

# Cooperating robots FD-VC4



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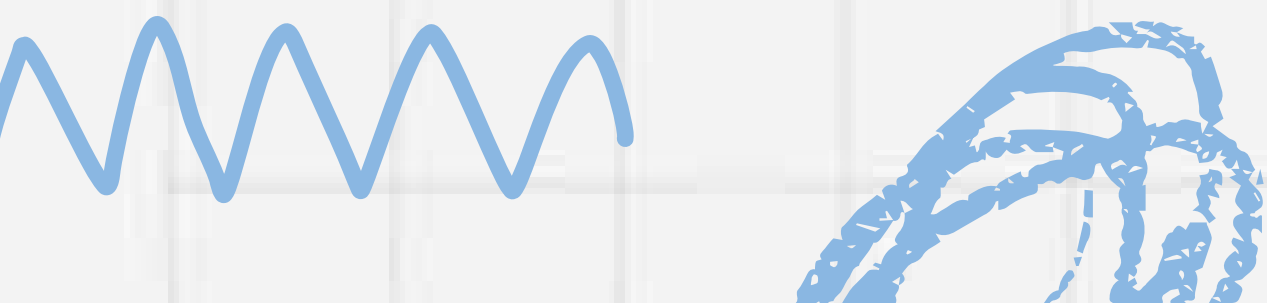
# Pros of OTC Cobot

- **Simple** installation and relocation
- The creation of an ideal arc welding application robot with **high accuracy and durability!**
- We offer the best arc welding application cobot to customers who have abandoned welding automation for reasons **such as safety, installation space, and large structures.**



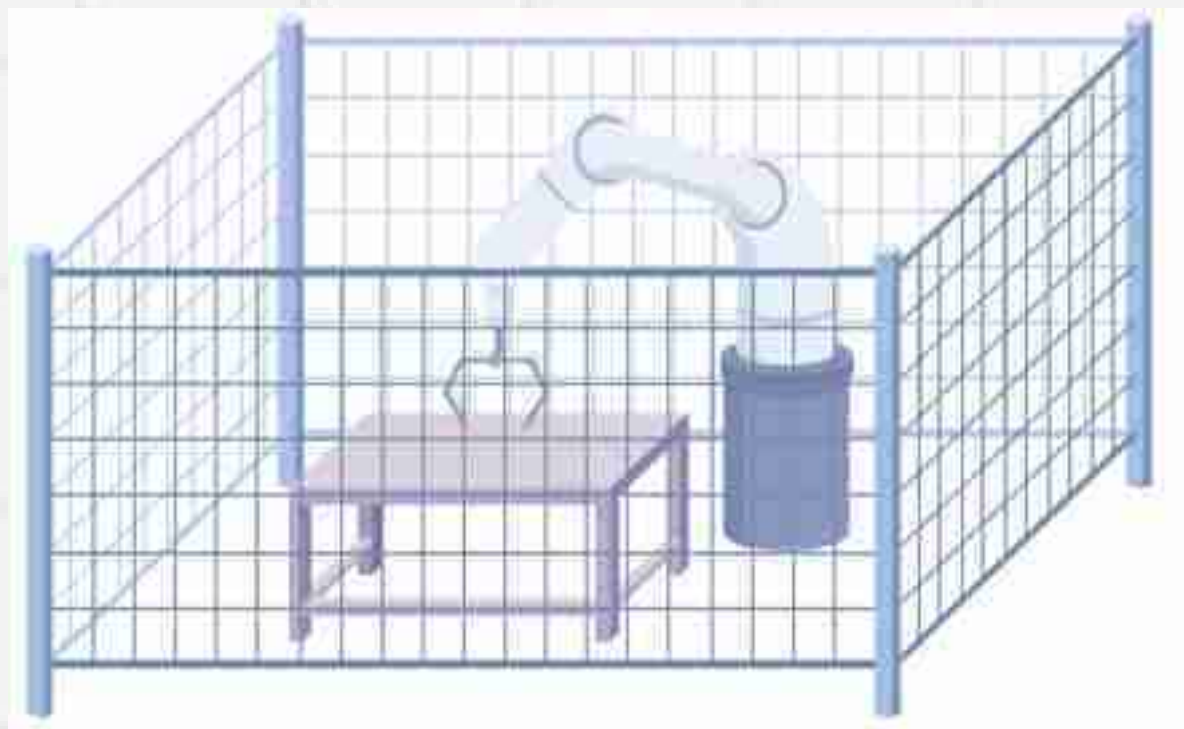


# Challenges in introducing robots

01. Space for installing the robot cannot be secured.
  02. Use it at different locations, but I can't easily move it.
  03. Ensure welding quality comparable to industrial robots
  04. Lack of knowledge about robots
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# Challenge 1

