

# **TOP 5** **PYTHON LIBRARIES**



# **FOR ROBOTICS**

**SWIPE ➤**

# Robot Framework

Robot Framework is a generic open-source automation framework for acceptance testing, acceptance test-driven development (ATDD), and robotic process automation (RPA).

The screenshot shows the Robot Framework website. The header is teal with the 'ROBOT FRAMEWORK UA' logo in white. A dark navigation bar contains links: GETTING STARTED, RESOURCES, COMMUNITY, DEVELOPMENT, and DOCS. The main content area has a dark background. On the left, the word 'INTRODUCTION' is partially visible. The text describes Robot Framework as a generic open source automation framework used for test automation and robotic process automation (RPA). It mentions support from the Robot Framework Foundation and that the framework is open, extensible, and free to use. On the right, there is a 'Tweets from @robotframework' section showing a tweet from Nov 25 about a monthly #OpenSpace event and a new #FastAPI based way for webservice launches.

**ROBOT  
FRAME  
WORK<sup>UA</sup>**

GETTING STARTED | RESOURCES | COMMUNITY | DEVELOPMENT | DOCS ▾


**INTRODUCTION**

Robot Framework is a generic open source automation framework. It can be used for [test automation](#) and [robotic process automation \(RPA\)](#).

Robot Framework is supported by [Robot Framework Foundation](#). Many industry-leading companies use the tool in their software development.

Robot Framework is open and extensible. Robot Framework can be integrated with virtually any other tool to create powerful and flexible automation solutions. Robot Framework is free to use

**Tweets from @robotframework**

 **Robot Framework**  
@robotframew... · Nov 25

Today the monthly #OpenSpace.

Join as Markus Stahl presents a new #FastAPI based way for webservice launches of #RobotFramework test ca

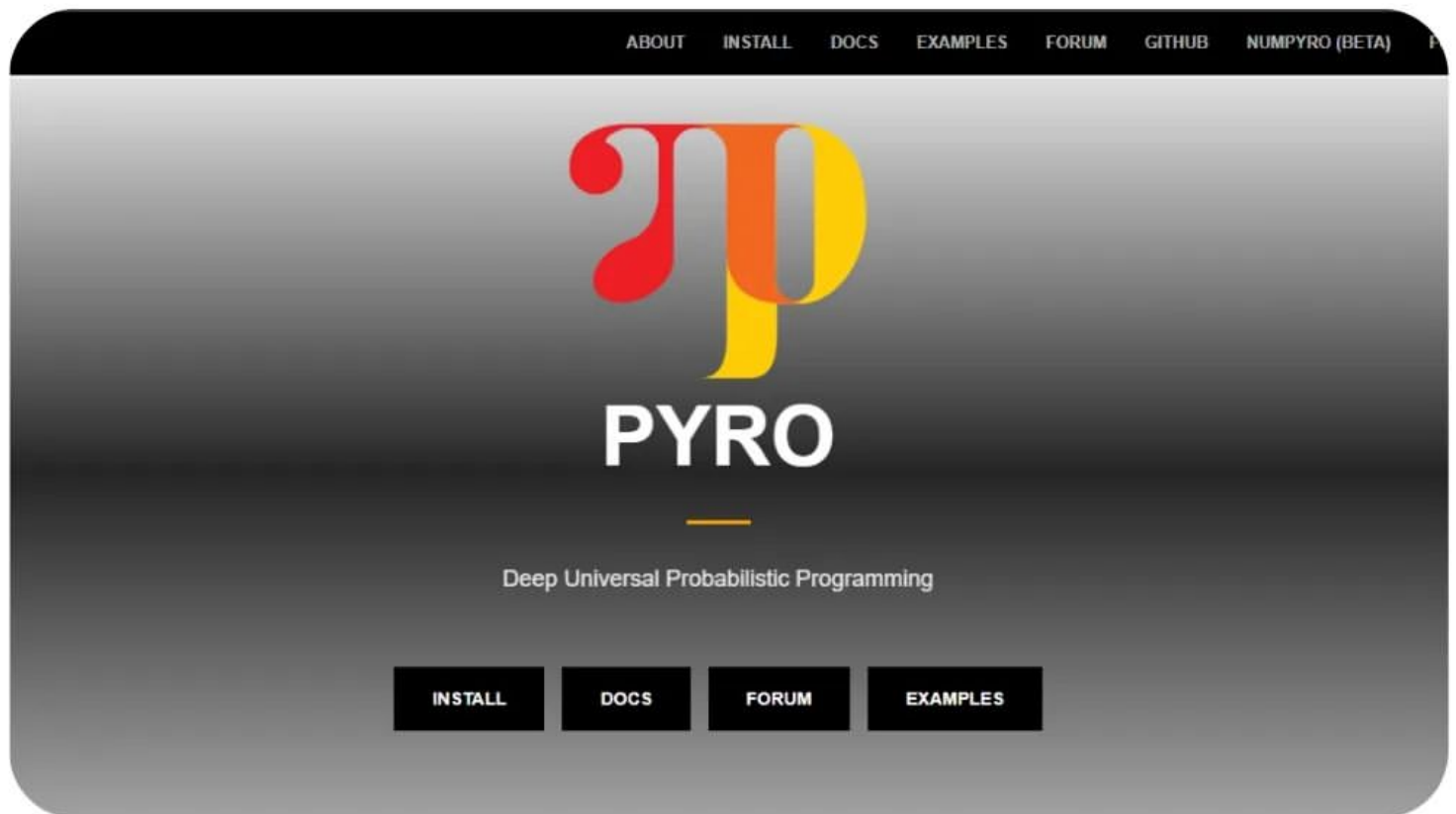
Feedback and discussion after!

