

**T-FLEX** VR



T-FLEX VR - Explore 3D Model  
in a Virtual 3D Space





[T-FLEX VR](#) is a module integrated into [T-FLEX CAD](#), providing work with a 3D model in virtual space. The application is intended to solve a wide range of tasks in various industries.

[About T-FLEX VR in detail](#)



## T-FLEX VR Permits to:

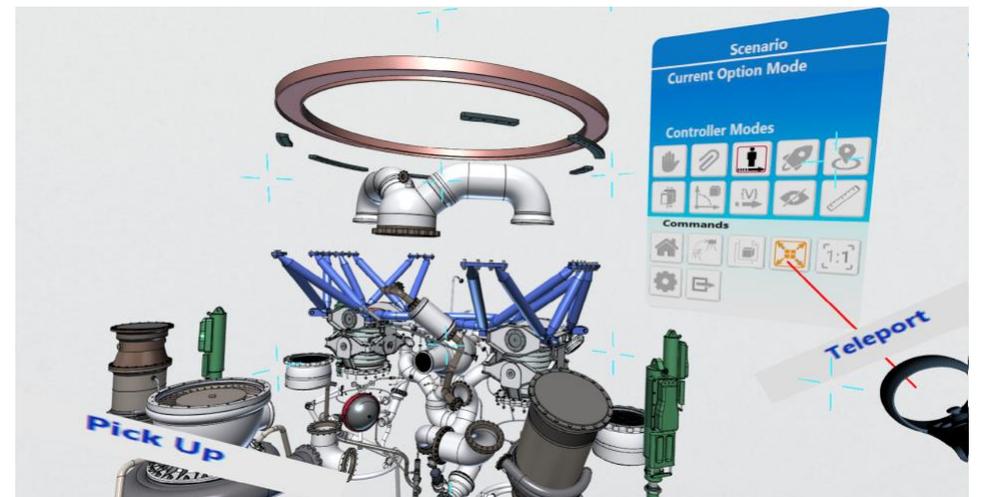
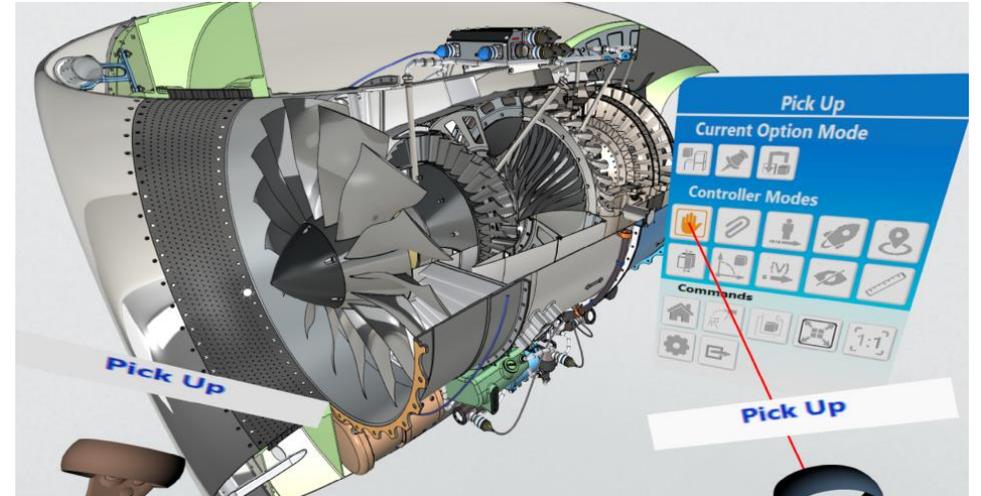
- ✓ Visually analyze design of the product;
- ✓ Analyze the movement of mating parts in dynamic constructions;
- ✓ Visually analyze the results of engineering calculations performed in T-FLEX Analysis and T-FLEX Dynamics;
- ✓ Measure and analyze the ergonomics of product;
- ✓ Evaluate product design;
- ✓ Edit the parameters of parts or assemblies by changing the variables values using 3D manipulators.