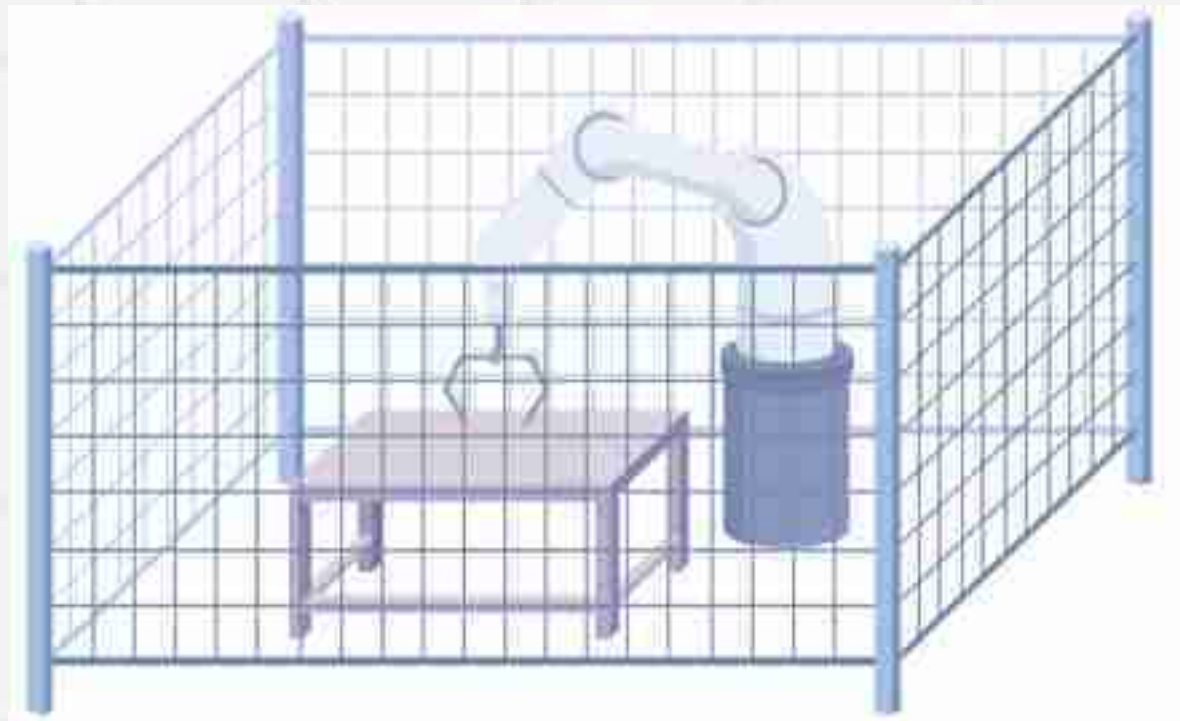
## Space for installation cannot be secured



