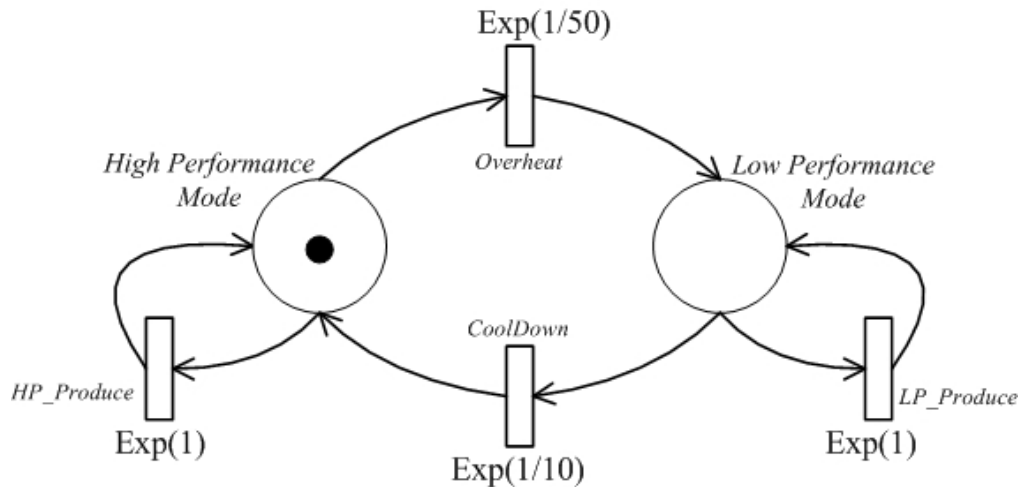


Assignment 3 “Machine Temperature”: GSPNs & CTMCs



System Specification

A machine's behaviour is described by the above GSPN.

Assume that the probability to produce a working part in HPM is 0.95 in LPM only 0.8.

Tasks and Questions

Construct the state space and ERG of the above model

Construct the CTMC representing the GSPNs behaviour

Use your program to answer the following questions:

- What is the probability that place *LPM* is empty in steady state for different discretization time steps (e.g. 2, 1, 0.5)?
- What is the throughput of transition *HP_Produce* in steady state for different discretization time steps (e.g. 2, 1, 0.5)?
- What is the throughput of working parts in steady state?