

KDR Python

Sebastjan Šlajpah

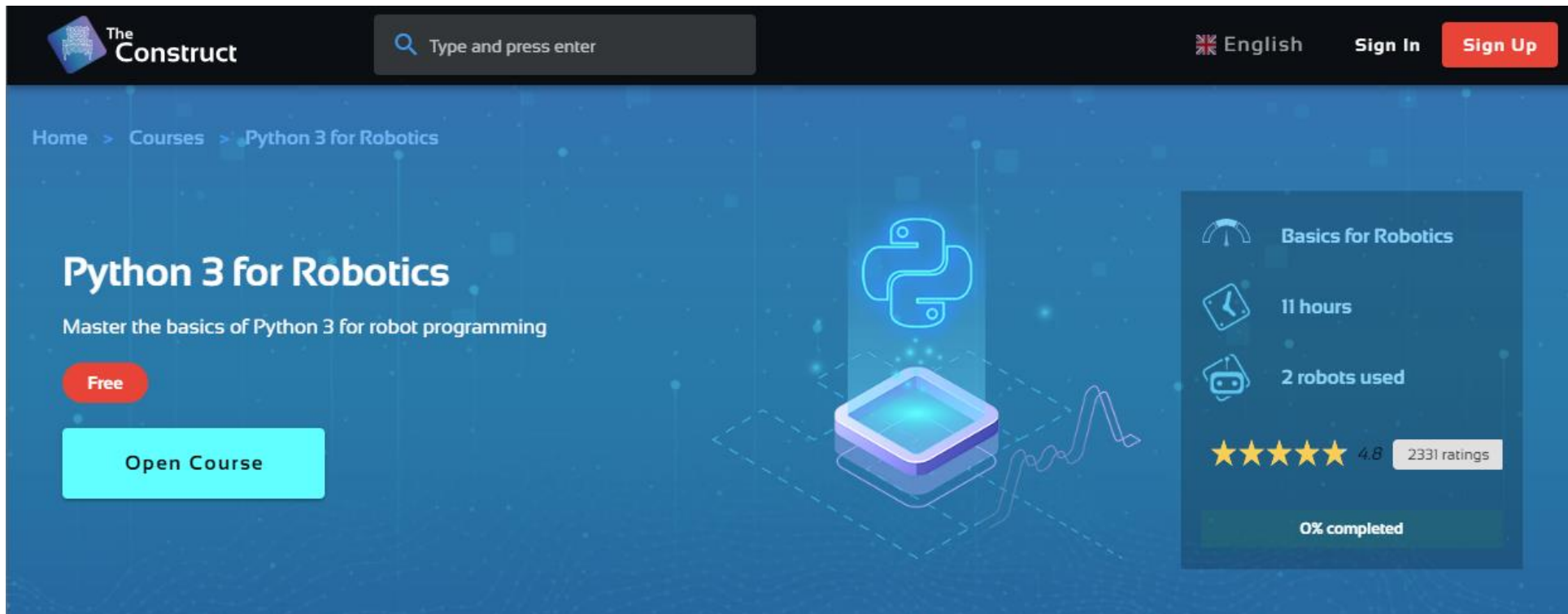
Univerza v Ljubljani
Fakulteta za elektrotehniko
Laboratorij za robotiko

sebastjan.slajpah@fe.uni-lj.si

<https://app.theconstruct.ai/>

Python 3 for Robotics:

<https://app.theconstruct.ai/courses/58>

A screenshot of the 'The Construct' website interface. The top navigation bar is dark blue with the 'The Construct' logo on the left, a search bar in the center, and 'English', 'Sign In', and a red 'Sign Up' button on the right. The main content area has a blue background with a grid pattern. On the left, the course title 'Python 3 for Robotics' is displayed in large white text, followed by the subtitle 'Master the basics of Python 3 for robot programming'. Below this is a red 'Free' badge and a large cyan 'Open Course' button. In the center, there is a 3D illustration of a glowing blue cube with a Python logo above it. On the right, a dark blue sidebar contains course details: 'Basics for Robotics' with an umbrella icon, '11 hours' with a clock icon, '2 robots used' with a robot icon, a 4.8 star rating from 2331 ratings, and a '0% completed' progress bar at the bottom.

The Construct

Type and press enter

English Sign In Sign Up

Home > Courses > Python 3 for Robotics

Python 3 for Robotics

Master the basics of Python 3 for robot programming

Free

Open Course

Basics for Robotics

11 hours

2 robots used

★★★★★ 4.8 2331 ratings

0% completed

Data Types

- Numbers

```
1, 2, 3, 4
```

- Strings

```
'a', 'b', "c", "delo"
```

- Lists

```
list = [1, 2, 3, 'to', 'je', 'seznam']    print(list[0])
```

- Tuples

```
t = (1, 2, 3, 'to', 'je', 'seznam')
```

read-only

- Dictionaries

```
dict = {"a": 3, "b": 0, "c": 1}          print(dict["a"])
```

Aritmetični operatorji

Operator	Name	Example
+	Addition	$1 + 1 = 2$
-	Substraction	$2 - 1 = 1$
*	Multiplication	$2 * 2 = 4$
/	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

```
counter = 0

while counter < 10:
    ...
    counter += 1
    print(counter)

print("Outside the loop!")
```

FOR stavek

```
for variable in sequence:  
    statement
```

```
for i in range(5):  
    print(i)
```

Prekinitve zanke

- **Break** - prekinje celotno zanko
- **Continue** - prekinje 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.