



# KNX SIMULATOR

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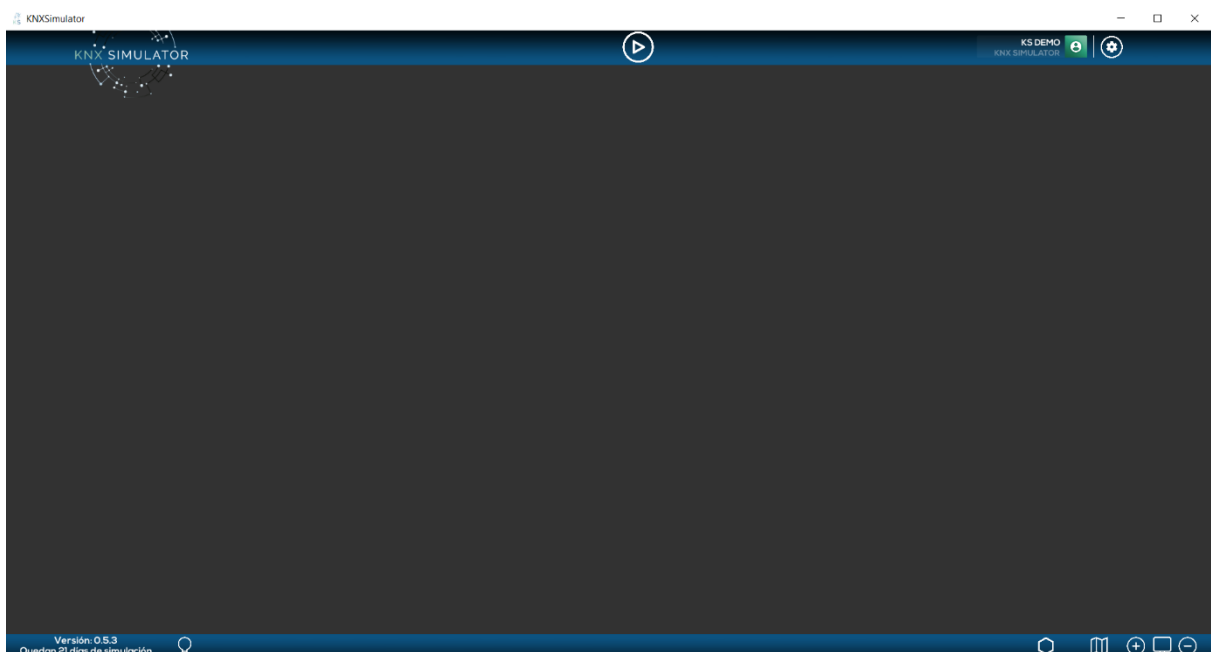
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## 1 Introduction

You can move blinds in KNX Simulator using devices that simulate conventional electrical behaviour.

Although we are going to use a Venetian blind (with slats) for this installation, we can carry out circuits with every type of blinds which are available in the KNX Simulator catalogue (awning, roller blind, roller shutter, venting louvre).

Once we have introduced the login details which we have received in our email account (user, password and code) we enter the simulation room (**Graphic 1**).

