PICO-8

Hackers Week Workshop

What's PICO-8 ?

Links

→ PICO-8 Website

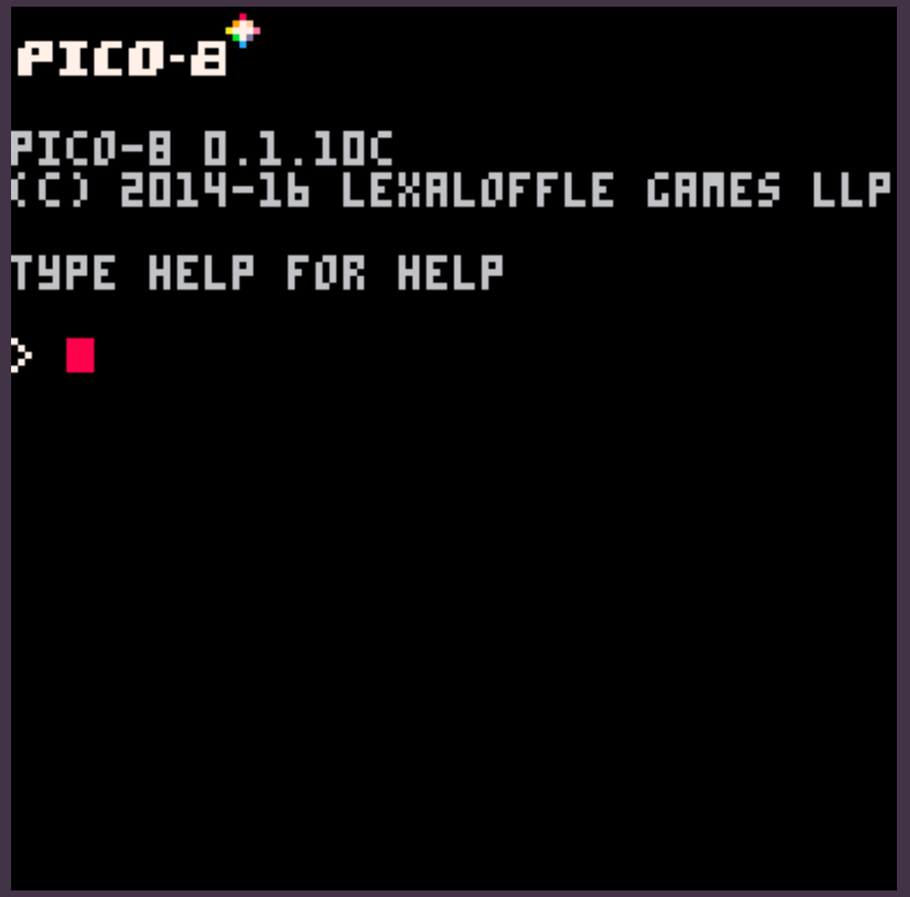
→ PICO-8 Manual

→ PICO-8 API Cheatsheet

→ Sublime Text Plugin

Tools

Shell



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```
help                    # print help
