#include <LiquidCrystal.h>

LiquidCrystal lcd(12, 11, 7, 6, 5, 4);

byte dino[8] =

{

B00000, B00000, B00000, B00111,

B10111, B11100, B11111, B01010

};

byte nullSprite[8] =

{

B00000, B00000, B00000, B00000,

B00000, B00000, B00000, B00000

};

byte cact[8] =

{

B00000, B00000, B00100, B10100,

B10110, B10110, B11110, B00110

};

bool dinoOnGround = true;

void setup() {

lcd.begin(16, 2);

lcd.createChar(0, dino);

lcd.createChar(1, nullSprite);

lcd.createChar(2, cact);

}

void loop() {

int rnd\_a{};

rnd\_a = random(2, 6);

for (int b = 15; b > -10; b = b - 1)

{

//cact\_1

lcd.setCursor(b, 1);

lcd.write((byte)2);

lcd.setCursor(b + 1, 1);

lcd.write((byte)1);

delay(150);

//cact\_2

lcd.setCursor(b + rnd\_a, 1);

lcd.write((byte)2);

lcd.setCursor(b + rnd\_a + 1, 1);

lcd.write((byte)1);

//key

if (Serial.available() > 0)

{

char key = Serial.read();

if (key == 'W')

{

dinoOnGround = false;

}

if (key == 'S')

{

dinoOnGround = true;

}

}

//dino

if (dinoOnGround == false)

{

lcd.setCursor(1, 0);

lcd.write((byte)0);

lcd.setCursor(1, 1);

lcd.write((byte)1);

}

if (dinoOnGround == true)

{

lcd.setCursor(1, 1);

lcd.write((byte)0);

lcd.setCursor(1, 0);

lcd.write((byte)1);

}

//game over

//game over cact\_1

if (dinoOnGround == true && b == 1)

{

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("game over");

delay(2000);

lcd.clear();

break;

}

//game over cact\_2

if (dinoOnGround == true && b + rnd\_a == 1)

{

lcd.clear();

lcd.setCursor(0, 0);

lcd.print("game over");

delay(2000);

lcd.clear();

break;

}

}

}