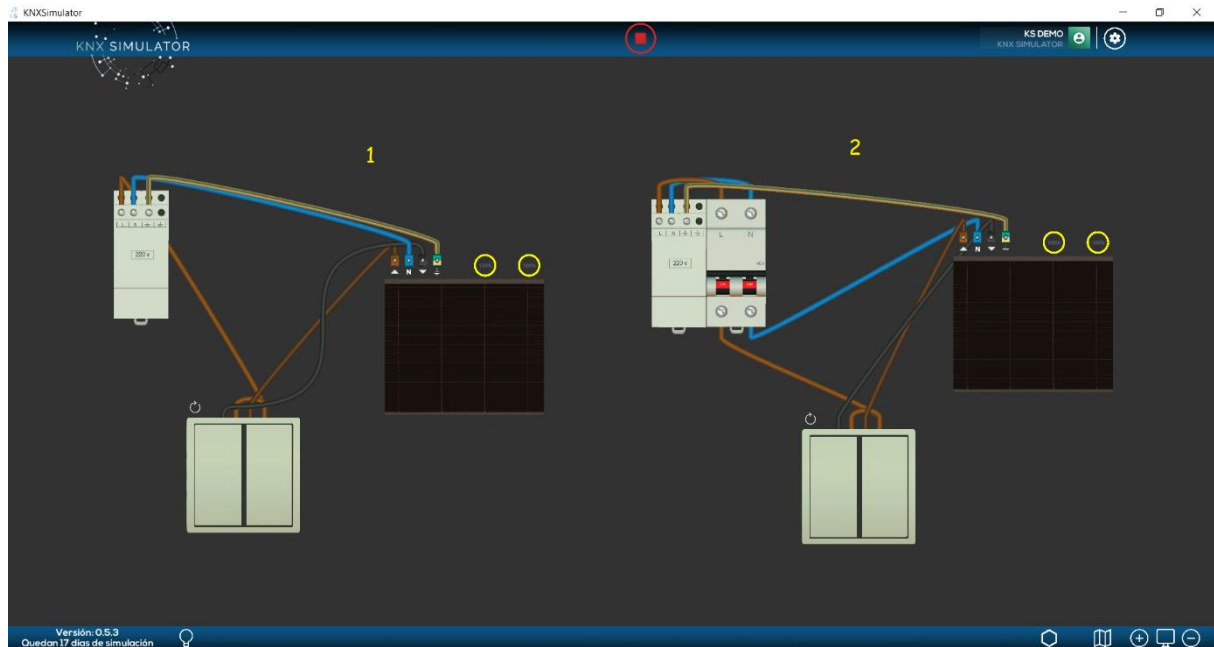


**Graphic 1: Simulation Room**

The simulation room will be our working area. Here, we will make the design, wiring and simulation of our projects.

## 2 Move Blind – Turn Slats

We can move different types of blinds (awning, with slats, roller shutter, roller blind and venting louver) in many ways, exactly the same as in a conventional electrical circuit. In this example, we are going to use a Venetian blind (with slats).



**Graphic 2: blind up/down circuit**

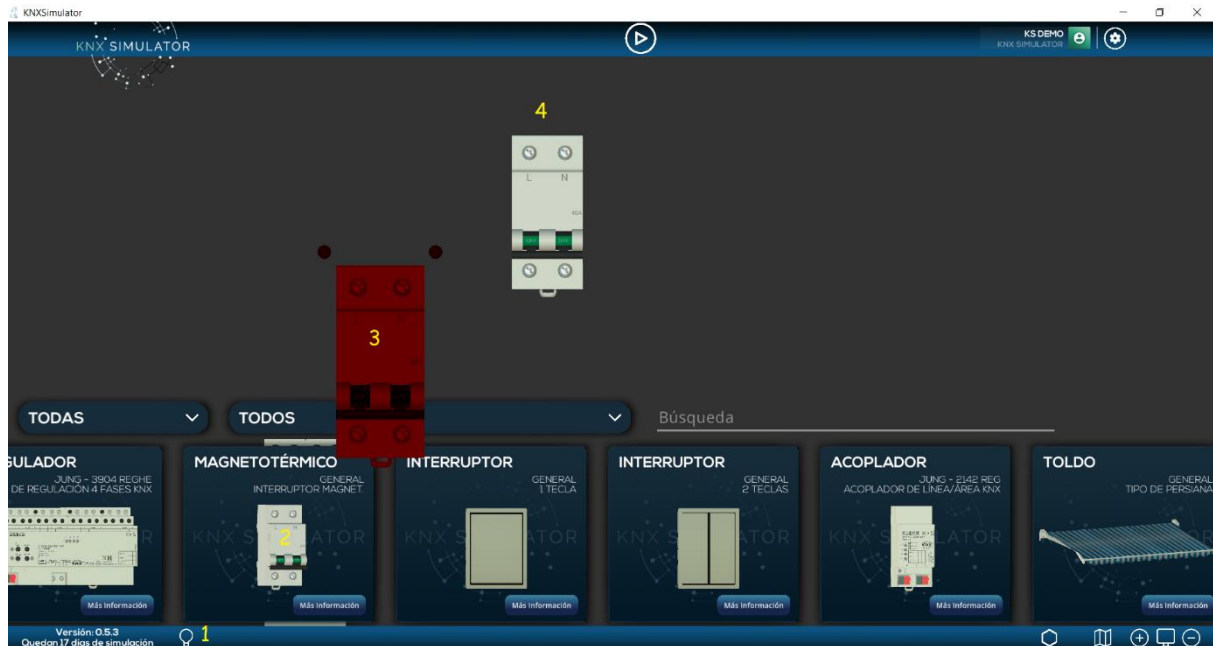
In **Graphic 2**, we observe two conventional circuits to scroll up/down one blind and move its slats (see yellow numerical sequence).

