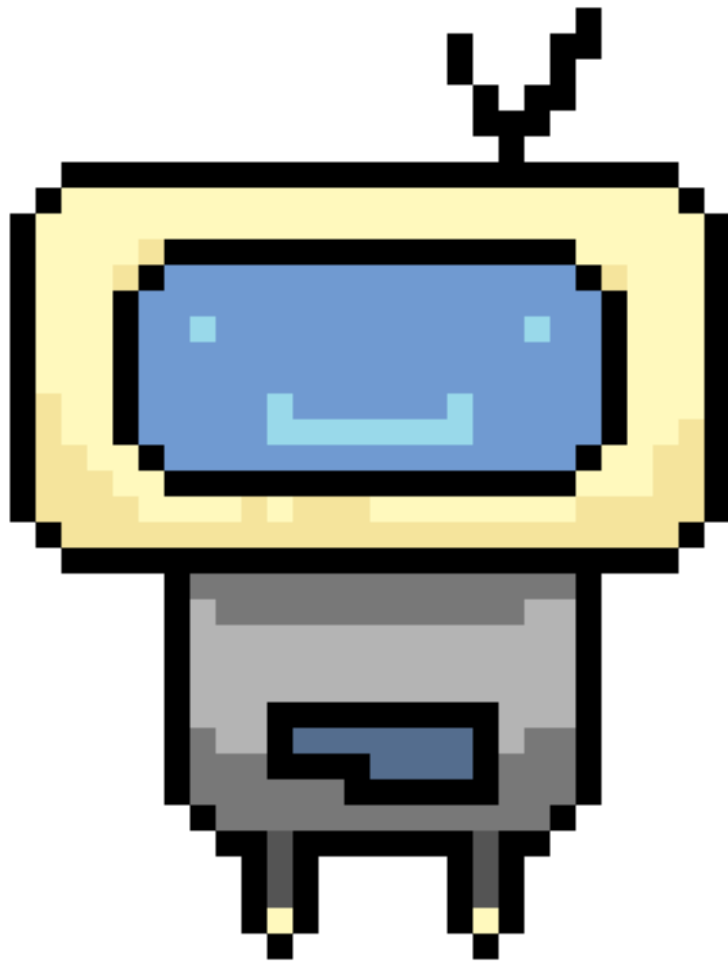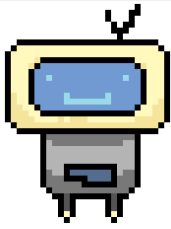# BeepoPy Documentation

