

ROBOTICS - GELATO-TEAM

Demo kit - Manual

Single arm YuMi signing post-it



1 Set up of the system

This chapter is written for application engineers or person which worked with an ABB robot before.

1.1 Check your single arm YuMi system

The demo kit is prepared for a single arm YuMi (IRB 14050).

Check, that your robot has the following options

The following options must be available in the SAY.

3107 - 1 Collision Detection

3114 - 1 Multitasking

3121 – 1 RW Add-in Prepared

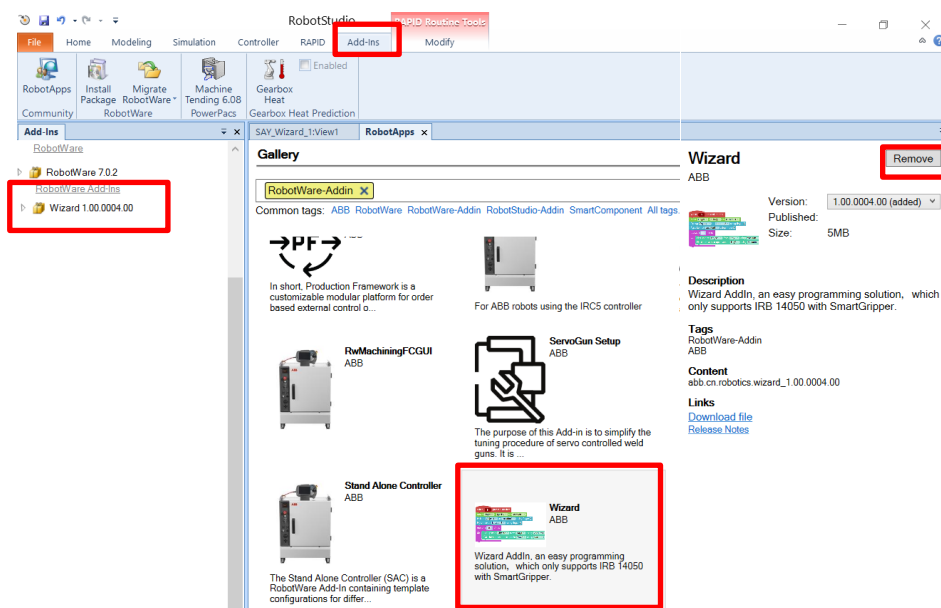
Gripper – SmartGripper Support (**Selected**)

1.2 Add Wizard AddIn

How to add the AddIn for the Wizard interface.

Install Wizard in RobotStudio

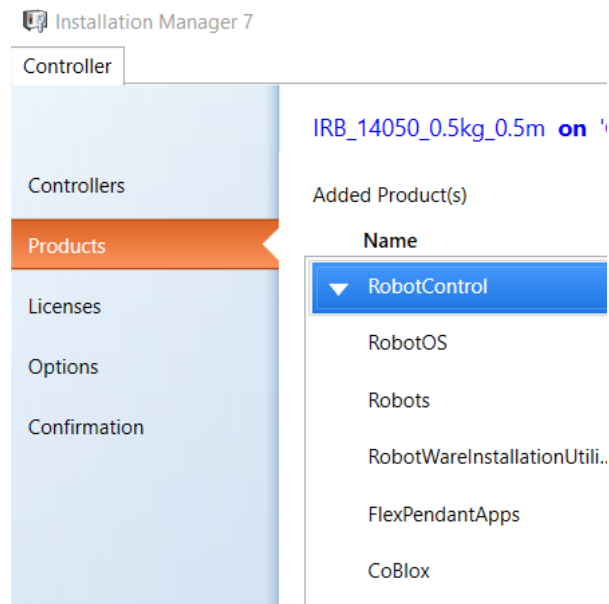
Go to RobotStudio => AddIns and install the Wizard AddIn.



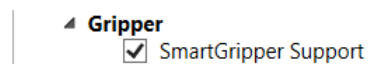
Close and reopen RobotStudio afterwards.

Add Wizard to your system

Add Wizard (and license) via the installation manager to your system.



Make sure, that the SmartGripper is still selected (often it is deselected automatically).



Load the following modules to the system

CoBlox.mod	MainModule for Wizard
Positions.mod	Positions for the drawing path
PreparedRoutines.mod	Routines to pick the pen, select the pattern....
Messages_EN.mod	Message in your language (you can also select another language module here or translate it.)

2 Set up of the application

This chapter is written for application engineers or person which worked with an ABB robot before.

