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WEBINAR

HOW TO TEACH YOUR INTERNS IN ROS... FAST!

Ricardo Téllez | CEO of The Construct

NOVEMBER 30TH, 2017

WWW.THECONSTRUCTSIM.COM

SPEAKER

Ricardo Téllez, PhD
CEO of The Construct

"Developing the tool that will make robots understand their world"

linkedin.com/in/ricardotellez

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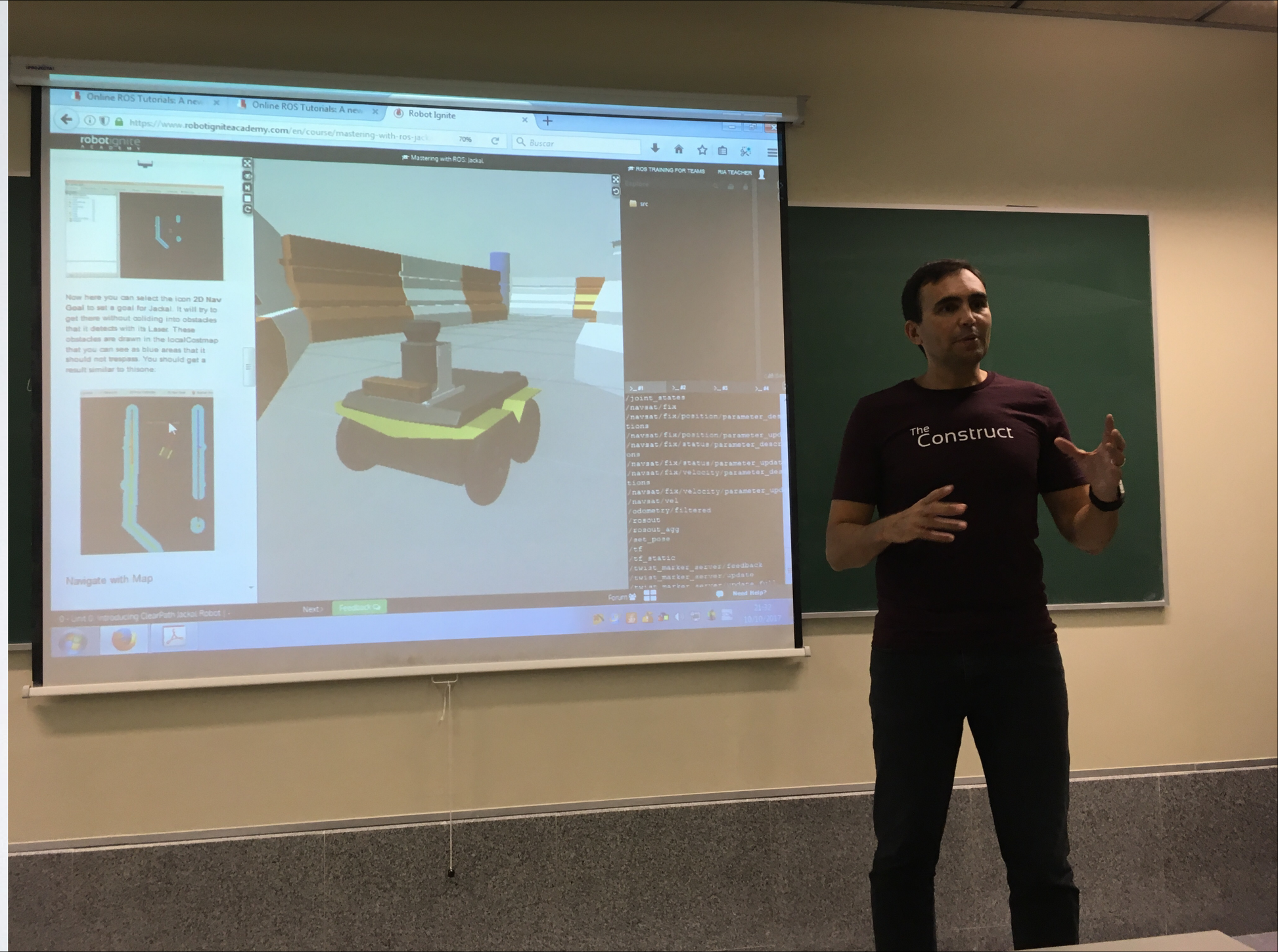

BONUS

STAY WITH ME UNTIL THE END!

Instructions for getting:

SLIDES
+
WHITE PAPER

at the end of the webinar

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INDEX

- Typical training and setup
- The interns situation
- How to learn fast
- Demo + Questions

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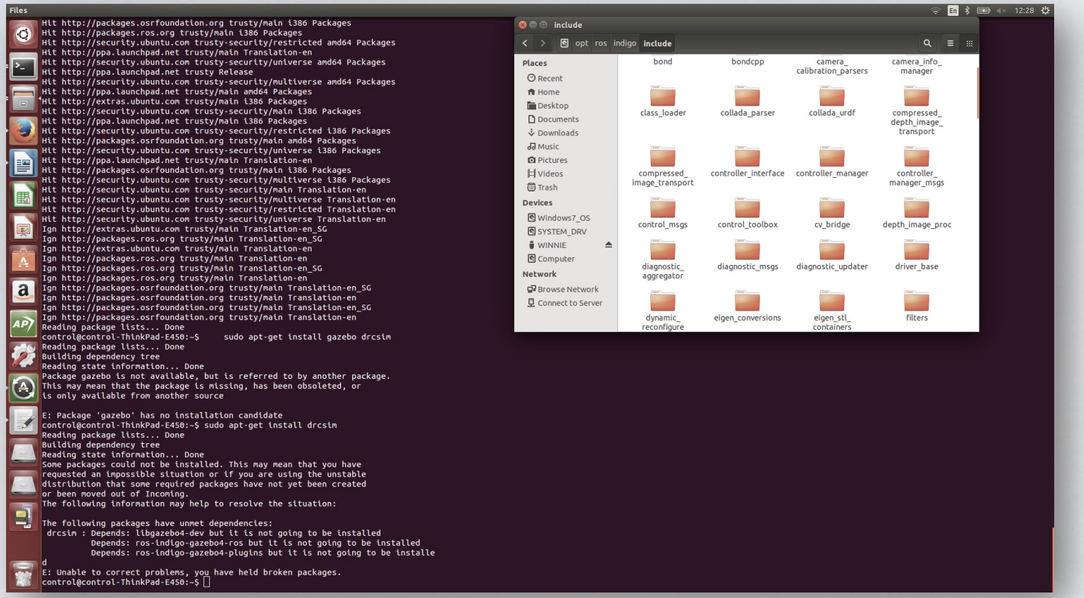
LEARN ROS
TIPICAL TRAINING