# T-FLEX VR Advantages

## Overall Integration with T-FLEX CAD

- ✓ Instant switching to VR mode;
- ✓ Work directly with CAD model;
- ✓ Precise measurements in VR;
- ✓ You can work with models from other CAD systems: Siemens NX, CATIA, Creo, Pro / ENGINEER, Solid Edge, SolidWorks, Autodesk Inventor, AutoCAD, Revit, etc .;
- ✓ The use of commands fundamentally unavailable in ordinary "viewers".



# T-FLEX VR Advantages

## Comfort and Efficiency

- ✓ High rendering speed: at least 90 frames per second when working with large assemblies even when using gaming graphics cards;
- ✓ The solution to a wide range of tasks in any industry: the system can be configured to solve your problems as efficiently as possible.



# T-FLEX VR Advantages

## Teamwork Support

- ✓ 3D model synchronous update;
- ✓ Simultaneous image output to VR and usual devices;
- ✓ When using stereo-3D devices, several users can simultaneously see on the big screen the same image that the user of T-FLEX VR sees.



# T-FLEX VR Advantages



Support of a Wide Range  
of VR Equipment

- ✓ Work with any devices using OpenVR interface, including Oculus Rift, Oculus Rift S, HTC VIVE, HTC VIVE PRO.

# Application of T-FLEX VR at Various Stages

T-FLEX VR can be used at the following stages of product development

Design, approval,  
acceptance

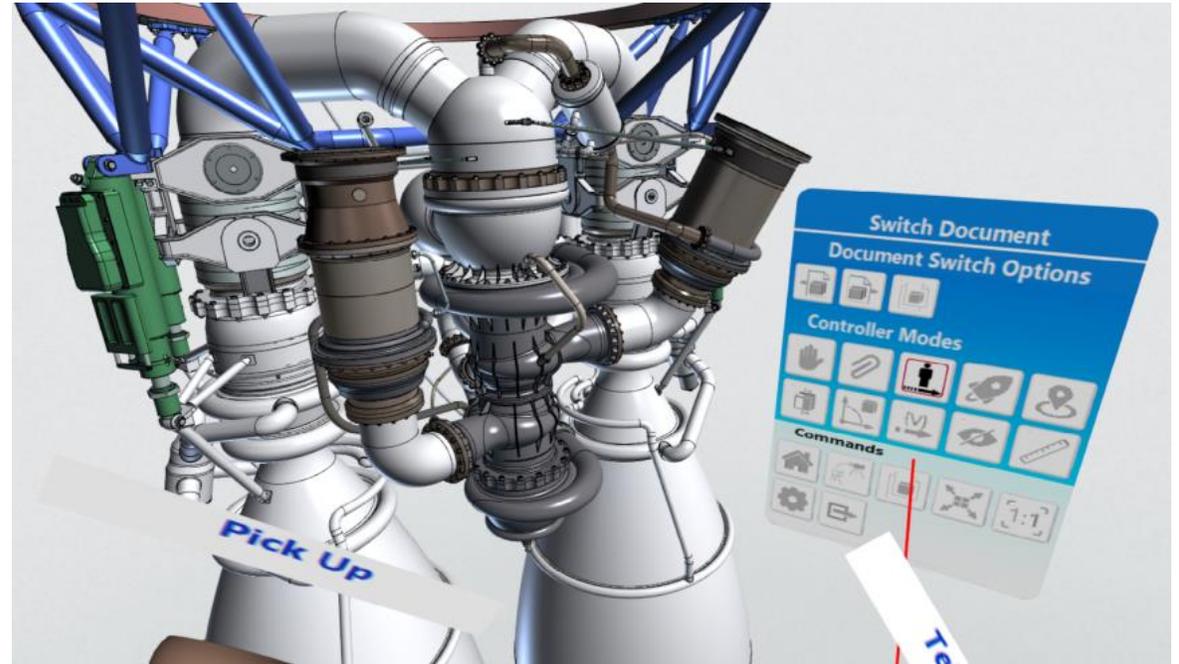
Training and service

Presentations and  
sales

# T-FLEX VR at Design, Approval, Acceptance stages

Using T-FLEX VR is especially effective when:

