



Università della Svizzera italiana

# Final project

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You are strongly encouraged to work in groups (3 students max)

### **Important dates**

April 23: Project start

April 30: Project pitches (forum), deadline to get feedback on the general idea

 May 7: Half-way presentation (in class), feedback on approach+results before submission

May 31: Final presentation (in class), submission of code and short report (3-4-5 pages)

### **Objective**

Find a robotics project that is interesting AND achievable in this time frame





#### What you can do

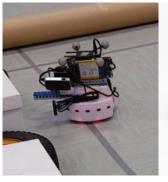
#### You can work with:

- simulations (Coppelia)
- real robots
- a combination of the two

#### Using the:

- MyT (only simulation)
- RM S1 (simulation + real robot)
- RM EP (simulation + real robot)
- a combination of the three













#### What we suggest

Start in simulation with a **single** robot and try to achieve your goal in a **simple** scenario

From there, scale up with **stretch** goals, such as:

- More complex scenario
- More robots
- Real robots
- More difficult tasks

BE AWARE that working with real robots is difficult and time consuming





#### **Evaluation:**

We evaluate the quality of your work (and presentation), not the quality of your results!

#### **Final notes:**

- If you work in a group, you are expected to do more work.
  A three-person group should roughly do the work of 3 one-person projects.
- Real robots are limited and time-consuming to work with.
  Consider them as a final bonus milestone for your project and not the main focus.

Detailed rules: <a href="https://www.icorsi.ch/mod/page/view.php?id=1040476">https://www.icorsi.ch/mod/page/view.php?id=1040476</a>





# Project suggestions

- LED communication and interaction between robots
- Aruco markers usage and identification
- Object interaction
- Line/street following

- Visual perception
- Sensory environmental understanding
- SLAM

Project suggestions: <a href="https://www.icorsi.ch/mod/page/view.php?id=1040479">https://www.icorsi.ch/mod/page/view.php?id=1040479</a>





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# Have fun!

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