

Battle of Golems - educational game algorithmic and programming for 2 players.

Composition of the game:

- 1 The game field 4x4 for 2 players;
- 2 Personal program field for 4 turns, field IF and the field LOOP;
3. Figures 2 golems for players - red and blue;
- 4 Cards for the game:

Block Cards:

- 4.1. Action Block " Forward" - 3 pcs. for the player;
- 4.2. Action Block "Backward" - 3 pcs. for the player;
- 4.3. Action Block "Turn Left" - 2 pcs. for the player;
- 4.4. Action Block "Turn Right" - 2 pcs. for the player;
- 4.5. Action Block "Stand in place" - 4 pcs. for the player;
- 4.6. Action Block "Attack" - 2 pcs. for the player;
- 4.7 Action Block "Defence" - 2 pcs. for the player;
- 4.8. Condition Block "IF" - 1 pc for the player;
- 4.9. Block "LOOP" - 1 pc. for the player.

Parameter Cards (per player):

- 4.8. Card "IF" - 2 pcs. "Is enemy?" - 1 pc. "Attack?" - 1 pc .;
- 4.9. Card "LOOP" - 2 pcs., 1 piece with the number of repeats 2 and 3.

Each player receives a card for each type of IF and LOOP repeat 2 and 3.

Cards of life:

- 4.10. Card of life - 3 pcs. for the player.

5 cubes or spinning tops..

- 5.1 Hexagonal with signs LOOP and IF on opposite faces (one face) and let the rest of the faces.
- 5.2. Hexagon with figures 2 and 3.

Game Rules

The task of the game - to win the Golem opponent, making the winning algorithm. The game consists of two steps in each round:

1 ACTION: Drawing algorithm for your Golem actions.

Players set algorithm for Golem actions, closing the screen it from competitors, so they could not see the future moves of opponents.

For beginners LOOP and IF are not used. If the players are more experienced and can make a more complex program, you must roll two dice - they show the presence of the current round of LOOP and IF blocks, as well as the number of repetitions of the block in the LOOP. (2 or 3).

If a player drops out IF, it is the current course can choose a variant of the proposed and take the appropriate card.

A player may refuse the use of IF or LOOP in the current round.

Turn is defined by putting some cards on the field procedures of the program in course zone 1-4.

If a player has a card in the hands of the IF or LOOP, they can be spread also by setting in the right fields IF or LOOP parameters and placing the necessary blocks to implement them.

2 ACTION: Execution of the algorithm for a given program:

Players perform the appropriate block at a time from Turn zones 1,2,3 and 4 If the zone is a LOOP, then the player performs the specified action specified number of times.

If the zone is located condition IF is checked at the beginning of its execution or not in conjunction with the actions of other players. That is, if there is a condition "Attack?", Then it would be obligatory presence of action "ATTACK" to the cell the player in the same turn from the enemy. If there is a condition "Is enemy?", The check is performed only after the action blocks movement opponents this turn. Condition "Is enemy?" applies to drums and other destructible objects in the game.

If two players are trying to go to the same cell, the action is considered to be unenforceable and does not count any of the players. Similarly, a move is not performed when the edge of the field or impassable barriers (barrels or stone wall) on the field.

The player may take the attack just right in direction to the next cell. The player can defend against any attacks - front, back, side.

Movement has higher priority !. In one stroke movement is performed first, and then verify the conditions and kick.

On a successful attack the enemy or immersed in water the player loses one life from the Golem (there are 3) and it is drawn map of life. Player is killed, when he has no cards of lives.

Then begins the next round and the game continues until one player wins.

The winner is the player whose Golem left alone on the field.

Start the game

At the beginning of the game is given by the field. You can just play on the field 4x4, as well as barriers to use the maps.

Golems are placed in opposite corners of the field, unless otherwise specified by the script.

For beginners, we recommend the use of a prime field without obstacles.

Subsequently, you can complicate the game, introducing new units and maps of the supplements thereto or increasing the size of the field to 4x4 to 6x6.

Each player is dealt cards blocks:

1. Action Block "Forward" - 3 pcs.
2. Action Block "Backward" - 3 pcs.
3. Action Block "Turn Left" - 2 pcs.
4. Action Block "Turn Right" - 2 pcs.
5. Action Block "Stand in place" - 4 pcs.
6. Action Block "Attack" - 2 pcs.
7. Action Block "Defence" - 2 pcs.
8. Condition Block "IF" - 1 pc
9. Block "LOOP" - 1 pc.

Also, each player has its own field, and a screen. Players do not need to spy programs from each other!

Versions of the game.

Game for beginners

The game is for 2 players. 4x4 field with no further barriers. Cubes (spinning tops) are not used, the game exclude LOOP and IF.

Standart game

4x4 field for 2 players. Cubes (spinning tops) rush at the beginning of the course, determining the possibility of using LOOP or IF.