TYPICAL TRAINING



- Install ROS + Gazebo
- Go to wiki tutorials

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TYPICAL TRAINING

- It works
- It is completely inefficient

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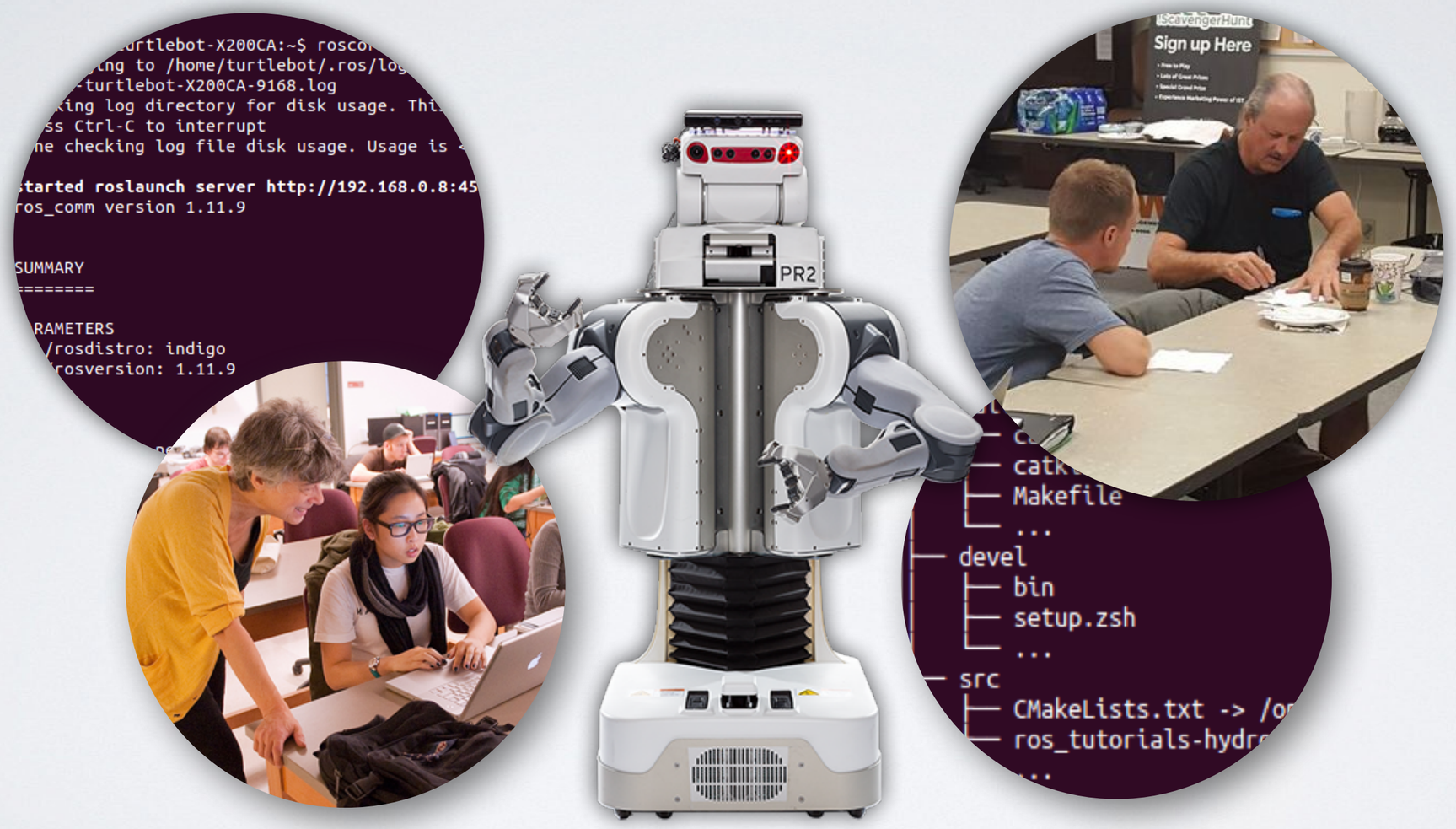
LEARN ROS

TIPICAL LAB SETUP

TYPICAL LAB SETUP



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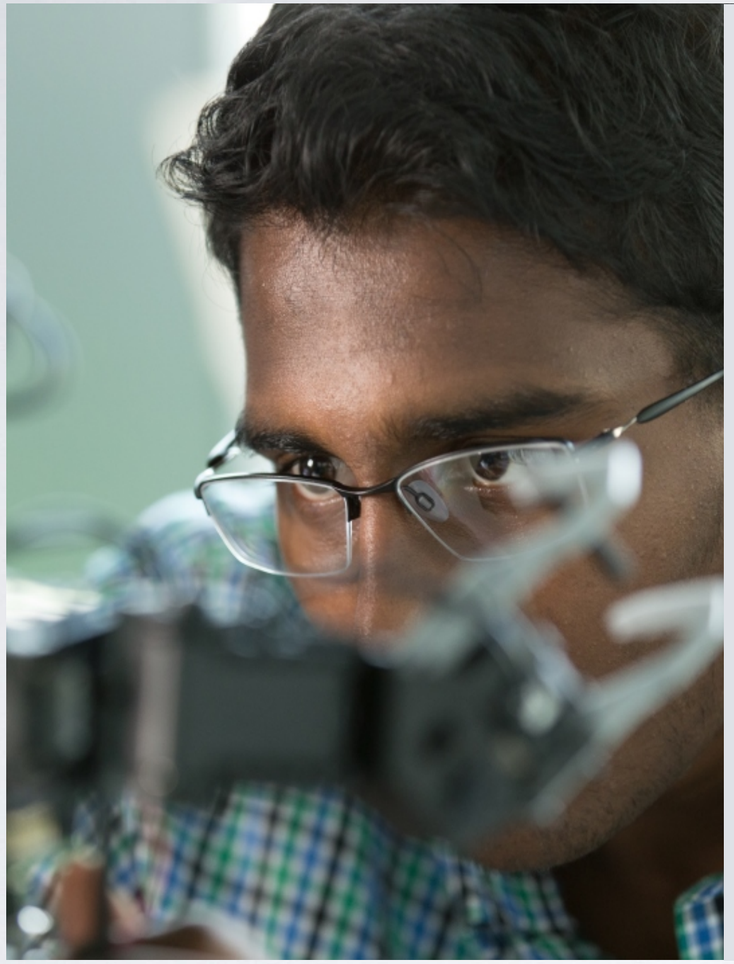
LEARN ROS
THE INTERNS

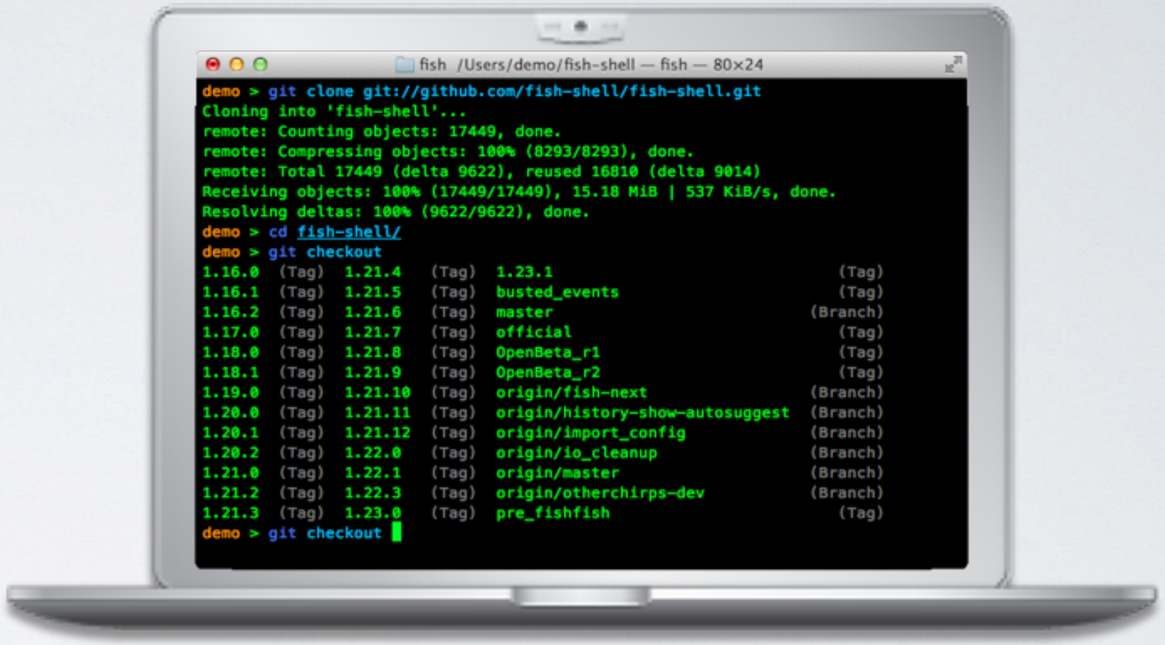
THE INTERNS



- May have no knowledge of Linux, C++ or Python
- Has no knowledge of ROS
- Has no knowledge of your packages
- Has no knowledge of your robot
- Has no knowledge of robots simulations