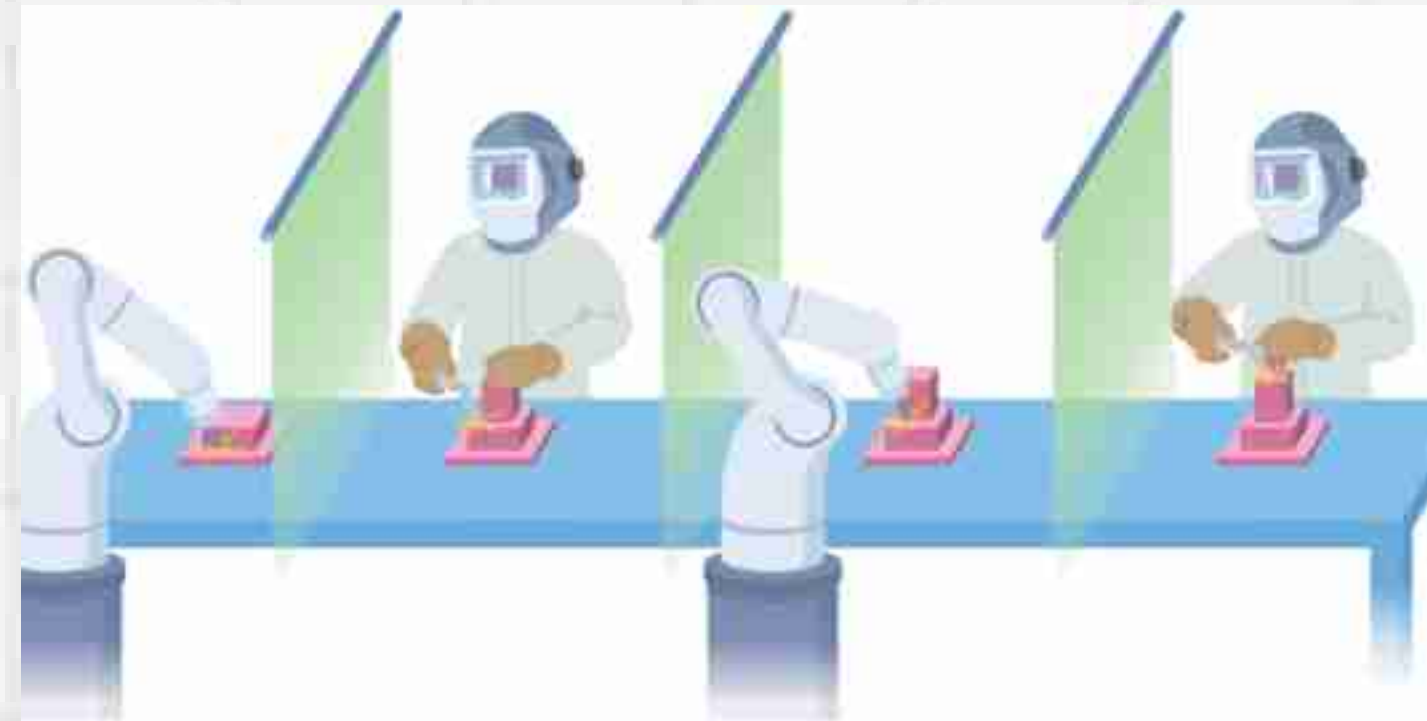
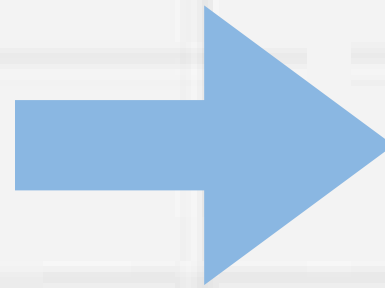
Sufficient installation space required

