**Model summary**

**Name**: Near Optimal Sequence

**Purpose**

The purpose of this model is to generate a near optimal sequence by using genetic algorithm.

**Viewpoint**

This model has been created from the viewpoint of engineer students. The problem is to find the shortest possible path by using crossover operator from genetic algorithm.

**Context**

This problem is to find the nearest optimal sequence of a set of tasks in order to improve the performance of the automated robot. The modeling context will focus on building a program to solve the problem. The program needs to generate new children that are better than their parent using cross over operator only. The assembly tasks involve moving from the home position to the feeder for the first part in a given sequence then going to the destination of that part; subsequently, the robot goes to the to pick up the next part in the sequence from the appropriate feeder, and then goes to the appropriate destination