reboot                  # reset PICO-8
shutdown                # closes PICO-8
dir                     # file list
cd <dirname>            # go to directory
cd ..                   # go up a directory
folder                  # open folder in OS
load <cartridge> # load a cartridge
save <cartridge> # save a cartridge
run                     # run the cartridge
resume                  # resume execution
```

Splore

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Code

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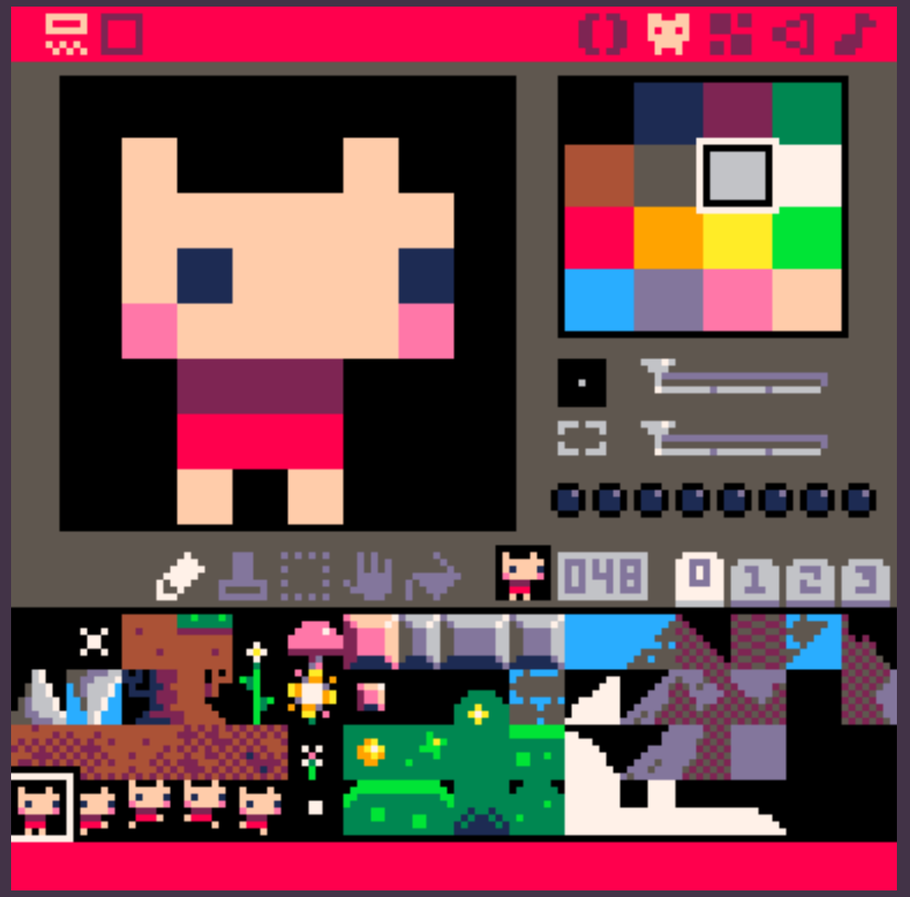
