

EN

# Vir.GIL

**Virtual Guidance  
Interactive Learning**



With the goal to always put the worker at the center of the production process, contributing to the development of a more modern and efficient factory, **Vir.GIL** has been conceived.



# Digital Assistant for Manual Operations

**Vir.GIL** (Virtual Guidance Interactive Learning) merges digital technologies, sensors and control software to guide workers along manual operations.

Easy and intuitive, **Vir.GIL** uses lights to guide the worker along the correct manual sequence, sensors to follow the worker and integrated intelligence to track and certify the process all while offering human-like interaction based on speech and gestures.

## Components

### 3D LASER

3D laser pointing to the working position



### 3D VISION SYSTEM

Precise hand and gesture recognition sensors  
Upper body sensing system



### CONTROL UNIT SOFTWARE

Sequence machine learning  
On site intuitive setting

# How Does It Work?

The system lies within the combining of speech and gestures with lights, sensors and control software, both to learn from the expert and to guide the non-experienced operator.

## PHASE 1: INTERACTIVE LEARNING

When **Vir.GIL** is in machine-learning mode, the expert operator performs and confirms each position of an assembly process by asking **Vir.GIL** to memorize the hand positions and intervention points.

## PHASE 2: MANUAL TOUCH UP

The expert operator adjusts positions and sequences through a fine tuning.

## PHASE 3: VIRTUAL GUIDANCE

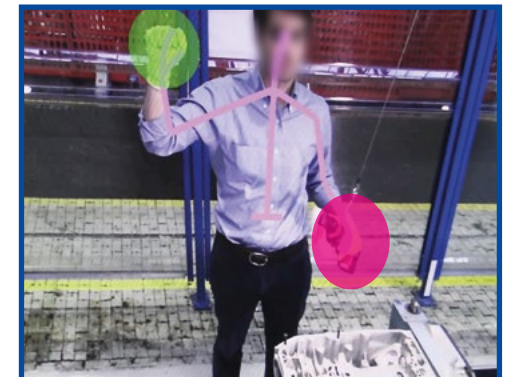
**Vir.GIL** guides the non-experienced operator in achieving the same level of precision and performance as the expert one.



Virtual keyboard



The technological process is enabled only when hands are in a correct position

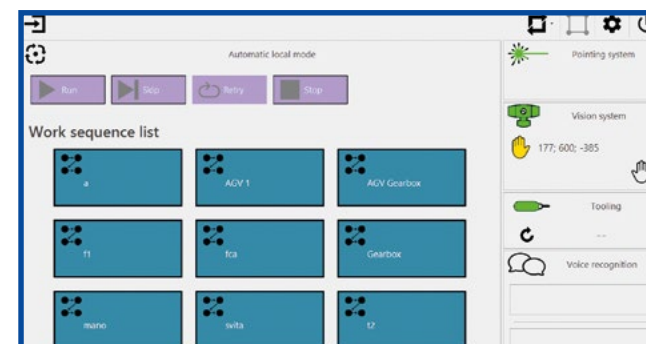


The interaction with Vir.GIL can be also by gestures

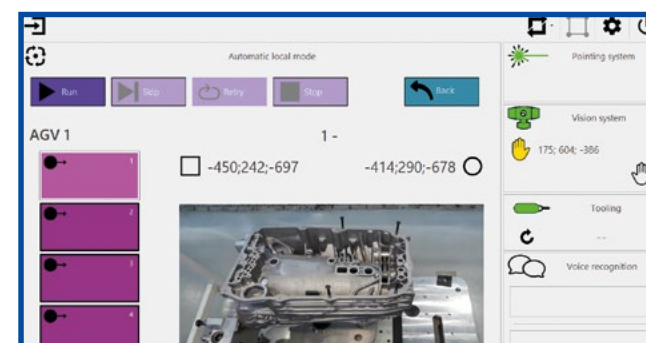
# Virtual Guidance Steps

Once a working sequence has been chosen, **Vir.GIL**'s lights guide the non-experienced operator directly on the working piece. Other information is displayed on the control unit screen, such as pictures of the working step.

