# Technical task "Snake game"

Snake, a video game concept that emerged in the late 1970s in arcades, doesn't have a specific original title, and its design has been implemented in various iterations. Its straightforward gameplay led to its widespread adoption. When it became the default pre-loaded game on Nokia mobile phones in 1998, Snake experienced a resurgence in popularity, reaching a broader audience.
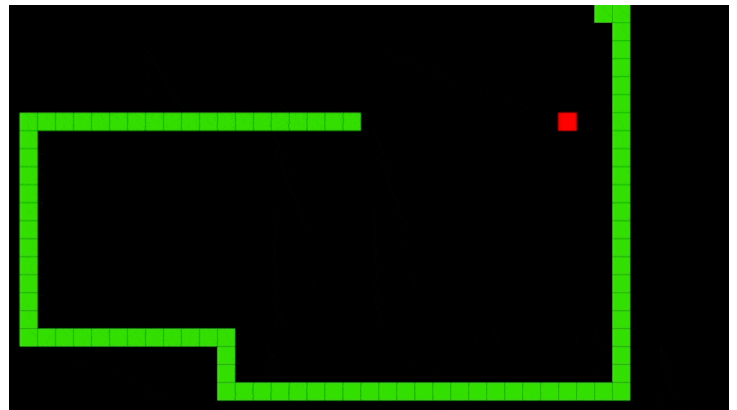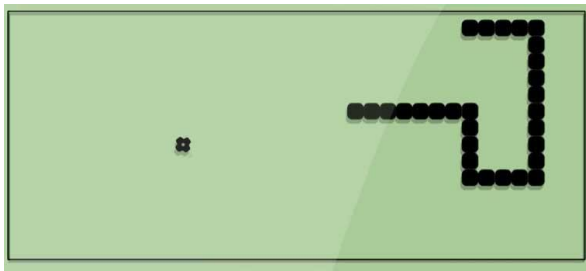
Rules

Goals:

- control a snake to move and collect food in a map
- to complete the game, you need to fill the field completely with a snake
- the snake can move up, left, right, down
- we should have counter of snake's length

End of game:
- you can defeat if you crash into the body of a snake
- you can win if you occupied the entire field

Controls:
- you can control the snake through WASD buttons

Realization

The snake game was developed way back in the 80s, so this allows us to implement it in Logisim.

What we need to do:

- Make a screen
- Add the keyboard
- Develop the logic of the snake game
  - Make a process of food eating
  - Make a snake growth
  - Random food generation
  - Score of eaten food
  - Collision with snake's body and walls
- Build the IO interface and create processor-circuit interaction protocols
- Make a scoreboard