Required subjects to master

- Linux Shell, C++ or Python



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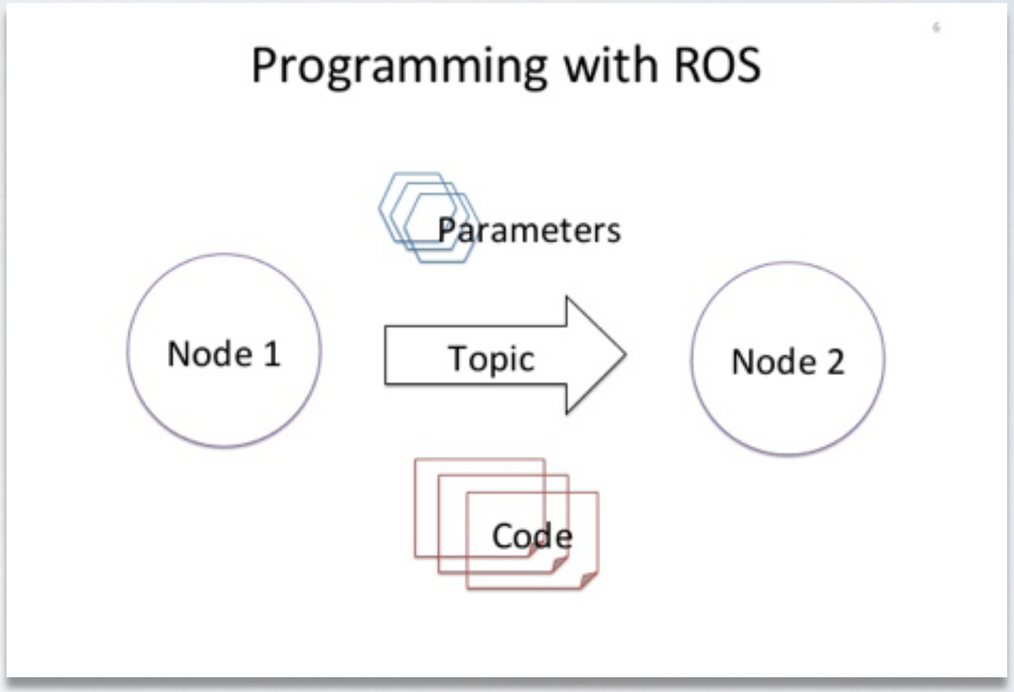
Required subjects to master

- Linux Shell, C++ or Python
- ROS Basics



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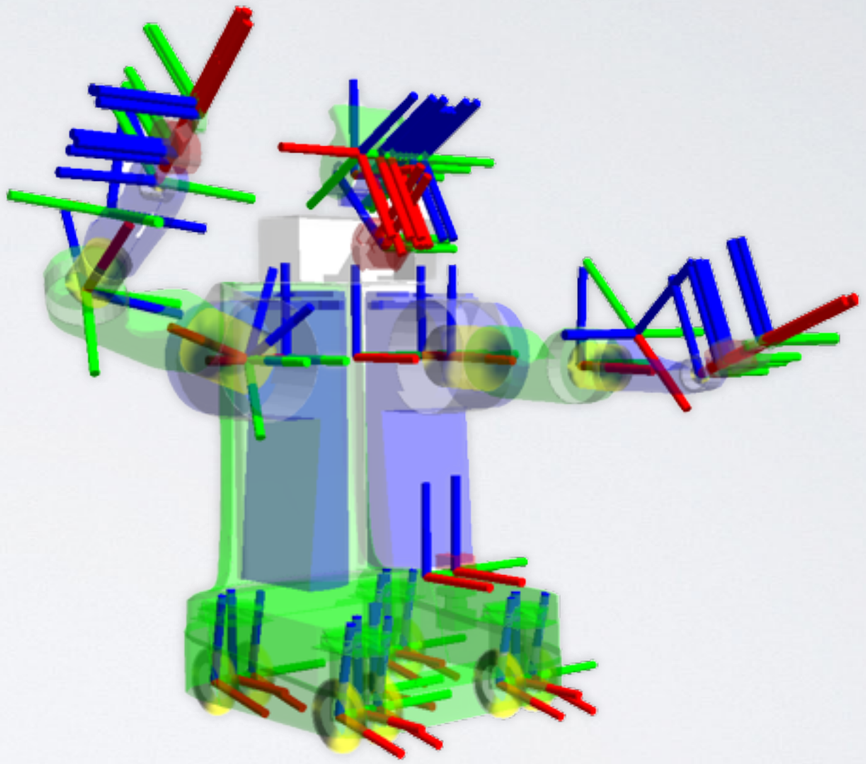
Required subjects to master

- Linux Shell, C++ or Python
- ROS Basics
- ROS TF



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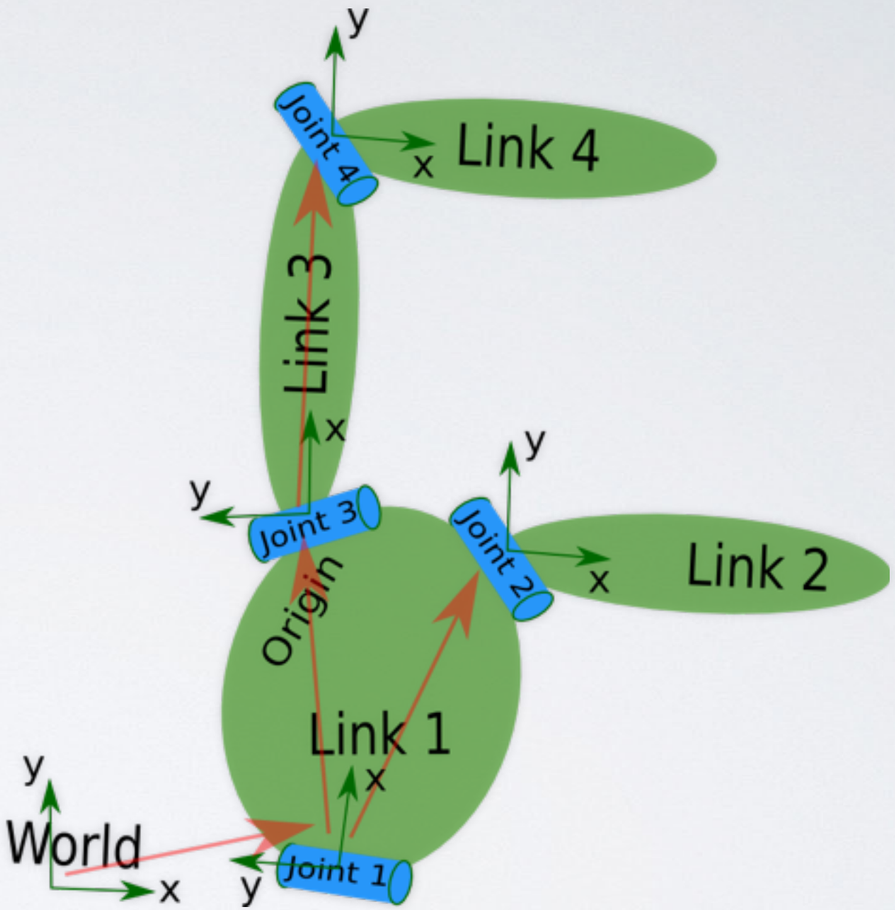
Required subjects to master

