Recursive Dynamic Simulator (ReDySim): Symbolic Module Instruction Manual

Getting started

1. Require MATLAB 2009a or higher version in order to use this module.

Run Demo: Equations of motion 2-Link system

1. Run function file *run_me.m*. This will generate equation of motion of 2-link robot in the case of fixed-base module or 2-link satellite mounted robot in the case of floating-base module.

Generation of equations of motion using *run_me.m*

1. Function prototype: `run_me()`
2. Enter the input parameters such as modified-DH parameters (See appendix A), inertia tensors, masses etc., in the file *inputs.m* and save the file.
3. Run file *run_me.m* to generate equations of motion.
4. Open file *equations_of_motion.m* to see the equations of the system under study.

Note:

The functions *invdyn.p* and *invdyn_float.p* are protected and cannot be accessed by user. However, they can be used as any regular function.