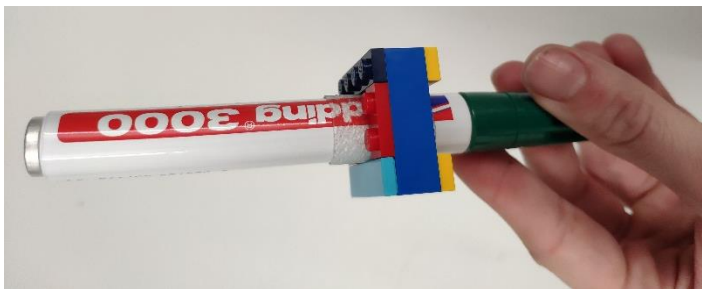
2.1 Build your lego fixtures

See separate step by step manual.

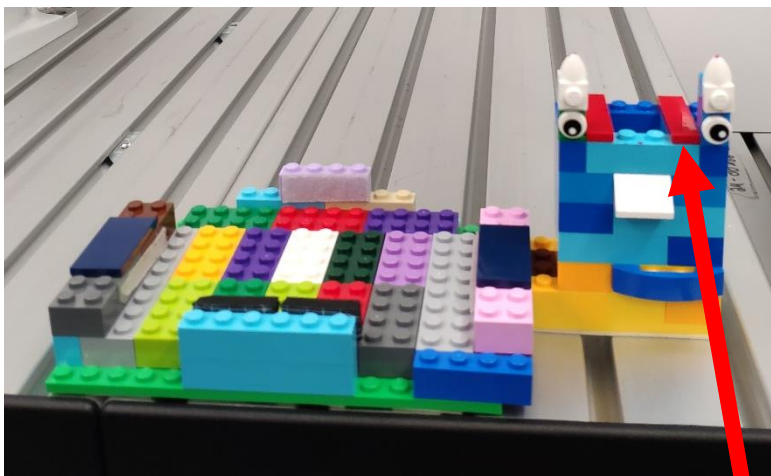


Fixture for the pen

4 dot x 4 dot

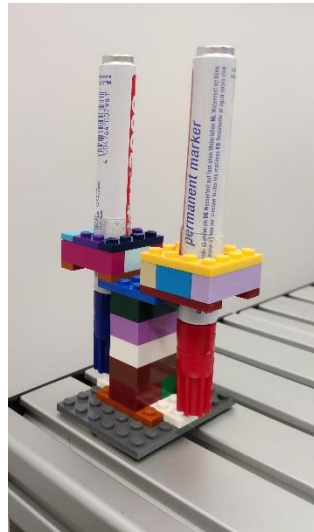


Holder for the post it and the pen



Make sure, that the surface of the pen holder is without dots.

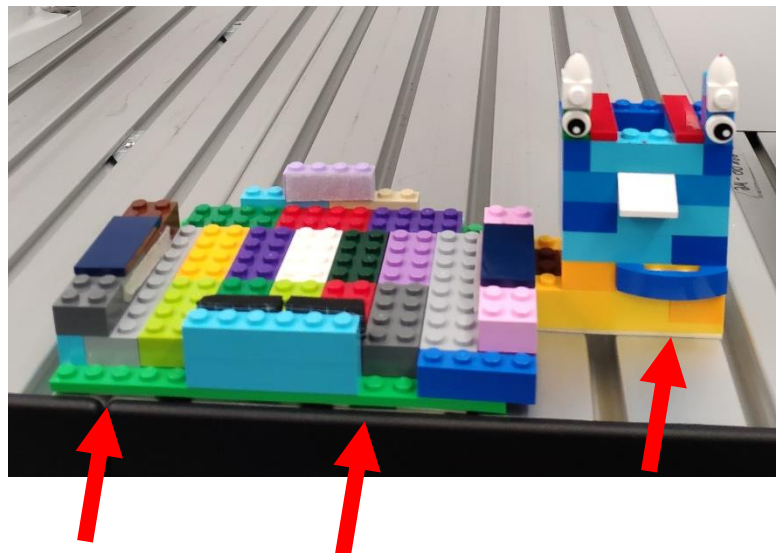
Optinal: Build a holder for more pen colours



(same pen fixture)