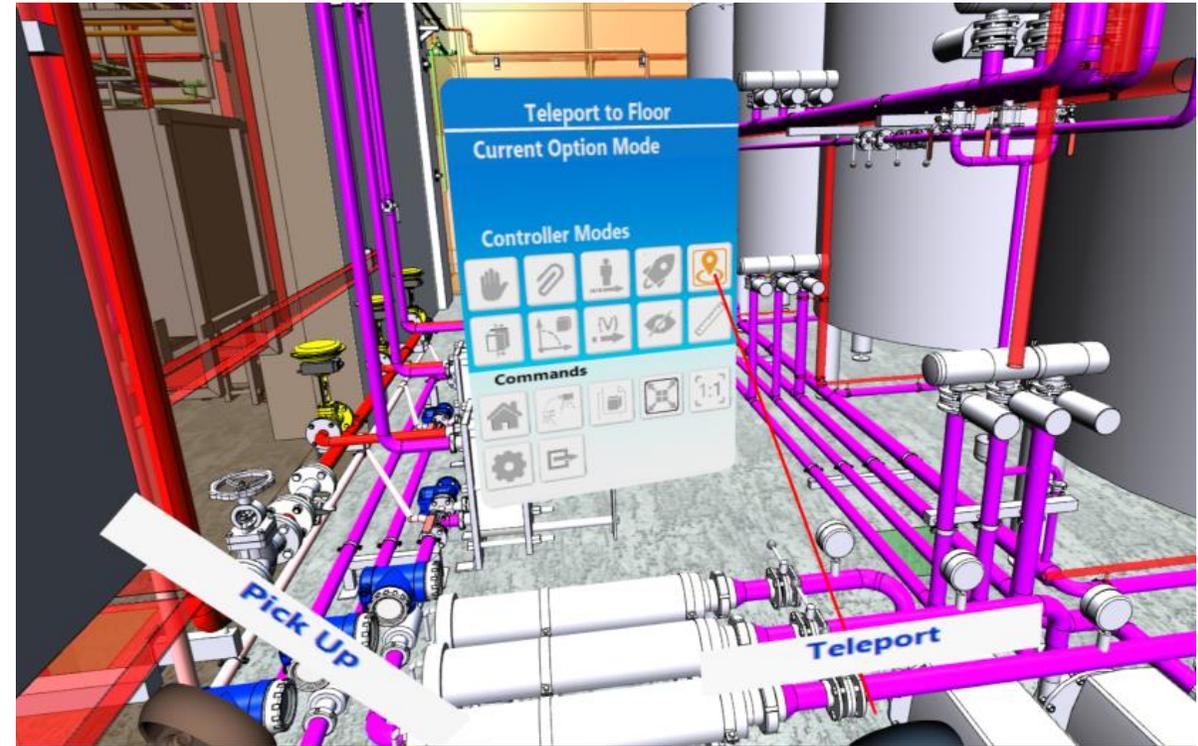
- ✓ Ergonomics of products is important;
- ✓ Product design is important;
- ✓ Mistakes made during the design process are especially expensive;
- ✓ It is important to demonstrate the project to management or to customer as efficiently as possible.



# T-FLEX VR at Presentations and Sales Stages

Using T-FLEX VR is especially effective when:

