Standard Operational Procedure

Opentrons OT2 Protocol - Template

Version 1.0.0

The following Standard Operational Procedure (SOP) outlines the procedure for working with the Opentrons OT2 Template protocol. The SOP contains the primary information regarding safety, startup, workflow, and FAQ. As the Opentrons OT2 system is a semi-automation, the user is required to support it in its work.

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# Safety

The following segment describes the hazardous elements in the work procedures. It is presumed the user has read the Opentrons OT-2 guidelines and “Safety and Regulatory Compliance Information” for proper handling of the equipment.

## Hardware

### OT-2

CAUTION: Risk of danger! Instrument components pose a risk of personal injury or instrument damage if improperly handled.

To reduce risk, ensure the machine is either turned off or paused before working within OT-2. All Opentrons Python Scripts from the Alberdi Lab include automatic “set\_rail\_lights” to automatically switch lights on during runs and off when completed to indicate an active robot. The Opentrons offers “[Auto-stop](https://support.opentrons.com/s/article/Pause-a-protocol-when-the-robot-door-opens)” function to automatically pause work, however, this feature is not turned on for the Alberdi Lab, as the auto pause is prone to cause error for “smart labware”, in particular the thermocycler unit.

CAUTION: Risk of electrical shock! Instrument components pose a risk of electrical shock if handled improperly.

To reduce the risk of electrical shock, it is recommended switching off power to the unit while working with it. Do not attempt to touch any open electrical parts while supplied with power. Do not clean exposed electrical parts on units with any liquid – if wet, turned off the unit and wait for evaporation/drying.

CAUTION: Hot surface! Instrument components pose a risk of personal injury due to excessively high heat temperature if handled improperly.

To reduce risk of personal injury due to high temperature, avoid touching units intended for such use if status of the unit is unknown. Turn off units and wait for decrease in temperature.

CAUTION: Pinch Point! This symbol identifies instrument components which can pose risk of personal injury when moving.

See general risk of danger.

### Other Hardware

Similar to OT-2 warnings and risk, handle equipment with care. Consultate trained personnel and/or equipment safety and compliance guidelines to avoid any injury.

## Chemicals

# Materials

# Manual Work and Preparation

# Opentrons Setup and Preparation

# FAQ

External problems and questions can be directed to:

Frequent problems and questions are:

# Version