1. Moving the phase wire from the power supply to the 2-gang push-button (electrical wire between its gangs) and neutral and ground wires to the electrical blind. Up/down blind wires are moved from the electrical blind to the respective gangs in the actuator.
2. Adding a circuit breaker just by the power supply output and moving phase and neutral wires from the circuit breaker output to the push-button and electrical blind, respectively.

In this project, we are going to carry out a circuit step by step as that marked as figure 2 in **Graphic 2**.

## 2.1 Design: Select devices

First of all, we must select the devices from the catalogue and drag them to the working area in order to carry out the circuit.



**Graphic 3: Devices (catalogue)**

We follow the yellow numerical sequence in **Graphic 3** to select and drag the devices of the circuit: blind up/down

1. We press on the Devices icon at the bottom bar
2. A catalogue with the devices of the simulator will open. We press on the device we are going to use in the installation, and...
3. Without dropping it...
4. We drag it to the working area.

It is also possible to select it by simply clicking on its image. In this case, it will remain behind the boxes that contain the devices and won't be seen until we close the catalogue.

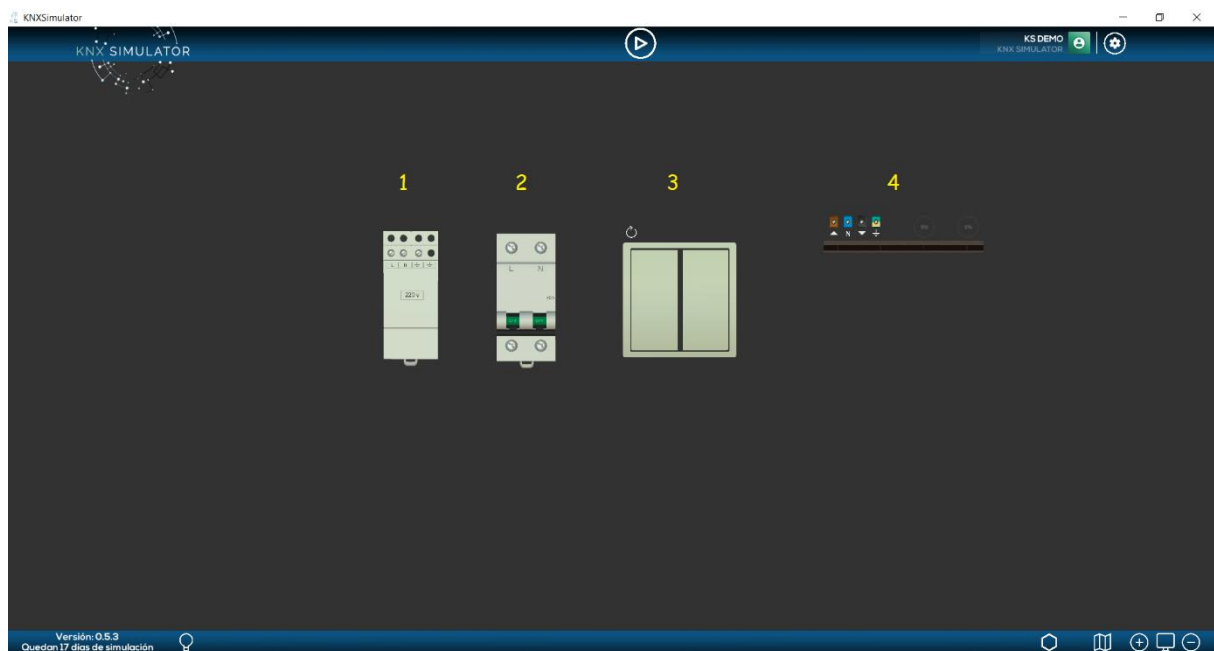
To **close the catalogue**, we must press on the **Devices** icon (**Graphic 3, figure 1**) located at the bottom bar.

