

# Robin Beilvert

Objective: 6-month internship position in the field of Electronics Engineering

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Available from 1st March 2016

## Education

- Sept.2015– Feb.2016 **Exchange program, HUST**, Wuhan, China, Computer Science.  
Main classes : Object-Oriented Programming, Artificial Intelligence, Multimedia, Digital Communication, Chinese.
- 2013–2016 **Engineering school, INP ENSEEIHT**, Toulouse, France, Electronics and Signal Processing.  
Graduation expected in 2016. Main classes : mathematics and signal processing, analog and digital electronics (Transistor circuits, VHDL, FPGA, ...), electromagnetism, programming (C/C++).
- 2011–2013 **Two-year intensive highly-selective course to prepare for competitive entrance examinations to National Engineering Schools, Lycée Clemenceau**, Nantes, France.  
Courses included : Mathematics, Physics, Engineering Sciences

## Experience

- June - August 2015 **Internship, LAAS-CNRS**, Toulouse, France.  
Design and implementation of a Matlab/Simulink framework to increase the frequency performances of Unmanned Aerial Vehicule control. Adaptation of C-written CANopen framework using IXXAT USB-to-CAN converter drivers to communicate with EPOS2 Maxon motor control modules. Implementation of Matlab S-Functions using this CANopen framework and serial communication to respectively control the quadrator arms tilting angle and communicate with the flight board.  
**Personal project**, Toulouse, France.  
Design of an interactive RGB LED strip control system. Controlled by sounds and music through smartphone embedded Fourier Transform. Bluetooth transmission to PIC microcontroller through HC-05 module.
- 2014-2015 **Project, Robotics club 7Robot, ENSEEIHT**, Toulouse, France.  
• French Robotics Cup : Design of autonomous robots physically interacting with various items. Development of electronic cards featuring SMPS, H-bridge motor control, and analog and digital actuators and sensors management through a PIC microcontroller also performing two correlated DC motor control loops. Raspberry Pi embedded software and AI development under Archlinux. Achievement : **Quarter-finalists**, ahead of 180 teams.  
• Freescale Cup : Conception of a line following model race car : sensors, signal processing, control loops.  
• Entertainment : Design and building of an interactive 3D LED cube. Features 9 synchronized microcontrollers driving its 512 bi-color LEDs on 8 multiplexed floors. Usable with homemade Python games sending instructions via UART.
- August 2014 **Internship, Cofely Services - GDF Suez**, Nantes, France.  
Climatic installation and maintenance mostly on the sites of Ifremer, Oniris and Banque Populaire.
- July 2014 **Project, Eva Albarran**, Toulouse, France.  
Study and reproduction of thermoelectric sap flow measurement Granier probes, implementation of an Arduino datalogging module with low-noise amplifiers for their test. Collaborating with a CNRS Research Director, for the 2015 Venice Biennale.
- 2013–2014 **Project, 7Robot, ENSEEIHT**, Toulouse, France.  
• French Robotics Cup : 77<sup>e</sup>/160. • Freescale Cup : 2<sup>nd</sup> national position. Qualification for European sessions.

## Technical skills

OS	GNU/Linux, Microsoft Windows	Software	MPLAB X, Matlab/Simulink, Eclipse, Android Studio, git, Vim, Orcad, ADS, Eagle
Programming languages	C/C++, Python, L <sup>A</sup> T <sub>E</sub> X, Assembly, VHDL	Electronics	Analog and digital electronics, PIC/Arduino implementation

## Languages

- English **Fluent**. TOEIC score : 905. European level B2. Training in presentations, meetings, report writing.
- Spanish B1 Good working knowledge
- Chinese A1 Basic. 160 hours of Chinese lessons included in HUST semester and two weeks student residence spent in May 2014 (Pékin, Xi'an, Xiangyang, Shanghai).
- French Native speaker

## Interests/Hobbies

- Associative **President 2014-2015 of ENSEEIHT Robotics Club 7Robot**. Team, projects, sponsors and contact management, training for beginner students.  
**Vice-president 2013-2014 of the club CarnavalINP**. Building a float for the carnival of Toulouse, contact management, team management, handcraft.
- Music Guitar (autodidact) and violin (autodidact beginner)
- Sport Climbing. Dance in pairs : Rock, Swing (Lindy Hop), 14 years of Alpine skiing