Sprites



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Maps

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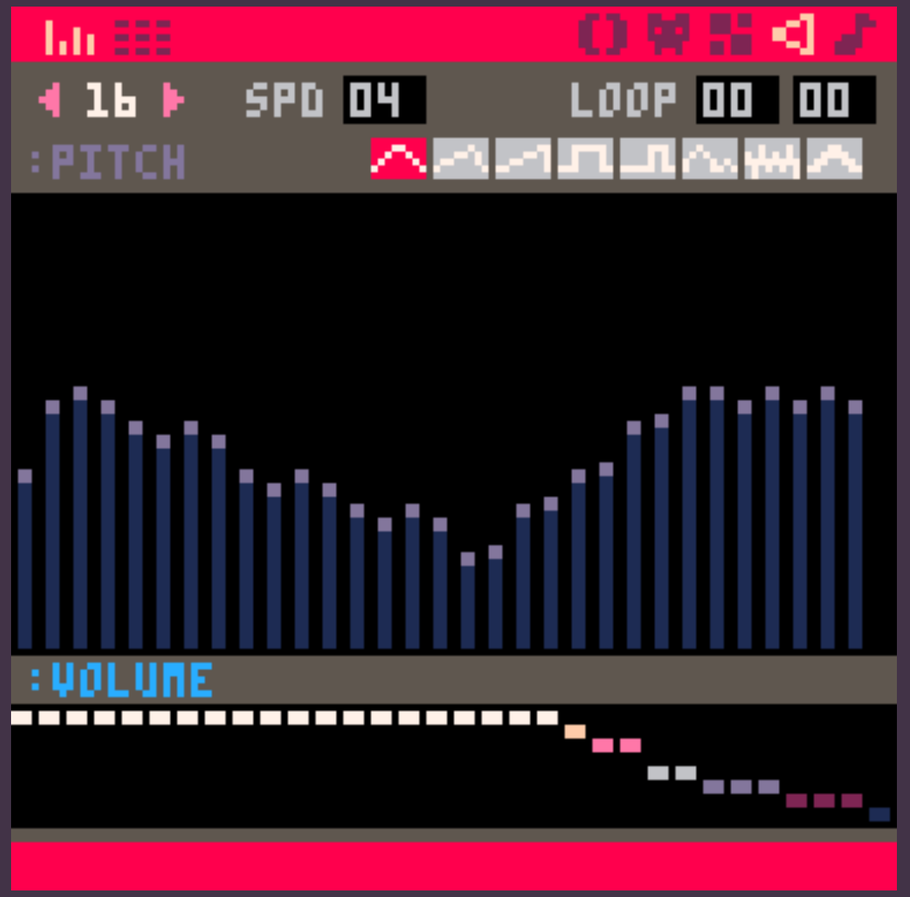
Audio wave



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Audio tracker