<https://robotframework.org>

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# Pyro

Python Remote Objects - or Pyro - is a library that enables you to build applications in which objects can talk to each other over the network, with minimal programming effort



<https://pyro.ai>

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# DART

Dynamic Animation and Robotics Toolkit - or DART - is a collaborative, cross-platform, open-source library that provides data structures and algorithms for kinematic and dynamic applications in robotics and computer animation

**DART**

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**DART**  
Dynamic Animation and Robotics Toolkit

## Introduction

DART (Dynamic Animation and Robotics Toolkit) is a collaborative, cross-platform, open source library created by the [Graphics Lab](#) and [Humanoid Robotics Lab](#) at [Georgia Institute of Technology](#) with ongoing contributions from the [Personal Robotics Lab](#) at [University of Washington](#) and [Open Source Robotics Foundation](#). The library provides data structures and algorithms for kinematic and dynamic applications in robotics and computer animation. DART is distinguished by its accuracy and stability due to its use of generalized coordinates to represent articulated rigid body systems and Featherstone's Articulated Body Algorithm to compute the dynamics of motion. For developers, in contrast to many popular physics engines which view the simulator as a black box, DART gives full access to internal kinematic and dynamic quantities, such as the mass matrix, Coriolis and centrifugal forces, transformation matrices and their derivatives. DART also provides an efficient computation of Jacobian matrices for arbitrary body points and coordinate frames. The frame semantics of DART allows users to define arbitrary reference frames (both inertial and non-inertial) and use those frames to specify or request data. For air-tight code safety, forward kinematics and dynamics values are updated automatically through lazy evaluation, making DART suitable for real-time controllers. In addition, DART provides flexibility to extend the API for embedding user-provided classes into DART data structures. Contacts and collisions are handled using an implicit time-stepping, velocity-based LCP (linear complementarity problem) to guarantee non-penetration, directional friction, and approximated Coulomb friction cone conditions. DART has applications in robotics and computer animation because it features a multibody dynamic simulator and various kinematic tools for control and motion planning.