- Linux Shell, C++ or Python
- ROS Basics
- ROS TF
- ROS URDF



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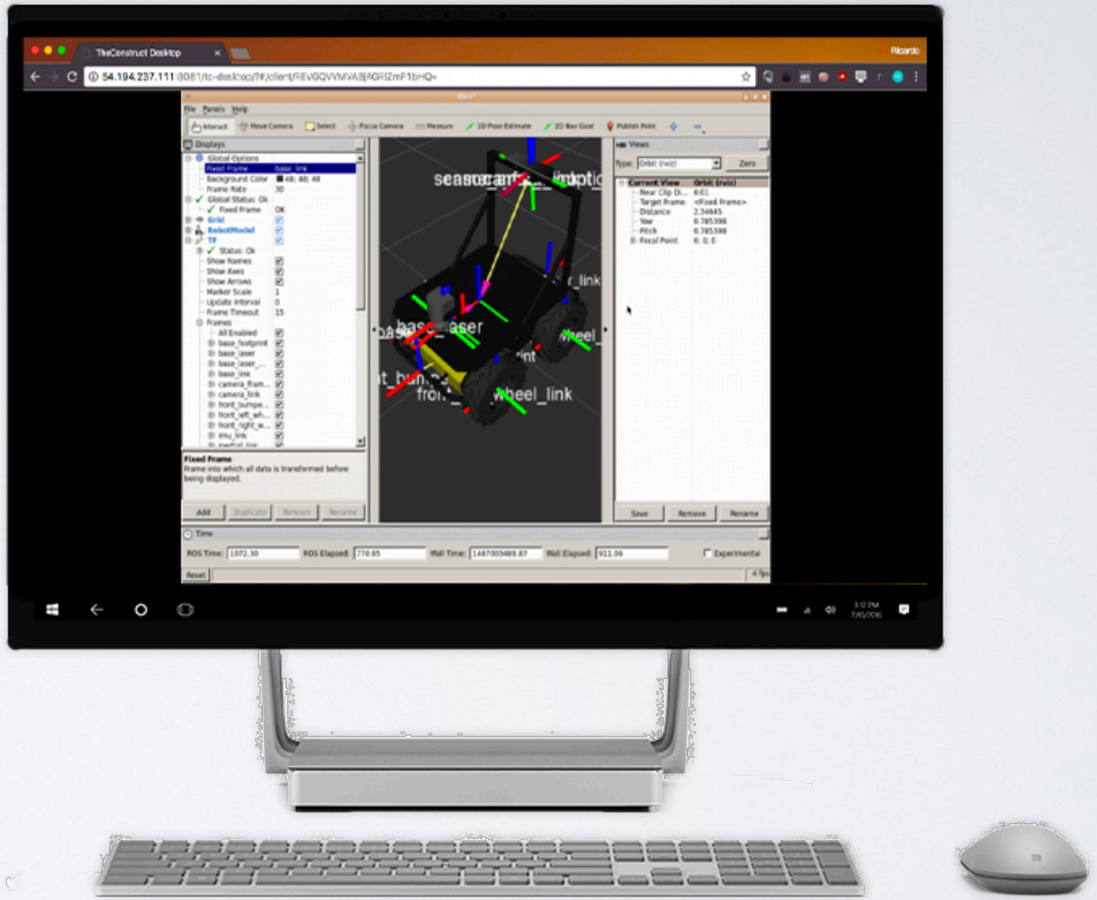
Required subjects to master

- Linux Shell, C++ or Python
- ROS Basics
- ROS TF
- ROS URDF
- ROS Debugging



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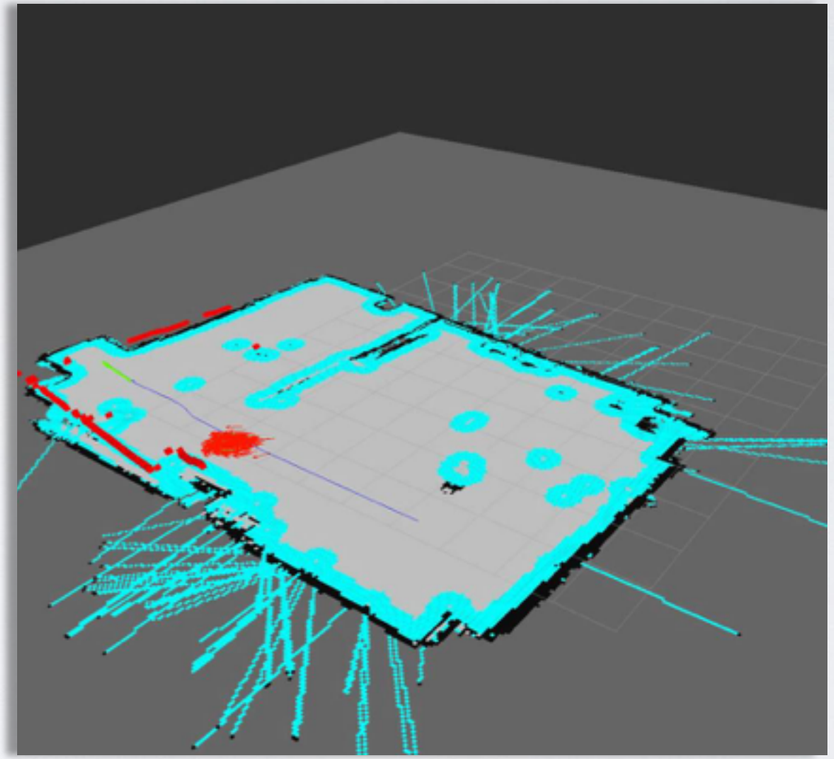
Required subjects to master

- Linux Shell, C++ or Python
- ROS Basics
- ROS TF
- ROS URDF
- ROS Debugging
- ROS Navigation, Perception and Manipulation



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Required subjects to master

- Linux Shell, C++ or Python
- ROS Basics
- ROS TF
- ROS URDF
- ROS Debugging
- ROS Navigation, Perception and Manipulation
- Program your robot