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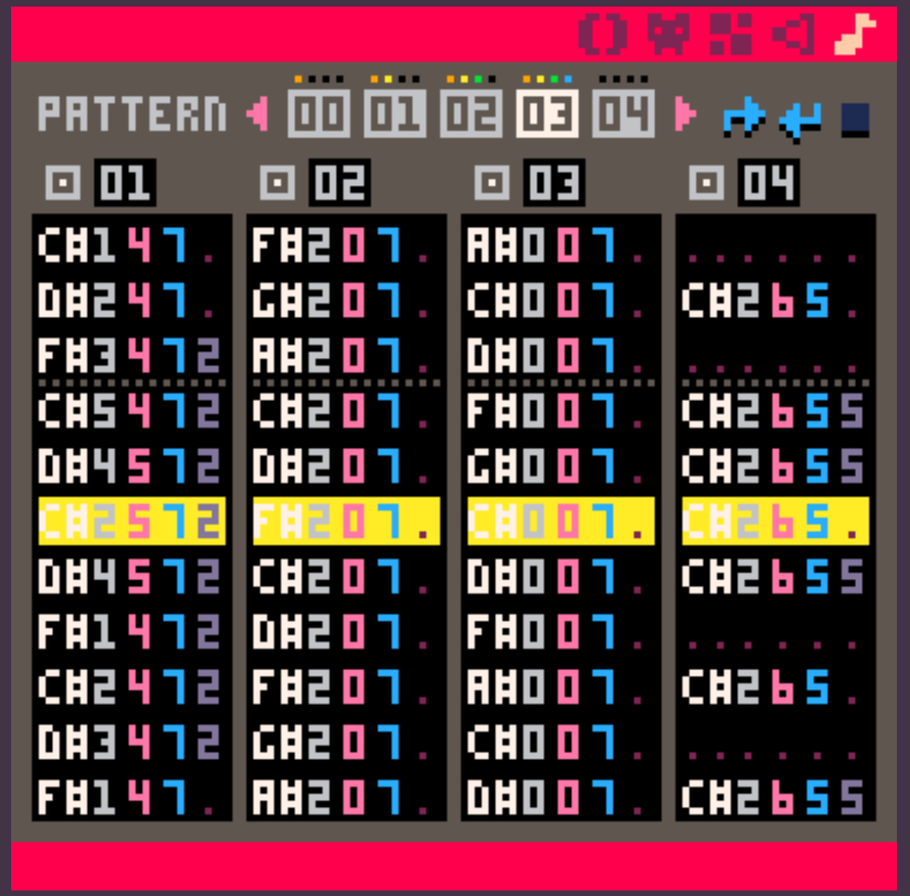
Music



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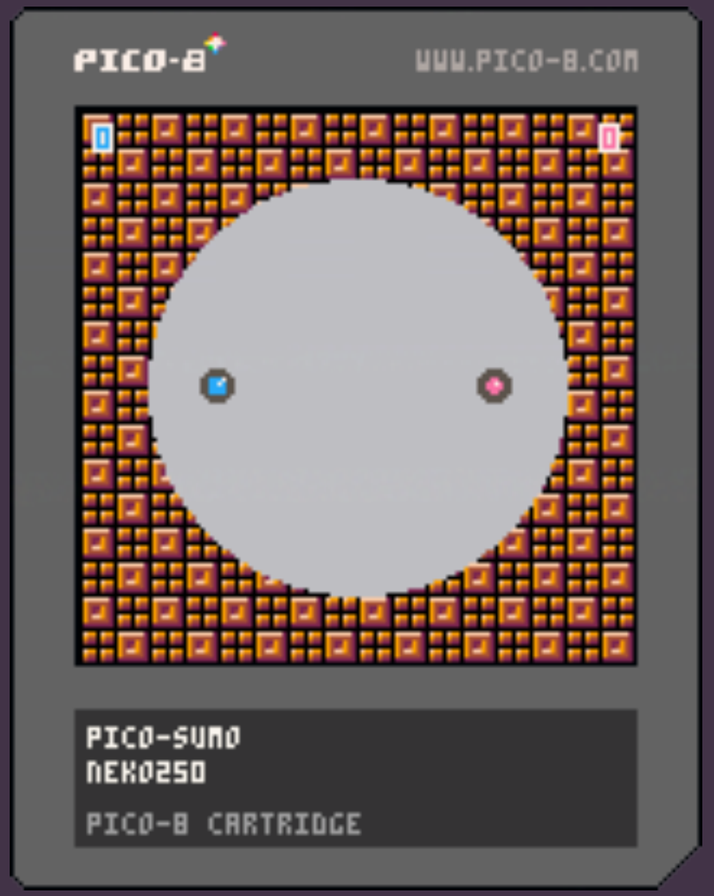
Let's begin !

PICO-Sumo !



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Let's draw !

