

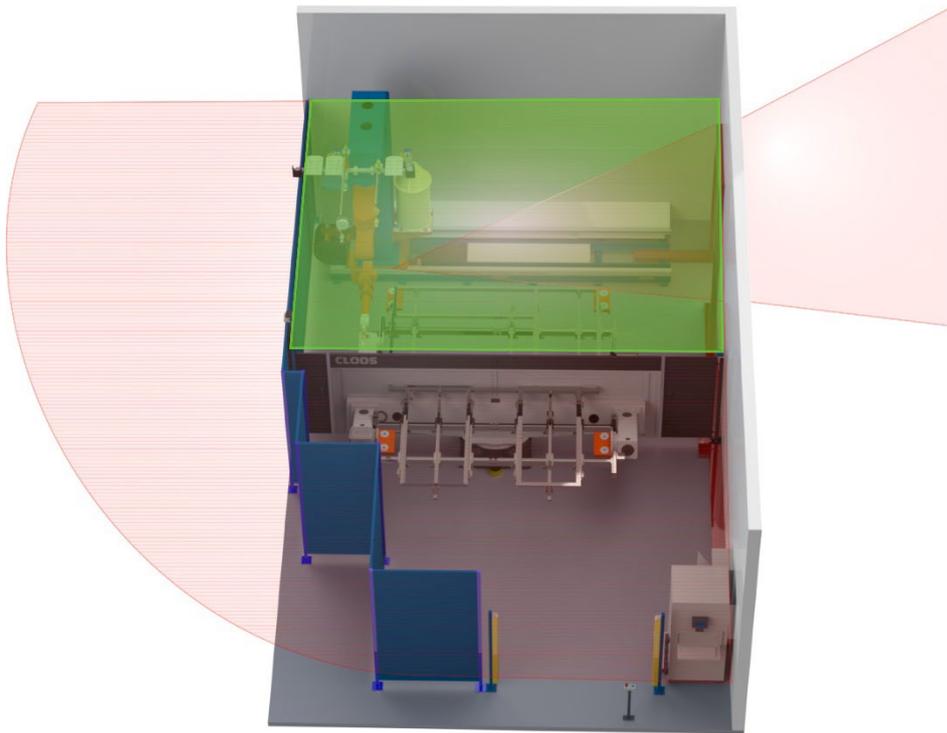
## Secure protection with QIROX VirtualLaserZone

# **Programmable, virtual laser zone for QIROX robot systems with laser sensors**

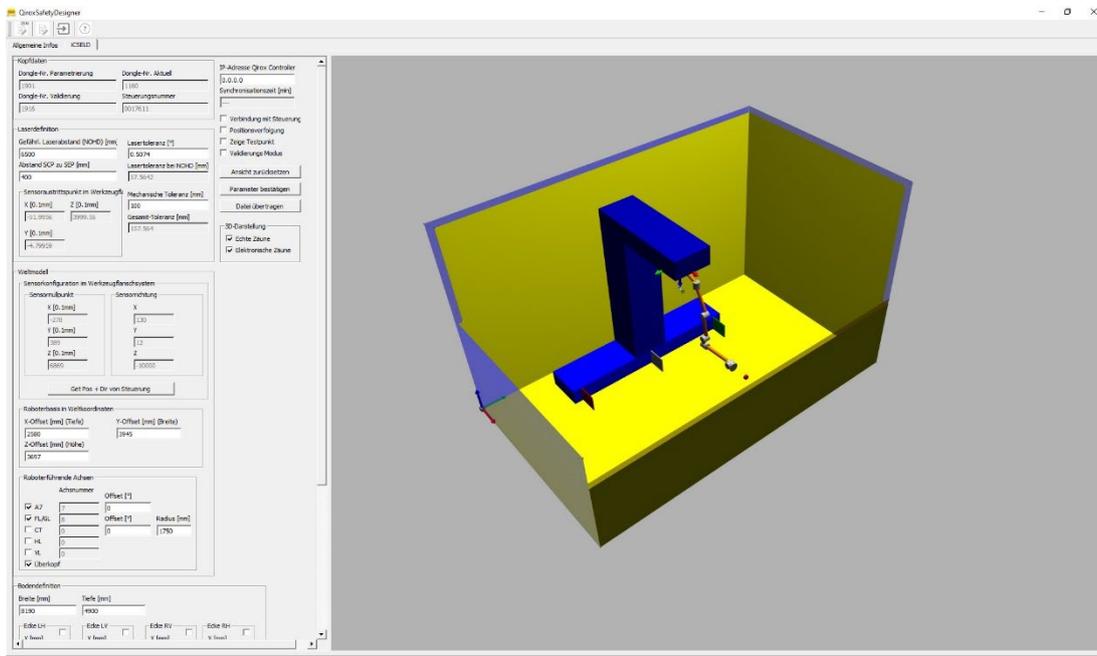
HAIGER, September 2022 – People in the vicinity of laser sources must be protected from the dangerous radiation. But protective walls or barriers are often associated with great effort. With the virtual laser zone developed by CLOOS, you reduce these efforts to a minimum and protect the employees in the vicinity reliably from the laser beam of the sensor.

The robot controller knows the position and the beam direction of the laser. A 3D model (virtual laser zone), which defines the robot system environment with its requirements, is linked to this information. As long as the laser beam hits parts, system components, safety equipment or hall walls of the virtual laser zone, there is no danger to persons. If the beam does not point to any area programmed in the laser zone, it cannot be activated and the sequence program continues without the laser beam. As soon as the robot reaches a position where there is no longer any danger to people from the laser beam the controller releases the laser again and the search routines take place as specified in the program. The virtual laser area is active in the automatic operation and protects people in the vicinity of the system.

The QIROX LaserZoneDesigner is a PC software that enables the programming and modification of a laser zone defined on the robot system layout. The initial programming of the laser zone is included in the delivery of the robot system and is defined during commissioning. The QIROX LaserZoneDesigner offers a self-explanatory graphical user interface. Checking and displaying the laser zone can also be done by the user.



**Photo 1:** The QIROX VirtualLaserZone protects all persons in the vicinity reliably from the laser beam of the sensor.



**Photo 2:** The QIROX LaserZoneDesigner allows the programming and modification of a laser zone defined on the robot system layout.

**CLOOS Welding technology:  
Robot and welding technology from a single source**

Since 1919, CLOOS has been one of the leading companies in welding technology. More than 900 employees all over the world realise production solutions in welding and robot technology for industries such as construction machinery, railway vehicles, automotive and agricultural industry. The modern CLOOS welding power sources of the QINEO series are available for a multitude of welding processes. With the QIROX robots, positioners and special purpose machines CLOOS develops and manufactures automated welding systems meeting the specific requirements of the customers. The special strength of CLOOS is the widely spread competence. Because – from the welding technology, robot mechanics and controller to positioners, software and sensors – CLOOS supplies everything from a single source.

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