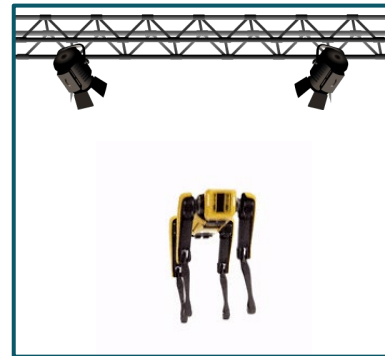




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# In the Spot-Light: Controlling Spot with ROS 2

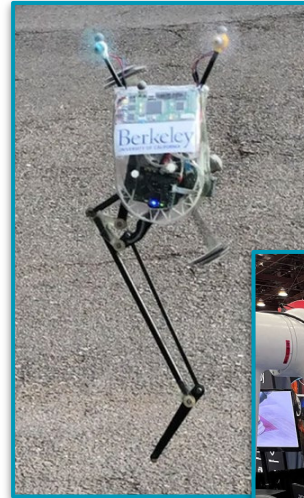
**Tiffany Cappellari**  
Robotist/Software Engineer



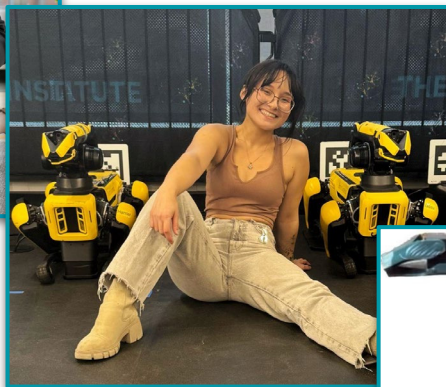
# My Background

- University of California, Berkeley
  - Biomimetic Millisystems Lab
  - Shankar Sastry Lab
- Southwest Research Institute
  - ROS-Industrial Consortium
  - Industrial automation and manipulators

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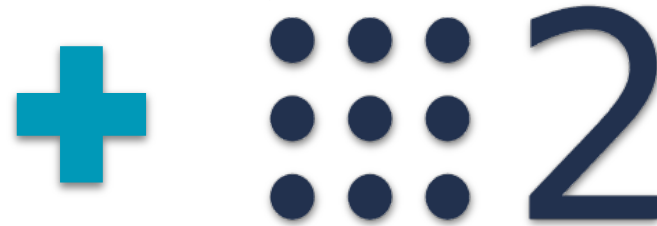
# The AI Institute



- Established 2022
- Core areas of research:
  - Cognitive intelligence
  - Athletic intelligence
  - Organic design
  - Ethics
- 250+ employees across Cambridge and Zurich offices

# Spot and ROS 2

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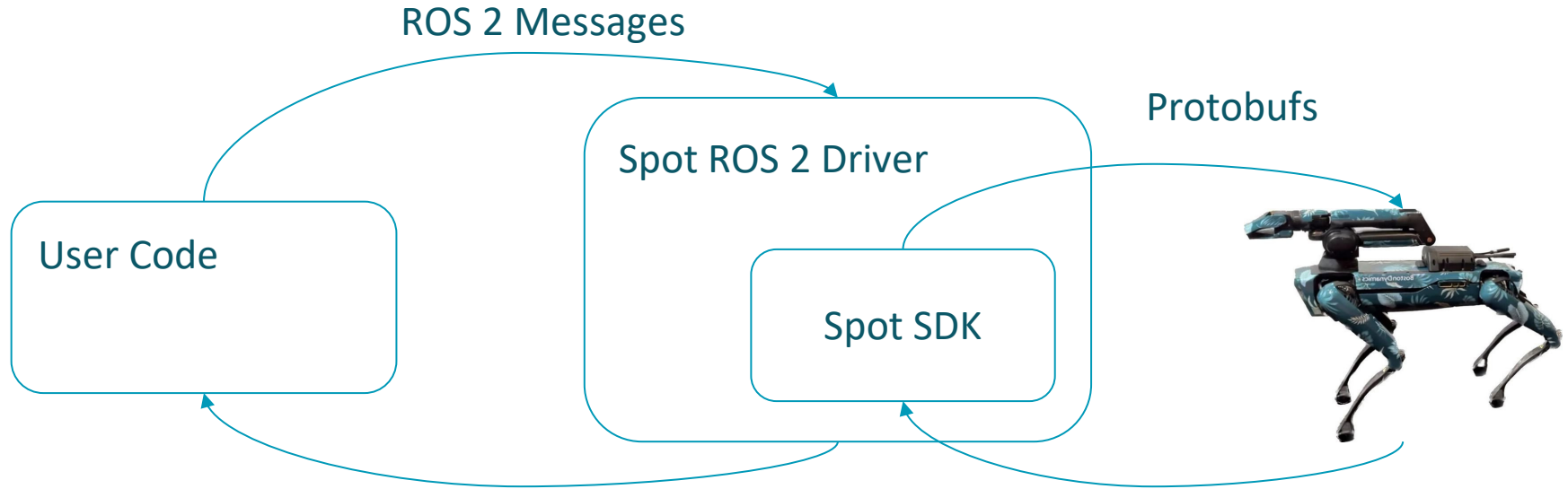


Why?

