



# Alexis Billier

## Mechatronics Engineer



11 May 1993, French



Via San Sebastiano 16/4A scB  
16123 Genova  
Italy



+39 366 453 7378



alexis.billier@gmail.com

## Skills

### Languages

French : Native  
English : Fluency (TOEIC 880)  
Italian : Advanced  
German : Basic

### Informatic Languages

C/C++, Java, Python, SQL...

### CAO Softwares

Catia V6, Creo, Pro-ENGINEER,  
Autodesk Inventor, Adams...

### Other Softwares

Matlab, Latex, Maple, MS Office...

## Hobbies

### Associations

Perrok (University's Newspaper)  
3S Supmeca (University's school  
tutoring)

### Sports

Rugby, Hiking, Sailing...

### Musics

Clarinet (7 years)

## Education

2012-2015 **M.Eng. Mechatronics Engineering** Supmeca Paris  
3-year programme leading to a Master's Degree in Mechanical Engineering.  
Projects :  
— Study of prehension of the NAO robot (100 hours)  
— Simulation of the behavior of an electrical vehicle (300 hours)  
Course attended : Mechanical design, Element Finite Method, Electronics and Microcontrollers systems, Element Finite Simulation, Control systems engineering...

2014-2015 **Erasmus** J.K.U, Linz, Austria  
5 Months exchange program ; Course attended : Control of Robot Systems, Higher Kinetics - Multibody Systems, Rotordynamics...

2010-2012 **CPGE (Maths - Physics)** Lycee Henri Bergson  
2-year preparatory intensive program to prepare for the entrance to leading French Graduate Engineering Schools.

2010 **Scientific Baccalauréat** Lycee Ernest Perochon  
A-level equivalent specialized in Mathematics, awarded with honors.

## Publications/School

2017 **VV17 International Winter School on Humanoid Robot Programming**

2018 **Organisation of The International PhD Conference on Safe and Social Robotics(SSR-2018)**

## Experience

since 2018 **11 months secondment** Istituto Italiano di Technologia  
Realization of a new hand for the robot ICub using a combination of push-pull cable and bar link system.

Since 2016 **Early Stage Researcher** Danieli Telerobotlabs  
Marie Sklodowska-Curie project SECURE ; Creation of guideline and development of a system that will allow robots to utilize social cues that significantly improve safe human-robot interaction in the home environments.

Projects :

- Realisation of a full robotic hand using a new push-pull cable technology.
- Realisation of a 3D printed exoskeleton for the rehabilitation of a disabled hand.

2015 **Engineer internship** UEC, Chofu, Japan  
6 Months Internship ; Behavioral Simulation using Matlab Simulink and Adams. Working on the Neco robot, to increase the jumping height of a biomimetic cat robot.

## References

SSR 2018 <http://www.socrates-project.eu/sesoro-2018/>

SECURE <https://secure-robots.eu/>

Linkedin <https://www.linkedin.com/in/alexis-billier>

Other references available on request