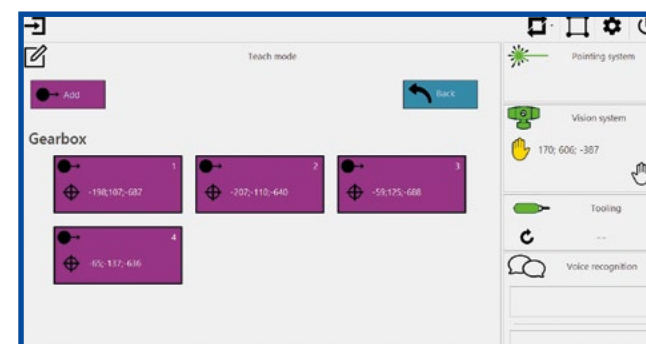
## STEP 1: SELECT A SEQUENCE



## STEP 2: RUN YOUR SEQUENCE

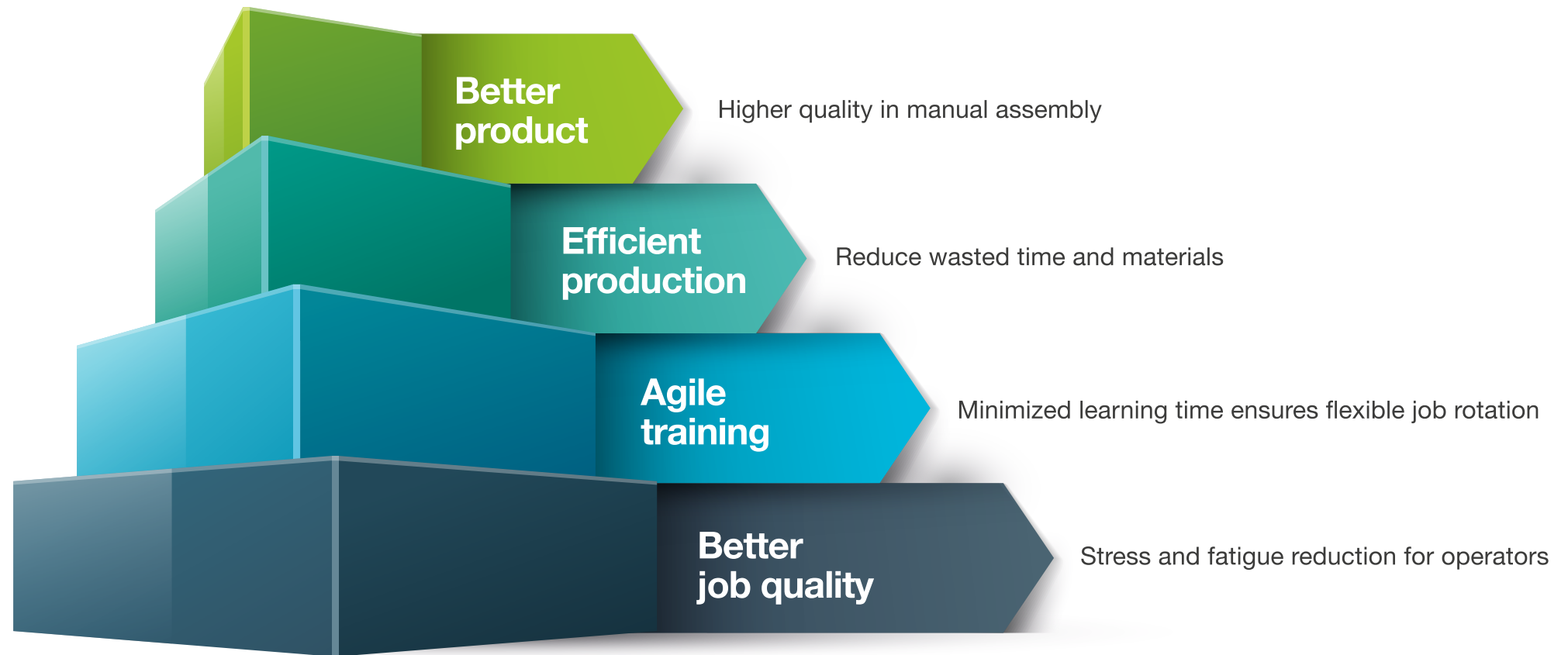


## STEP 3: ENJOY YOUR SEQUENCE

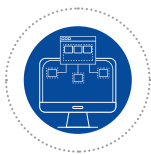




## Better Work, Better Life



## Features



Easy-to-follow **digital system** for guided operations



Lights guide the worker and **sensors** follow the worker



**Integrated controls** with human-like speech and gesture interaction



**Comprehensive** and cost-effective solution to assist manual processes

## Benefits



Reduce operator psychophysical **stress** during manual operations



Ensure **correct operations** sequence, parts assembly and process execution



**Increase** quality and precision



Provide digitized data for **IoT** platforms and applications



Easy, cost-effective solution for tool **position recognition**



Digitally incorporate manual tasks within the smart factory framework

Local distributor



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