Spot natively uses gRPC and protobufs

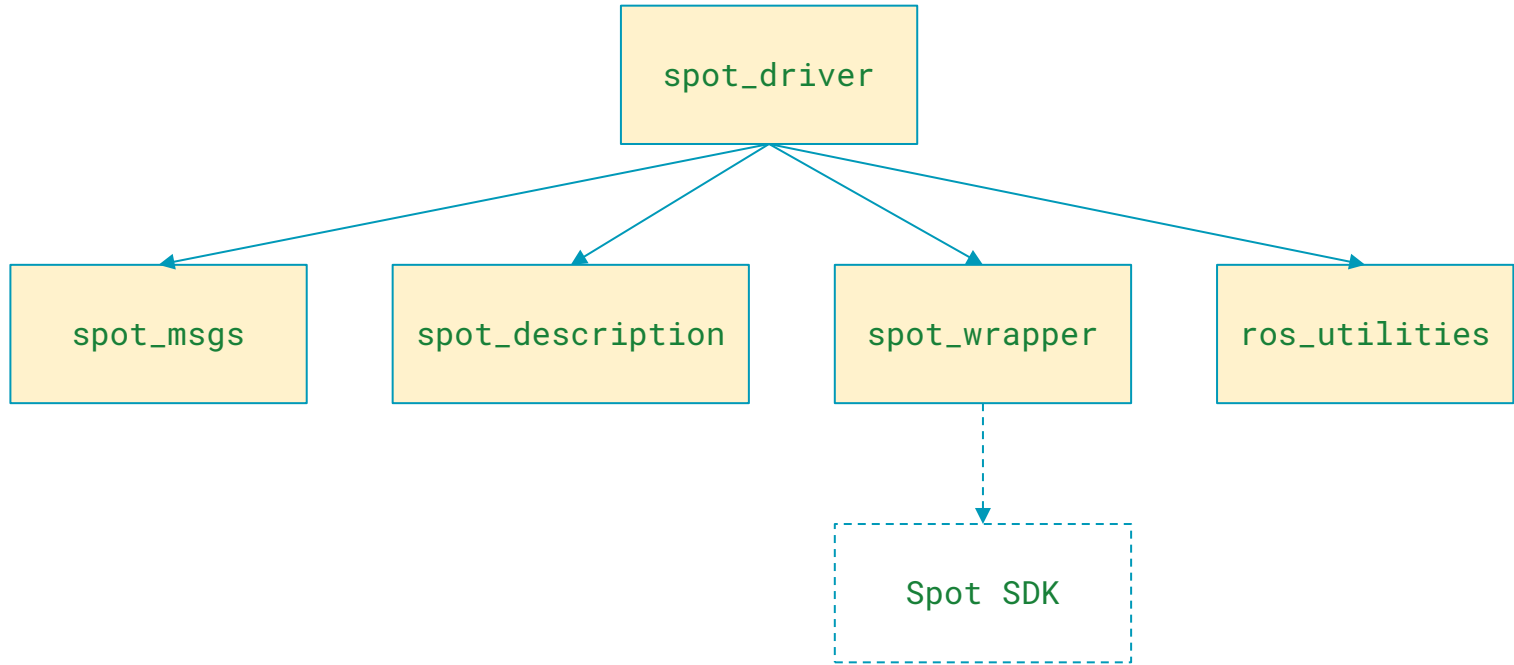
# Architecture

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# The Packages



# ROS Utilities

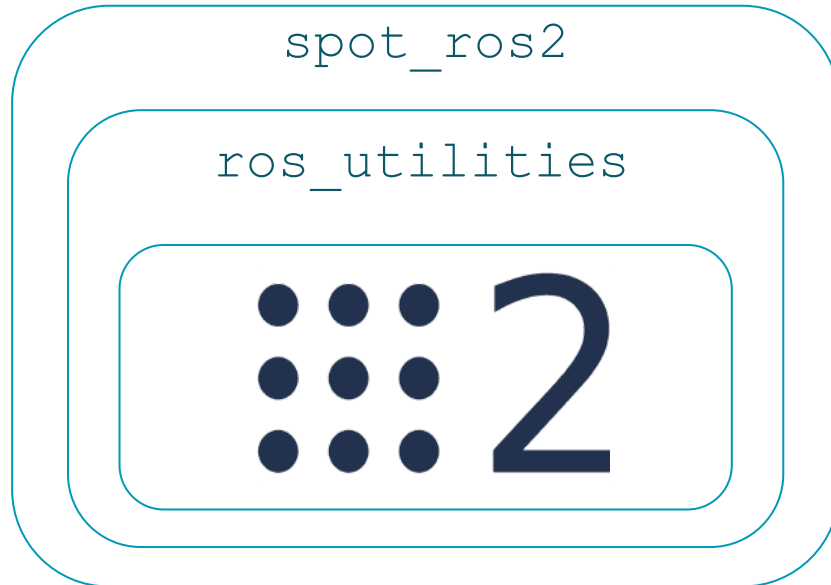
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`ros_utilities`



