Ingénierie simultanée 2016

Christophe Salzmann
Laboratoire d’automatique
Babyfoot strategy

• The hardware and vision parts are completed
• Design and test strategies to beat the babyfoot human opponent

Nbr etudiants: 2 x 2
Responsables: -
Christophe Salzmann
Baby hovercraft

- Design and control a baby hovercraft, 3D printed
- Floats on the existing air hockey table
- The propulsion and control is based on crazyflight

Nbr étudiants: 4 x 2
Responsables: -
    Christophe Salzmann
New IGM building "control"

- Use the new IGM building as a battery
- Model (3d + thermal), simulate and analyze the building
- Compare the results with the information provided by the installed sensors

Nbr etudiants: 2-4
Responsables: -
  Christophe Salzmann
New IGM building blinds measurements

- The new IGM building has moving blinds ...
- ... but no sensors to measure the blinds position!!
- Design a mechanism (image analysis) to measure the position of each blind

Nbr etudiants: 2-4
Responsables: -
  Christophe Salzmann
Miles’ pendulum

- Design and build a controlled Miles Pendulum (2 DOF)
- Analyze the oscillations via a webcam
- Remote access

Nbr étudiants: 2 x 2
Responsables: Christophe Salzmann + François Gallaire
Safe quadcopter

• Design a tethering (?) mechanism/support to make safe flights with quadcopter

• Should be able to put the quadcopter back in a known position

Nbr etudiants: 2 x 2
Responsables: -
           Christophe Salzmann
Segway control

- The goal of this project is to replace the existing controller with a myRIO
- The programming is done in LabVIEW

Nbr étudiants: 2
Responsables: -

Christophe Salzmann