

# Advanced Manufacturing

Power Units

Actuators

Control Valves

Accessories

## Prepare students for industry certifications and manufacturing workforce opportunities

zSpace delivers advanced manufacturing applications on its AR/VR platform to provide students with hands-on training on a wide variety of manufacturing processes from preventative maintenance and routine repairs to logistics and production. Compared to traditional manufacturing training, students using zSpace can monitor assembly progress and provide real-time feedback. Training in AR/VR is unaffected by factory environments and can accommodate changes in product design, improve consistency across production lines, and address incoming or outgoing quality.



### Advanced Manufacturing Pneumatics by Fun2 allows

students to explore simulated 3D model components and animations to develop the fundamentals needed in a wide variety of manufacturing processes including production, logistics, and maintenance.



### Advanced Manufacturing Mechanical by Fun2 allows students to explore

simulated 3D model components and animations to develop the fundamentals needed in a wide variety of manufacturing processes including production, logistics, and maintenance.

Students will learn industry standards skills, including preventative maintenance and routine repair. Students will also be able to recognize potential maintenance issues with basic production Electrical and Hydraulic systems. Bearings, couplings, gear, worm, belts, and chain drives systems will also be explored.



**Advanced Manufacturing Hydraulics** by Fun2 utilizes 3D model components, animations, and system building to provide students with the structural relationships and working principles needed to develop proficiency of fluid power components and hydraulic systems.

Advanced Manufacturing Hydraulics includes 3D simulations of 15 types of hydraulic circuits using a wide variety of hydraulic power units, actuators, control valves, and auxiliary parts. Additionally, students will be able to explore, dissect, and build a wide variety of pumps including gear, vane, and piston pumps. Actuators comprised of hydraulic motors and hydraulic cylinders models are all included. Control valves comprised of pressure, flow, and directional valves will all be explored. Auxiliary parts comprised of oil pipes, pressure gauges, filters, condensers, and coolers will also be examined. Circuit building training includes understanding schematic drawings to compile several controlled hydraulic loops containing actuators, control valves, and accessory parts.



## Features:

- Customizable formative assessments and courses
- Perform processes and operate machinery with real-time feedback
- Inspect and test 3D prototypes, enhance design builds

## Benefits:

- Build problem solving/analytical skills
- Improved manual dexterity, productivity, and safety
- Reduced training costs, asset downtime, and increased first-time fix rates





# Advanced Manufacturing Pneumatics by Fun2

REFERENCE SHEET - Launch Code AP43

AboutUs zView 3D TV Pneumatic Control VR Instruction Settings Guide Exit



Actuators

**Includes:**

- Air Models
- Air Cylinders



Control Valves

**Includes:**

- Relief Valves
- Flow Valves
- Directional Valves



3D Models



Assistant Equipment

**Includes:**

- Pneumatic FRL
- Pipe Connections
- Air Tube
- Silencer



Pneumatic Circuit



Air Supply

**Includes:**

- Dryer
- Gas Tank
- Oil Degreaser
- Aftercooler
- Air Compressor



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**Pneumatic Circuit Building**

**Task Building**

**Directional**

- Single-Acting Air Cylinder
- Double-Acting Air Cylinder

**Pressure**

- Pneumo-Hydraulic Intensifier
- Quick Exhaust Control Loop

**Speed Control**

- Single-Acting Air Cylinder Speed
- Double-Acting Air Cylinder Speed

**Other Loops**

- Locking Loop

**Working Principles**

**Exploded View**

**Section**

**Perspective View**

**Hide**