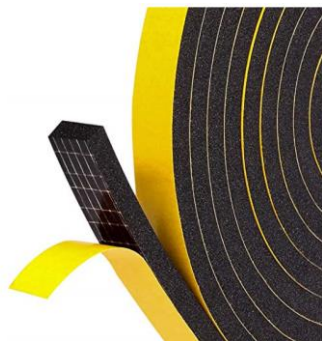
2.2 Prepare for anti-slip

Fix your lego fixture on the desk with double sided adhesive tape

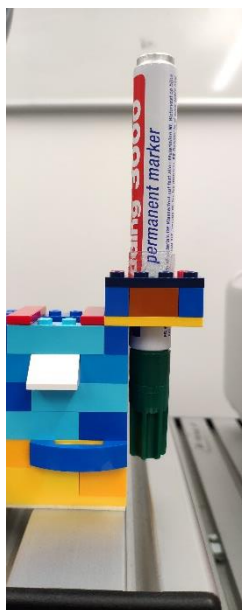
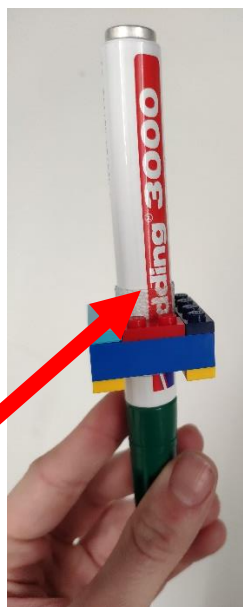


Tip: Move the robot to the grip position first. => Easier to set up.

Add the sealing tape to the YuMi finger



Add the shower tape on the pen and stick the pen into the pen fixture.



Here you can see the hight: The pen (with cap) goes down until the last block.

2.1 Update gripposition, tooldata and workobject

Grip position



Update the grip position **pPickPen**.

Tip: Align the camera to the desk.

Tool data

Update the tool date **tPen**.
(Set up via FlexPendant – 3 point method)



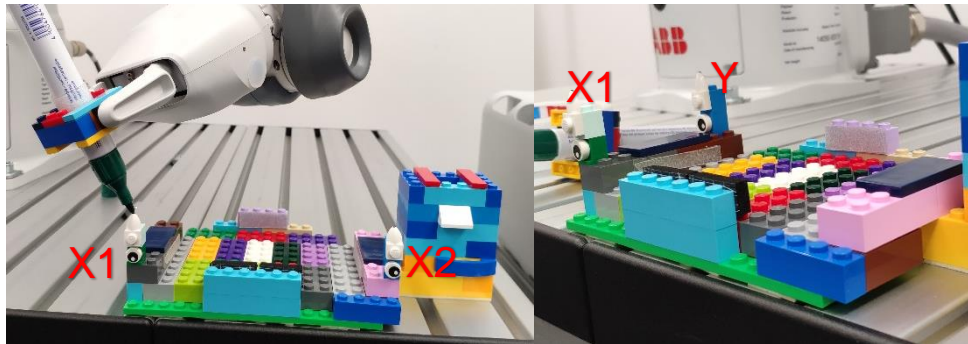
You can use the LEGO-Ear as a tip.

Tip: Grip the pen by running through program until the grip position.

Wobj data

Update the workobject data **wPaper**.

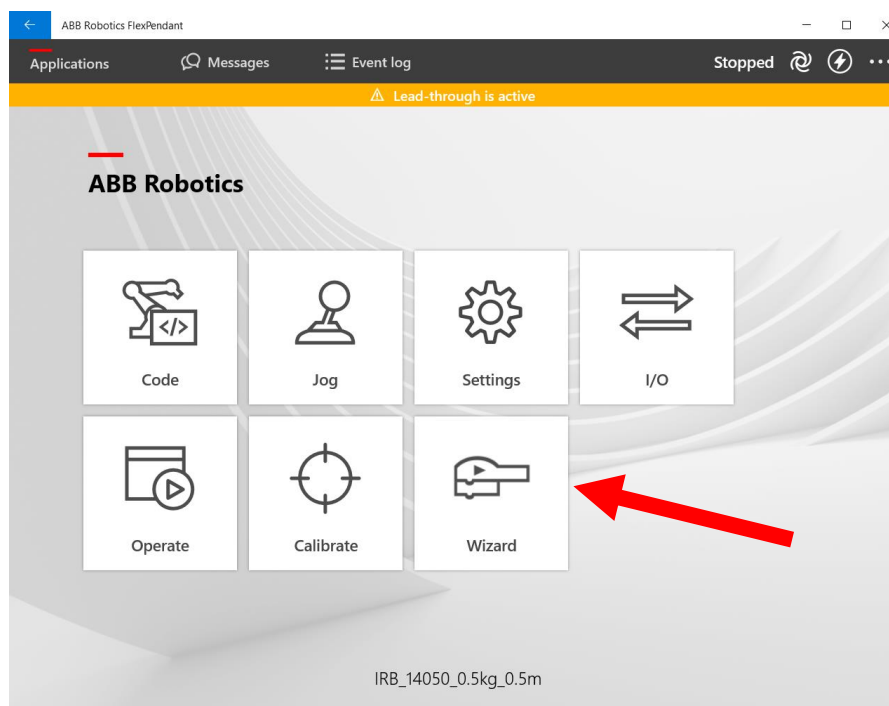
You can use the ears in the following position.