# Challenge 1

## Space for installation cannot be secured



Sufficient installation space required



Possible to work next to the worker

# Challenge 1

## Robot stops when contact is detected



# Challenge 1

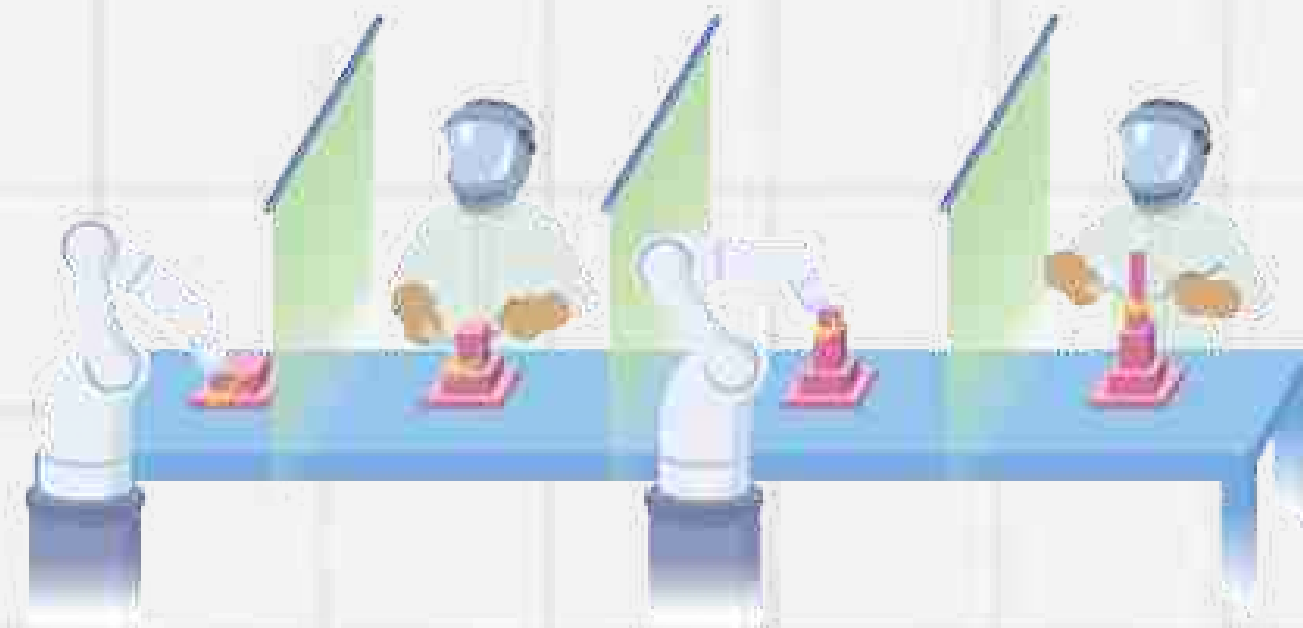
## Cobot status in LED

LED colour	State of the robot
Green	PLAY MODE-Servo ON
Blinking green	PLAY MODE-Servo OFF
Amber	Teach Mode Servo ON
Blinking yellow	Teach Mode Servo OFF
Red	When an alarm occurs