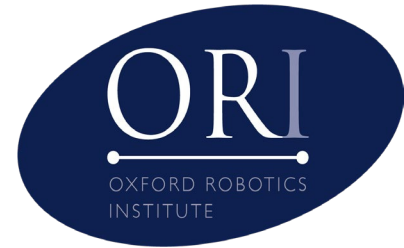
[ros\\_utilities github](#)

# Spot Wrapper

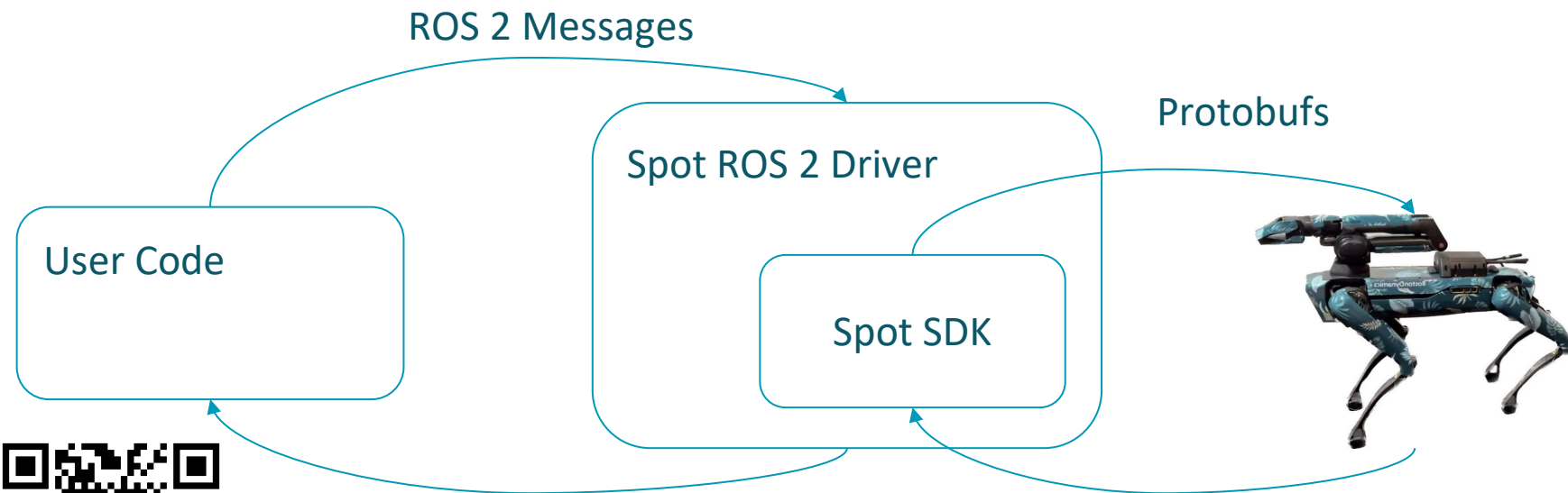


[spot\\_ros2 github](#)

