

The purpose of this exercise is to understand how to model a system using Petri Nets. The system is described below.

- A vending machine sells chocolate bars. The machine sells small bars for 1.5 euros and large bars for 2 euros. The machine accepts coins of 50 cents, 1 euro, and 2 euros. The machine is not able to return coins back to customers. Accordingly, the machine never allows a user to insert more than 2 euros. Once the user has put in 2 euros, the machine will not accept any more bills. Instead, it will only allow the user to push the button and get a large bar. If the user has inserted 1.5 euros, he/she may opt to get a small bar or put in an additional 50 cents to get a large bar. Note that the weight of the arcs must be 1.
- Calculate the reachability graph.
- To model Petri nets, you can use GreatSPN (<http://www.di.unito.it/~amparore/mc4cslta/editor.html>) or WoPeD (<https://woped.dhbw-karlsruhe.de/>)
- Note: Please, the weight of every arc is 1.

Create a zip/rar file containing the following artifacts, and submit it via Moodle by **December 18th**:

- Petri net in PNML format (created with WoPeD or GreatSPN)
- PDF file with the reachability graph