

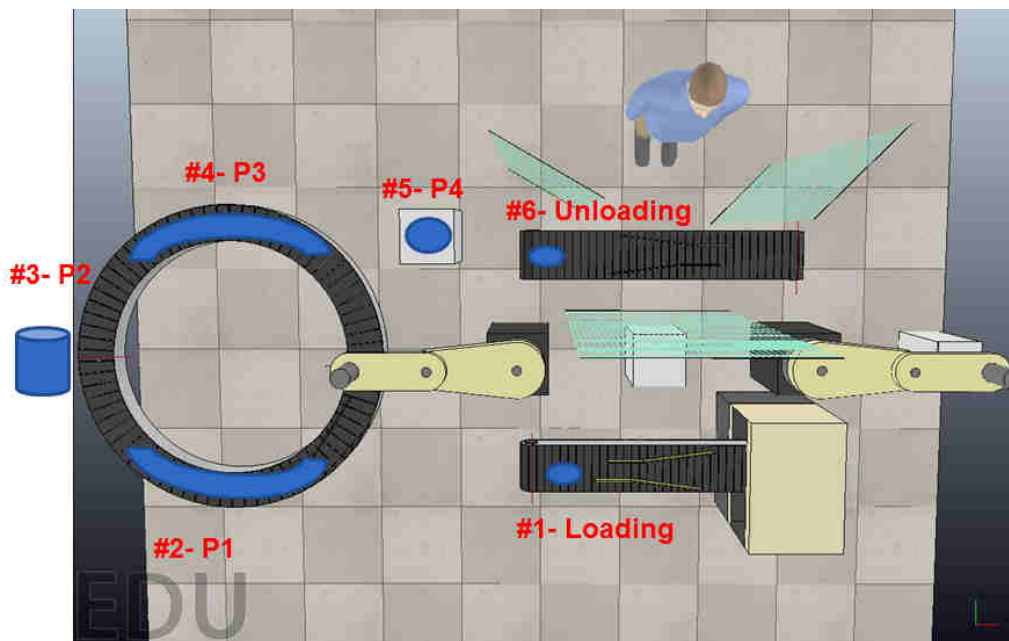
IC2122 Control and Automation Lab. SIM

A) Title

Manufacturing Work Cell Design

B) Requirement

A manufacturing cell has been set up with two robots; four workstations labelled with P1 ~ P4 and two conveyors as illustrated in following figure.



A simulation should be performed to track the manufacturing flow and estimate the process performance.

C) Report

Write a brief report to include following information

- Sketch the layout drawing with the dimension for your manufacturing cell design with the working envelope.
- Draw the time-way diagram to illustrate the manufacturing flow and the robots' movement.
- Estimate the cycle time of the manufacturing cell based on the time-way.
- Suggest production throughput improvement opportunity if any.