

RotorLib for VR-Forces®

Helicopter Dynamics Models

Helicopters are marvelous vehicles. No other vehicle can take off vertically, hover, bob to the left and right, spin around, fly backwards, then land in a confined area. With the addition of RotorLib for VR-forces, developed by RT Dynamics, your Computer Generated Forces (CGF) entities behave like real helicopters.

RotorLib is an advanced flight dynamics model surrounded by an intelligent control system that uses rigid body physics to maintain the internal state of the helicopter and update the helicopter's position and attitude data as it flies.

Autonomous Flight

RotorLib for VR-Forces allows you to use RotorLib helicopters just like any other autonomous CGF entity. Simply create RotorLib entities and give them VR-Forces Set and Task commands and watch the helicopters *move to locations, wait, turn, patrol and Rotary Wing Land*. You'll appreciate the smooth coordinated turns, nap of the Earth flight plans, and realistic gear-ground interactions while landing. RotorLib entities behave as if they were being flown by real pilots, giving you the opportunity to use them as high fidelity targets for sensor tracking or gunner training. Simulations hosted in a moving rotorcraft, like door gunner or winch operator trainers benefit from RotorLib's appropriate heaving and pitching in flight.

Software Developers Kit

Using RT Dynamic's RotorLib Toolkit, and the source code that integrates RotorLib into VR-Forces, you can take advantage of advanced RotorLib features to create



new tasks such as: air to ground attack patterns (e.g. bob-up), air to air attack scenarios, reconnaissance patterns, flight in formation, and load lifting.

RT:Dynamics

- REAL TIME FLIGHT DYNAMICS
- RIGID BODY PHYSICS
- AUTONOMOUS TASKING
- JOYSTICK CONTROL
- TERRAIN FOLLOWING
- SDK W/ SOURCE CODE
- VR-FORCES PLUG-IN OR STANDALONE*

While your operators are training, they can attack and be attacked by other entities within the distributed simulation.



* SOLD SEPARATLY

Link – Simulate – Visualize

Interactive Flight

Want to fly your own helicopter? Building on the VR-Forces simulation toolkit, you can develop tactical simulations and crew training applications that control RT Dynamics' RotorLib flight dynamics model with a joystick. While your operators are training, they can attack and be attacked by other entities within the distributed simulation.

RotorLib (sold separately) can also be integrated directly into a helicopter host simulator to perform pilot screening and flight training simulations.

VR-Forces Tasks supported

Move To	Move To Location
Move To Altitude	Move Along
Wait	Wait Duration
Wait Elapsed	Turn To Heading
Patrol Route	Patrol Two Points
Land	



Link – Simulate – Visualize