v0.1
very early version
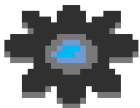
BeepoPy Pieces

Beepo is the main character of the game. He can be controlled by the user written code an has to complete the goal set by a task.
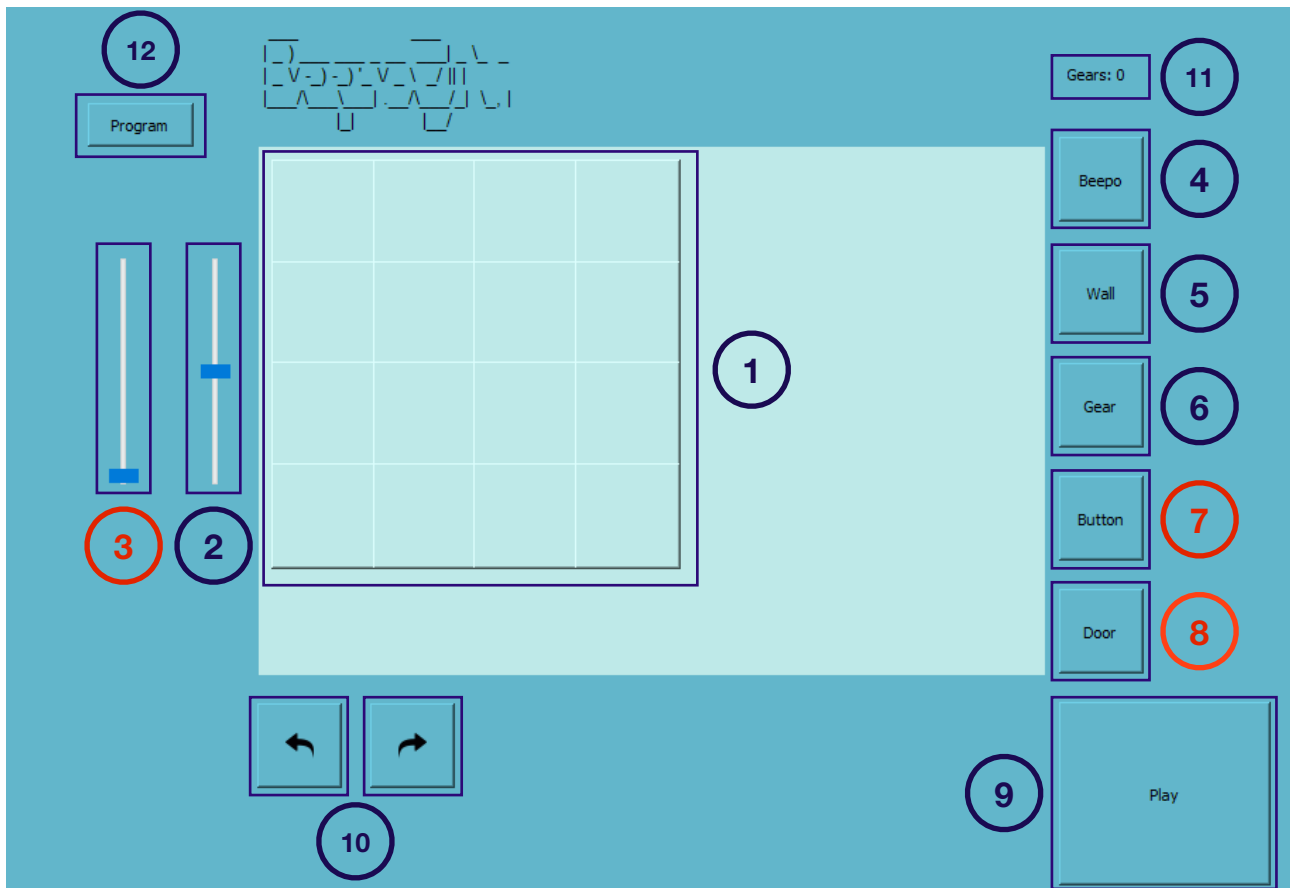
The Wall Object is a obstacle for Beepo, he has to avoid. If Beepo wants to move onto a square, on which a wall is placed, the program will stop and an error message will be shown.

The Gear Object can be picked up by Beepo and is the goal of most tasks

BeepoPy User Interface

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(1) Board

The board displays the World you can program. Beepo can move over the board and avoid objects placed on squares of the board.

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(2) Zoom Slider

The Zoom Slider can be used to zoom into the board for better visibility

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(4) Beepo Button

The Beepo Button can be used to place Beepo on a square. Firstly press the Beepo Button and than one of the squares on the board.

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(5) Wall Button

The Wall Button can be used to place a wall on a square. Firstly press the Wall Button and than one of the squares on the board.

(6) Gear Button

The Gear Button can be used to place a gear on a square. Firstly press the Gear Button and than one of the squares on the board.

(9) Play Button

The Play Button can be used to execute the user-written code.

(10) Turn Buttons

The Turn Buttons can be used to manually turn Beepo, without writing code.

(11) Gear Counter

The Gear Counter displays how many gears have been picked up by Beepo.

(12) Program Button

The Program Button opens a IDE to write your own code.