# Challenge 2

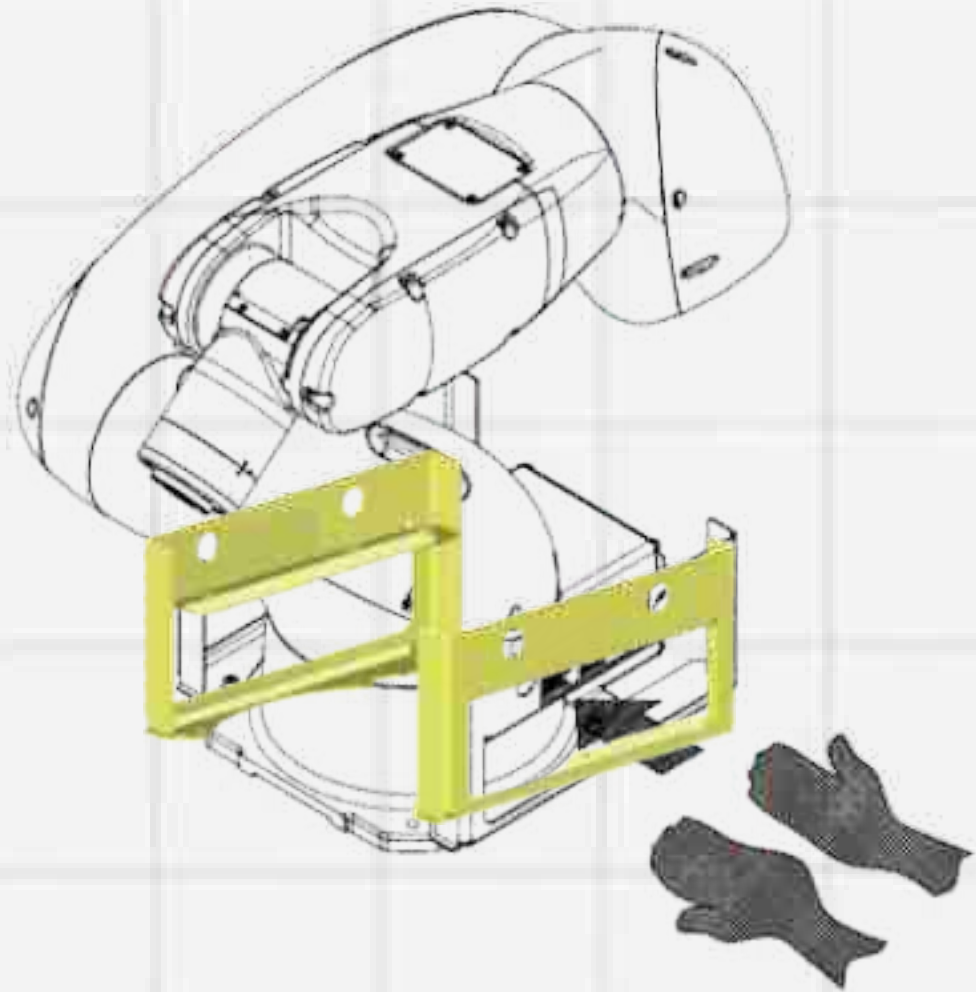
## Cannot be easily relocated



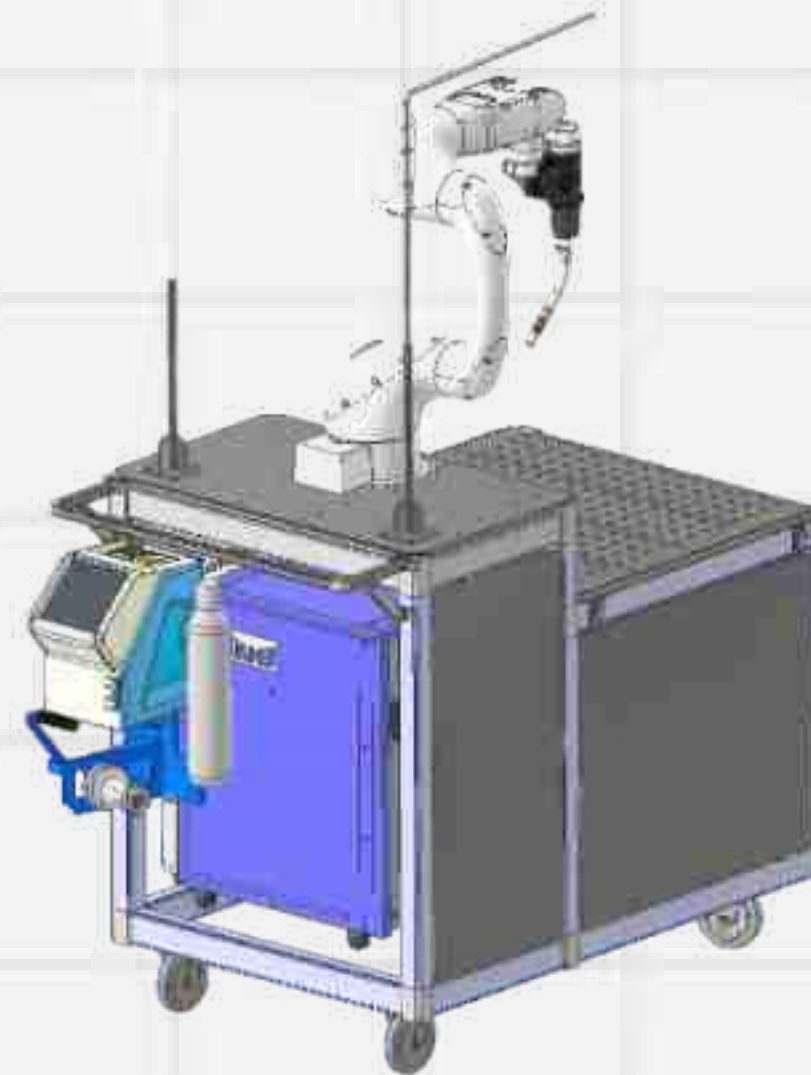


## Challenge 2

**Move to the site and begin operations right away.**



**Lifting gear for robots (Optional)**


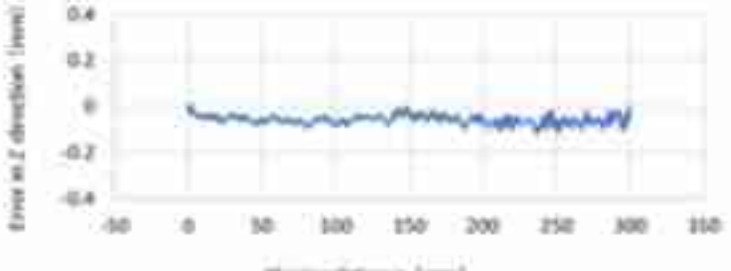

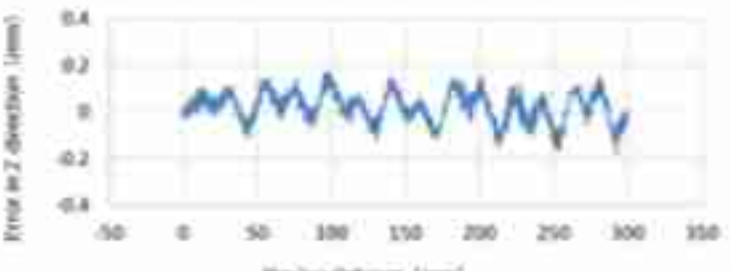

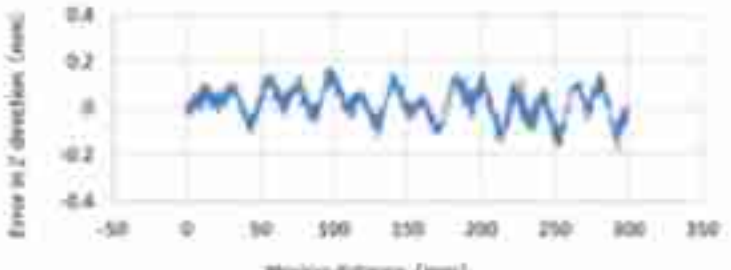

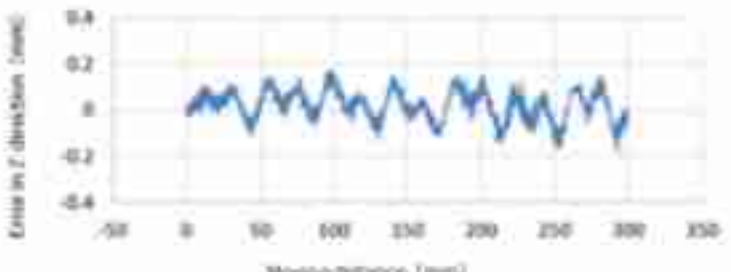



**Robot mobile bogie (Custom order)**



# Challenge 3

## Achieves high trajectory accuracy

Company Name	【Straight trajectory】 Error in Z direction when operating at 60 cm/min in the X direction	【Arc trajectory】 Trajectory when $\Phi 10\text{mm}$ is operated at 60cm/min