Once we have started to drag to the working area, we can already adjust their size so that more components can be easily introduced. The size of the devices can be adjusted within the working area by using our mouse wheel, or by using the zoom in (+) zoom out (-) icons, located at the bottom bar to the right.

We repeat this operation of dragging the devices to the working area until we have all the necessary components for the circuit.

It is possible that the component that we want to select and move to the working area is not visible within the boxes of the catalogue, but we can find it in three different ways:

- By directly writing its name on Search.
- By moving the devices of the catalogue. We press on the blue box of one of the devices and without dropping it, we move it to the right or to the left so that a horizontal movement is produced.
- By using the filters.



**Graphic 4: Suggested devices to move the blind**

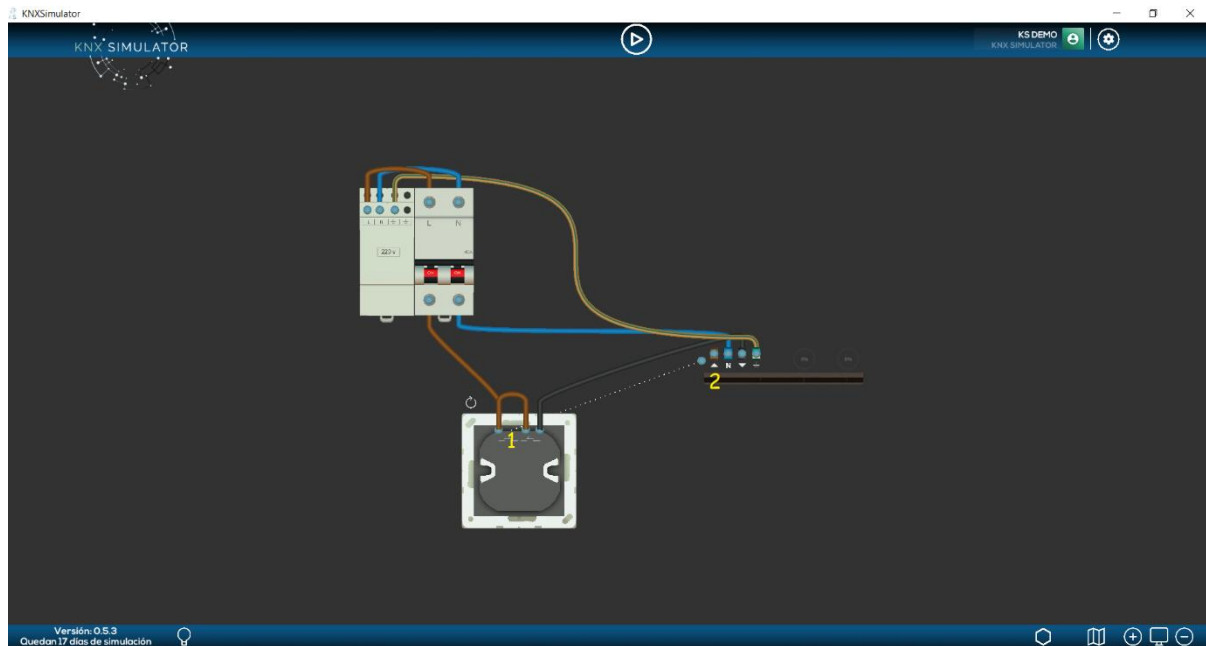
As follows, we observe the suggested devices for this practice, shown in **Graphic 4**:

1. Power supply. It is a 230V power supply.
2. Circuit breaker.
3. Double push-button
4. Venetian blind. Type of blind.

Once all suggested devices are in the working area, we begin to wire them.

