India



## Most promising startup Award

by defennovation



## Awarded #1 Innovation across India

by CII & DST, 2017



Indian Augmented Reality Headsets Technology Innovation Leadership Award by Frost & Sullivan



## Graham Bell Innovation Award

2015



## Winner of 1.5 Crore Grant by iDEX

By Ministry of Defence





The President  
of India



रक्षा मंत्रालय  
MINISTRY OF  
**DEFENCE**



Government of  
Maharashtra



# Our **Customers**



Cymax



VR Coatings Pvt. Ltd.



+ more

AjnaLens



## Attention to Detail: The real job will not entertain any mistakes.

Tracking performance to identify the minutest defects



Report indicating performance

Performance Report			
Description	Ideal case	Passing	Your Score
Average Distance B/W Object and Paint Gun	6-8 in	Above 80%	32.33 %
Average Angle (Degree)	0 deg	Above 80%	28.54 %
Average Speed	-	-	12.93 m/s
Total Time Taken (Sec)	-	-	73 Sec
Paint Consumed	-	-	125.77 ml
Paint Wastage	0 ml	-	43.38 ml
Transfer Efficiency	100%	Above 80%	74.35 %

# Progress with Practice: We want you to be job-ready

When you do it for the first time

When AjnaXR Station makes it better with each practice



# Welding Simulator

# Welding Simulator : Train your staff in an immersive environment

**Recreating welding scenarios in a virtual environment**, AjnaXR

Station enables the trainees to learn and practice welding operations in a realistic manner.

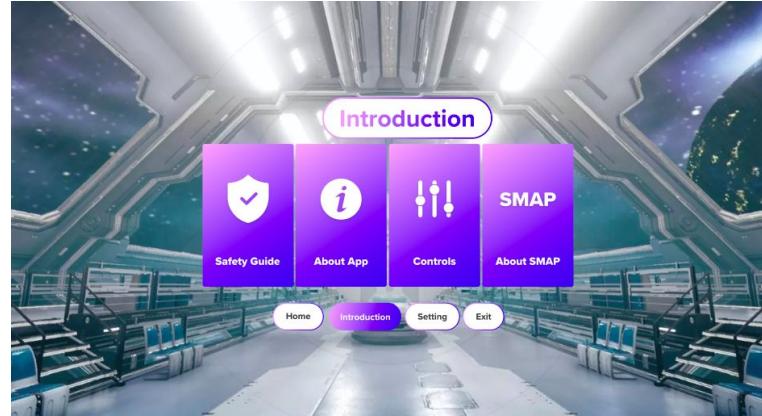
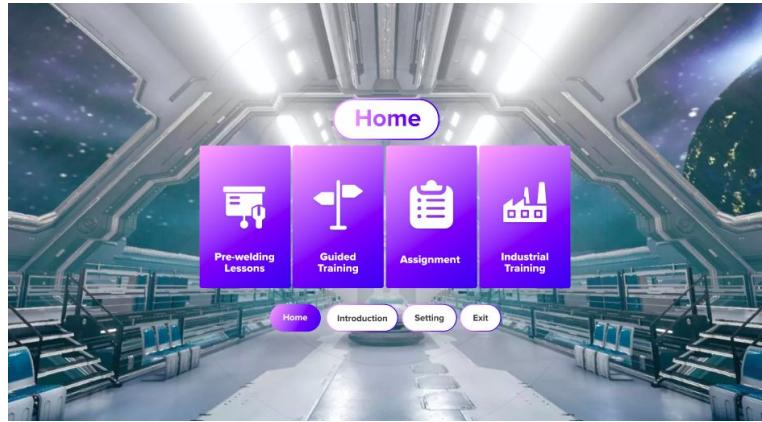
**Hand holding welding sticks and the torches**, trainees have the ease:

1. To know the tools before they start welding.
2. Understand various welding positions, arcs and angles.
3. Train and practice welding on different joints, materials and plates.



