## Many of one kind

It's common to have many sprites of one kind. As an example, dots moving down.

First, we define a dot "template" that we use to create the "real" dots: while this is not techinically needed, it is a good way to document what is a dot.

We initialize right away the the empty dots table that will contain the dots.

In update(), each time the space bar is pressed we create a newDot and add it to the dots table. Then we go through each dot and move it down a bit.

In draw() we print each dot at its current position.

```
local dot = { x = 0, y = 0, speed = 250, size =
'5', character = 'o' }
local dots = {}

function love.load(arg)
  love.graphics.setFont(love.graphics.newFont(36))
  math.randomseed(os.time())
end
```

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```

end

```
function love.update(dt)
                                                                      function love.update(dt)
 if love.keyboard.isDown('space', ' ') then
                                                                       if love.keyboard.isDown('space', ' ') then
  local newDot = {
                                                                        local newDot = {
   x = math.random(0, love.graphics.getWidth() -
                                                                          x = math.random(0, love.graphics.getWidth() -
dot.size),
                                                                      dot.size),
   y = 0,
                                                                         y = 0,
   speed = dot.speed,
                                                                          speed = dot.speed,
   character = dot.character
                                                                          character = dot.character
  table.insert(dots, newDot)
                                                                        table.insert(dots, newDot)
 end
                                                                       end
 for i, d in ipairs(dots) do
                                                                       for i, d in ipairs(dots) do
  d.y = d.y + (d.speed * dt)
                                                                        d.y = d.y + (d.speed * dt)
  if dot.y > love.graphics.getHeight() then
                                                                        if dot.y > love.graphics.getHeight() then
   table.remove(dots, i)
                                                                         table.remove(dots, i)
                                                                        end
  end
                                                                       end
 end
end
                                                                      end
function love.draw()
                                                                      function love.draw()
 for i, d in ipairs(dots) do
                                                                       for i, d in ipairs(dots) do
  love.graphics.print(d.character, d.x, d.y)
                                                                        love.graphics.print(d.character, d.x, d.y)
 end
                                                                       end
end
                                                                      end
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 if love.keyboard.isDown('space', ' ') then
                                                                       if love.keyboard.isDown('space', ' ') then
  local newDot = {
                                                                        local newDot = {
   x = math.random(0, love.graphics.getWidth() -
                                                                          x = math.random(0, love.graphics.getWidth() -
dot.size),
                                                                      dot.size),
   y = 0,
                                                                         y = 0,
   speed = dot.speed,
                                                                          speed = dot.speed,
   character = dot.character
                                                                          character = dot.character
  }
                                                                        }
  table.insert(dots, newDot)
                                                                        table.insert(dots, newDot)
 end
                                                                       end
 for i, d in ipairs(dots) do
                                                                       for i, d in ipairs(dots) do
  d.y = d.y + (d.speed * dt)
                                                                        d.y = d.y + (d.speed * dt)
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                                                                        if dot.y > love.graphics.getHeight() then
   table.remove(dots, i)
                                                                          table.remove(dots, i)
  end
                                                                        end
 end
                                                                       end
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                                                                      end
function love.draw()
                                                                      function love.draw()
 for i, d in ipairs(dots) do
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                                                                        love.graphics.print(d.character, d.x, d.y)
 end
                                                                       end
                                                                      end
end
```