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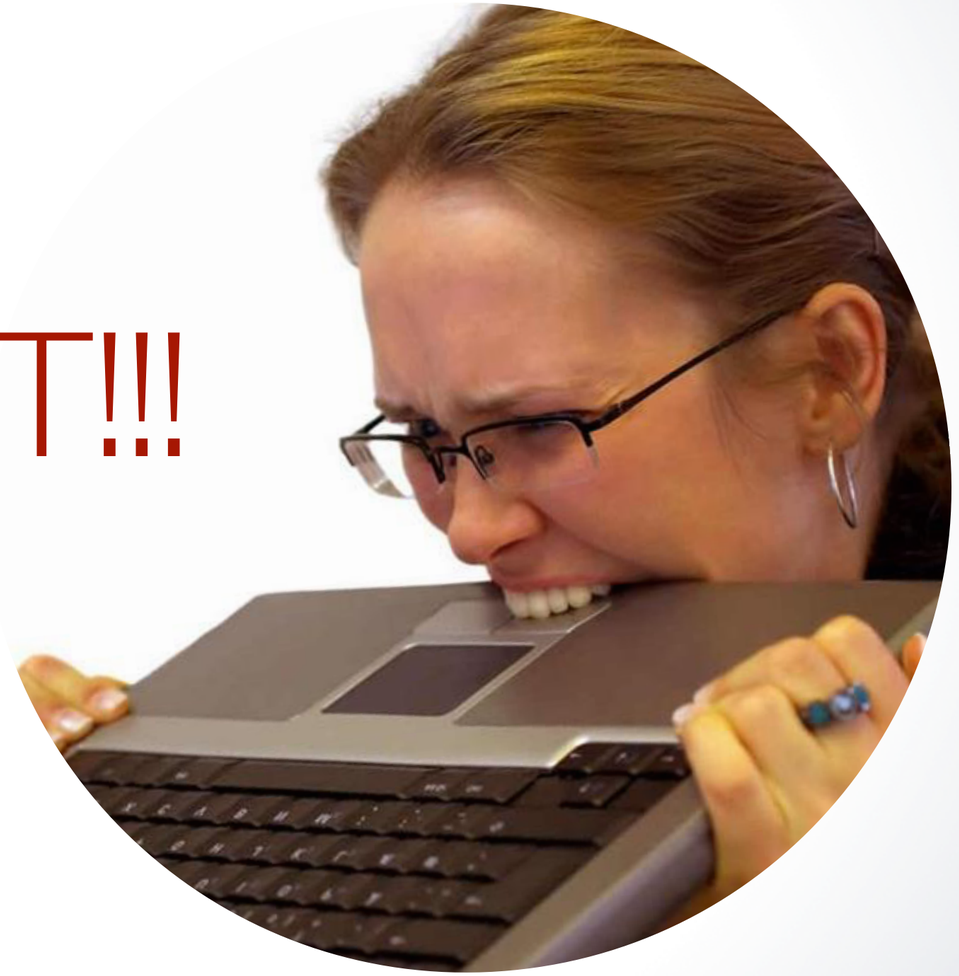
THAT'S A LOT!!!

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LEARN ROS
HOW TO LEARN FAST?

HOW TO LEARN ROS FAST ?

Specifically designed curriculum:

- ✓ Deconstruct ROS
- ✓ Identify 20/80
- ✓ Remove the rest
- ✓ Practice
- ✓ Take exams/exercises

No Copy/Paste Allowed!!!

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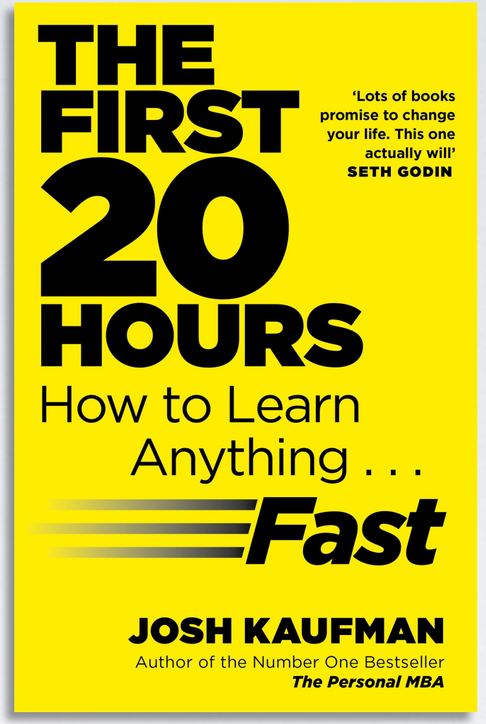
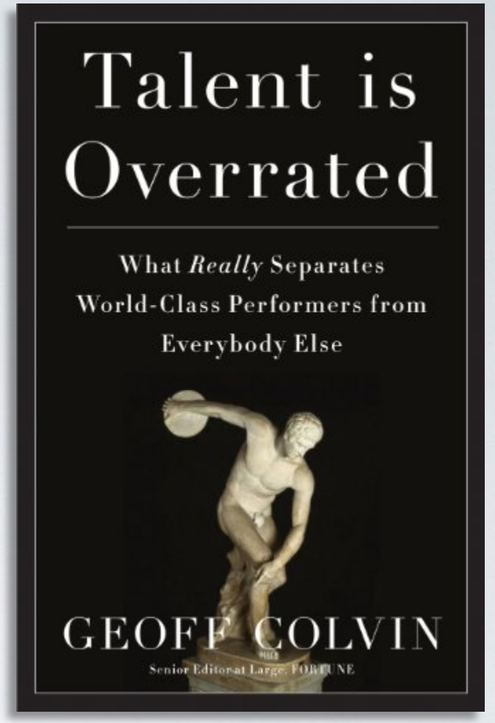
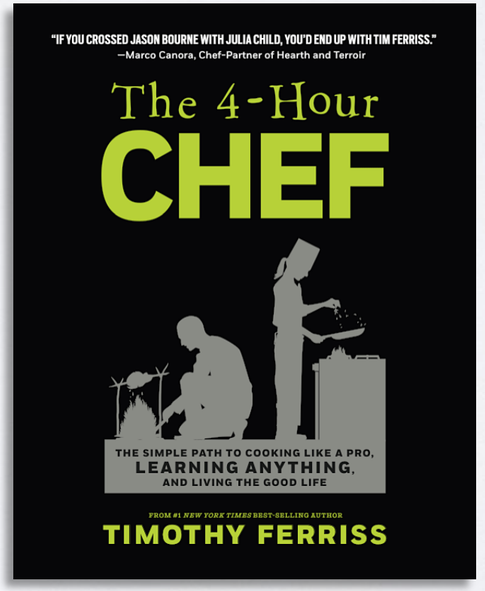
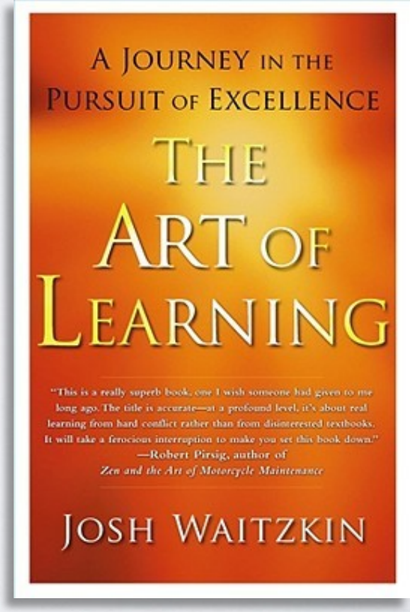
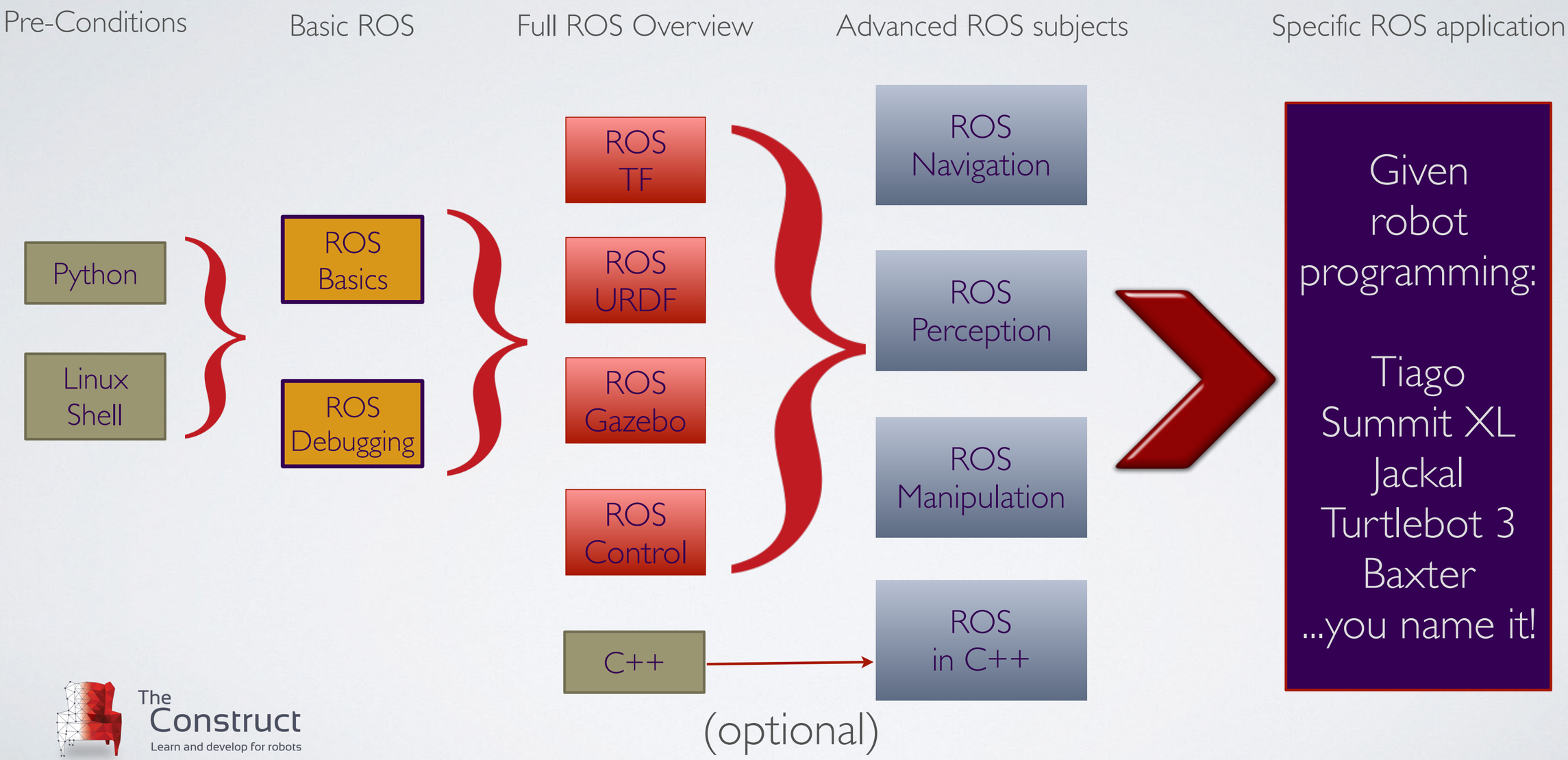