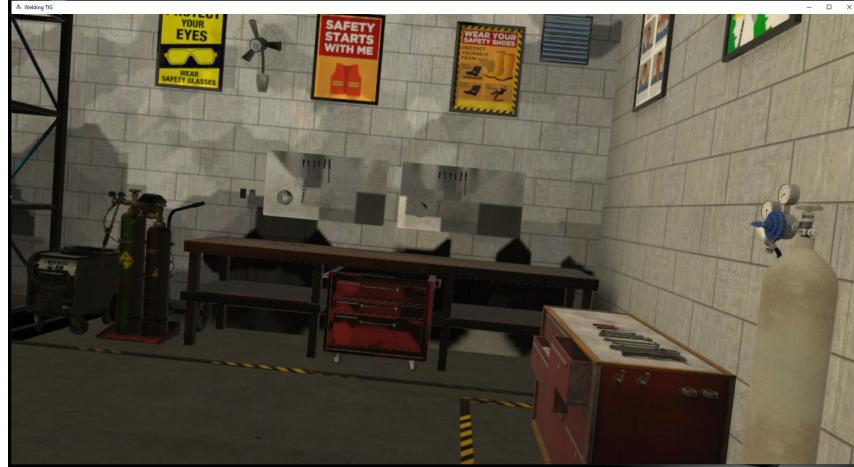
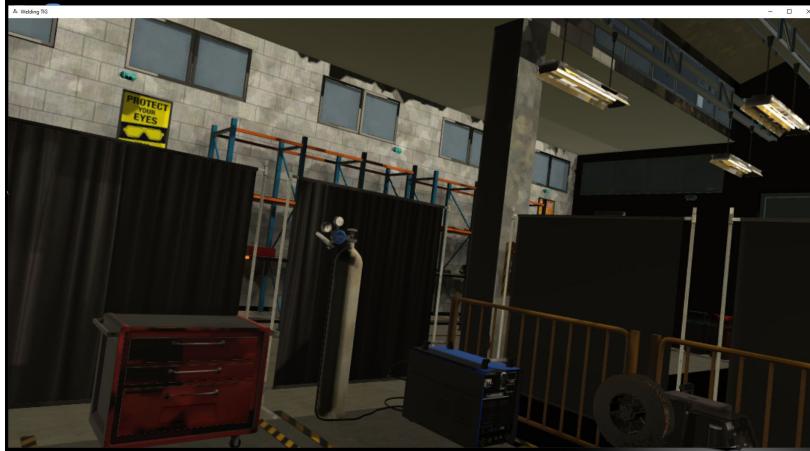
# Know the trade before the tools

- Suite of pre-welding lessons to train the trainee on the trade.
- Learn about the hacks of welding, the to-dos and things to take care of.
- Guided training with a virtual trainer directing on the right method, angle and speed.

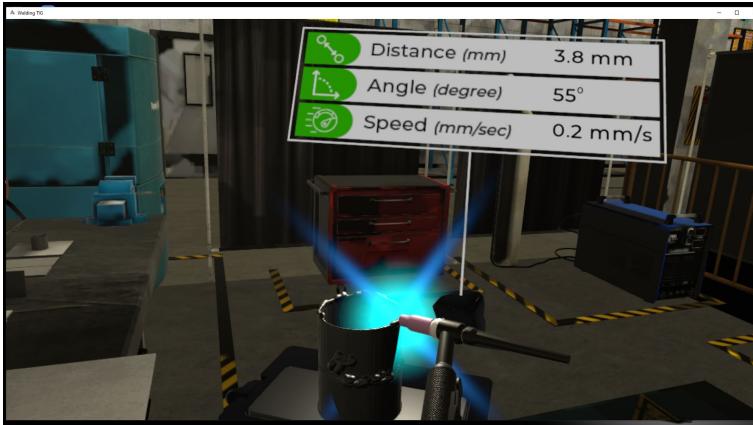
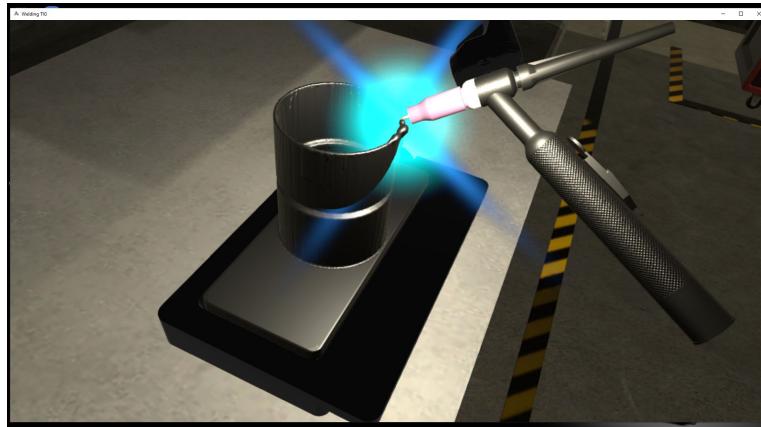
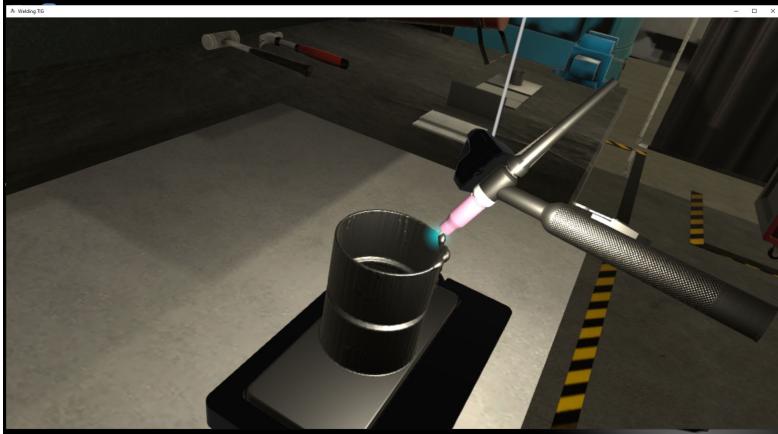


# Virtual Environment, Real Tools

1. Immerse your trainees in a virtually simulated welding environment.
2. Provide actual welding sticks and torches to train and practice in a life-like manner.
3. Get guidance and instructions on the right position, angle to weld.



