

IPA robot and ipa-apartment manual

**Manual for
working with
robots in the ipa-apartment**

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Chapter 1

IPA apartment rules

You can always get the latest version of this manual at ¹.

If you have comments, suggestions or would like to add something to the manual, please contact fmw@ipa.fhg.de.

1.1 Working on the robot area

The robot area is considered the left side of the room after entering from the main door.

1.1.1 Using pool pcs

The pool pcs have a fixed configuration and the installed packages should all be the same on all machines. If you need an account, a new installation of packages or software in the pcs please contact nhg@ipa.fhg.de or fmw@ipa.fhg.de.

1.1.1.1 Don't change any cabling

You should not add, remove or change any cabling. Especially all cables below the tables should not be touched at all because they are ordered in a way that power distribution and network distribution makes sense. Cabling includes

¹https://github.com/ipa320/setup/blob/master/manual/IPA_manual.pdf

power, network, monitors, keyboards and mouse. If you feel the need for changing anything, please contact fmw@ipa.fhg.de or nhg@ipa.fhg.de.

1.1.1.2 Don't turn off the pc

The pc are used remotely and also during the night and weekend, so please just log out and don't turn them off.

1.1.2 Using your own pc

You can use your own pc. Using the network plugs you should get an IP address over DHCP and connect to the internet.

1.1.2.1 Don't use the plugs under the tables

See section 1.1.1.1

1.1.2.2 Use the plugs on the tables

If you want to connect to power or network use the power and network plugs on the table. You can find additional power and network cables in cabinet III, see sec 1.3. Please put them back when you leave the room.

1.1.3 Leaving the robot area

1.1.3.1 Move all furniture back

Please move all tables, chairs and cupboards back to their default place. The default place for all objects can be found in the floor plan of section 1.3.

1.1.3.2 Tidy up working places

Please remove everything from tables of cob-stud-6 to cob-stud-9. There should be nothing left on the tables except monitors, keyboard, mouse and telephone. Remove everything else, like coffee cups, bottles paper, ...

1.1.3.3 Unplug additional network and power cables

Please unplug everything you plugged in on the tables and put the cables back to cabinet III, see floor plan of section 1.3.

1.1.3.4 Logout your user from pool pcs

After finishing your work please log off so that other users can use the pc. You should avoid login in into two machines at the same time.

1.1.3.5 Turn off the monitors

To save energy please turn off the monitor after using it but keep pool pc on, see section 1.1.1.2.

1.2 Working on the student side

The student side is considered the right side of the room behind the cupboards after entering from the main door.

1.2.1 Leaving your work place

1.2.1.1 Turn off your monitor

See section 1.1.3.5.

1.2.1.2 Don't turn off the pc

See section 1.1.1.2.

1.2.1.3 Tidy up working places

See section 1.1.3.2.

1.2.2 Leaving the room as the last person

If nobody else is in the room (robot and student side) any more (probably in the evening time), please follow the following additional rules.

1.2.2.1 Close the windows

Please close all windows on both sides of the room.

1.2.2.2 Turn off the lights

Turn off all light on both sides of the room.

1.3 Floor plan

TODO: add floor plan for robot area and student side

Chapter 2

IPA robot rules

You can always get the latest version of this manual at ¹.

If you have comments, suggestions or would like to add something to the manual, please contact fmw@ipa.fhg.de.

2.1 Robot cob3-3 and cob3-5

2.1.1 Working with the robots

2.1.1.1 Allocate a robot

Allocate a robot for you, see ².

2.1.2 Pay attention to the safety and usage information

For safety and usage information, see Care-O-bot manual³.

¹https://github.com/ipa320/setup/blob/master/manual/IPA_manual.pdf

²<http://care-o-bot.org/trac/wiki/WorkingWithIPARobots>

³https://github.com/ipa320/setup/raw/master/manual/Care-O-bot_manual.pdf

2.1.3 Having a break

A break is considered a short interruption, e.g. for lunch time or toilet break, where the robot is still allocated for you and you will continue working with the robot afterwards.

2.1.3.1 Press the emergency button

Whenever you are out of reach of the emergency stop, e.g. leaving the room, press one of the emergency buttons.

2.1.4 Leaving the robot

2.1.4.1 Mount all casings

Mount all casings of the robot which means green and grey parts from base and head casing.

2.1.4.2 Move components in home position

When finishing your work with the robot, leave the robot components in their default position. The default position is

- Arm in "folded" position
- Torso in "home" position
- Tray in "down" position
- Hand in "home" position

TODO: ADD IMAGE

2.1.4.3 Move robot to charging station

When finishing your work with the robot, leave it next to the charging station which is the "home" position for the navigation.

TODO: ADD IMAGE

2.1.4.4 Disconnect power

Unplug the power cable and shut down the power supply.

2.1.4.5 Charge the remote emergency stop

When finishing your work with the robot, put the remote emergency stop into its charging station.

2.2 Robot raw3-1

2.2.1 Leaving the robot

disconnect power