**IMPORTANT!** We can add devices at any time except when we are simulating (PLAY activated). We must press STOP before opening the catalogue of devices.

## 2.2 Wire devices

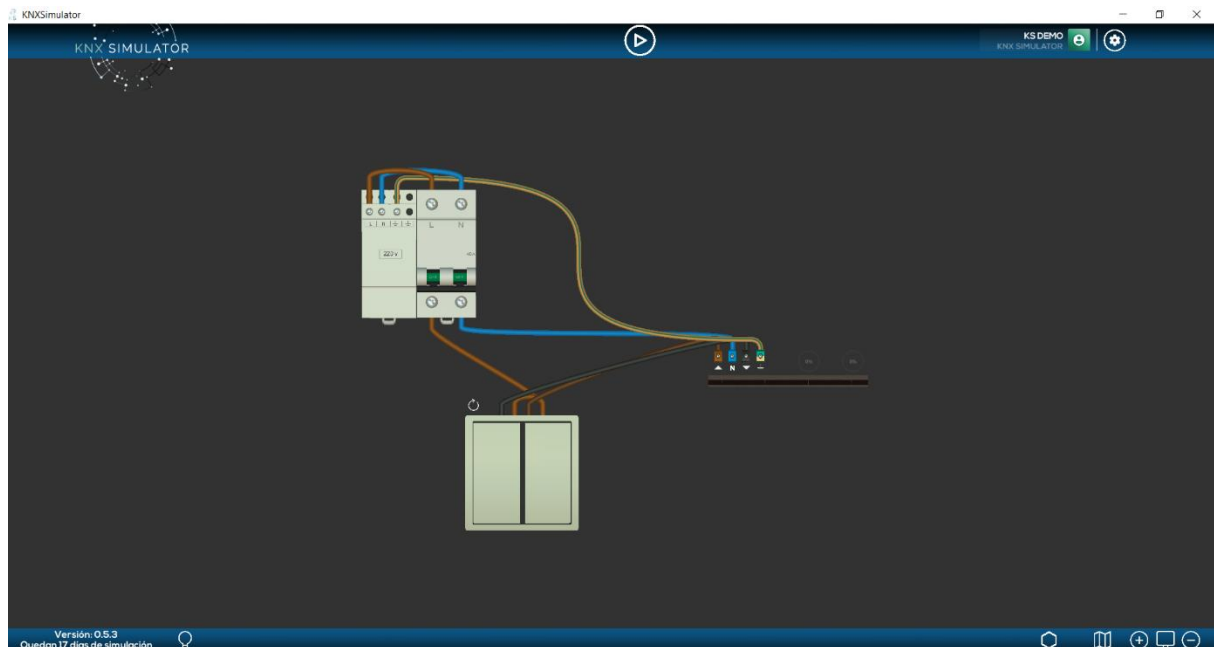


**Graphic 5: Wire devices**

In order to wire the devices in the working area we follow the yellow numerical sequence in **Graphic 5**.

1. We press on one of the nodes of connection of the device to be wired...
2. And we keep pressing until we reach the desired node (entry node will turn to dark red colour).

