```ruby
   1 # encoding: utf-8
   2
   3 require 'sdl'
   4 require 'image'
   5
   6 SCREEN_W = 640
   7 SCREEN_H = 480
   8 BOTTOM   = 410
   9
  10 SDL.init(SDL::INIT_EVERYTHING)
  11 SDL::TTF.init
  12 screen = SDL.set_video_mode(SCREEN_W, SCREEN_H, 16, SDL::SWSURFACE)
  13
  14 bom = Bom.new(screen)
  15 gun = Gun.new(screen)
  16 ufo = Ufo.new(screen)
  17
  18 en1 = Enemy.new(screen, 30,  ufo)
  19 en1.speed = 0.3
  20 en2 = Enemy.new(screen, 140, ufo)
  21 en2.speed = 0.5
  22
  23 ufo_hp = SCREEN_W - 100
  24 you_hp = SCREEN_W - 100
  25
  26 font = SDL::TTF.open('font/ehsmb.ttf', 20)
  27
  28 loop do
  29   while event=SDL::Event2.poll
  30     case event
  31     when SDL::Event2::Quit
  32       exit
  33     when SDL::Event2::KeyDown
  34       exit if event.sym == SDL::Key::ESCAPE
  35     end
  36   end
  37
  38   # 大砲を動かす
  39   SDL::Key.scan
  40   if SDL::Key.press?(SDL::Key::LEFT)
  41     gun.x -= 2
  42   end
  43   if SDL::Key.press?(SDL::Key::RIGHT)
  44     gun.x += 2
  45   end
  46
  47   if gun.x < 0
  48     gun.x = 0
  49   end
  50   if gun.x >= SCREEN_W - 100
  51     gun.x = SCREEN_W - 100
  52   end
  53
  54
  55   # ミサイルを発射させる
  56   if SDL::Key.press?(SDL::Key::SPACE)
  57     bom.launch(gun)
  58     bom.speed = 0.5
  59   end
  60
  61   if bom.y > 0
  62     bom.y -= bom.speed
  63   end
  64
  65
  66   # エイリアンを落とす
  67   if en1.y > BOTTOM - en1.h
  68     ufo.x = rand(SCREEN_W - ufo.w)
  69     en1.reset(30)
  70     en1.speed = 0.3
  71   end
  72   en1.y += en1.speed
  73
  74   # エイリアン２を落とす
  75   if en2.y > BOTTOM - en2.h
  76     ufo.x = rand(SCREEN_W - ufo.w)
```

```
 77      en2.reset(140)
 78      en2.speed = 0.5
 79    end
 80    en2.y += en2.speed
 81
 82
 83    # ＵＦＯがミサイルに当たったか
 84    if ufo.hit(bom, 80)
 85      ufo_hp -= 30
 86      bom.y = -50
 87    end
 88    break if ufo_hp <= 0
 89
 90    # エイリアンが大砲に当たったか
 91    if en1.hit(gun, 30)
 92      you_hp -= 40
 93      ufo.x = rand(SCREEN_W - ufo.w)
 94      en1.reset(30)
 95      en1.speed = 0.3
 96    end
 97    break if you_hp <= 0
 98
 99    # エイリアン２が大砲に当たったか
100    if en2.hit(gun, 30)
101      you_hp -= 80
102      ufo.x = rand(SCREEN_W - ufo.w)
103      en2.reset(140)
104      en2.speed = 0.5
105    end
106    break if you_hp <= 0
107
108
109    # ゲームウィンドウを表示する
110    screen.fill_rect(0, 0,      SCREEN_W, BOTTOM,          [46, 41, 48])
111    screen.fill_rect(0, BOTTOM, SCREEN_W, SCREEN_H-BOTTOM, [0,  0,  0 ])
112
113    # ＨＰを表示する
114    screen.fill_rect(10, BOTTOM + 40, you_hp, 20, [255, 255, 0])
115    font.draw_solid_utf8(screen, "#{you_hp}", SCREEN_W - 80, BOTTOM + 40, 255, 255, 255)
116    screen.fill_rect(10, BOTTOM + 10, ufo_hp, 20, [255, 0, 0])
117    font.draw_solid_utf8(screen, "#{ufo_hp}", SCREEN_W - 80, BOTTOM + 10, 255, 255, 255)
118
119    # キャラクターを表示する
120    bom.put if bom.y > 0
121    gun.put
122    ufo.put
123    en1.put
124    en2.put
125
126    screen.update_rect(0, 0, 0, 0)
127 end
128
129
130 # ゲームオーバーを表示する
131 font = SDL::TTF.open('font/ehsmb.ttf', 50)
132 if you_hp <= 0
133    screen.fill_rect(0, 0, SCREEN_W, SCREEN_H, [255, 0, 0])
134    font.draw_solid_utf8(screen, "GAME OVER...", 150, 200, 0, 0, 0)
135 elsif ufo_hp <= 0
136    screen.fill_rect(0, 0, SCREEN_W, SCREEN_H, [255, 255, 0])
137    font.draw_solid_utf8(screen, "MISSION CLEAR!!", 100, 200, 0, 0, 0)
138 end
139 screen.update_rect(0, 0, 0, 0)
140
141
142 sleep(3)
143 exit
```