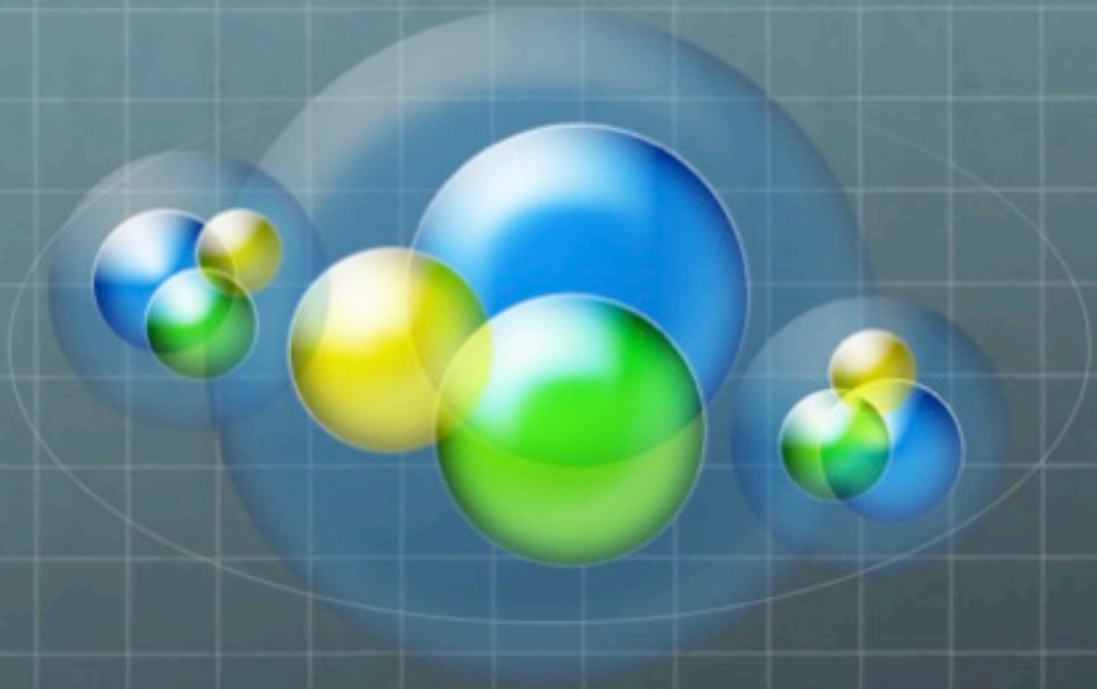


MOCK-UPS

Karim MOULAY
Student Master's Degree I2A
18 January 2016

UNIVERSITÉ DE BOURGOGNE

Synopsis

I. Presentation

II. Why/For Whom

III. Construction Solution

IV. Computer Software

Presentation

Mock-UPS

- Virtual mock-Ups
- Easy to share
- Easier to understand
- Similar to a video game

Inside/Outside

- View and visit a model of the interior and exterior
- Better understand the result
- 3D printing
- Simulator

Why/For Whom

Plan

Architect say:
"This is your future bulding"

You say:
"Well that's exactly what I wanted"

You think:
"I do not understand this plan"

The architect built this

You want This

Concern

- Real estate agency
- Property developer
- Monument
- Individual who wants to model his house

