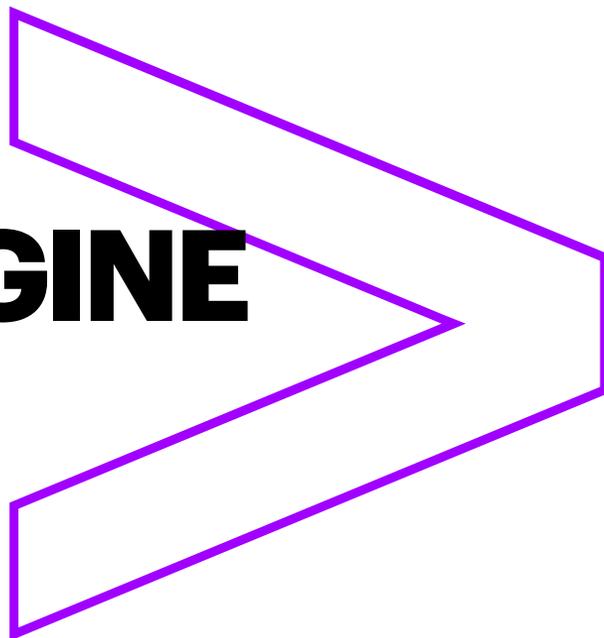


JET ENGINE

CONNECTED
WORKER FOR A
VIRTUAL JET ENGINE



WHAT IS IT?

Imagine overlaying an actual jet engine in reality with a hologram of a virtual jet engine and being shown exactly where you need to conduct repairs on it.

This is what the HoloLens experience provides in which you can **use voice recognition and hand gestures to cycle through a mixed reality application** that allows an engineer to interact with and work on a virtual jet engine. This demo provides assisted maintenance and has the capacity to be attached to workflow or IoT backend.

This solution was created in Unity for the Microsoft HoloLens. It **uses Vuforia tracking technology** to recognize objects in the user's field of view and display overlays based on what the user sees, and **provides the ability to interact with 3D objects in the user's environment**. This demo was **incepted and created in a matter of weeks** by applying weekly agile development principles and close design-thinking relationships with stakeholders.



KEY FACTS



28

The power of a jet engine is equivalent to that of 28 Formula 1 racing cars [1]



1000mph

The speed at full power which the blades of a typical commercial jet compressor rotate [2]



4.7%

The number of airline passengers compound annual growth rate between 2017 and 2036 [3]

BENEFITS

1. Trainee engineers can **experience realistic 3D training at scale** without having to visit a hangar or take an expensive working engine out of service.
2. Collaborate on the virtual engine in the classroom or remotely using **video calling, image sharing, and mixed reality annotations to pinpoint and solve problems efficiently**.
3. The ability to both see and interact with the engine develops muscle memory and **increases retention in classroom learning**.