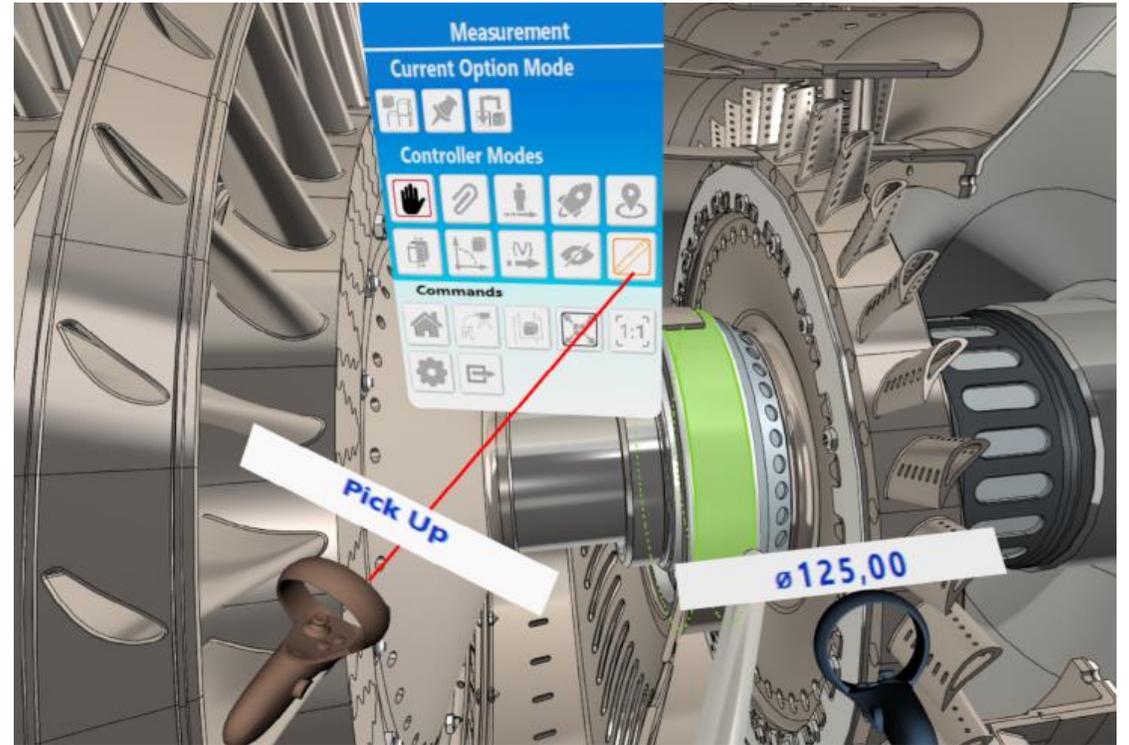
- ✓ Products are too large to be easily transported to exhibitions and presentations;
- ✓ The wow effect is important when presenting products to the buyer;
- ✓ You need to make presentations of product before it is manufactured.



# T-FLEX VR at Training and Service Stages

Using T-FLEX VR is especially effective when:

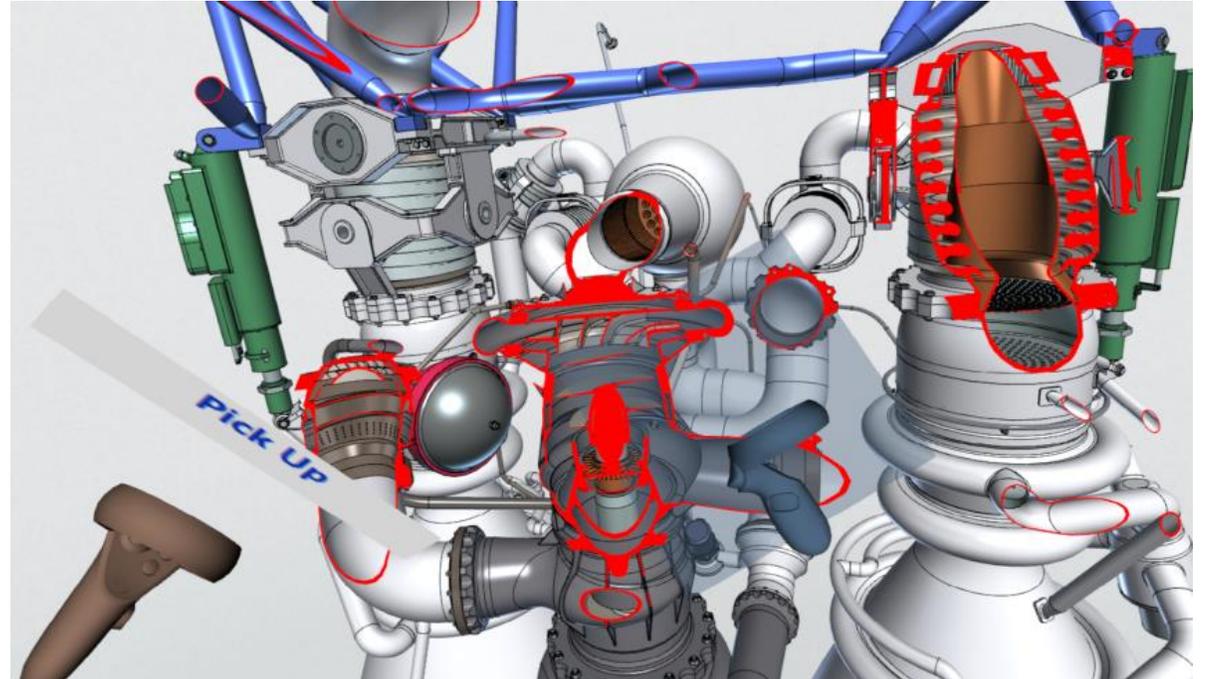
- ✓ Staff training should begin before production;
- ✓ Staff is trained to work with extremely expensive or dangerous products;
- ✓ Creating real simulators is difficult or expensive;
- ✓ "Environment context" is important in training.



