Feasibility Analysis:

Feasibility analysis deals with the practicality of the solution for the considered problem. Detailed explanation of the solution is not needed in feasibility analysis. Once the goals of project are made clear, then feasibility analysis can be done after that. When the solution is implemented in a real time environment, then economic, technical and operational feasibility should be checked in order for a solution to sustain in a long period of time. Mentioned feasibility checks are mentioned below for the environment of Intelligent Robotic Arm System for picking and placing objects.

Economic Feasibility:

Open source operating system is used for the development of project. The libraries which are needed for the functions in the movement of robotic arm, algorithms for image processing are freely available. Also, the software which will provide front-end for the operation of the system will be created with open source tools. Hence, the cost included is only due to any extra hardware components, which will add further functionality to the system. Overall, the system will be economically feasible.

Technical Feasibility:

The system will have a front-end application to handle the robotic arm from initializing the arm to providing sufficient details for any task of picking and placing for any particular object. End user only needs to know the parameters like the velocity and acceleration of robotic arm, destination for objects. Using these parameters, algorithms used will evaluate the optimum solution. The front-end software can run on any linux platform.

Operational Feasibility:

As the system will be designed for industrial purpose, it will be working in a real time environment. Our solution will therefore have an ability to solve the particular problem in real time. End user will need only preliminary education to operate the system. Also, the system will be able to run on any linux platform with minimum system requirement.

Class of problem :

The FABRIK algorithm which will help to determine the angles of joints in robotic arm uses the concept of inverse kinematics. It has a time complexity of ----. Also, LCS tracker algorithm has a time complexity of -----. These two algorithms play a crucial role in solving the given problem. Hence, the proposed system comes under the P-Class problem.