 <p>Highest trajectory accuracy</p>		
<p>Competitor A</p>		
<p>Competitor B</p>		
<p>Competitor C</p>		

# Challenge 3

## Wide range of welding-related functions



CO2/MAG welding

CO2/MAG welding

MAG pulse welding

Low spatter welding

TIG welding

Ultra-low spatter  
Synchro feed  
Welding system



TIG welding

Touch sensor function

Arc sensor function

Weaving function

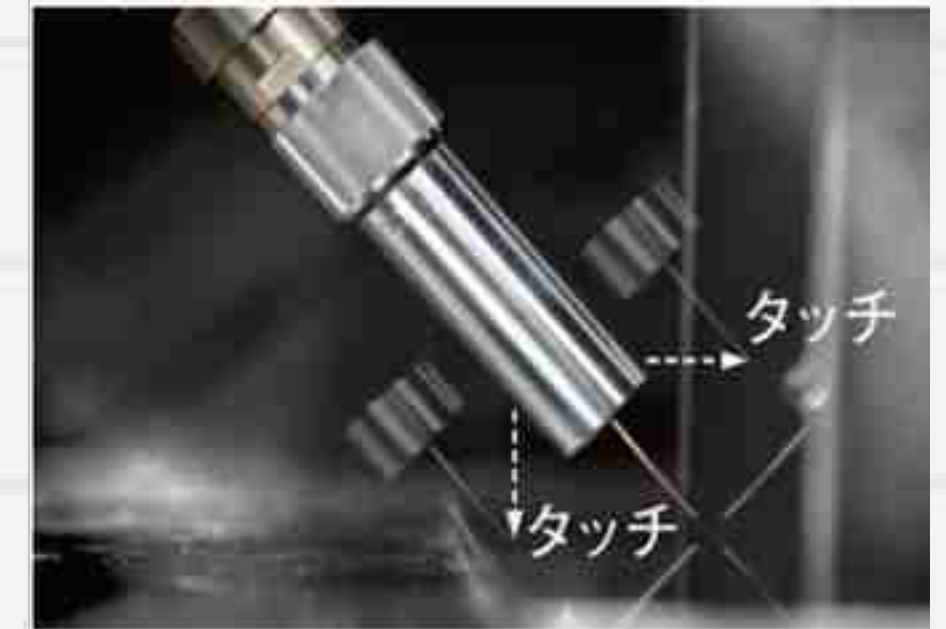
Offline Teaching System FD-ST

Robot-Management-System FD-ST

Various welding torches, etc.

