



## 04. ROS 2 Launch, Param, Bag

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### Lecture

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#### ROS 2 Launch

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- Launch multiple nodes
  - Set arguments
  - Monitor running nodes
  - React on changes in the state of nodes
  - Python, XML and YAML file formats
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#### Usage

```
ros2 launch package_name file.launch
ros2 launch irob_robot dvrk_server.launch arm_typ:=PSM1
```

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#### ROS 2 Parameters

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- Configure nodes at startup or during runtime without changing the code
  - Associated with individual nodes
  - Consists of: key, value, descriptor
  - Available data types: bool, int64, float64, string, byte[], bool[], int64[], float64[] or string[].
  - Useful command: `ros2 param`
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#### ROS 2 Bag

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- Record and playback ROS topics