# Functionality of T-FLEX VR

Commands for navigating in VR scene :

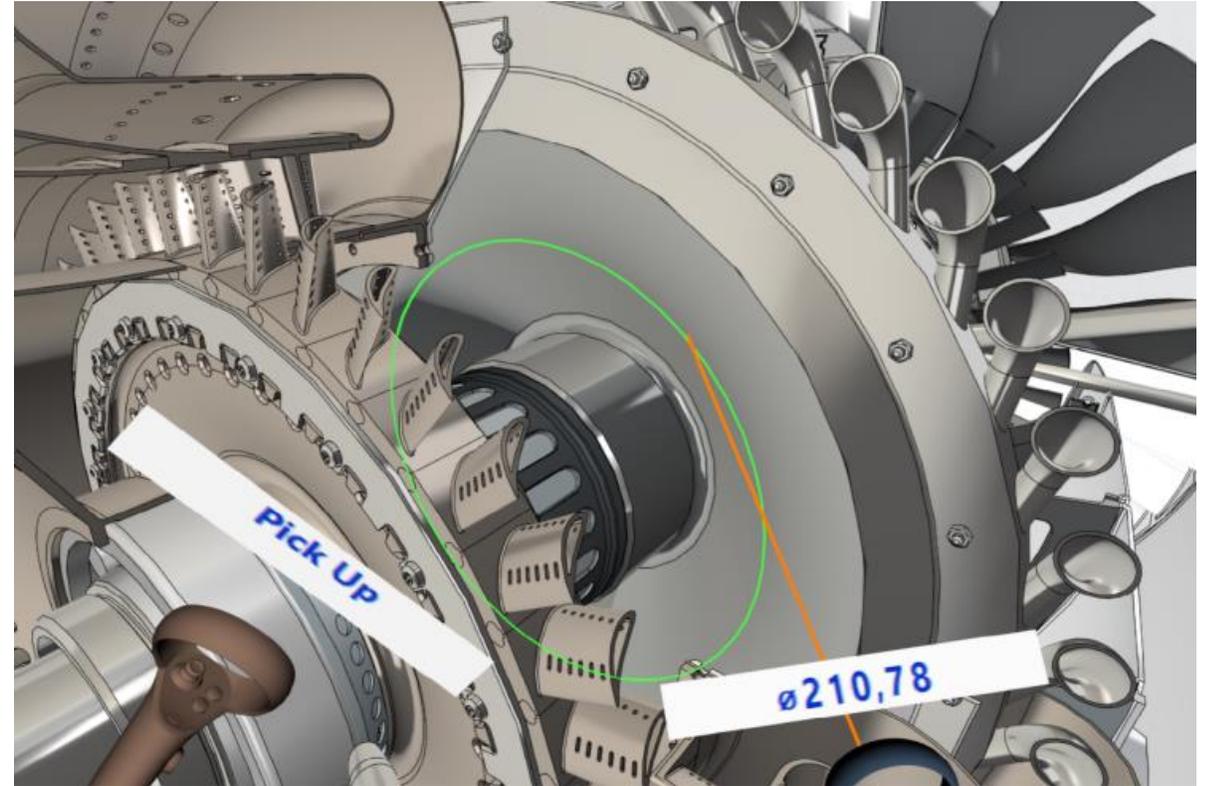
- ✓ Moving / Rotating / Scaling using VR-controllers;
- ✓ Teleportation to the floor;
- ✓ Moving to an object;
- ✓ Flight in the selected direction.



