



# UR3 CobotOps

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The UR3 CobotOps Dataset is an essential collection of multi-dimensional time-series data from the UR3 cobot, offering insights into operational parameters and faults for machine learning in robotics and automation. It features electrical currents, temperatures, speeds across joints (J0-J5), gripper current, operation cycle count, protective stops, and grip losses, collected via MODBUS and RTDE protocols. This dataset supports research in fault detection, predictive maintenance, and operational optimization, providing a detailed operational snapshot of a leading cobot model for industrial applications



## Dataset

### Characteristics

Multivariate, Time-Series

## Subject Area

Engineering

## Associated Tasks

Classification,  
Regression,  
Clustering, Other

## Feature Type

Real, Categorical,  
Integer

## # Instances

7409

## # Features

20

## Dataset Information



### Has Missing Values?

Yes

## Introductory Paper




**Leveraging Information Flow-Based Suzzy Cognitive Maps for Interpretable Fault Diagnosis in Industrial Robotics**


By Marios Tyrovolas, Khurshid Aliev, Dario Antonelli, Chrysostomos Stylios. 2024  
Published in 15th Advanced Doctoral Conference on Computing, Electrical and Industrial Systems


**Variables Table**


Variable Name	Role	Type	Description
Current_J0	Feature	Continuous	
Temperature_T0	Feature	Continuous	
Current_J1	Feature	Continuous	
Temperature_J1	Feature	Continuous	
Current_J2	Feature	Continuous	
Temperature_J2	Feature	Continuous	
Current_J3	Feature	Continuous	
Temperature_J3	Feature	Continuous	
Current_J4	Feature	Continuous	
Temperature_J4	Feature	Continuous	
Current_J5	Feature	Continuous	
Temperature_J5	Feature	Continuous	
Speed_J0	Feature	Continuous	
Speed_J1	Feature	Continuous	

**Creators**

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**DOI**

**10.24432/C5J891**

Speed_J2	Feature	Continuous
Speed_J3	Feature	Continuous
Speed_J4	Feature	Continuous
Speed_J5	Feature	Continuous
Tool_current	Feature	Continuous
cycle	Feature	Integer
Robot_ProtectiveStop	Target	Binary
grip_lost	Target	Binary

Rows per page

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Reviews

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5



(1 rating)

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Adrián Vinueza

6/17/2024

I found this dataset very useful. I'm Data Analyst and I would like to read your paper. But I'm not able to download it

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