

# Read data

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## API Overview

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APIs related to reading robotic arm data are as follows

### **get\_angles()**

Function: Read the angles of the six joints of the robotic arm.

Parameter explanation:

- Return value: Returns six joint angle values.

### **get\_coords()**

Function: Read the current position coordinate value of the robotic arm.

Parameter explanation:

- Return value: Returns the current position coordinate value of the robotic arm

### **get\_encoders()**

Function: Read the potential values of the six joints of the robotic arm

Parameter explanation:

- Return value: Return the potential values of the six joints of the robotic arm.

### **get\_radians()**

Function: Read the arc values of the six joints of the robotic arm.

Parameter explanation:

- Return value: Returns the radian values of the six joints of the robotic arm.

### **get\_gripper\_value()**

Function: Read the angle value of the robotic arm gripper.

Parameter explanation:

- Return value: Returns the angle value of the robotic arm gripper.

## 2. About code

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Code path: ~/jetcobot\_ws/src/jetcobot\_ctrl/scripts/read\_data.ipynb

```
#!/usr/bin/env python3
#coding=utf-8
import os
import time
from pymycobot.mycobot import MyCobot
```

Initialize the robotic arm object.

```
mc = MyCobot(str(os.getenv('MY_SERIAL')), 1000000)
```

Read and print the angles of the six joints of the robotic arm.

```
angles = mc.get_angles()
print("read angles:", angles)
```

Read and print the coordinates of the robotic arm.

```
coords = mc.get_coords()
print("read coords:", coords)
```

Read and print the potential value of the robotic arm.

```
encoders = mc.get_encoders()
print("encoders:", encoders)
```

Read and print the arc value of the robotic arm.

```
radians = mc.get_radians()
print("read radians:", radians)
```

Read and print the gripper angle of the robotic arm.

```
gripper = mc.get_gripper_value()
print("gripper:", gripper)
```

### 3.Run program

Click the run button on jupyterlab to run the relevant programs.

