APPS FOR MOBILE DEVICES

THEME	Using the sensor on the mobile phone
FORMAT	Collective (students work in small groups)
PREPARATION TIME	2 hours
ACTIVITY LENGTH	30-45 minutes
DIFFICULTY LEVEL	Average

PEDAGOGICAL GOALS

- Understand the sensors
- Build applications using sensors
- Identify sensors that mobile phones have

NECESSARY MATERIALS

Computer room with computers connected to the Internet.
1 Computer connected to a projector.

Preparation:

- To perform this activity, it is recommended that aiStarter is installed on the computer or that students have AI2Companion installed on their cell phones so that they can test the created application. In the case of AI2Companion, smartphones will also need an internet connection.
- Let the computers with logged in http://appinventor.mit.edu/explore/
- In classroom preparation, place two chairs in front of the computer that is connected to the projector.

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Conducting the activity:

- Divide the class into pairs or trios depending on the number of computers available at your school.
- Give around 1 hour for them to work with the sensors. Before starting, let students know that all projects will be presented.
- Ask them to click "Create apps", then "Start New Project", and name the first project.
- At the beginning of the class, show the sensors in appInventor, showing your students (if possible with the help of a projector) how to create a new program using them. To do this, go to the "sensors" category, drag the component to the phone, renaming it to "GPS", for example
- Then explain to the students that they are going to initially implement an application. The app will use sensors, ask them to first create the interface.
- Then have students switch to programming mode by clicking Blocks and ask them to implement the code.
- Now ask students to test the app with the emulator and present the app.

Discussion and reflection:

- What are sensors? How do everyday applications use it?
- Brainstorm with students what kind of changes and sensors they could make or use in the created application.

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