# Practice on industry-specific joints and plates



1. Actual welding stick to weld joins
2. Spark-free training
3. Trajectory tracking with real-time data on distance, angle and speed.

# Set the right welding workshop

1. Torches
2. Base material
3. Joints
4. Workpiece
5. Plates
6. Position



## Practice | Assess | Repeat

- 1. Detailed report tracking progress**
  - a. Distance between the stick and the welding parts
  - b. Angle at which stick is held
  - c. Distance between the torch and the parts.
- 2. Defect Report indicating areas of improvement**
  - a. Report for the defects produced during practice.

PS: Exportable score and performance record for future evaluation.



# Parameters & Processes

<b>Process</b>	SMAW/MMA (STICK), GMAW & FCAW (MIG Torch) - 2 STEP/4 STEP, GTAW (TIG Torch) - 2 STEP/4 STEP, Welding Safety - PPE
<b>Parameter Options</b>	SMAW: 50A - 240A. GMAW: 10V - 32V / 25A - 270A. GTAW: 25A - 270A.
<b>Base Material Options</b>	Carbon Steel Aluminium Stainless Steel
<b>Consumables options</b>	SMAW/MMA (STICK): Electrode diameter: 2.5 mm, 3.2 mm, 4.0 mm GMAW (MIG Torch) Wire diameter (mm): 0.8 mm, 1 mm, 1.2 mm GTAW (TIG Torch) Rod diameter (mm): 2.0 mm, 2.4 mm

# Joints & Positions

<b>Welding Plates Options</b>	3mm 6mm 10 mm
<b>Welding Fixture</b>	Provision to place the workpiece on a fixed stand Enable student learn to weld using fixtures.
<b>Welding Joints Options</b>	Butt Joint Edge Joint Lap Joint Tee Joint Pipe - Pipe Joint Pipe- Plate Joint
<b>Welding Position Available</b>	1G 2G 3G 4G 5G FOR PIPE, 1F 2F 3F, Butt Fillet , T, Pipe to pipe, Pipe to plate Unique: Free Adjustment Option

## Add-ons

1. Testimonial from Ashwin
2. Make in India
3. Karnataka CM wearing glasses

# Phygital Training

1. Handhold tools in real
2. Projecting usage in the virtual world

## **Training like you would do in a workshop**

1. Guided training with real-time assistance
2. Welding on multiple joints
3. Welding positions and workpiece options

## **Image with**

1. Various joints/pieces/other materials.
2. Showing the actual weld environment.
3. Instructions on how to weld
4. The torches/sticks

## **Quantifying training**

1. Welding trajectory reports
2. Defect reports
3. Performance history

<Image with the reports  
Showing hand positions (if possible)>

## **Sensors tracking movements/Skill Guidance**

1. Hand steadiness guidance
2. Hand eye coordination
3. Improved hand dexterity

<image one where we have arrows  
Suggesting change of angle/distance>

## **Realistic Paint Training**

1. Interactive guided training with customizable curriculums.
2. Airspray and Airless guns
3. Painting on various materials and colour compositions

## **Image with**

1. Various guns/surfaces/other materials.
2. Showing the actual spray paint environment.
3. Instructions on how to paint

## **Real-time Skill Evaluation**

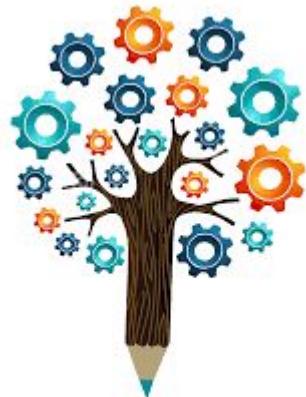
1. Paint Dexterity reports
2. Defect reports
3. Performance Record

<Image with the reports  
Showing hand positions (if possible)>

## **Safe and Green Technology,**

1. Zero consumable cost.
2. Less wastage of materials.
3. Minimal exposure to harmful chemicals

Educate people at the grassroots level and create an ecosystem that generates employment



SKILL INDIA



Make every Indian  
EMPLOYABLE



AATMA-NIRBHAR  
**BHARAT**

