SENSORS AND SMART OBJECTS

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eleonora.chitti@unimi.it

SENSORS AND SMART OBJECT

Smart Object are real life objects that embed processors, sensors, software and connectivity to allow data to be exchanged between the product and other systems.

Smart Objects can embed sensors (to obtain real time data), as

- Microphone

- Accelerometer

- Gyroscope

- Pedometer

- Balance

- …

These Objects can embed also a memory unit to store data.

SMART SPEAKER AND VIRTUAL ASSISTANT

- Smart speakers have been recently proposed in the market as

  - Amazon Echo

  - Google Home

These speakers through Natural Language Processing and Speech To Text allows the user to interact with a virtual voice assistant (with Text To Speech algorithms) asking different requests.

The speakers are also customizable by developers who can program a certain behavior through voice key-words (exposed by the user).

This behavior can be for example a real time action inside a video game.
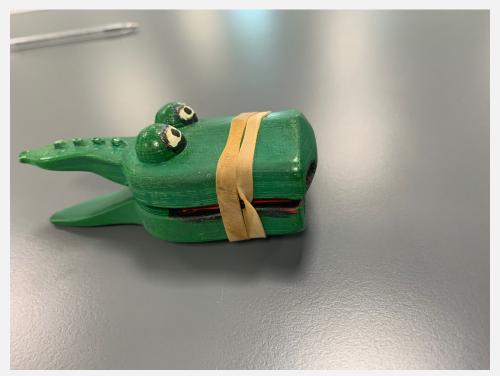
SMART CROCODILES

The smart crocodiles have been developed and 3D printed in our laboratory to support hand rehabilitation exercises for children.

They embed a button, that is pressed each time the crocodile mouth closes, and therefore they have been exploited as a controller with exergames specifically developed.

ONE EXERCISE

1. DEVELOP A CROCODILE GAME

- You will have max 45 minutes to develop a simple exergame

- You can choose task 1 or task 2

- You can find some useful assets here:
  - kenney.nl
  - Unity asset store