# Functionality of T-FLEX VR

Commands for working with 3D model in VR:

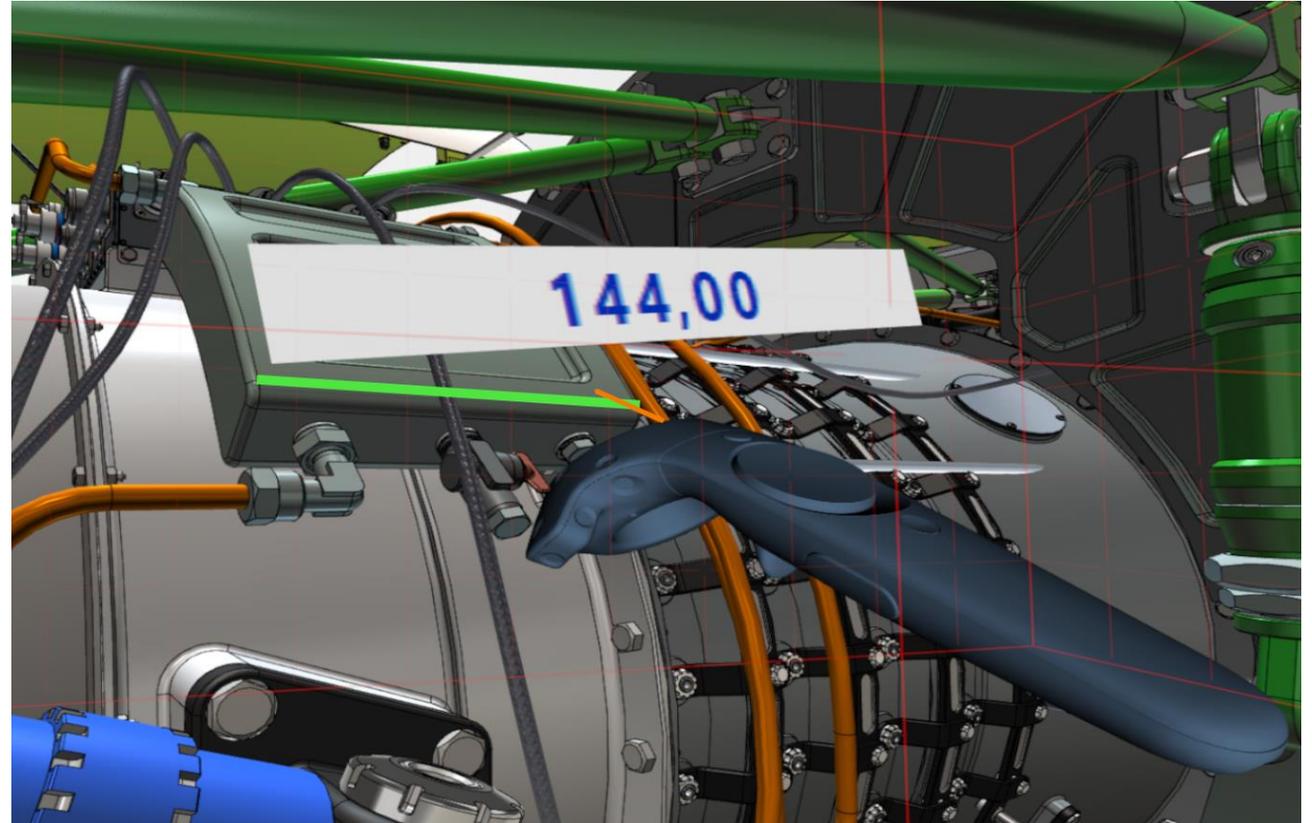
- ✓ Take an object with a VR controller;
- ✓ Launching the Disassembly / Assembly animation;
- ✓ Hide / Show Object;
- ✓ The movement of mating elements;
- ✓ Managing variables using manipulators;
- ✓ Measure distance, length, radius, etc.



# Functionality of T-FLEX VR

## Control commands in VR:

- ✓ Setting 1:1 image scale;
- ✓ Switch between open models;
- ✓ Switch between cameras in the scene;
- ✓ Restore the original state of the scene;
- ✓ Configure advanced navigation options;
- ✓ End a VR session.



