## Hochschulen

- Pädagogisches Zentrum PZ.BS
- Unterricht/Weiterbildung

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Workshop in English for pupils in the 5<sup>th</sup> and 6<sup>th</sup> grade at Primarschule Basel and Riehen

# **Robotics (optionally with Drones)**

#### **Moderator**

Laurent Naegelen, Tina Kontuniemi, Deanna Iobbi, Ana Laura Rivarola

#### Language

**English and German** 

#### **Activities, Methods**

This program is hosted at TechLabs Werkstatt/Atelier @ ELYS Basel in Lysbüchel neighborhood. Children will participate in a robotic activity targeted to their age and skill level. The workshop is offered at 3 different levels of skill (The program is targeted at Primar 3-6, with

varying levels of English and German support based on the needs of the group):

Level 1 - Beginners. 0 - little exposure to coding with Scratch or similar block based programming.

The children will learn about basic sequencing and problem solving while competing in a "Robo-Bowling" Competition (or using programmable Drones to complete a series of challenges).

Level 2 - Emerging. Children are familiar with a coding environment like Scratch or similar block based programming and basic abstract math skills. The children will learn about manual control of the robots (or drones), loops, activating sound and color on the robots/drones while completing in a "Robo-Football" Competition (or a series of challenges with the drones).

Level 3 - Confident. Children are confident with Scratch or similar block based programming environments. The children will physically modify their robots/drones and also learn about Infrared messaging, Conditionality (If/Then), Variables while preparing their robots/drones for completing a series of challenges.

Classes can be subdivided into groups based on varying skill levels of children, and sub-groups can be accommodated in our space simultaneously.

### **Materials and Resources**

What do the pupils have to bring along? Nothing

What do the students get in the workshop?

The students will learn the basics of robotic interaction or programmable drone interaction during a fun collaborative / team exercise. They will get to take home a commemorative 3D Printed model of their robot ir drone medal.

What resources are needed?

None. TechLabs provides all necessary resources.

# Preparation required in advance

None.

#### Location:

ELYS Basel, Elsässerstrasse 215, 4056 Basel

## **Duration:**

2 - 2.5 hours

# Number of Participants (min./max.):

Minimum 10, Maximum 40

# Possible Dates (weekdays, times):

Monday, Tuesday, Thursday, Friday 8:00 - 15:00; Wednesday 8:00 - 13:00

#### Cost:

16 CHF/child

#### Contact:

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