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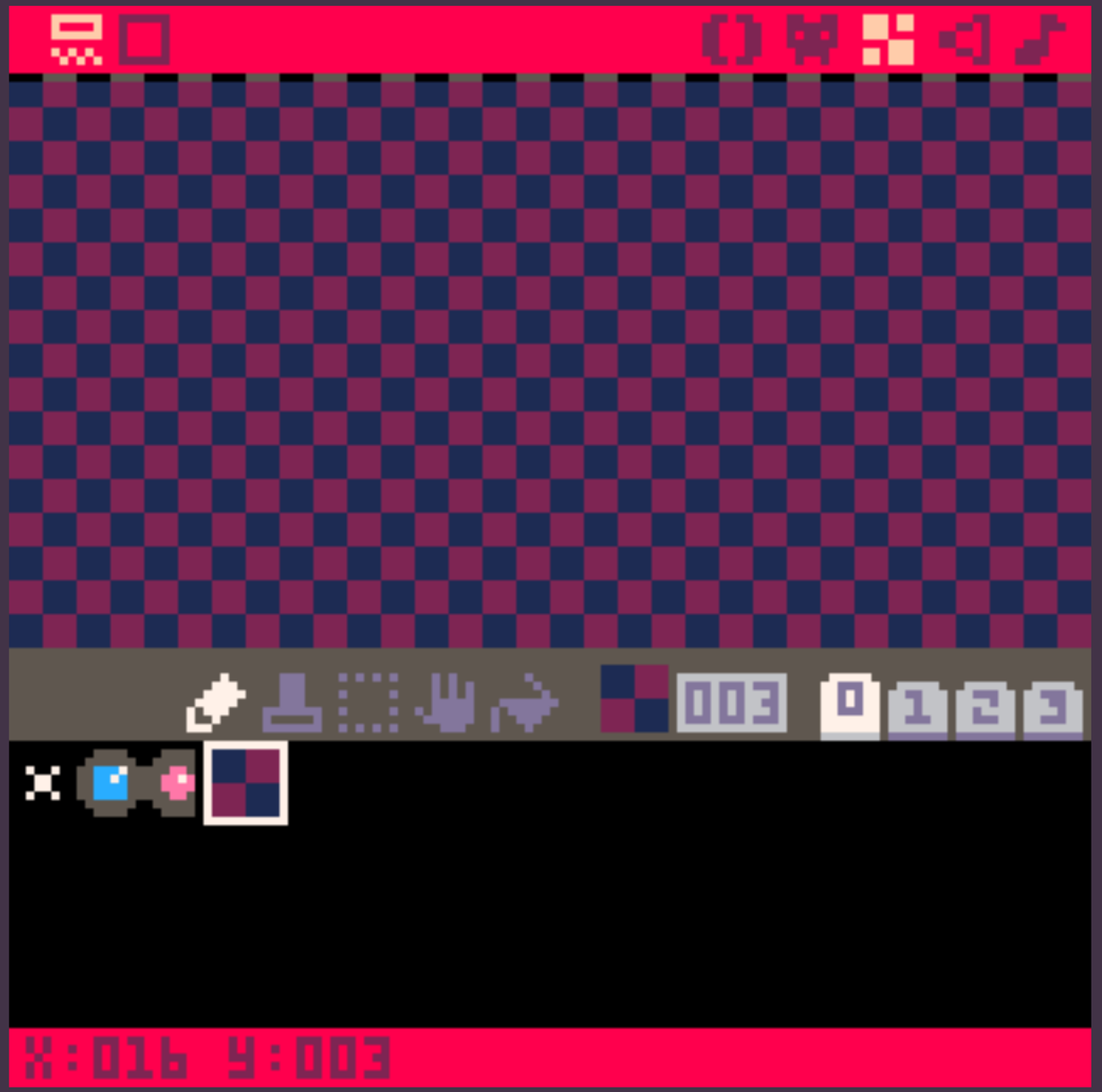
Let's map !



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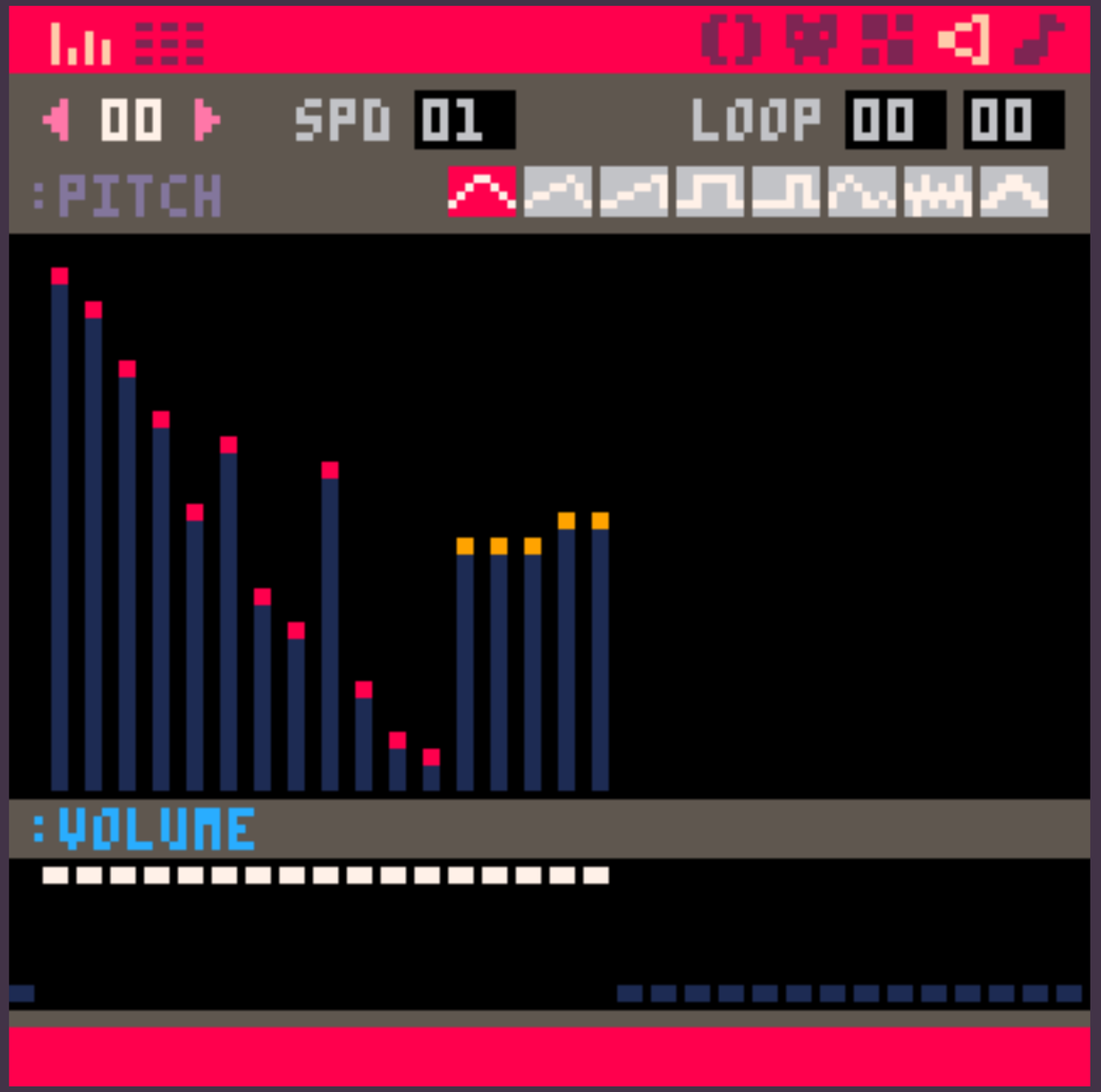
Let's sfx !



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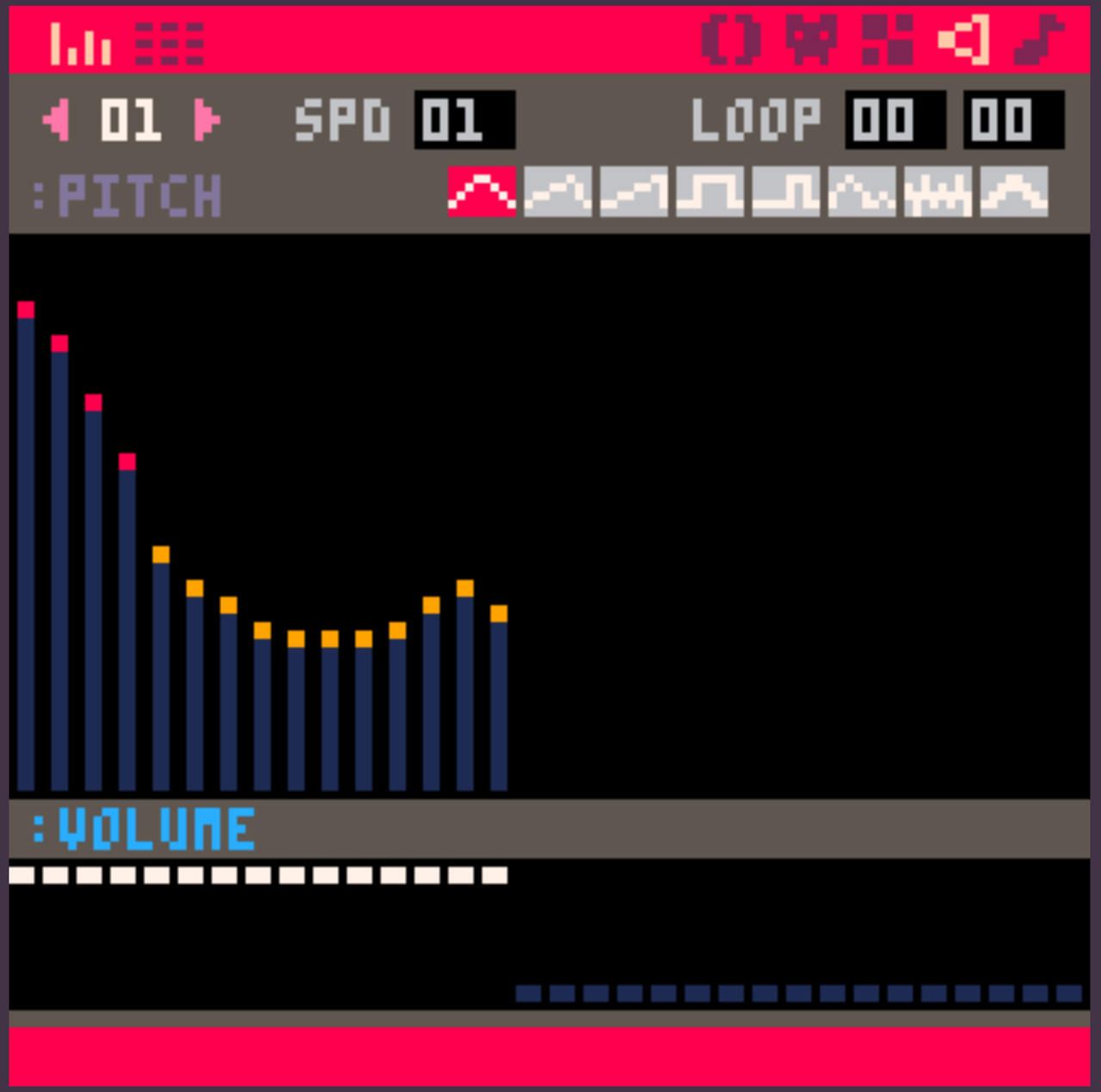

