

Published on Sep 24, 2017

I'm at IROS <http://www.iros2017.org/> learning about robots and meeting wonderful roboticists (and my lab has 6 great papers). Unfortunately I'm missing my Intro to Robotics class. Usually at 8:30 am we would be talking about Kinematics from Ch 3.3 of "Robot Dynamics and Control". This lecture discusses inverse kinematics, why we prefer closed form solutions, why there may be 0 or many solutions, and how to find the wrist center.

Intro to Robotics: Inverse Kinematics Lecture 8, Fall 2017



19:42

Aaron Becker

<https://www.youtube.com/watch?v=TPjclVs4RIY>

Inverse Kinematics Position: Intro Robotics, Lecture 9



15:27

Aaron Becker

<https://www.youtube.com/watch?v=9HfcMkfLh6k>

Inverse Kinematics and Trajectory Execution of a robot manipulator using ROS Moveit and Arduino. 17:00 He builds a robot and Software

<https://www.youtube.com/watch?v=G-XXnPHYhxs>

The **ROS** packages in this repository were created to provide an improved alternative Inverse Kinematics solver to the popular inverse Jacobian methods in KDL. TRAC-IK handles joint-limited chains better than KDL without increasing solve time.

http://wiki.ros.org/trac_ik

TRAC Labs Inc. is glad to announce the public release of our Inverse Kinematics solver TRAC-IK. TRAC-IK is a faster, significantly more reliable drop-in replacement for KDL's pseudoinverse Jacobian solver.

<https://www.ros.org/news/2015/11/introducing-a-better-inverse-kinematics-package.html>

Evolutionary Inverse Kinematics for ROS and MoveIt

Philipp Ruppel

May 30, 2017

Master Thesis

https://tams.informatik.uni-hamburg.de/lehre/2017ss/seminar/oberseminar/doc/PhilippRuppel_BioIK.pdf

Position feedback from Servo

URDF of the manipulator

Checking motor controllers.

MoveIt UI.

Ik using MoveIt commander.

Trajectory Execution

MATLAB

Control PR2 Arm Movements Using ROS Actions and Inverse Kinematics -
MATLAB Video

<https://www.youtube.com/watch?v=l6j9deRD93g>