



European Research Council
Established by the European Commission

Robots with animal-like resilience

Fact Sheet

Project Information

ResiBots

Grant agreement ID: 637972

[Project website](#)

DOI

[10.3030/637972](https://doi.org/10.3030/637972)

Project closed

EC signature date

24 April 2015

Start date

1 May 2015

End date

31 October 2020

Funded under

EXCELLENT SCIENCE - European Research Council (ERC)

Total cost

€ 1 499 501,00

EU contribution

€ 1 499 501,00

Coordinated by

INSTITUT NATIONAL DE
RECHERCHE EN
INFORMATIQUE ET
AUTOMATIQUE

 France

This project is featured in...



11 May 2020



30 November 2021



Project description

Designing robots as resilient as animals

Robots are the future, but despite decades of research, they still have a major flaw: they are fragile machines that can easily break down in difficult conditions. But there is a way to create low-cost robots that could autonomously (and immediately) recover from unforeseen damages. The European Research Council-funded project ResiBots will revolutionise our approach to fault tolerance and produce robots as resilient and adaptive as animals. Specifically, the project will use trial-and-error learning algorithms that allow robots to quickly discover compensatory behaviours without requiring expensive sensors or predefined contingency plans. The overall aim is to substantially increase the robots' lifespan without increasing their cost. The project will pave the way for new research avenues for adaptive machines.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [electrical engineering](#), [electronic engineering](#), [information engineering](#) > [electronic engineering](#) > [sensors](#) > [optical sensors](#)

[natural sciences](#) > [computer and information sciences](#) > [artificial intelligence](#) > [machine learning](#) > [reinforcement learning](#)

[engineering and technology](#) > [electrical engineering, electronic engineering, information engineering](#) > [electronic engineering](#) > [robotics](#) > **[autonomous robots](#)**

[natural sciences](#) > [earth and related environmental sciences](#) > [physical geography](#) > **[natural disasters](#)**



Programme(s)

[H2020-EU.1.1. - EXCELLENT SCIENCE - European Research Council \(ERC\)](#)

MAIN PROGRAMME

Topic(s)

[ERC-StG-2014 - ERC Starting Grant](#)

Call for proposal

[ERC-2014-STG](#)

[See other projects for this call](#)

Funding Scheme

[ERC-STG - Starting Grant](#)

Host institution



INSTITUT NATIONAL DE RECHERCHE EN INFORMATIQUE ET AUTOMATIQUE

Net EU contribution

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Total cost

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Address

DOMAINE DE VOLUCEAU ROCQUENCOURT

78153 Le Chesnay Cedex

France

Activity type

Research Organisations

Links

[Contact the organisation](#)  [Website](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Beneficiaries (1)



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