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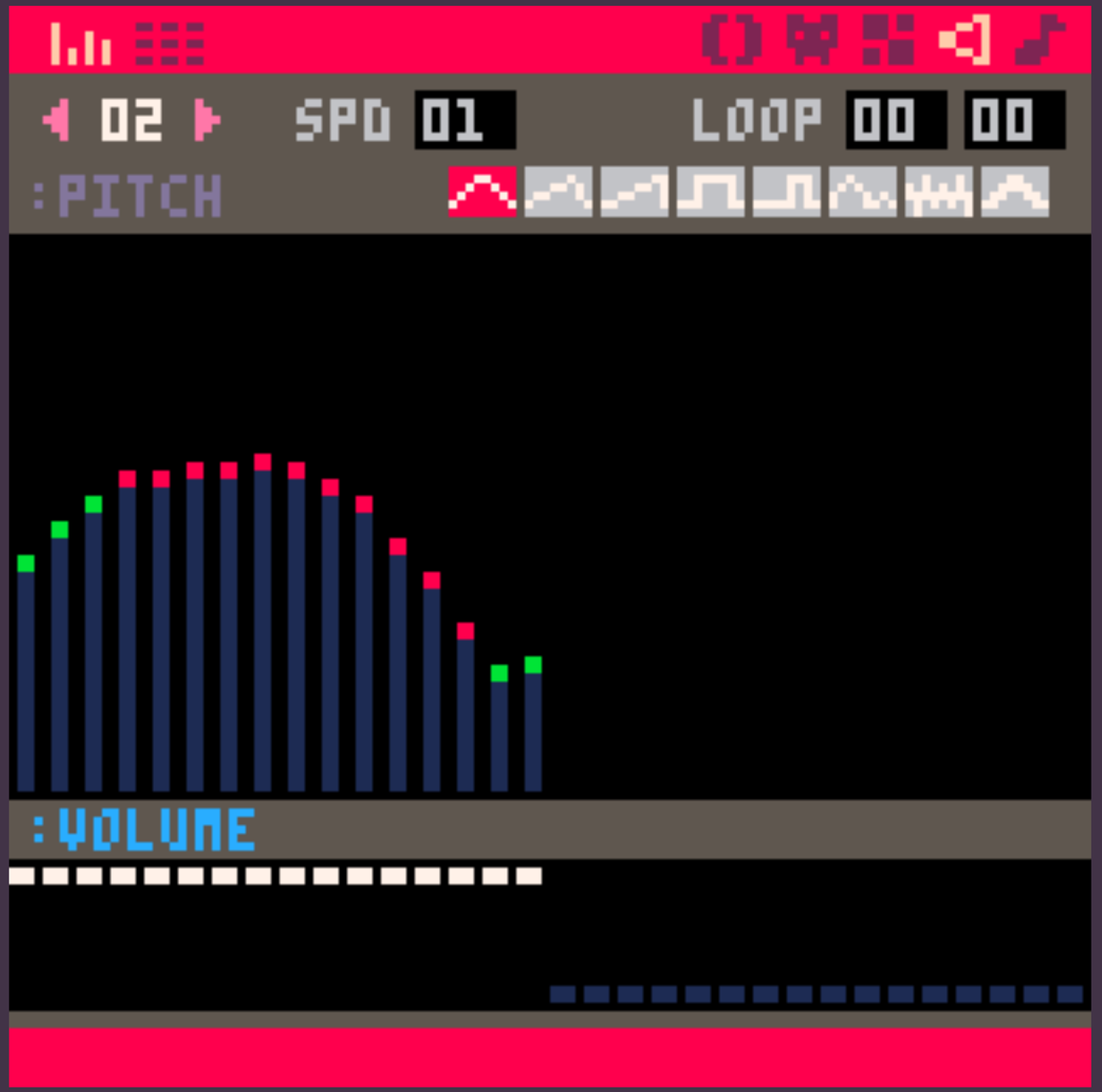

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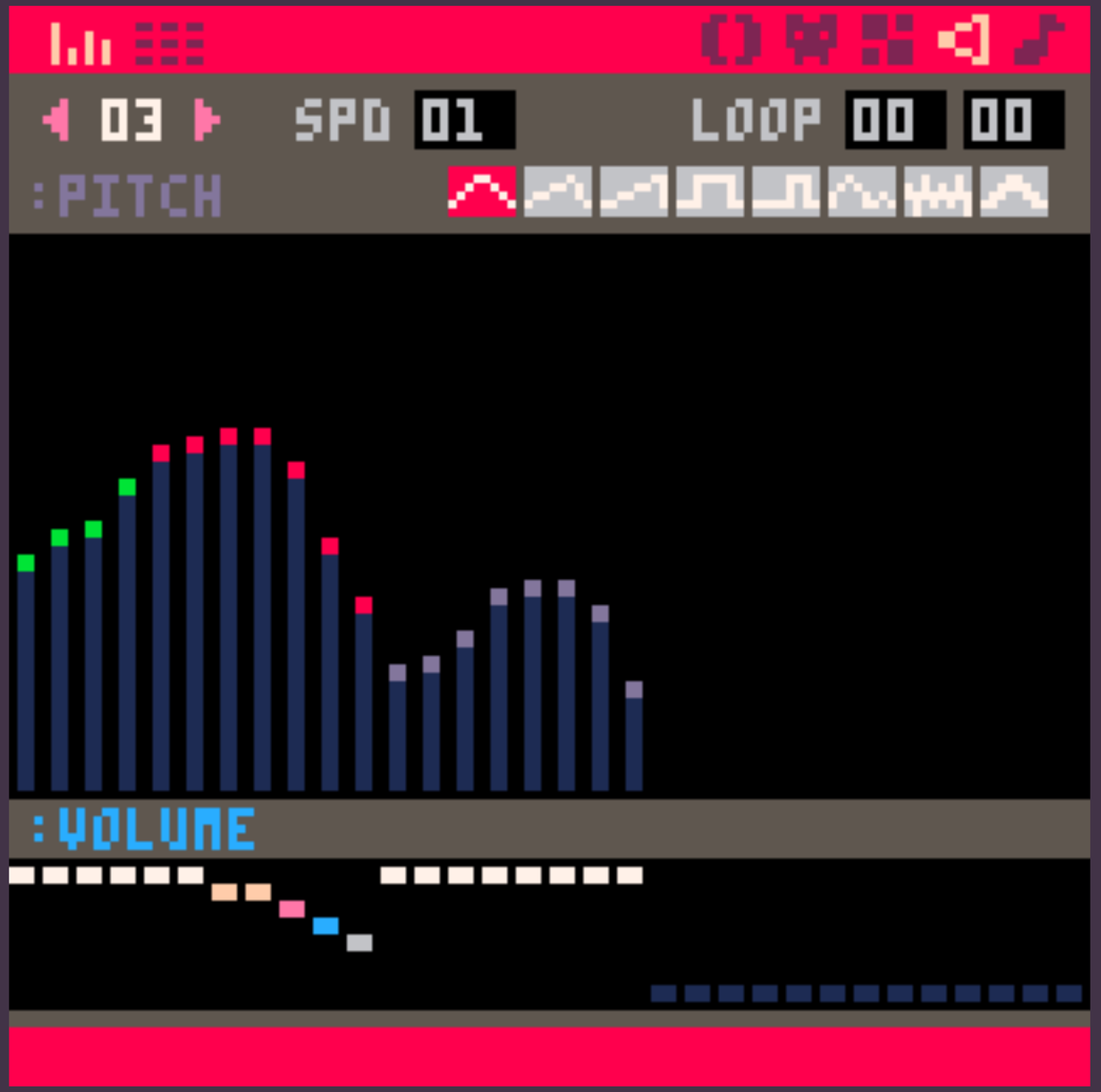

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Homework

Let's music !

Let's code !

Main loop