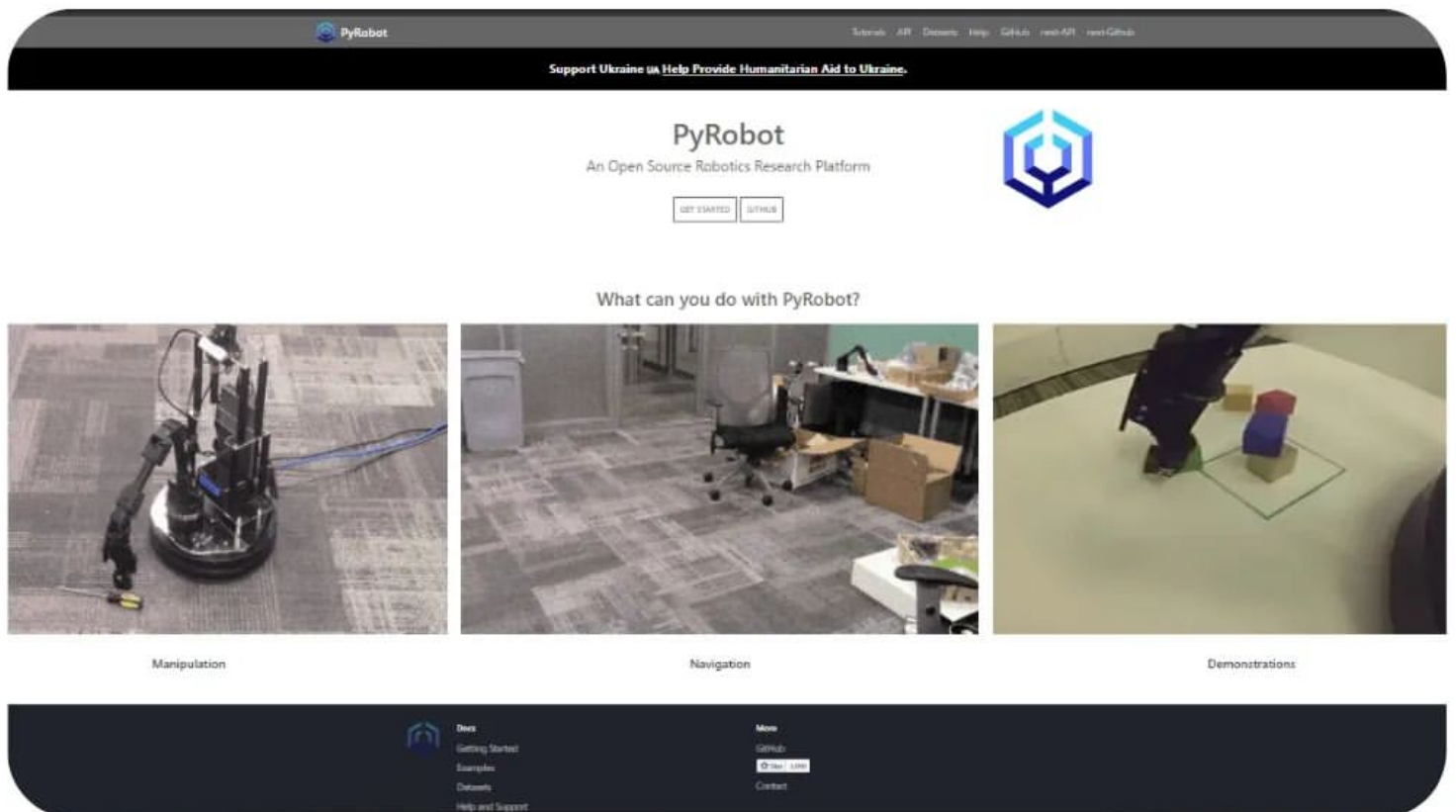
<https://dartsim.github.io>

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# PyRobot

PyRobot is a Python library for benchmarking and running experiments in robot learning. It is a combination of two popular Python libraries, i.e. Requests and BeautifulSoup

