

Laboratory of Smart Objects

Introduction

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Lecture 1



Instructors

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Location & Time Schedule

- ▶ Made up of two modules:
 - ▶ Computer Engineering – 6 CFU (ING-ING/05)
 - ▶ Design – 3 CFU (ICAR/13)
- ▶ Laboratory takes place every Monday:
 - ▶ 11:30 – 13:30 – Computer Engineering
 - ▶ 14:30 – 16:30 – Computer Engineering
 - ▶ 17:00 – 19:00 – Design



Blended mode

- ▶ In-person and online classes:
 - ▶ In-person classes will take place in Classroom F7, via Flaminia, 70.
 - ▶ Online classes will take place using a fixed Google Meet virtual room:
<https://meet.google.com/esk-ydjp-uvr>
- ▶ Students in-person attendance booking system:
<https://prodigit.uniroma1.it>
- ▶ Make sure you follow all the Access & Safety Procedures:
<https://www.uniroma1.it/en/notizia/covid-19-phase-2-procedures-students-staff-and-guests>



Communication

- ▶ Via dedicated Slack Channel:
<https://sapienza2021so.slack.com/>
- ▶ Every Monday during lab hours.



Required Material

- ▶ Paper-roll, markers, crayons, highlighters, sticky notes, etc.
- ▶ Arduino Kit
 - ▶ Arduino Uno or similar
 - ▶ Starter Kit (e.g., Elegoo)



Coursework & Assignments

- ▶ During the semester you will deliver 3 assignments.
- ▶ For each assignment you will work in groups.
 - ▶ Each group will be made up from 3 students.
 - ▶ Different groups for each assignment.
- ▶ Each assignment is about creating a Smart Object:
 - ▶ Different shapes, materials, characteristics, functionalities.
 - ▶ Different sensors, actuators.
 - ▶ Different interaction and user experience.
- ▶ Each assignment is evaluated:
 1. **Design:** Analysis, Prototypes, Aesthetics.
 2. **Research & Experimentation.**
 3. **Interaction, Technology & Integration.**



Delivery of Assignments & Marking

- ▶ Each assignment is marked from 0 ... 6.
- ▶ Each group will deliver:
 - ▶ **Before the delivery day:**
 1. The paper-roll with all the designs in digital format (PDF)
 - ▶ **During the delivery day:**
 1. The final prototype for demonstration.
 2. A 60 seconds VIDEO of the final prototype, available on YouTube (public).
 3. A poster (printed).
 4. Support their design choices with critical thinking and answer questions.
- ▶ All marks are announced at the end of the day.
- ▶ Each group gets 1 mark.



