## 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.switch_to_color ((0, 0, 255))
mouse.show()	actor.set_anchor("left", "top")	stage.switch_to_color ("blue")
	actor.set_anchor("center", "bottom")	stage.switch_to_image ("background")
	actor.set_anchor("right", "center")	stage.write_text("text", (0,0))
	Sensing	
Events	Se	ensing
def on_mouse_down(pos):	actor.collide_with((10,200))	mouse.x_position()
	actor.collide_with((10,200)) actor.collide_with(pos)	mouse.x_position() mouse.y_position()
def on_mouse_down(pos): print("clicked at", pos)	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2)	mouse.x_position() mouse.y_position() mouse.position()
<pre>def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):</pre>	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2)	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed()
def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos)	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed()
def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)  def on_mouse_move(pos):	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed() actor.angle_to(actor2)
def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position() actor.x_position()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed()
def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)  def on_mouse_move(pos):     actor.go_to(pos)	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position() actor.x_position() actor.y_position()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed() actor.angle_to(actor2) actor.angle_to(pos)
def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)  def on_mouse_move(pos):     actor.go_to(pos)  def on_key_down(key):	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position() actor.x_position() actor.y_position() actor.get_width()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed() actor.angle_to(actor2) actor.angle_to(pos)  actor.touching_the_edge()
<pre>def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)  def on_mouse_move(pos):     actor.go_to(pos)  def on_key_down(key):     if key == keys.DOWN:</pre>	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position() actor.x_position() actor.y_position() actor.get_width() actor.get_height()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed() actor.angle_to(actor2) actor.angle_to(pos)
<pre>def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)  def on_mouse_move(pos):     actor.go_to(pos)  def on_key_down(key):     if key == keys.DOWN:         actor.move_down(50)</pre>	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position() actor.x_position() actor.y_position() actor.get_width()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed() actor.angle_to(actor2) actor.angle_to(pos)  actor.touching_the_edge()
<pre>def on_mouse_down(pos):     print("clicked at", pos)  def on_mouse_up(pos):     print(pos)  def on_mouse_move(pos):     actor.go_to(pos)  def on_key_down(key):     if key == keys.DOWN:</pre>	actor.collide_with((10,200)) actor.collide_with(pos) actor.collide_with(actor2) actor.distance_to(actor2) actor.distance_to(pos) actor.position() actor.x_position() actor.y_position() actor.get_width() actor.get_height()	mouse.x_position() mouse.y_position() mouse.position() key.left_is_pressed() key.a_is_pressed() actor.angle_to(actor2) actor.angle_to(pos)  actor.touching_the_edge()

## Tastaturabfragen

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

```
from oopz.py import *

TITLE = ...
WIDTH = ...
HEIGHT = ...

# Setup everything here

def draw():
# draw your objects here

def update():
# update your objects here
```

example

## Beispiel

```
from oopz import *
                                         # import the oopz file
TITLE = "example"
                                         # 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
                                         # place the draw methods here
def draw():
                                         # draw the stage
    stage.draw()
    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 the x position of the alien is bigger 500
    alien.go_to(-50, 50)  # alien jumps to (-50,50)
        alien.go_to(-50, 50)
    if key.r_is_pressed():
                                        # if the key r is pressed
        alien.switch_to_image("alien") # the image of the alien switch to "alien"
def on_mouse_down(pos):
                                         # gets called, if mouse button was pressed
    if alien.collide_with(pos):
                                        # if alien collide with mouse position
        alien.switch_to_image("hurt") # change the image to "hurt"
        print("got me :( ")
                                         # and print the text
    else:
                                         # else:
        print("you missed me :P")
                                        # print this text
```