DECONSTRUCTION OF ROS



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YOU HAVE THREE OPTIONS

- You build this curriculum yourself
  - Simple way
  - Pro way

- You buy the curriculum

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PRIOR TO ANY OF THOSE METHODS

- Intern must learn Linux Shell
  - Use this online course:
    https://www.codecademy.com/learn/learn-the-command-line

- Intern must learn Python
  - Use this online course:
    https://www.codecademy.com/learn/learn-python

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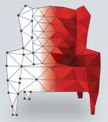

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The Simple Way

BUILD THE CURRICULUM

BUILD THE CURRICULUM THE SIMPLE WAY

- Provide the intern a computer with ROS installed
- Make him use Python
- Make him do the tutorials in the following order:

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LIST OF TUTORIALS TO FOLLOW AND THE PROPER ORDER

- http://wiki.ros.org/ROS/Tutorials/NavigatingTheFilesystem
- http://wiki.ros.org/ROS/Tutorials/CreatingPackage
- http://wiki.ros.org/ROS/Tutorials/UnderstandingTopics
- http://wiki.ros.org/ROS/Tutorials/WritingPublisherSubscriber%28python%29
- http://wiki.ros.org/ROS/Tutorials/ExaminingPublisherSubscriber

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LIST OF TUTORIALS TO FOLLOW AND THE PROPER ORDER

- http://wiki.ros.org/ROS/Tutorials/WritingServiceClient%28python%29
- http://wiki.ros.org/ROS/Tutorials/ExaminingServiceClient
- http://wiki.ros.org/ROS/Tutorials/CreatingMsgAndSrv
- http://wiki.ros.org/ROS/Tutorials/UnderstandingServicesParams
- http://wiki.ros.org/ROS/Tutorials/DefiningCustomMessages

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LIST OF TUTORIALS TO FOLLOW AND THE PROPER ORDER

- http://wiki.ros.org/ROS/Tutorials/Recording%20and%20playing%20back%20data
- http://wiki.ros.org/tf/Tutorials
- http://wiki.ros.org/urdf/Tutorials
- http://wiki.ros.org/ros_control
- http://wiki.ros.org/navigation/Tutorials

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The Simple Way is for

- ✓ Labs with very low budget
- ✓ Labs with very limited time

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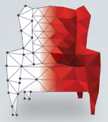

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The Pro Way

BUILD THE CURRICULUM

BUILD THE CURRICULUM THE PRO WAY

- Make him use Python
- Prepare Gazebo simulations for practice
- Use Python Notebooks to write the curriculum and to integrate lessons with practice
- Provide a system for installation on user's computer
- Use the ROS wiki to prepare the curriculum

