

Initial Design

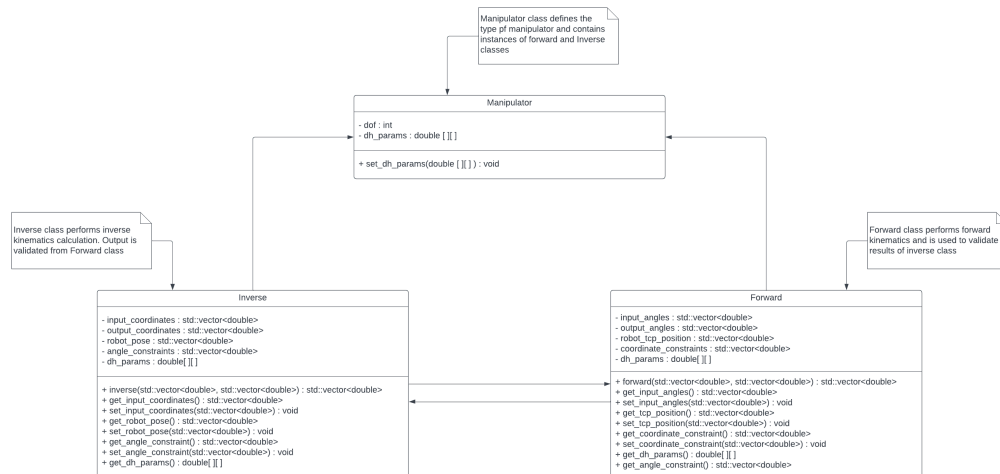
Concepts

Significant concepts are extracted from the backlog as a basis for objects in code.

Concept name in Backlog	Concept name in Code
Inverse Kinematics	Inverse
Inverting the Jacobian	inverse()
Target position	input_coordinates
Joint angles trajectory	robot_pose()
Arm description	Manipulator
DH Parameters	dh_params
Joint limits	angle_constraints
Forward Kinematics	Forward

UML Diagram

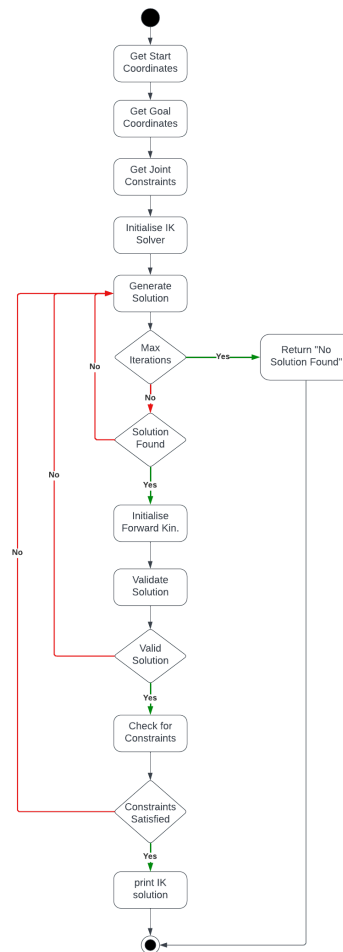
A UML diagram with more complete software design from the extracted significant concepts.



Class diagram of the software package

Activity Diagram

An activity diagram for the main function that leverages the proposed software package to generate robot poses required to achieve input target coordinate.



Activity diagram of the main program