MAS: Activity 4
Single BDI agent in a dynamic environment

Andrei Olaru

The problem: The same as in Activity 4, but now the environment is dynamic. The dynamicity of the environment simulates the possible presence of other agents in the system, which our agent is unable to perceive or model. What can happen in the environment:

- blocks may dissapear from the top of a stack (including blocks that are on the table);
- blocks that have previously dissapeared may appear again, on top of an existing stack;
- blocks may fall down to the table, from the top of a stack;
- blocks may teleport (instantaneously) from the top of one stack to the top of another.

NOTES:

1. dynamic actions are only performed using legal operations (taking blocks from the top of stacks or from the table; putting blocks on the table or on top of stacks);
2. dynamic actions will only affect stacks that are not **currently observed** by any agent(s);

To Do:

- set `MyTester.DYNAMICITY` to a value of `0.5` (for example);
- create **partial plans** to avoid replanning when a needed block dissapears; adapt the current plan to adjust for blocks that have moved; use meta-actions in your plans, e.g. "Find block A".

Hint:

Organize your plan on intentions and phases. An intention can be associated to a stack in the target state (the goal). For each desired stack, three phases can exist: lock blocks that are in the correct position; unstack blocks that are in an incorrect position or are on top of needed blocks; stack blocks and lock them in the correct order.

Cum să raportați activitatea:

- **la sfârșitul laboratorului:** trimiteți arhiva conform cu instrucțiunile de mai jos.
- **la terminarea taskurilor** aferente laboratorului (înainte de următorul laborator, altfel cu depunctare): trimiteți din nou arhiva, conform cu aceleași instrucțiuni, eventual adăugând ceva la nume.

Conținutul arhivei: numai directorul `src`, arhivat într-o arhivă cu numele `PrenumeNume_MAS-N.zip`, unde `N` este numărul laboratorului pe care l-ați rezolvat.

Cum trimiteți: trimiteți arhiva în atașament la un mesaj către adresa alex.sorici+mas@gmail.com. Dacă adresa este corectă și există atașament, veți primi un mesaj automat de confirmare.

Notă: Folosiți adresa de mai sus numai pentru a trimite activitatea de laborator. Pentru alte probleme folosiți modalitățile de contact indicate la curs.