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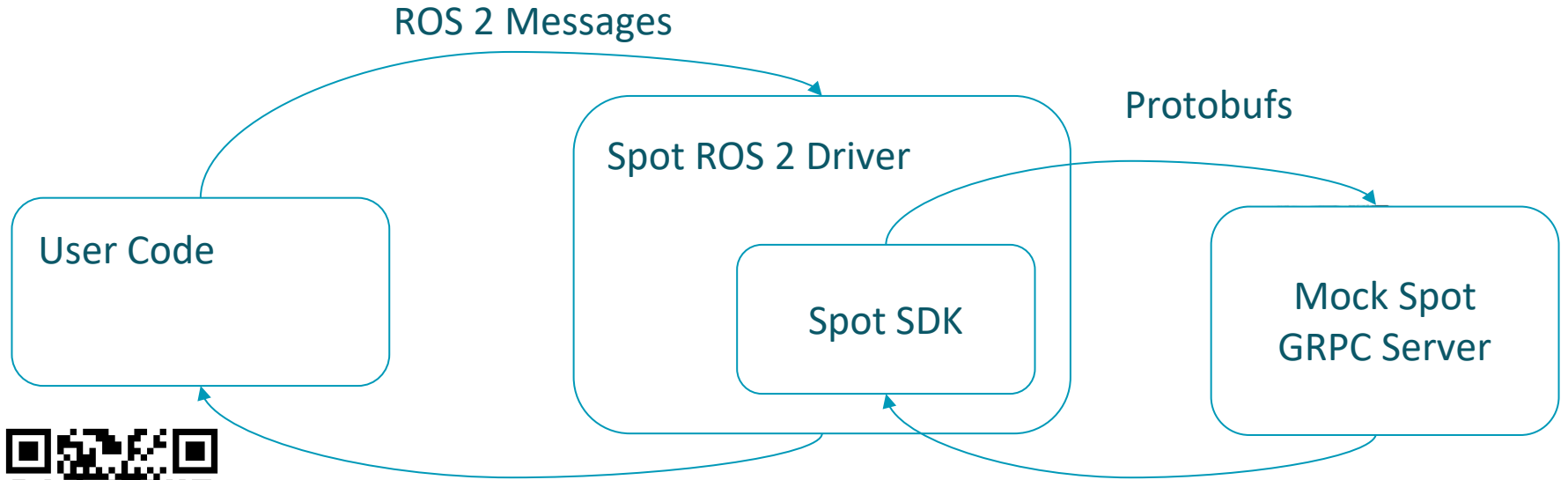






[spot\\_ros2 github](#)

# Mock Spot



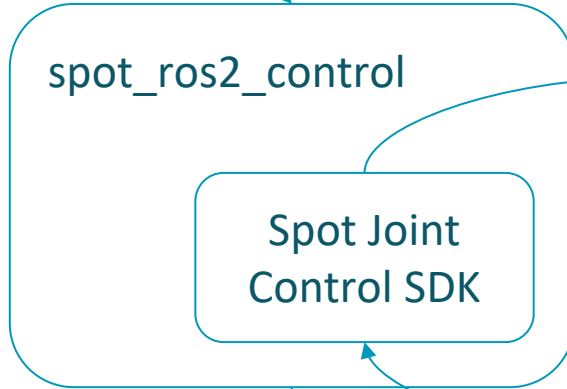
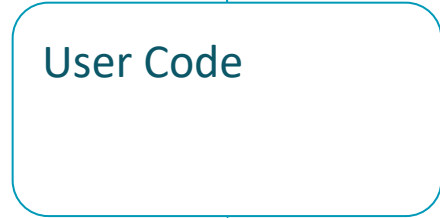
[spot\\_ros2 github](#)

# Spot\_ROS2\_Control for Joint Control

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ROS 2 Messages



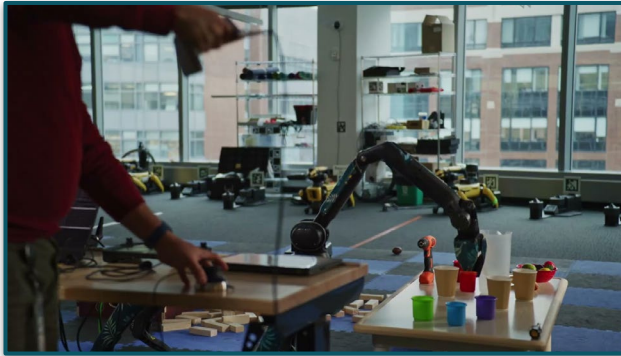
Protobufs



[spot\\_ros2 github](#)

# What Can Spot Do?

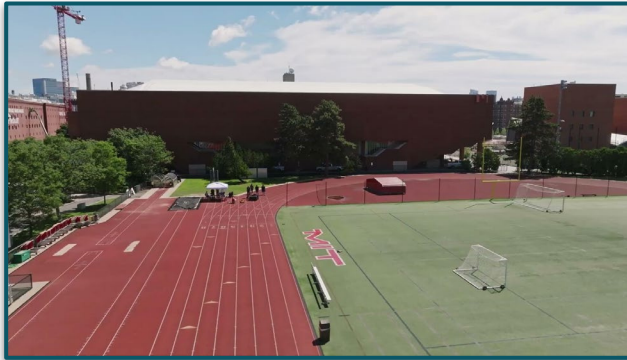
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Teleop with spot



Spot learning to balance



Spot learning to run



Spots dancing the tango



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Thank you!

tcappellari@theaiinstitute.com  
theaiinstitute.com



We're  
hiring!



[github.com/bdaiinstitute/spot\\_ros2](https://github.com/bdaiinstitute/spot_ros2)



[github.com/bdaiinstitute/spot\\_wrappier](https://github.com/bdaiinstitute/spot_wrappier)



[github.com/bdaiinstitute/ros\\_utilities](https://github.com/bdaiinstitute/ros_utilities)