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The Pro Way is for

- ✓ Labs with very low budget
- ✓ Labs with some prep time

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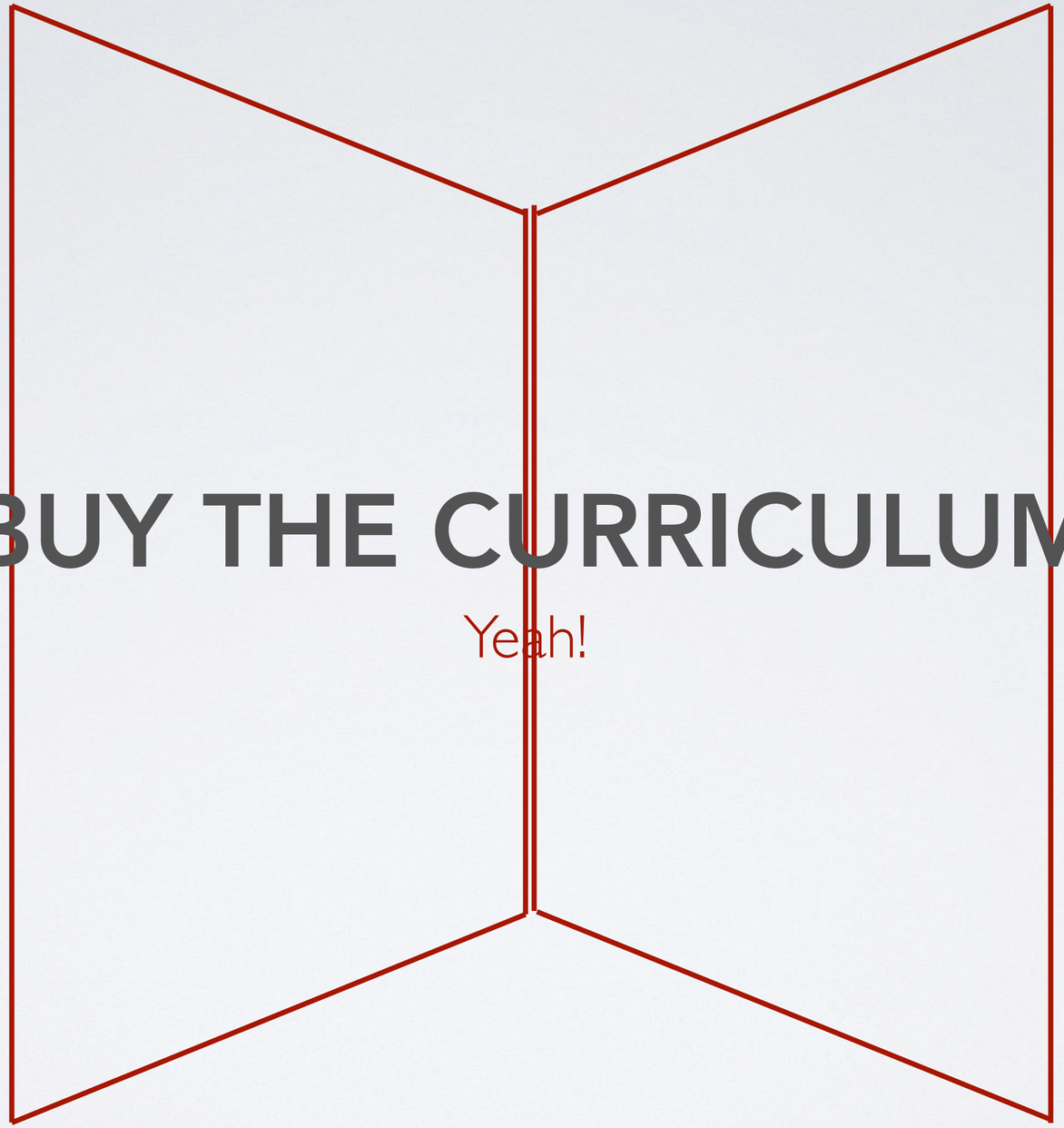

BUY THE CURRICULUM

Yeah!

ROBOT IGNITE ACADEMY

- you don't have to build
- you don't have to assist
- you don't have to follow
- you don't have to care about the computer

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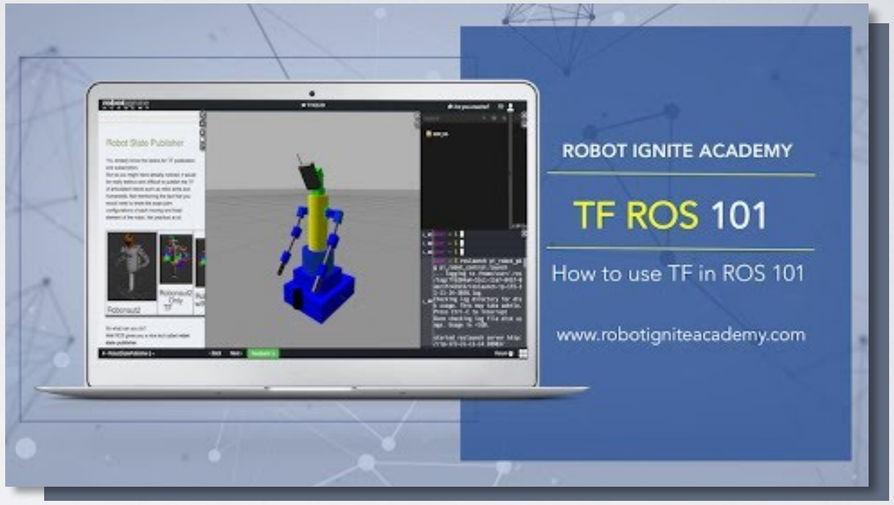
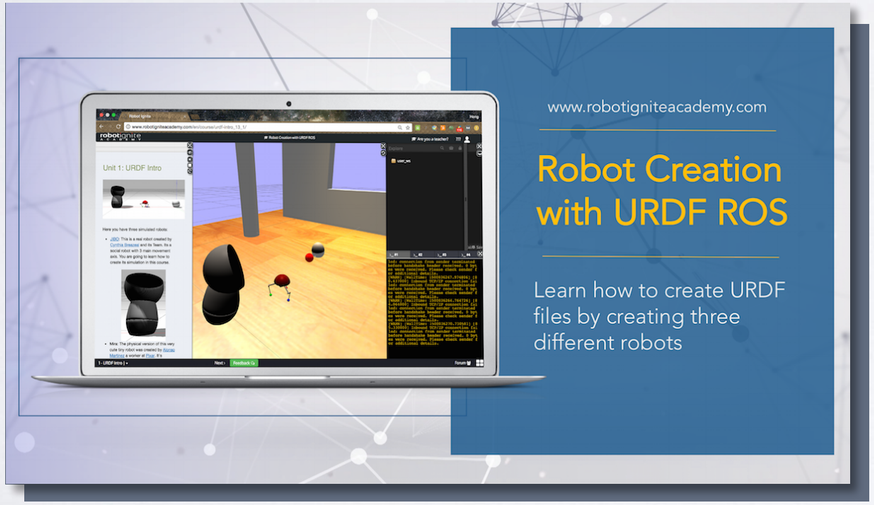
www.robotigniteacademy.com