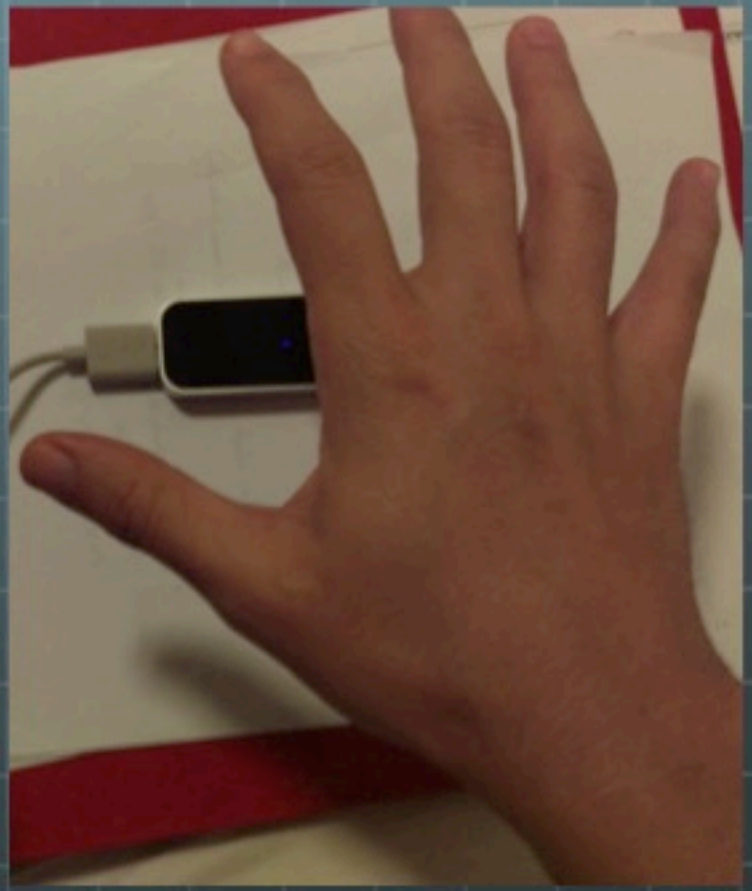
Construction Solution

Regular shapes

Easy for a programmer to write a script

Irregular shapes

LeapMotion: Scan a hand



Irregular shapes

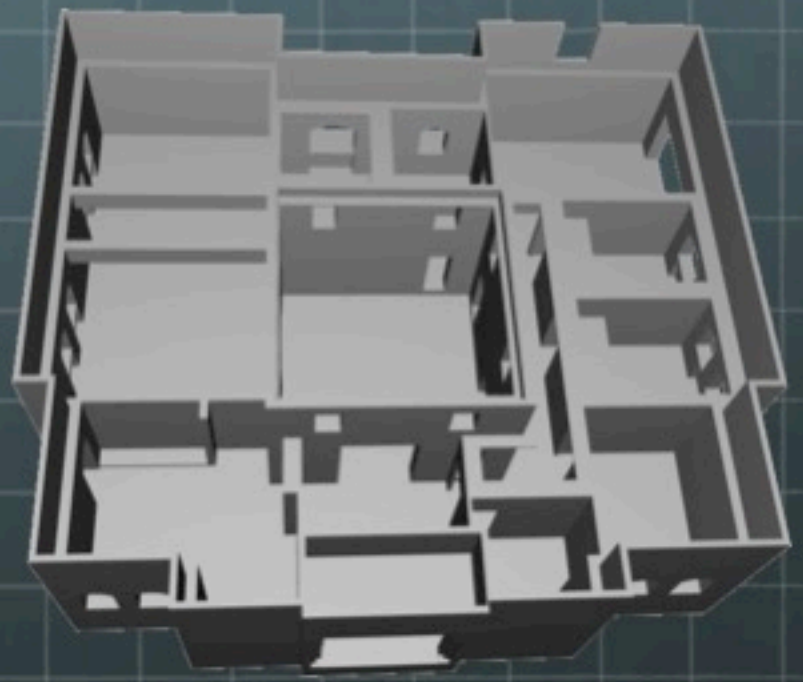
Sense 3D: Scan an object or a person

Noname

Bigbrother is here

House

Example of perspective moch-up



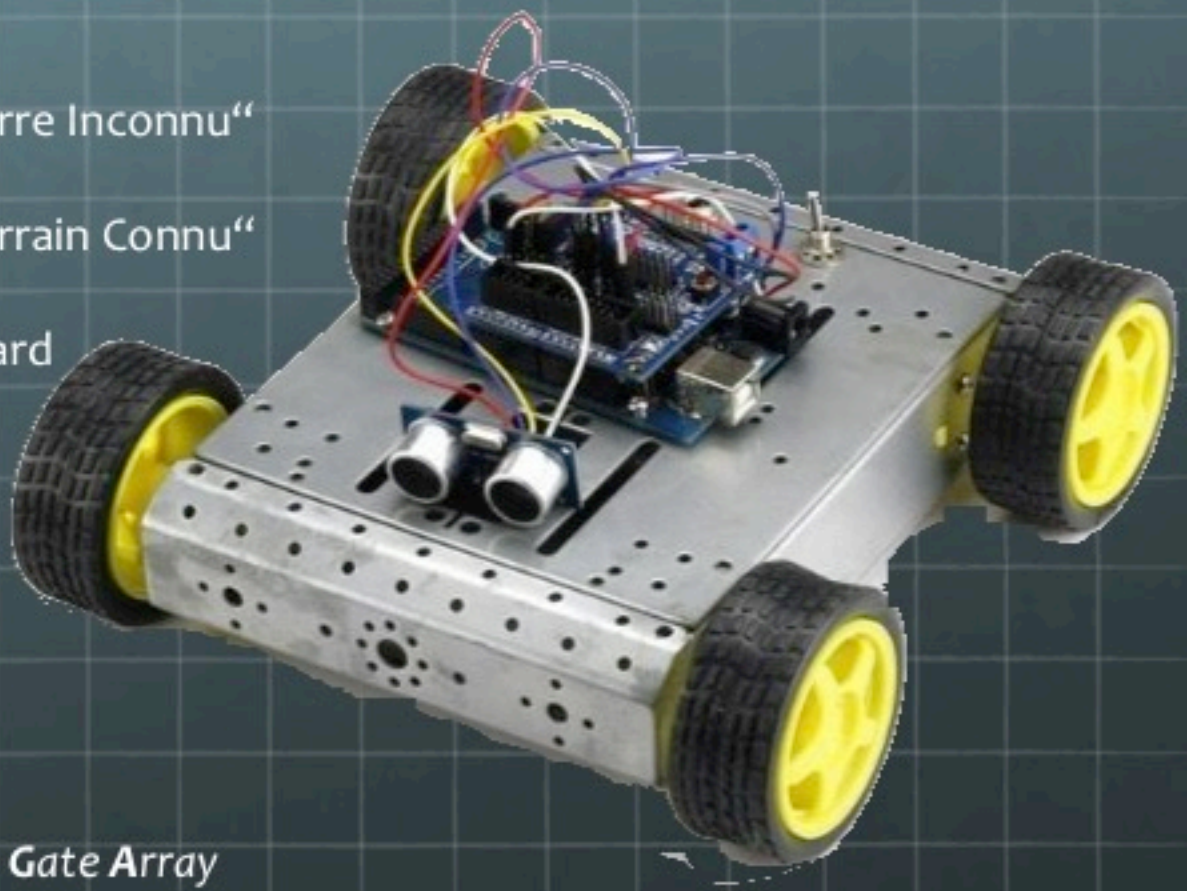
Robot

Name of the robot: GeekEnstein

Project ETIC: "Exploration en Terre Inconnu" Terrain Connu"

Fitted with a microcontroller board FPGA *

A microcontroller board is much more precise than a computer



(*) ***FPGA***= ***F****ield-****P****rogrammable* ***G****ate* ***A****rray*

Path

Inspire a way out of a maze

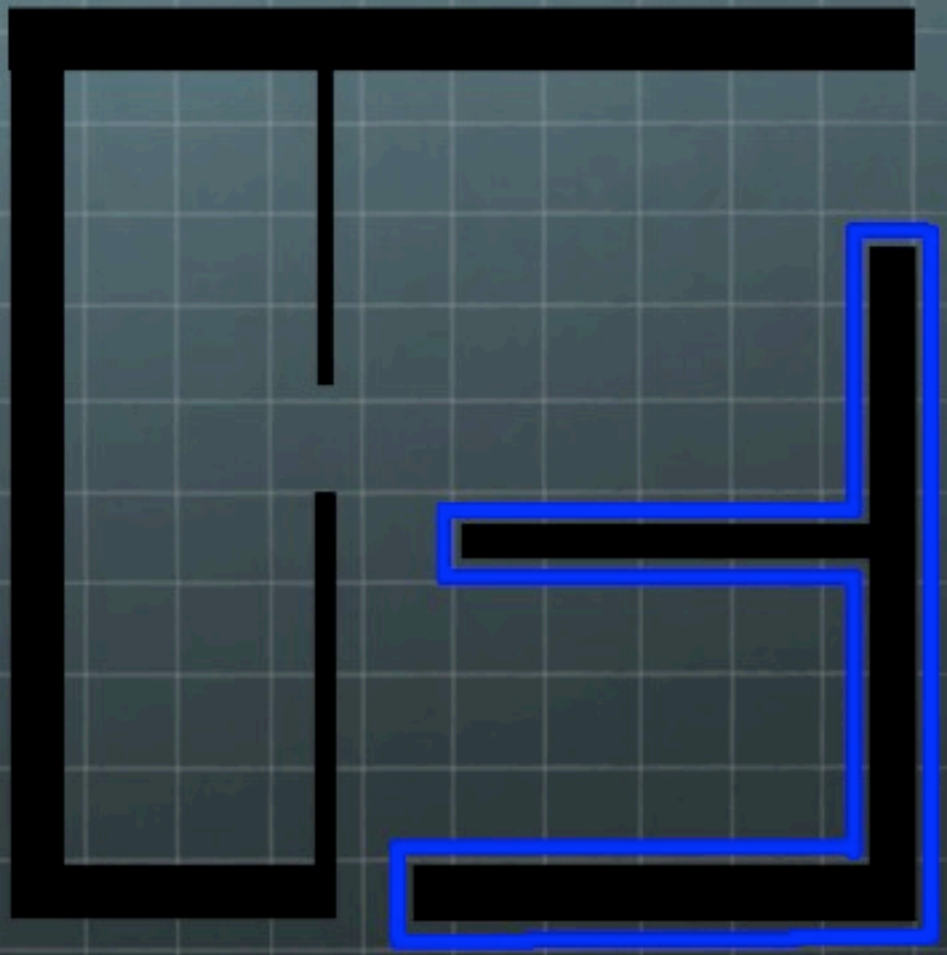
The robot know where is it
by Odometry *

Save the change of direction or topology

Generate file .STL** or .PLY**
according to the selection

*(*) "**Odometry** is the use of data from motion sensors to estimate change in position over time" From Wikipedia*

*(**) STL and PLY is a file format for a CAD (**C**omputer-**A**ided **D**esign)*



Computer Software

Gaming Engine

Simulator
Virtual reality
Augmented reality
…

UNREAL ENGINE

three.js WebGL

unity

Gaming Engine

Unreal Engine for dedicated machines

Unity 3D solution:

Target platform

Multiple programming languages

UNREAL ENGINE

VS

unity

Thanks for your Attention

Thanks to **translate.google.com** (only if the translations are correct)

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18 January 2016

Are you have a question?

END