





# FE-ROS 2021 Python

#### Sebastjan Šlajpah

Univerza v Ljubljani Fakulteta za elektrotehniko Laboratorij za robotiko

sebastjan.slajpah@fe.uni-lj.si

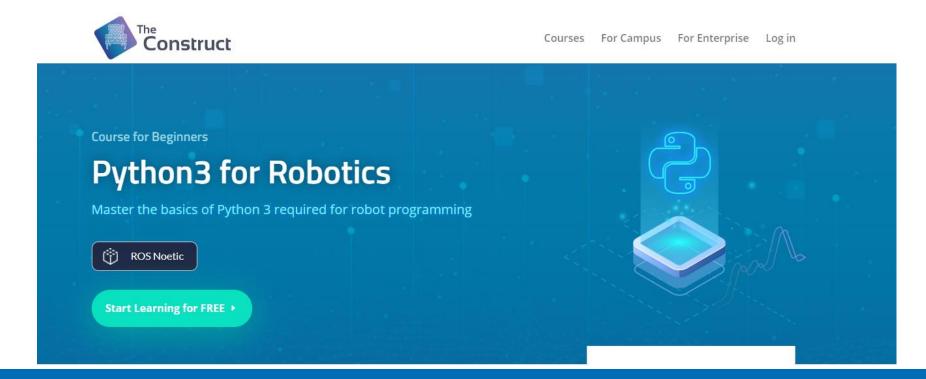
www.robolab.si www.cobotic.si



#### https://www.theconstructsim.com/

Python 3 for Robotics:

https://www.theconstructsim.com/robotigniteacademy\_learnros/ros-courses-library/python-robotics/





#### Data Types

Numbers

Strings

Lists

Tuples

Dictionaries



## Aritemetični operatorji

Operator	Name	Example
+	Addition	1 + 1 = 2
-	Substraction	2 - 1 = 1
*	Multiplication	2 * 2 = 4
1	Division	5 / 2 = 2
%	Modulus	5 % 2 = 1



## Priredilni operatorji

Operator	Example	Same As
=	x = 5	x = 5
+=	x += 3	x = x + 3
-=	x -= 3	x = x - 3
*=	x *= 3	x = x * 3
/=	x /= 3	x = x / 3
%=	x %= 3	x = x % 3



## Primerjalni operatorji

Operator	Means	Same As
==	Equal	5 == 5
!=	Not Equal	4 != 5
>	Greater than	5 > 4
<	Less than	4 < 5
>=	Greater than or equal to	5 >= 4
<=	Less than or equal to	4 <= 5



## # To je komentar



#### Pogojni stavek

```
if condition_1:
         statement_block_1
elif condition_2:
         statement_block_2
...
elif another_condition:
         another_statement_block
else:
         else_block
```



#### Zanka



#### FOR stavek



#### Prekinitve zanke

- **Break** prekine celotno zanko
- Continue prekine trenutno iteracijo

**break**: It immediately terminates a loop entirely. Program execution proceeds to the first statement following the loop body.

**continue**: It immediately terminates the current loop iteration. Execution jumps to the top of the loop, and the condition is re-evaluated to determine whether the loop will execute again or terminate.



### Funkcije

```
def myfunction(a, b):
    C = a + b
    print("The function myfunction() has been called")
    return C

C = myfunction(1,2)
```



#### Objekt

```
class Jedi:
    def __init__(self, name):
        self.jedi_name = name
    def say_hi(self):
        print('Hello, my name is ', self.jedi_name)

j1 = Jedi('ObiWan')

j1.say_hi()

j2 = Jedi('Anakin')

j2.say hi()
```

Vsaka spremenljivka v objektu se začne s self.

Spremenljivke v objektu se obnašajo kot globalne spremenljivke znotraj objekta.