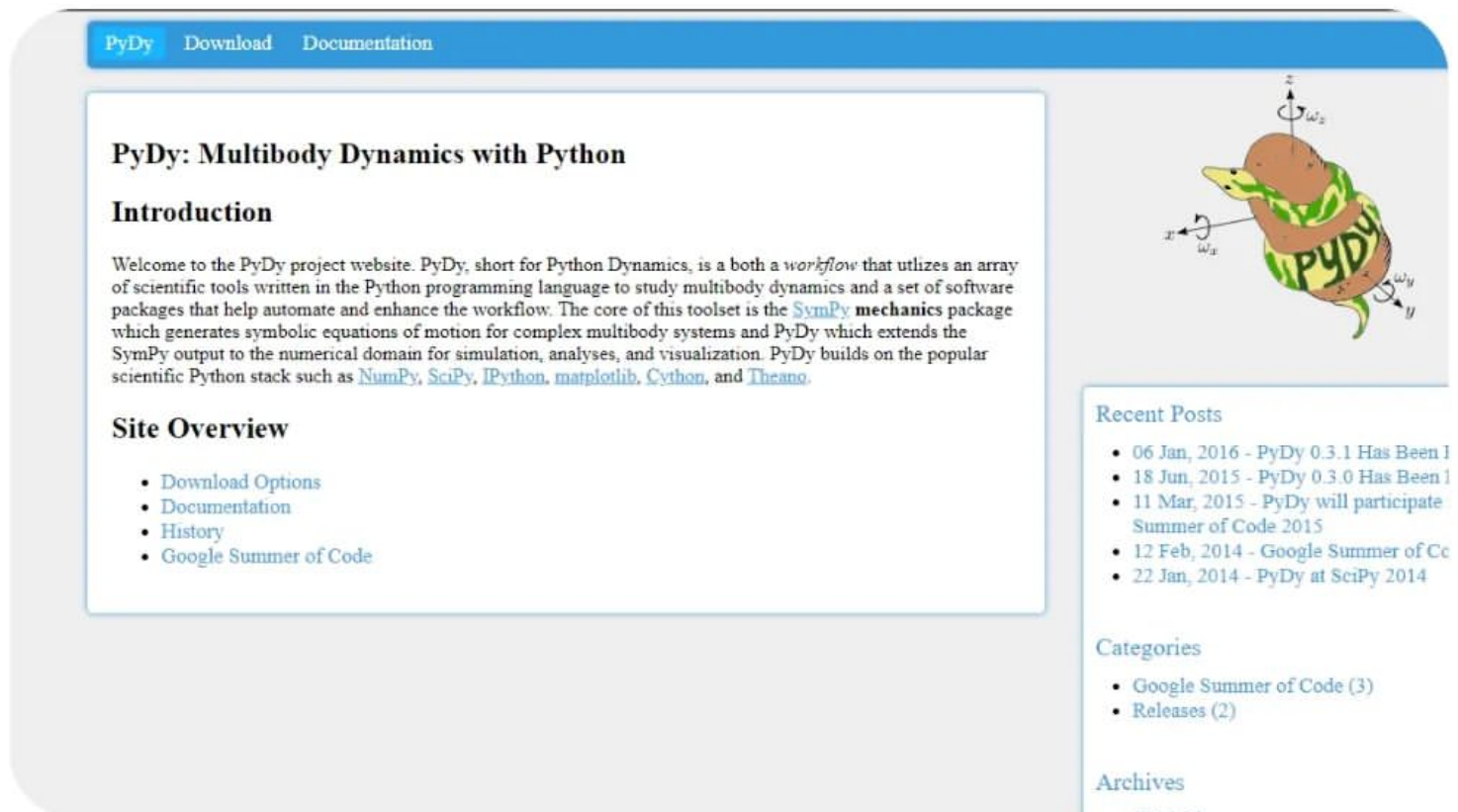


<https://pyrobot.org>

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# PyDy

Python Dynamics or PyDy is a tool kit written in the Python programming language that utilises an array of scientific programs to enable the study of multibody dynamics



<https://www.pydy.org>