Kapitel 12.1: Tastatursteuerung – Einführung

In unserem Tetris-Spiel soll der Benutzer die Blöcke über die Tastatur steuern können. Wie das geht, könnt ihr hier ausprobieren.

main.py

```
import pygame
from kreis import Kreis

pygame.init()
pygame.display.set_mode((500, 500))
pygame.display.set_caption("Tastatursteuerung")

dist = 10
kreis = None

bRun = True
while bRun:
    pygame.time.delay(100)

    for event in pygame.event.get():
        if event.type == pygame.QUIT:
            bRun = False

    if kreis is None:
        kreis = Kreis(250, 250, 50, 500, 500)

    keys = pygame.key.get_pressed()
    if keys[pygame.K_LEFT]:
        kreis.move_left(dist)
    elif keys[pygame.K_RIGHT]:
        kreis.move_right(dist)

    if keys[pygame.K_UP]:
        kreis.move_up(dist)
    elif keys[pygame.K_DOWN]:
        kreis.move_down(dist)

    if keys[pygame.K_SPACE]:
        kreis.change_color()

    if keys[pygame.K_RETURN]:
        kreis.change_size()

    win = pygame.display.get_surface()
    win.fill((0, 0, 0))
    kreis.draw(win)
    pygame.display.update()
```

```
pygame.quit()
```

kreis.py

```
import pygame
import random

class Kreis:
    def __init__(self, x, y, radius, max_x, max_y):
        self.x = x
        self.y = y
        self.max_x = max_x
        self.max_y = max_y
        self.radius = radius
        self.color = (255, 255, 0)

    def move_left(self, dist):
        if self.x - self.radius - dist >= 0:
            self.x -= dist

    def move_right(self, dist):
        if self.x + self.radius + dist <= self.max_x:
            self.x += dist

    def move_up(self, dist):
        if self.y - self.radius - dist >= 0:
            self.y -= dist

    def move_down(self, dist):
        if self.y + self.radius + dist <= self.max_y:
            self.y += dist

    def change_color(self):
    r = random.randint(0,255)
    g = random.randint(0,255)
    b = random.randint(0,255)
        self.color = (r, g, b)

    def change_size(self):
        self.radius = 20 + random.randint(0, 12)*5

    def draw(self, win):
        pygame.draw.circle(win, self.color, (self.x, self.y), self.radius)
```