

- The order of all actions during a single turn depends on the initiative of each living organism. The animals with the highest initiative move first. In case of animals with the same initiative, the order is determined by the animal's age (the oldest animal will move first).
- In case of a collision, the victory depends on the strength of both organisms - the stronger organism wins. In case of equal strength, the encounter is won by the attacker.
- The game should also include a human player, who is a specific kind of animal. The direction of the human's movement is determined by the player by pressing 'a' on the keyboard. Human also possesses a special ability Antelope's speed (Human's movement range is 2 for 3 rounds. In the next 2 rounds the probability that he moves by 2 cells is 50%). Once activated, the ability works for 5 turns, after which it is automatically deactivated. After deactivation, the ability cannot be activated for the next 5 turns.

Table 1 Human class properties

strength	initiative	action()	collision()
5	4	Human moves in same way as animals, but the direction of his movement corresponds to the arrow keys pressed by the player. For example, if the player presses the left arrow key, the human (in his turn) will move to the cell to the left of his initial position.	Human possesses a special ability (see Appendix A. Human special abilities), which can be activated by a separate key on the keyboard. After activation, this ability affects the behavior of his collision() method for next 5 rounds. After that, the special ability is turned off and cannot be activated for the next 5 rounds.

Table 2 Description of animal classes

Id	animal	strength	initiative	action()	collision()
1	wolf	9	5	default for Animal	default for Animal
2	sheep	4	4	default for Animal	default for Animal
3	fox	3	7	Has good sense of smell: fox will never move to a cell occupied by a stronger organism.	default for Animal
4	turtle	2	1	Has 75% chance to stay in the same place.	Reflects attacks of animal with strength less than 5. Attacker will return to the previous cell.

Id	animal	strength	initiative	action()	collision()
5	antelope	4	4	Has wider range of movement - 2 fields instead of 1.	Has 50% chance to escape from fight. In such case it moves to a free neighboring cell.
6	cyber-sheep ¹	11	4	Its main goal is the extermination of Sosnowsky's hogweed. It always moves towards the closes hogweed and tries to eat it. If there are no Sosnowsky's hogweeds, it behaves like a normal sheep.	Eats Sosnowsky's hogweed.

Table 3 Description of plant classes

Id	plant	strength	action()	collision()
1	grass	0	default for Plant	default for Plant
2	sow thistle	0	Performs 3 attempts at spreading in each turn	default for Plant
3	guarana	0	default for Plant	Strength of the animal which ate guarana is permanently increased by 3.
4	belladonna	99	default for Plant	Kills any animal which eats it.
5	Sosnowsky's hogweed	10	Kills every animal in its immediate neighborhood except cyber-sheep.	Kills any animal which eats it, apart from cyber-sheep.