(3) Size Slider COMING SOON

The Size Slider can be used to change the dimensions of the board. The board is at leased 4x4 and goes up to 20x20
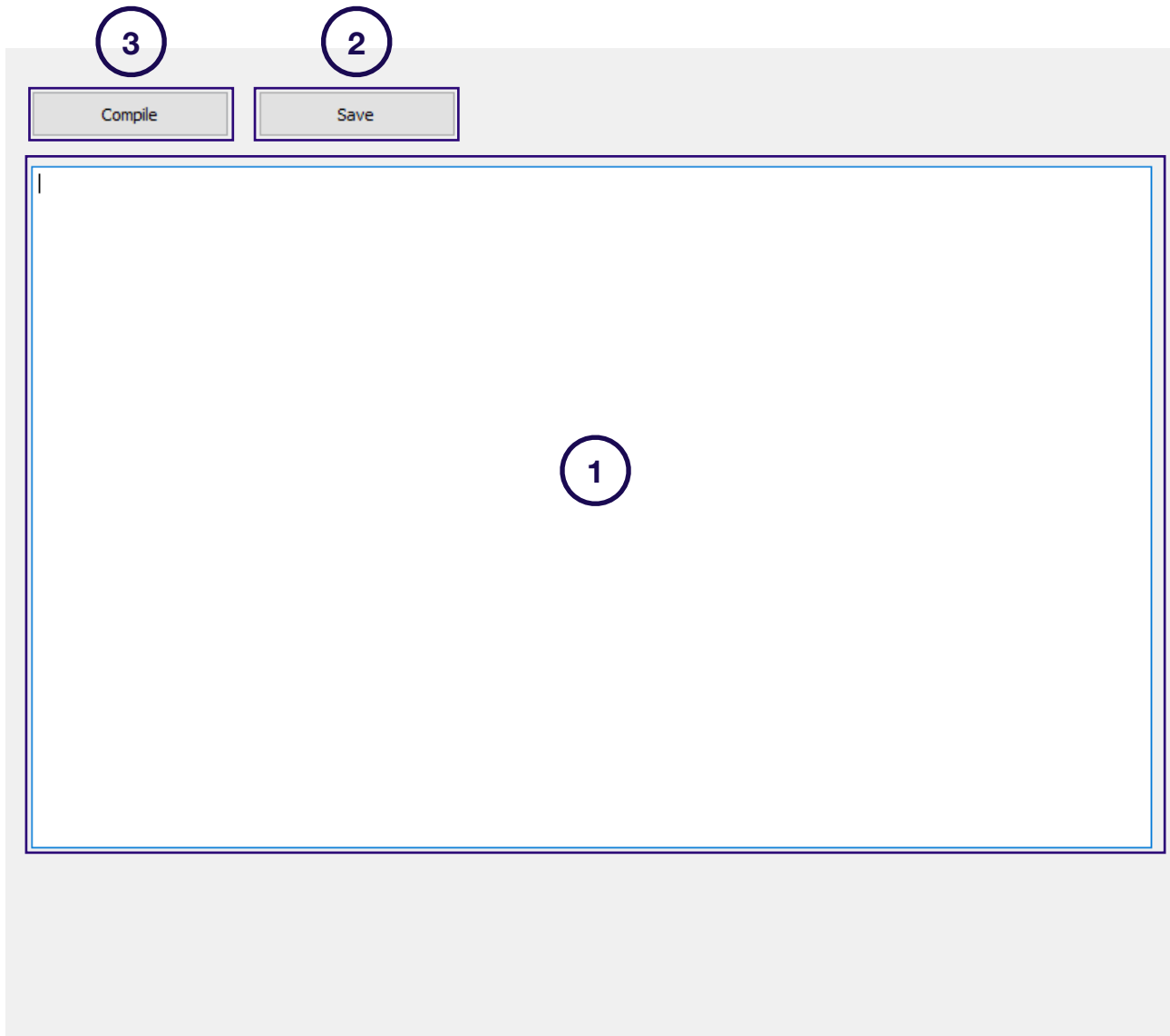
(7) Button Button COMING SOON

The Button Button can be used to place a Button on a square. Firstly press the Button Button and than one of the squares on the board.

(8) Door Button COMING SOON

The Door Button can be used to place a Door on a square. Firstly press the Door Button and than one of the squares on the board.

BeepoPy IDE

| Compile | Save |

① **Text field**

The text field can be used to write your own code.

② **Save Button**

The Save Button can be used to save the code written in the Text field to a Code.py file

③ **Compile Button**

The Compile Button can be used to Compile the Code that was saved to the Code.txt file. The Compiled Code will be executed by the BeepoPy program when the Play Button was pressed

Pre-made Action Functions

Beepo.move()

Moves Beepo one square in the direction he is headed

Beepo.turn_left(n)

Turns Beepo to the left n times. If no n is given it defaults to 1

Beepo.turn_right(n)

Turns Beepo to the right n times. If no n is given it defaults to 1

Beepo.pickup_gear()

If Beepo is on the same square as a gear it will disappear and the Gear Counter increases by one. If Beepo is not on the same square as a gear, the program will end and an error message will be shown

Pre-made Sensory Functions

Beepo.wall_front()

Returns true if a wall is in front of Beepo.