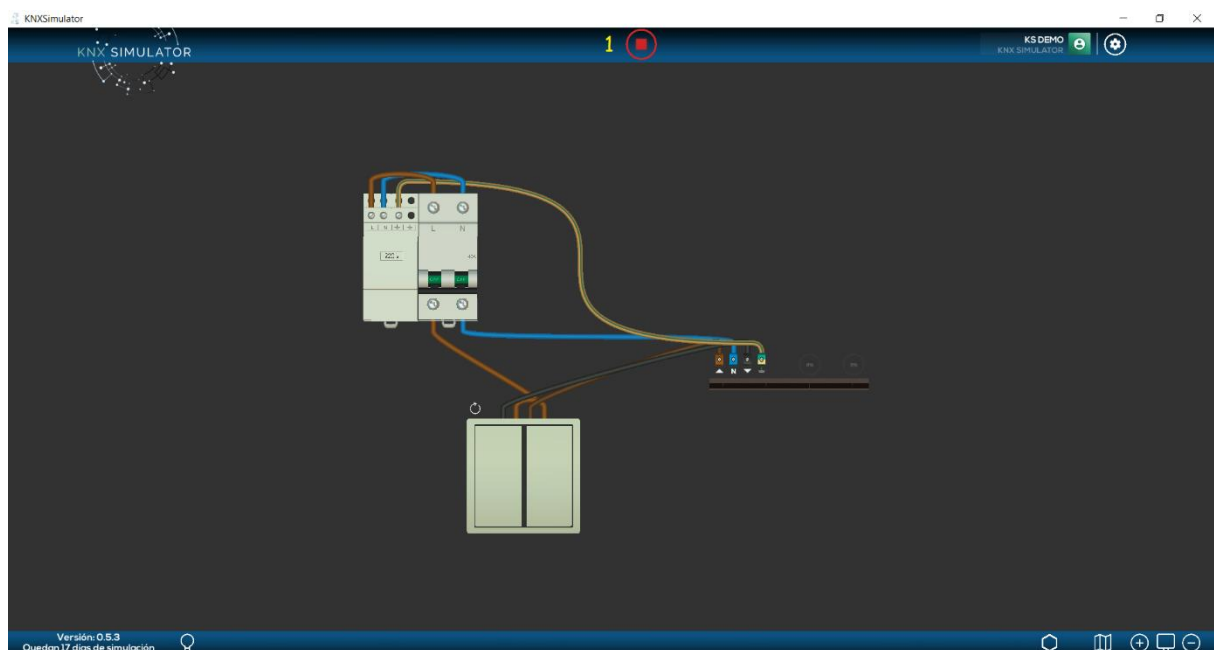
**IMPORTANT!** It is not possible to wire devices while we are simulating (PLAY activated). We must press STOP before we begin to wire.



**Graphic 6: Design and wire completed**

Once all the devices are correctly wired, as shown in **Graphic 6**, we can begin the simulation.