# User Workstation Configurations

## Limited Space

Size: up to 1.5 \* 1.5 meters

User position: behind a working computer

The best use case: workplace of a designer, constructor, designer

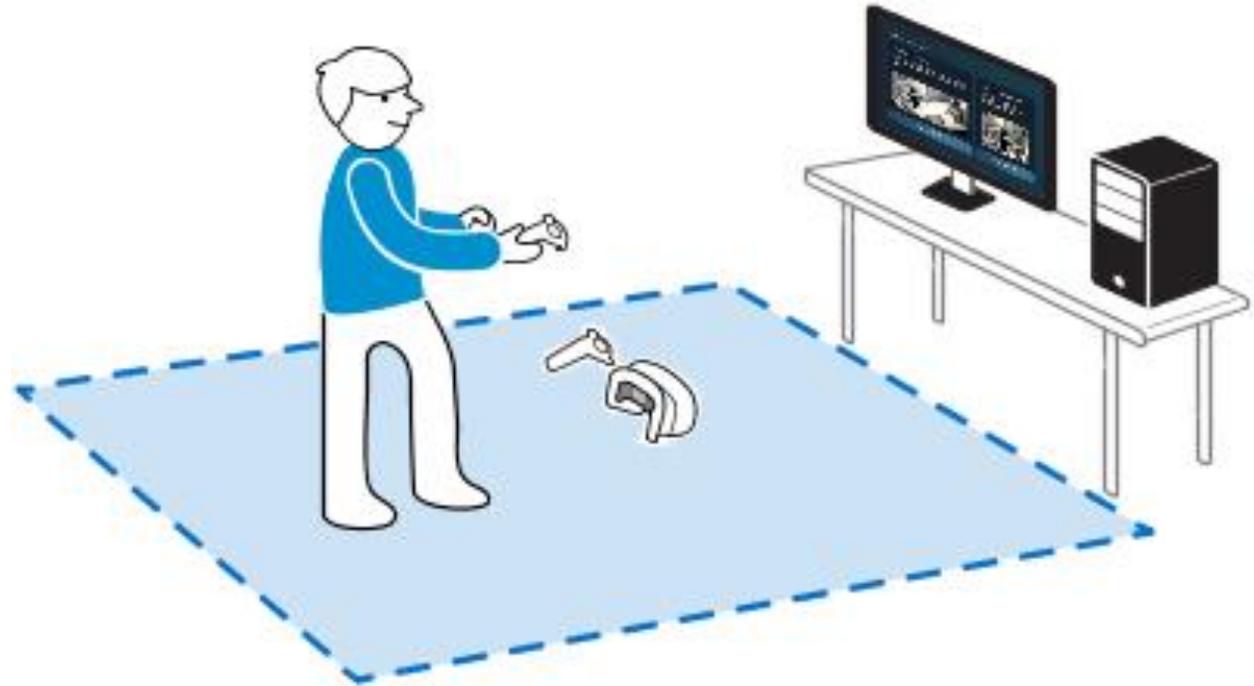
Recommended equipment: Oculus Rift S



# User Workstation Configurations

## Free Space

**Size:** up to 5.5 \* 5.5 meters. It is possible to use a wireless module  
**User position:** standing / sitting  
**The best use case:** demonstration stands, work with large objects on 1:1 scale  
**Recommended equipment:** HTC Vive PRO



The logo for T-FLEX PLM, featuring the text 'T-FLEX' in black and 'PLM' in light blue, with a stylized blue and white graphic element resembling a checkmark or a dynamic line above the 'X' in 'FLEX'.

**T-FLEX** PLM



For more information about T-FLEX CAD and other Top Systems' products you may contact directly our company or any regional representative

[www.tflex.com](http://www.tflex.com) | [tflex@topsystems.ru](mailto:tflex@topsystems.ru)

**CONTACT US**

The logo for TOP SYSTEMS, featuring a stylized circular graphic with blue, green, and orange segments, followed by the text 'TOP SYSTEMS' in a bold, sans-serif font.

**TOP  
SYSTEMS**