Beepo.wall_left()

Returns true if a wall is to the left of Beepo.

Beepo.wall_right()

Returns true if a wall is to the right of Beepo.

Beepo.on_gear()

Returns true if Beepo is on the same square as a gear.
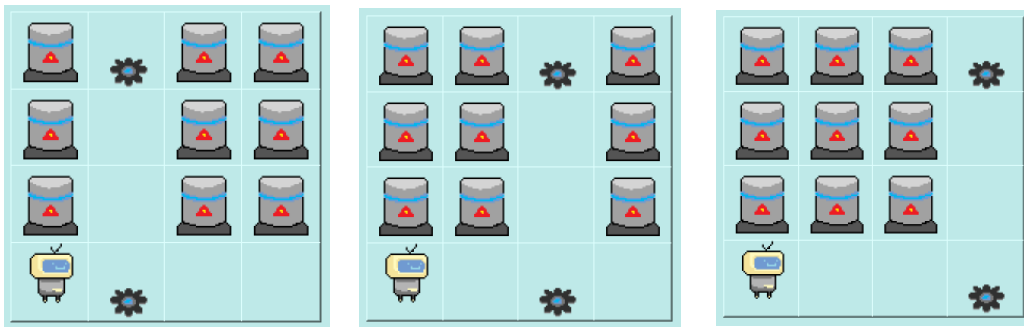
Dev/Cheat Functions

Beepo.set_position(x,y)

Teleports Beepo to the specific coordinates xy. The x and y coordinates of the board start at 0.

Beepo.set_rotation(x)

Sets Beepo's rotation to the specific direction. X can be "n","o","s","w".

Example Task
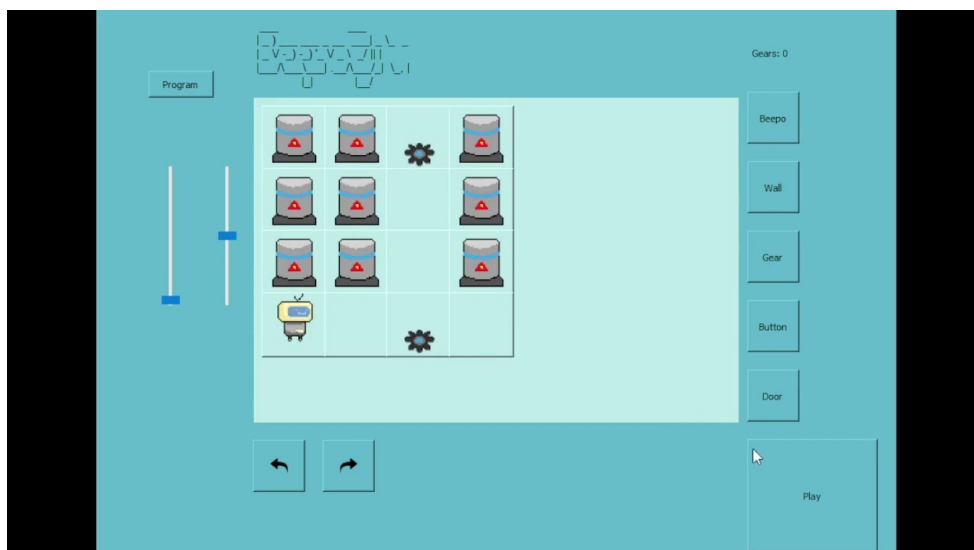
All possible worlds

Task

Write a program that collects both gears in every world above

Solution

```
while Beepo.on_gear() == False:
        Beepo.move()
Beepo.pickup_gear()
Beepo.turn_left()
for _ in range(3):
        Beepo.move()
Beepo.pickup_gear()
```

Click video

https://youtube.com/watch?v=fzO-3kh8lHg

GitHub-Repository

https://github.com/MaximDieball/BeepoPy