# OOPZ Cheat Sheet

| Setup | Motion | Looks |
|---|---|---|
| from oopz import * | actor.move_forward(50) | actor.draw() |
| from random import * | actor.move_up(10) | actor.switch_to_image ("alien") |
| zufallszahl = randint(0, 400) | actor.move_down(10) | actor.switch_to images (["bild1", "bild2"]) |
| | actor.move_right(10) | actor.next_image() |
| TITLE = "Alien im All" | actor.move_left(10) | actor.flip_x() |
| WIDTH = 400 | actor.turn_right(90) | actor.flip_y() |
| HEIGHT = 300 | actor.turn_left(90) | actor.scale(0.5) |
| actor = Actor("bildname") | actor.go_to(0, 0) | |
| | actor.point_towards(actor2) | stage.draw() |
| mouse.hide() | actor.point_in_direction(45) | stage.write_text("text", (0,0)) |
| mouse.show() | actor.set_anchor("left", "top") | stage.switch_to_color ((0, 0, 255)) |
| | actor.set_anchor("center", "bottom") | stage.switch_to_color ("blue") |
| exit() | actor.set_anchor("right", "center") | stage.switch_to_image ("background") |

| Events | Sensing | |
|---|---|---|
| def on_mouse_down(pos): <br>   print("clicked at", pos) | actor.collide_with((10,200)) <br> actor.collide_with(pos) <br> actor.collide_with(actor2) | mouse.x_position() <br> mouse.y_position() <br> mouse.position() |
| def on_mouse_up(pos): <br>   print(pos) | actor.distance_to(actor2) <br> actor.distance_to(pos) | key.left_is_pressed() <br> key.a_is_pressed() |
| def on_mouse_move(pos): <br>   actor.go_to(pos) | actor.position() <br> actor.x_position() <br> actor.y_position() | actor.angle_to(actor2) <br> actor.angle_to(pos) |
| def on_key_down(key): <br>   if key == keys.RIGHT: <br>     actor.move_right(50) | actor.get_width() <br> actor.get_height() <br> actor.get_size() | stage.timer() <br> stage.reset_timer() |
| def on_key_up(key): <br>   print(key) | actor.touching_the_edge() <br> actor.left_the_stage() | |

## Tastaturabfragen

| | | |
|---|---|---|
| key.a_is_pressed() | key.u_is_pressed() | key.k_0_is_pressed() |
| key.b_is_pressed() | key.v_is_pressed() | key.k_1_is_pressed() |
| key.c_is_pressed() | key.w_is_pressed() | key.k_2_is_pressed() |
| key.d_is_pressed() | key.x_is_pressed() | key.k_3_is_pressed() |
| key.e_is_pressed() | key.y_is_pressed() | key.k_4_is_pressed() |
| key.f_is_pressed() | key.z_is_pressed() | key.k_5_is_pressed() |
| key.g_is_pressed() | | key.k_6_is_pressed() |
| key.h_is_pressed() | key.up_is_pressed() | key.k_7_is_pressed() |
| key.i_is_pressed() | key.down_is_pressed() | key.k_8_is_pressed() |
| key.j_is_pressed() | key.right_is_pressed() | key.k_9_is_pressed() |
| key.k_is_pressed() | key.left_is_pressed() | key.kp0_is_pressed() |
| key.l_is_pressed() | key.backspace_is_pressed() | key.kp1_is_pressed() |
| key.m_is_pressed() | key.space_is_pressed() | key.kp2_is_pressed() |
| key.n_is_pressed() | key.hash_is_pressed() | key.kp3_is_pressed() |
| key.o_is_pressed() | key.plus_is_pressed() | key.kp4_is_pressed() |
| key.p_is_pressed() | key.comma_is_pressed() | key.kp5_is_pressed() |
| key.q_is_pressed() | key.minus_is_pressed() | key.kp6_is_pressed() |
| key.r_is_pressed() | key.period_is_pressed() | key.kp7_is_pressed() |
| key.s_is_pressed() | | key.kp8_is_pressed() |
| key.t_is_pressed() | | key.kp9_is_pressed() |

## Basic structure

```python
from oopz import *

TITLE = …
WIDTH = …
HEIGHT = …


#Hier Objekte initialisieren


def draw():
    #Hier Objekte zeichnen


def update():
    #Hier Objekte manipulieren
```



```
example

Name

📁 images
🐍 my_script.py
🐍 oopz.py
```

## Example

```python
from oopz import *                    # import oopz file


TITLE = "Beispiel"                    # setup everything
HEIGHT = 100
WIDTH = 400


alien = Actor("alien")                # create an object with name alien
alien.go_to(50, 50)                   # alien jumps to position (50, 50)


stage.switch_to_color("white")        # switch the background color to white


def draw():                           # place draw methods here
    stage.draw()                      # draw the stage
    alien.draw()                      # draw the alien


def update():                         # manipulate the objects here
    alien.move_forward(2)             # alien moves 2 pixel forward
    if alien.x_position() > 500:      # if x position of the alien is bigger 500
        alien.go_to(-50, 50)          # jump to (-50,50)

    if key.r_is_pressed():            # if key r is pressed
        alien.switch_to_image("alien") # the image of the alien switch to "alien"


def on_mouse_down(pos):               # gets calles, if mouse button was pressed
    if alien.collide_with(pos):       # if alien collide with mouse position
        alien.switch_to_image("hurt") # change image to "hurt"
        print("got me :( ")           # and print text
    else:                             # else:
        print("you missed me :P")     # print this text
```