

# IMAGINGLAB ROBOTICS LIBRARY FOR KUKA

Toolkit for Directly Commanding and Controlling KUKA Robotics from NI LabVIEW

## OVERVIEW

The ImagingLab Robotics Library for KUKA is an easy-to-use library of graphical functions that you can use to command and control KUKA robotics directly from National Instruments LabVIEW. With the library you can:

- Build complete industrial robotics systems entirely in LabVIEW
- Run pre-existing routines on KUKA controllers
- Easily develop vision-guided robotics applications
- Integrate measurements and vision into robotics systems

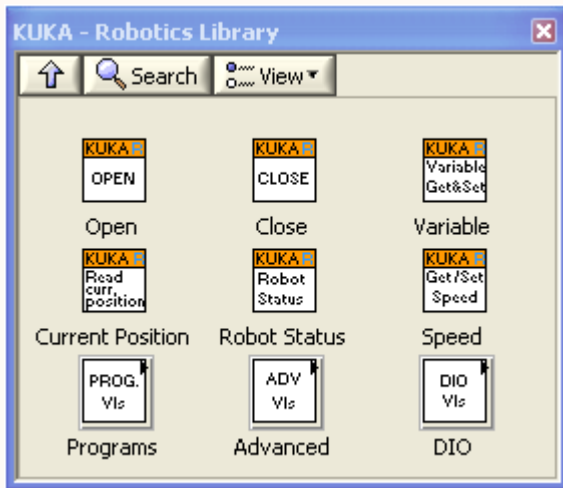
## ROBOTICS MADE EASY

Today's high-mix, low-volume production machines require smarter robots that can interact with their environment through measurements and vision. LabVIEW is enabling new applications for industrial robots by integrating measurements, vision, robot control and HMI into one, easy-to-use environment.

With the ImagingLab Robotics Library for KUKA, you can make your robotics system smarter without the need for complex robotics programming expertise. Beyond flexible manufacturing, with the library you can integrate KUKA robotics into new types of systems and applications for automated test, laboratory automation and precision manufacturing.



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## FEATURES AND BENEFITS

### 1. Faster Application Development

LabVIEW is a graphical programming environment used by millions of engineers and scientists to develop sophisticated measurement, test, and control systems using intuitive graphical icons and wires that resemble a flowchart. Because the ImagingLab Robotics Library for KUKA works with LabVIEW, engineers and scientist who are not robotics experts can now quickly integrate them into their applications.

### 2. Single Software Environment

Production machinery is becoming more sophisticated, which means robots need to integrate into flexible manufacturing cells along with part feeders, user interfaces and vision & measurement systems. With the ImagingLab Robotics Library for KUKA an entire application can be designed and written in a single LabVIEW application.

### 3. KUKA has the widest robot range on the market

With the ImagingLab Robotics Library for KUKA it will be possible to command a huge range of robot models, from the lightest 5kg payload robots, suitable for high precision/light operations, to the Titan 1000 kg payload robot, passing through an amazing range of models, covering a broad range of applications on the market: arc welding, foundry, automated assembly, handling, palletizing, machine tending, medical/high accuracy application, painting, glueing, drilling and milling, etc.

The ImagingLab Robotics Library for KUKA installs as a functions palette in LabVIEW. The LabVIEW graphical programming language has enabled millions scientists and engineers to develop complex measurement and control applications very quickly and easily.

The ImagingLab Robotics Library for KUKA also works with LabVIEW Real-Time systems, which combines LabVIEW graphical programming with the power of a real-time operating system.

The library can run on the NI Smart Cameras for integrated vision-guided robotics and works with NI data acquisition hardware for the measurement of very simple or highly sophisticated applications.



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