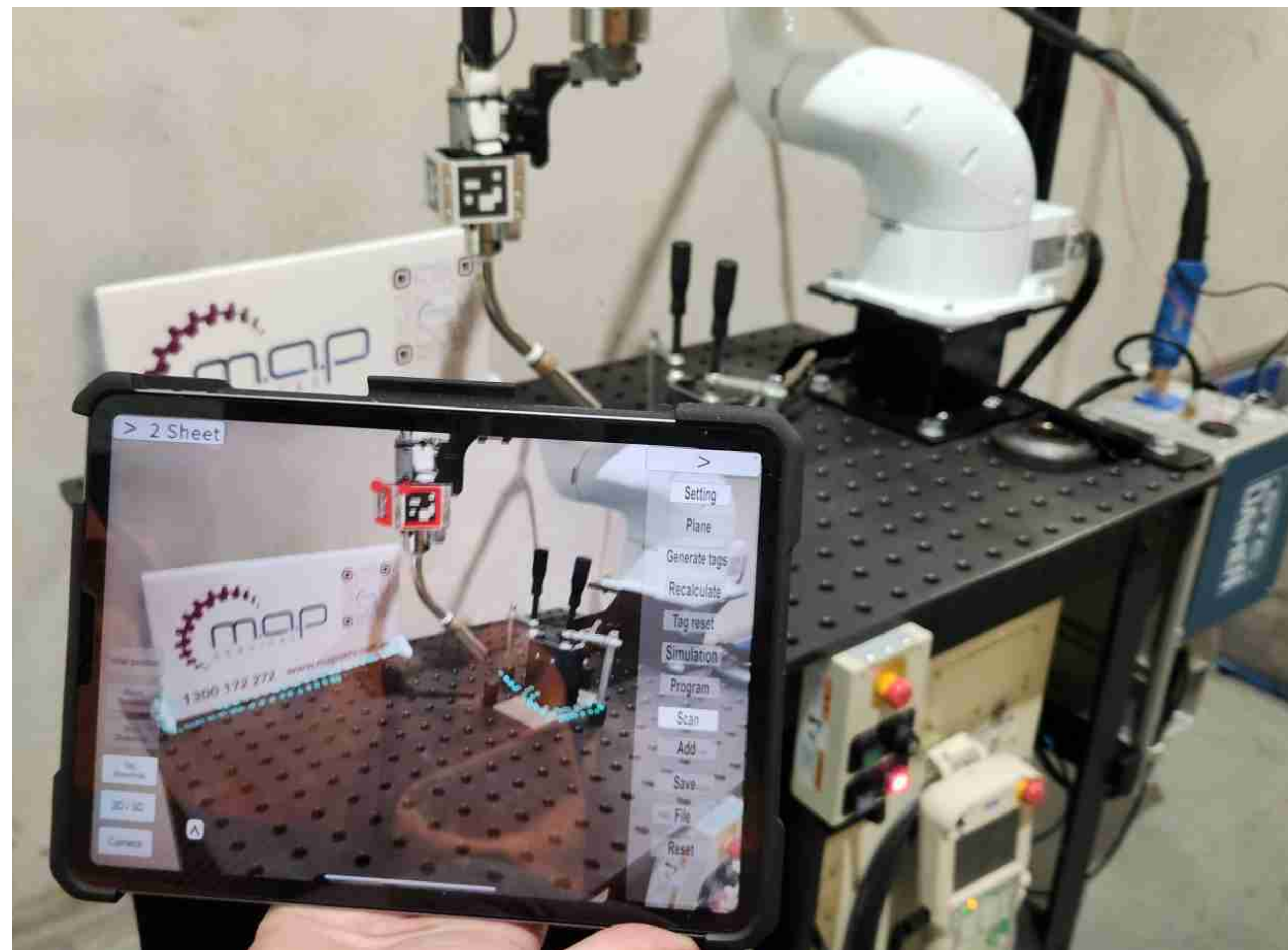
# Challenge 4

## Simple robot operation (optional)



With OTC PhotoTeach and an iPad, you can create complete programs and send them straight to the robot for welding. Simply take pictures of the part, tap on the image your weld start & end points, simulate the on the iPad and start welding!

OTC JoyPen provides intuitive control of the robot movements. Hold the JoyPen and move, swivel or tilt it in any direction and the robot will follow and record the path automatically.



The FD-VC4 is built on the same proven platform that has made OTC Daihen the No1 selling robot welding manufacturer globally. The VC4 cobot is the only cobot designed & manufactured specifically for welding, providing durability and the best weld outcomes.