UNIVERZA V LJUBLJANI
Fakulteta za elektrotehniko

robolab

KDR
Python

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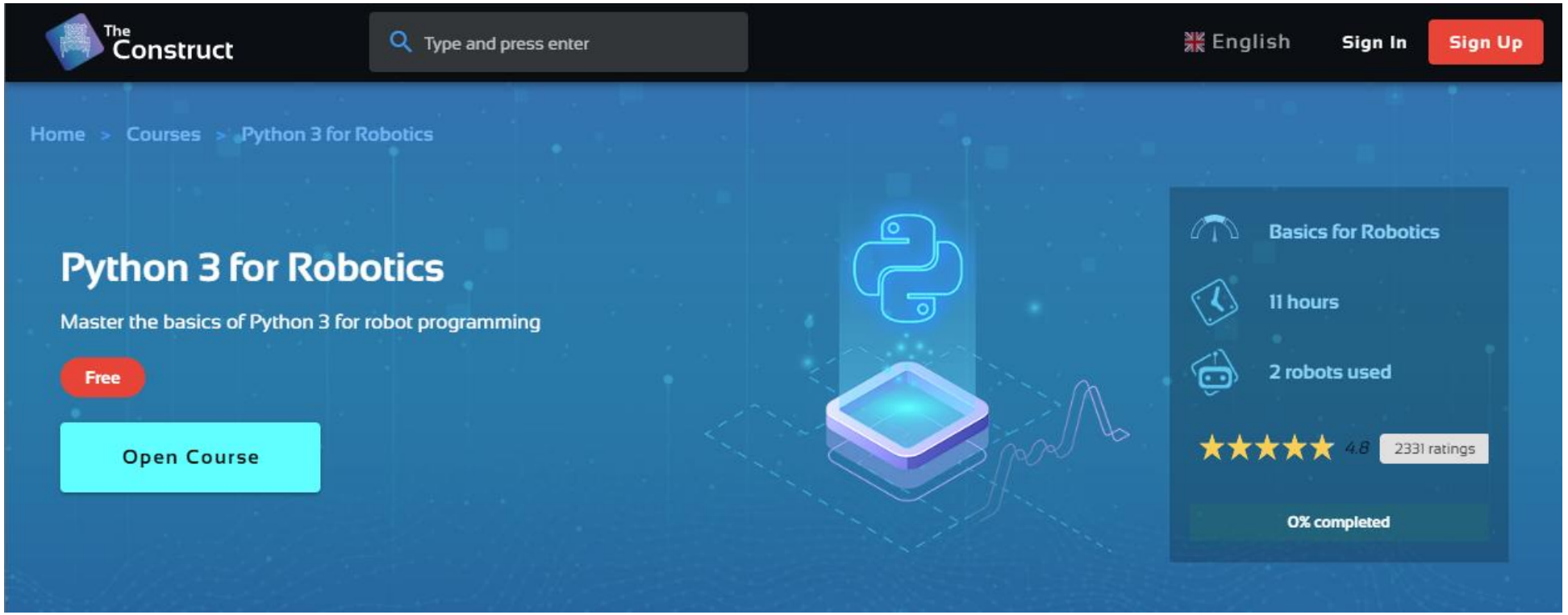
https://app.theconstruct.ai/

Python 3 for Robotics:

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



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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"])
```

Aritemetični 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

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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`** - 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.