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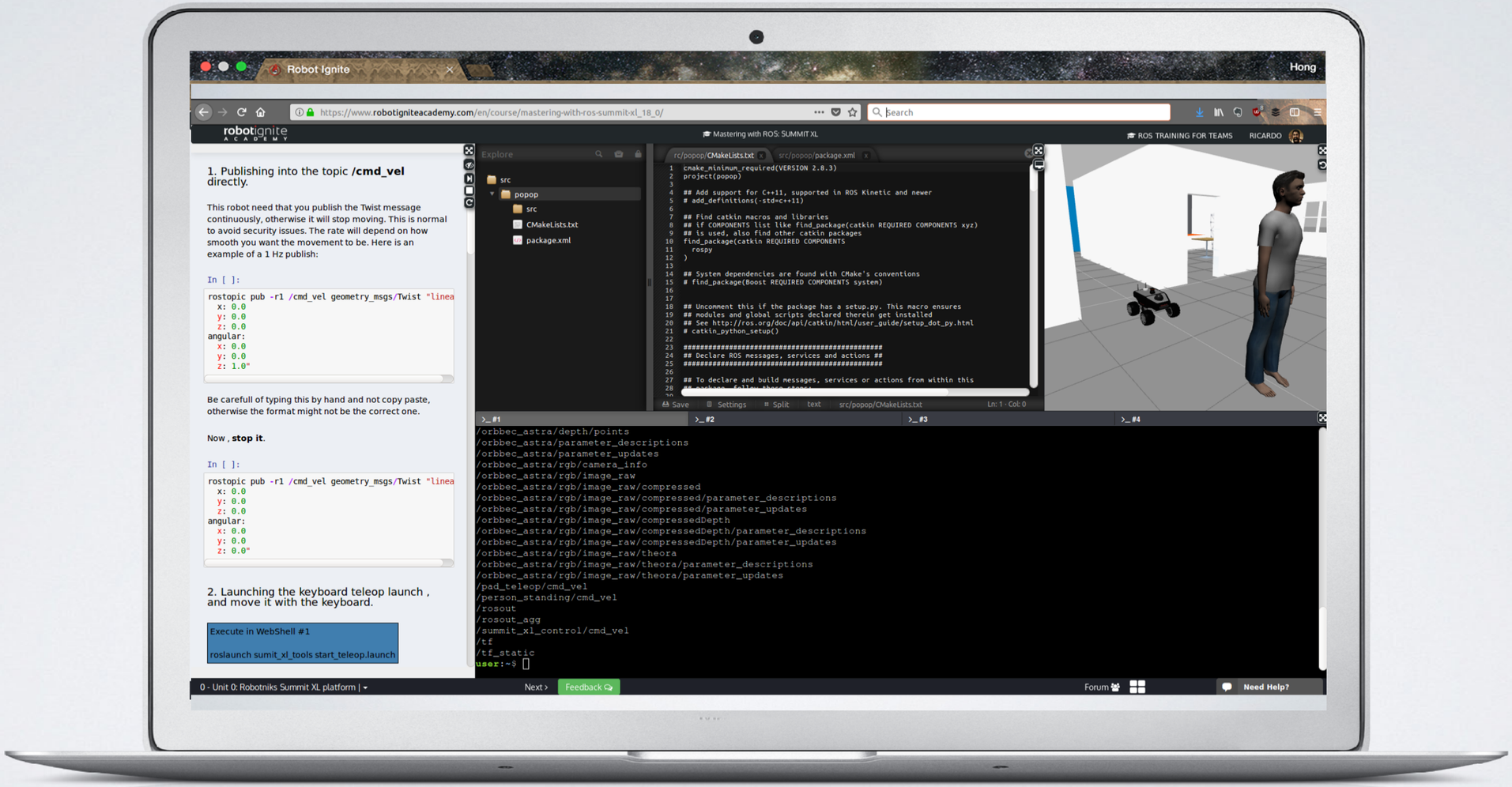
ROBOT IGNITE ACADEMY



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ROBOT IGNITE ACADEMY

- ROS Basics
- ROS Navigation
- ROS Perception
- Robot Creation
- ROS Auto-Vehicles
- ROS-Industrial
- RGB-Navigation
- ROS Control
- RTAB-Map in ROS
- ROS RViz
- ROS Manipulation
- OpenAI Gym
- URDF ROS
- TF ROS

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ROBOT IGNITE ACADEMY

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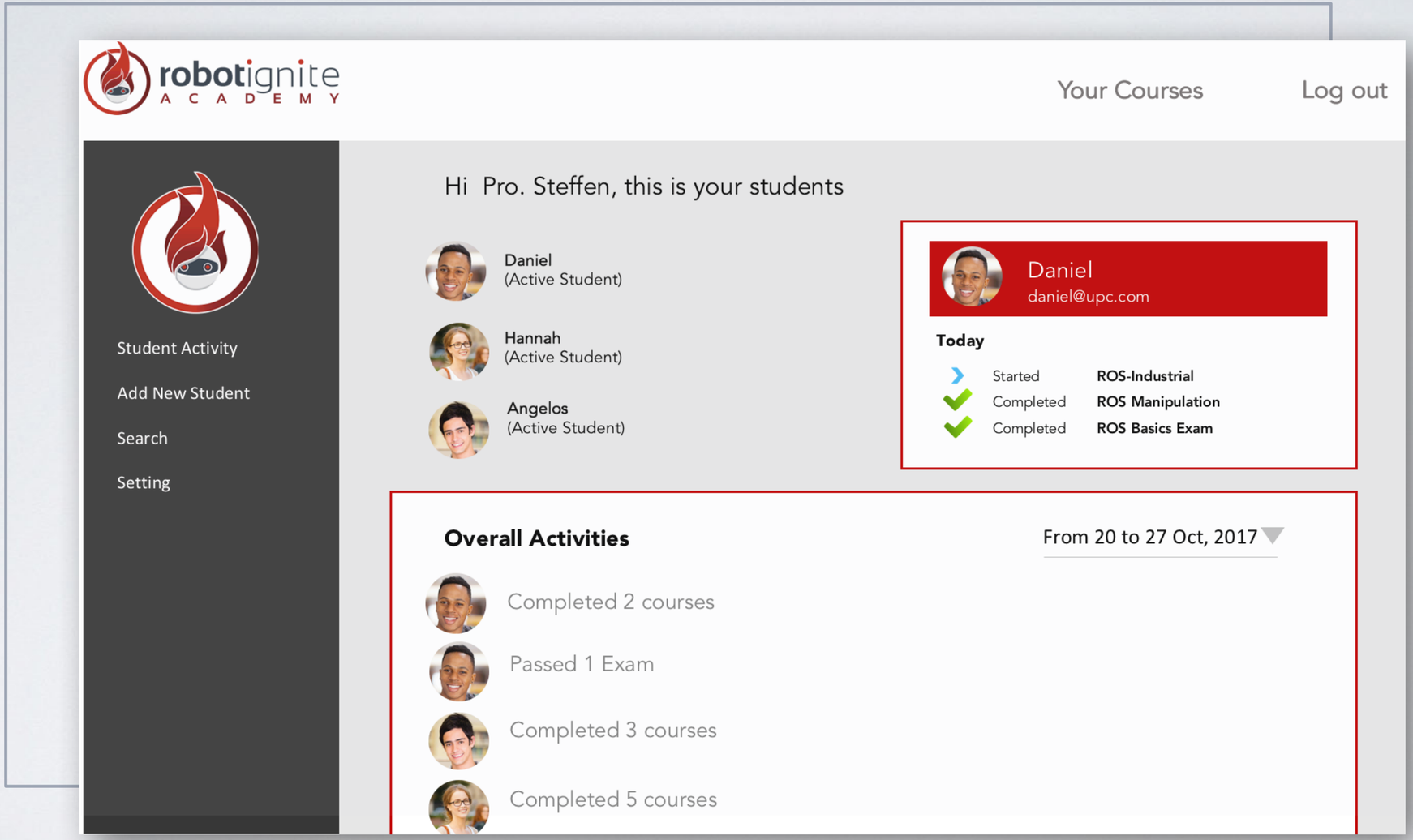
robotignite
ACADEMY
Your Courses
Log out
Student Activity
Add New Student
Search
Setting
Hi Pro. Steffen, this is your students
Daniel
(Active Student)
Hannah
(Active Student)
Angelos
(Active Student)
Daniel
daniel@upc.com
Today
Started ROS-Industrial
Completed ROS Manipulation
Completed ROS Basics Exam
Overall Activities
From 20 to 27 Oct, 2017
Completed 2 courses
Passed 1 Exam
Completed 3 courses
Completed 5 courses


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THE ACADEMY WAY IS FOR:

- Labs with low budget
- Labs with very limited time
- Labs that want to excel


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DEMO

BONUS

HOW TO GET THE BONUS?

Send email to:

info@theconstructsim.com

with *Subject*:

I want to train my interns fast!

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ROSWEBINAR

QUESTIONS ?

Ricardo Téllez | CEO of The Construct

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