```
-- titulo
-- autor

function _init()
end

function _update()
end

function _draw()
end
```

Variables

```
actors    = { }
teams     = { 12 , 14 }
state     = 0
p1_score = 0
p2_score = 0
circ_col = 6
win_time = 90
```

Create player

```
function create_actor(x, y, n)
  local p = { }
  p.x = x
  p.y = y
  p.dx = 0
  p.dy = 0
  p.n = n
  p.col = teams[n]
  p.opcol = teams[n % 2 + 1]
  p.alive = true
  p.respawn = 0
  p.h = 3
  p.w = 3
  add(actors, p)
  return p
end
```

Initialise

```
function _init()
  p1 = create_actor(28, 60, 1)
  p2 = create_actor(92, 60, 2)
  music(0)
end
```

Draw player

```
function draw_actor(p)
  if p.alive then
    spr(p.n, p.x, p.y)
  end
end
```

Check input

```
function check_buttons(p)
  if btn(0, p.n - 1) then
    p.dx -= (4 + p.dx) * 0.1
  end
  if btn(1, p.n - 1) then
    p.dx += (4 - p.dx) * 0.1
  end
  if btn(2, p.n - 1) then
    p.dy -= (4 + p.dy) * 0.1
  end
  if btn(3, p.n - 1) then
    p.dy += (4 - p.dy) * 0.1
  end
end
```

Move player

```
function move_actor(p)
  p.dx -= p.dx * 0.05
  p.dy -= p.dy * 0.05
  check_buttons(p)
  collide_actor(p, p.dx, 0)
  collide_actor(p, 0, p.dy)
  p.x += p.dx
  p.y += p.dy
end
```

Destroy player

```
function destroy_player(p)
  p.alive = false
  p.respawn = 60
  circ_col = p.opcol
  if p.n == 1 then
    p2_score += 1
  else
    p1_score += 1
  end
  sfx(9, 3)
end
```

Distance from center

```
function dist_from_center(p)
  if p.alive
  and sqrt((60 - p.x) ^ 2 + (60 - p.y) ^ 2) > 52 then
    destroy_player(p)
  end
end
```

Respawn

```
function respawn_clock(p)
  if not p.alive then
    if p.respawn > 0 then
      p.respawn -= 1
    else
      circ_col = 6
      del(actors, p)
      if p.n == 1 then
        p1 = create_actor(28, 60, 1)
      else
        p2 = create_actor(92, 60, 2)
      end
    end
  end
end
```

Scores

```
function draw_score()
  rectfill(3, 3, 7, 9, 7)
  print(p1_score, 4, 4, p1.col)
  rectfill(120, 3, 124, 9, 7)
  print(p2_score, 121, 4, p2.col)
end
```

Check winner

```
function check_score()
  if p1_score >= 10 then
    state = p1.n
    sfx(11, 3)
  elseif p2_score >= 10 then
    state = p2.n
    sfx(11, 3)
  end
end
```

Update

```
function _update()
  if state == 0 then
    foreach(actors, move_actor)
    foreach(actors, dist_from_center)
    check_score()
    foreach(actors, respawn_clock)
  else
    if win_time > 0 then
      win_time -= 1
    else
      run()
    end
  end
end
```

Draw

```
function _draw()
  cls()
  map(0, 0, 0, 0, 16, 16)
  if state == 0 then
    circfill(64, 64, 48, circ_col)
    foreach(actors, draw_actor)
    draw_score()
  else
    rectfill(41, 57, 85, 67, 7)
    rectfill(42, 58, 84, 66, 1)
    if state == 1 then
      print("blue wins!", 44, 60, p1.col)
    elseif state == 2 then
      print("pink wins!", 44, 60, p2.col)
    end
  end
end
```

Let's play !

Thanks for coming ! 

Questions ?