2.2 First run through

Make a test run

Start Wizard



Start Wizard

Check space for the post it



Add tape until the post-it does not move anymore.

3 Run the demo

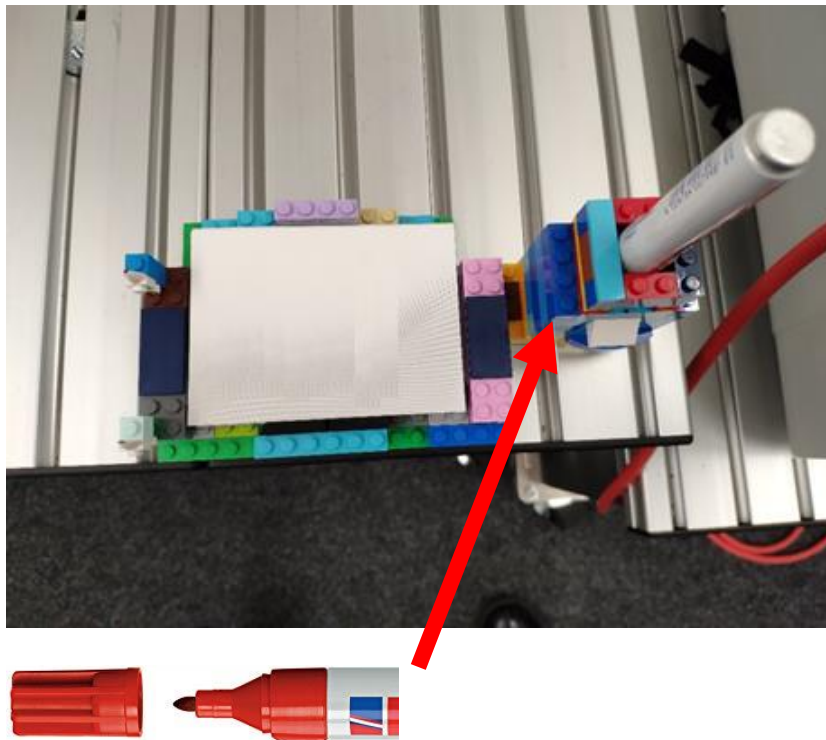
This chapter is written for all person who want to operate the demo.
No special knowledge needed.

3.1 Make a potential customer program the SAY

Finde a customer and let them program the SAY

Prepare

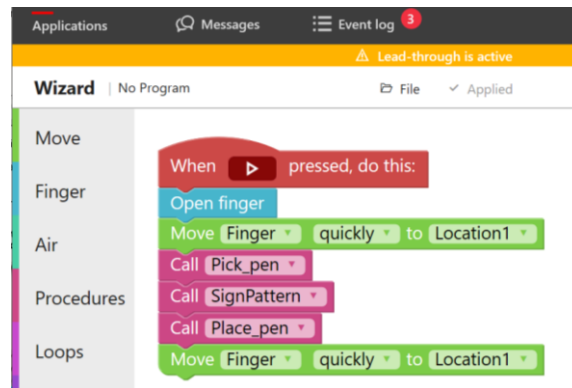
Place a post-it block with the back on top in the fixture.



(Select a colour) and open the pen. Bring it in the pic position.

Lead the customer program the SAY the following

You can also just prepare this program and run it later.



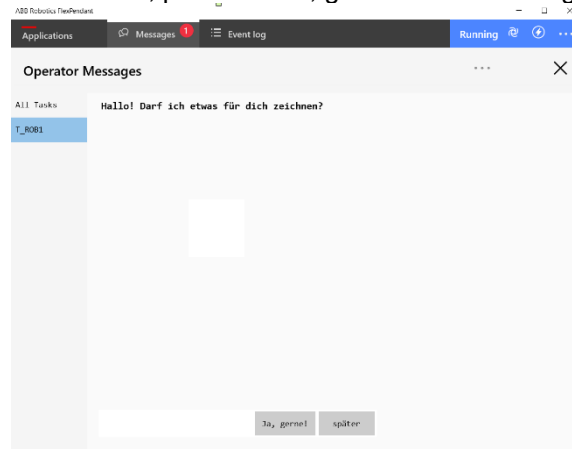
(see attached video).

Tip: Press Apply.

Tip: Robot must be in auto mode.

Run the program and produce a nice give away.

Select “Yes, please” / “Ja, gerne” to start the signing process.



Handout the nice give away.