Autonomous golems

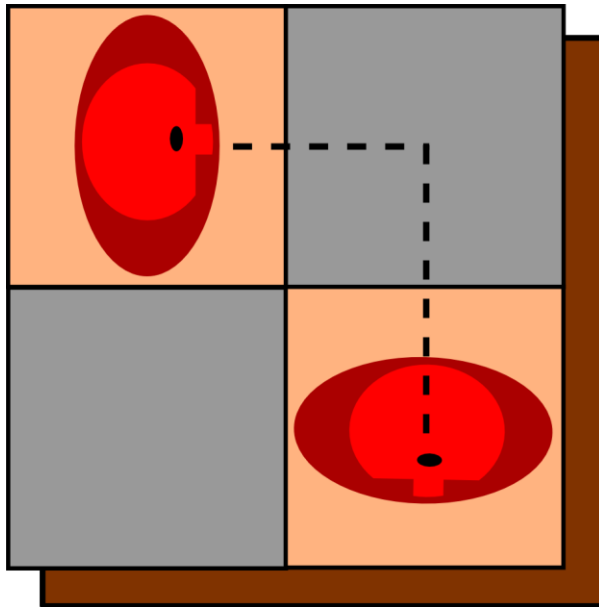
The game runs on the field 4x4. Initially given by the movement algorithm using loops and conditions. After setting the program the players begin to move in an endless cycle of repetition rounds. Conditions and related actions are checked anyway. You can use a LOOP inside condition IF (but not vice versa).

Examples of moves

Golem moving

- 1 Forward
2. Turn Right
3. Forward
4. Forward

Since in the course of 4 to Golem edge of the field, the course is ignored.



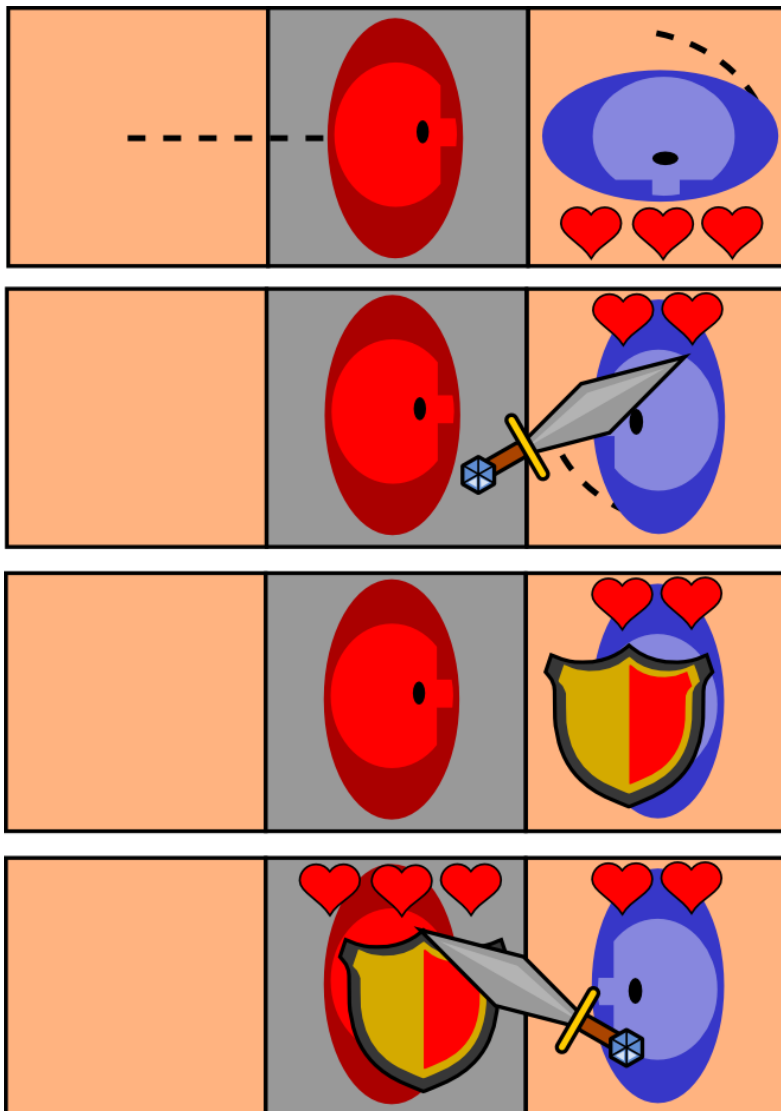
Attack and Defence

Golem 1 (red)

1. Forward
2. Attack
3. Stand in place
4. Defence

Golem 2 (blue)

1. Turn Right
3. Turn Right
4. Defence
5. Attack



Attack avoiding

Golem 1 (red)

1. Forward
- 2

Golem 2 (blue)

1. Attack
2. ...

The Attack will not be executed, since red Golem already gone to the next cell.

