Getting Started with RoboAnalyzer

1. Downloading and Installation

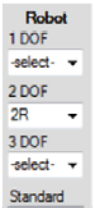
Step 1: Visit http://www.roboanalyzer.com
Step 2: Click on option **Downloads**
Step 3: Click on "**RoboAnalyzer V4"** and Click on **"Save"** to save the setup.

Once done with the downloading of software.

Step 4: Unzip "RoboAnalyzer4.zip" file
Step 5: Click on RoboAnalyzer4.exe and a window as shown below would appear.

2. Robot Selection

Select robot as per its degree of freedom and joint type



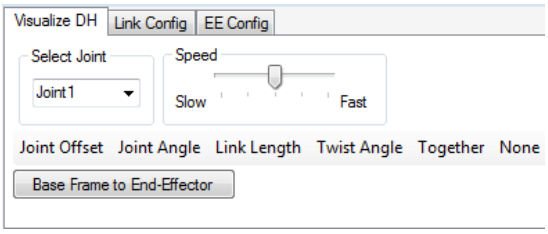
3. Define Robot Architecture

Enter the Denavit-Hartenberg(DH) parameters according to the type of robot in the corresponding table. Changing the DH parameters updates the 3D model.

Joint No	Joint Type	Joint Offset (b) mm	Joint Angle (theta) deg	Link Length (a) mm	Twist Angle (alpha) deg	Initial Value (JV) deg or mm	Final Value (JV) deg or mm
1	Revolute	0	Variable	200	0	0	180
2	Revolute	0	Variable	200	0	0	90

4. Visualize DH Parameters

Step 1: Click on **Visualize DH**
Step 2: Select the J**oint** which you want to visualize
Step 3: Click on **Base Frame To End–Effector**

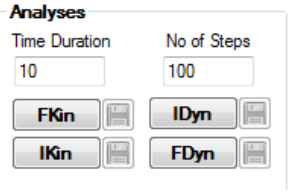


5. Analysis Type

Define the analysis type and time duration.

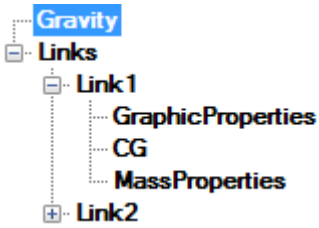
FKin: Forward Kinematics
IDyn: Inverse Dynamics
IKin: Inverse Kinematics
FDyn: Forward Dynamics

Caution: For inverse dynamics first perform forward kinematics (FKin) and then inverse dynamics (IDyn).



6. Dynamic Properties

For dynamic analyses, define **gravity, mass and inertia properties** for each link of the robot.



7. Animation

Click on **play and other buttons** to perform animation

8. Plot Graphs

Steps to produce graph
Step 1: Select link
Step2: Select end-effector variable

Similarly to analyze a joint, select that joint followed by joint value, joint velocity, and joint acceleration options.