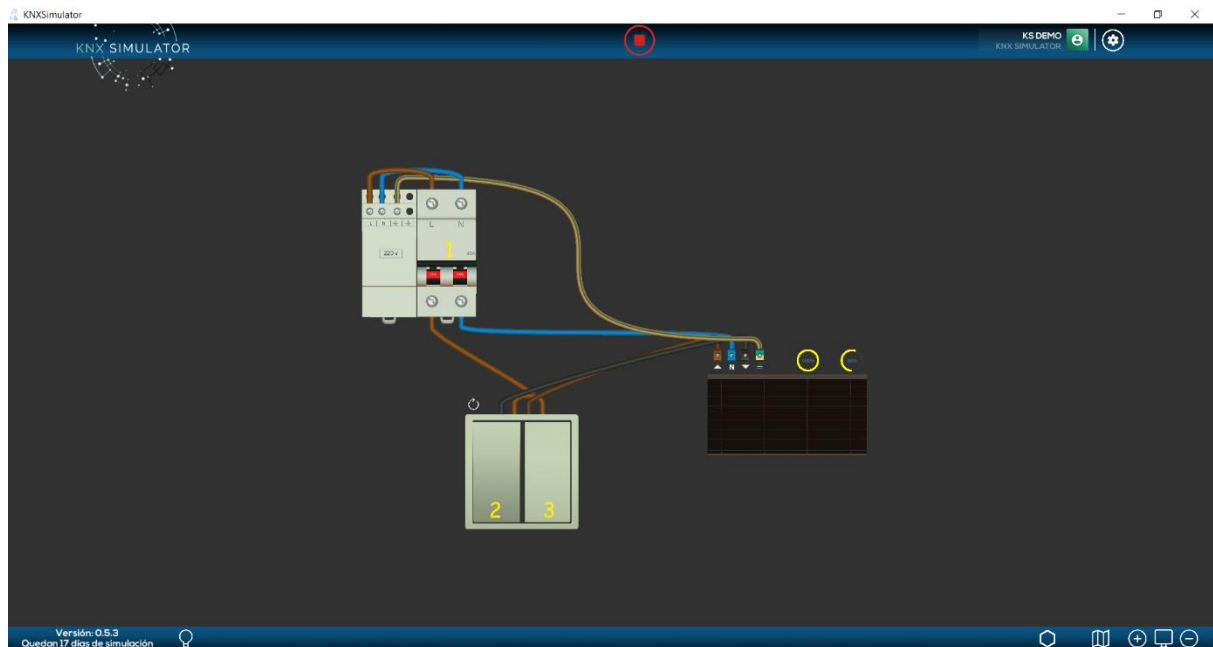
## 2.3 Commissioning



**Graphic 7: PLAY in KNX Simulator**

In order to commission a conventional electrical circuit, it is only necessary to press PLAY (icon will change to a red coloured STOP). See **Graphic 7**, yellow figure (1).

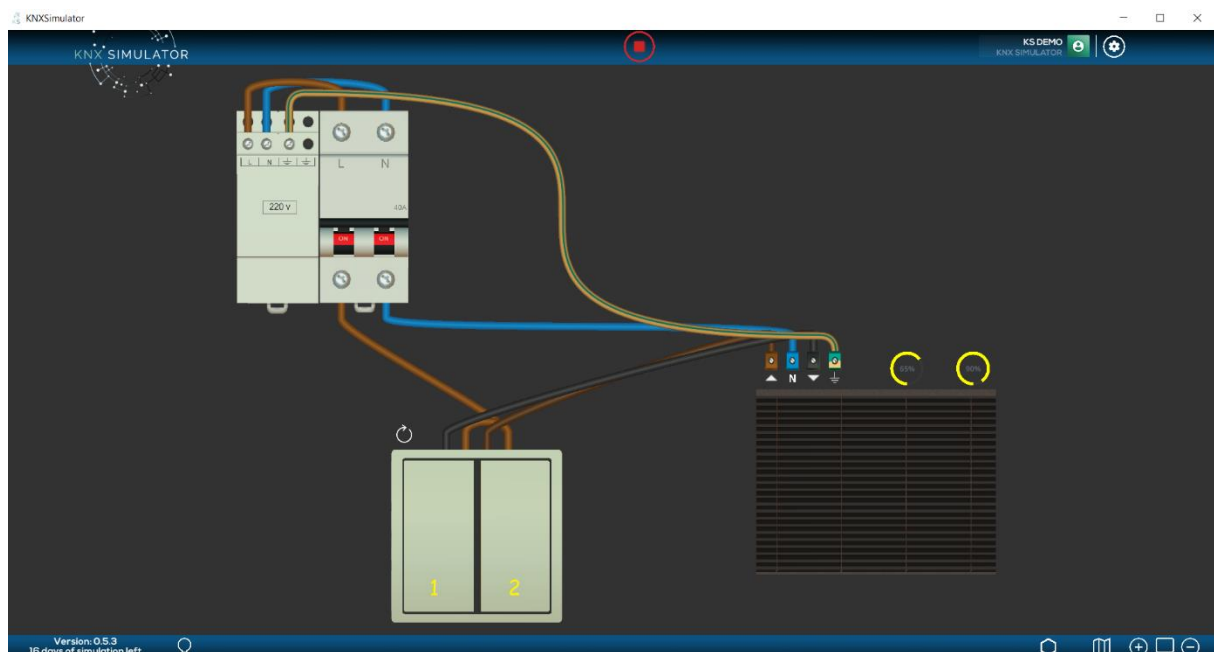




**Graphic 8: Simulation**

**Graphic 8** shows the simulation sequence: blind up/down

1. We turn on the circuit breaker of the installation so that the passage of current is allowed (it is NOT mandatory to use it, suggested device).
2. We keep pressing the bottom surface of the push-button left gang and the blind scrolls down.  
As soon as we stop pressing the gang, the blind stops.
3. We keep pressing the bottom surface of the push-button right gang and the blind scrolls up.  
As soon as we stop pressing the gang, the blind stops.



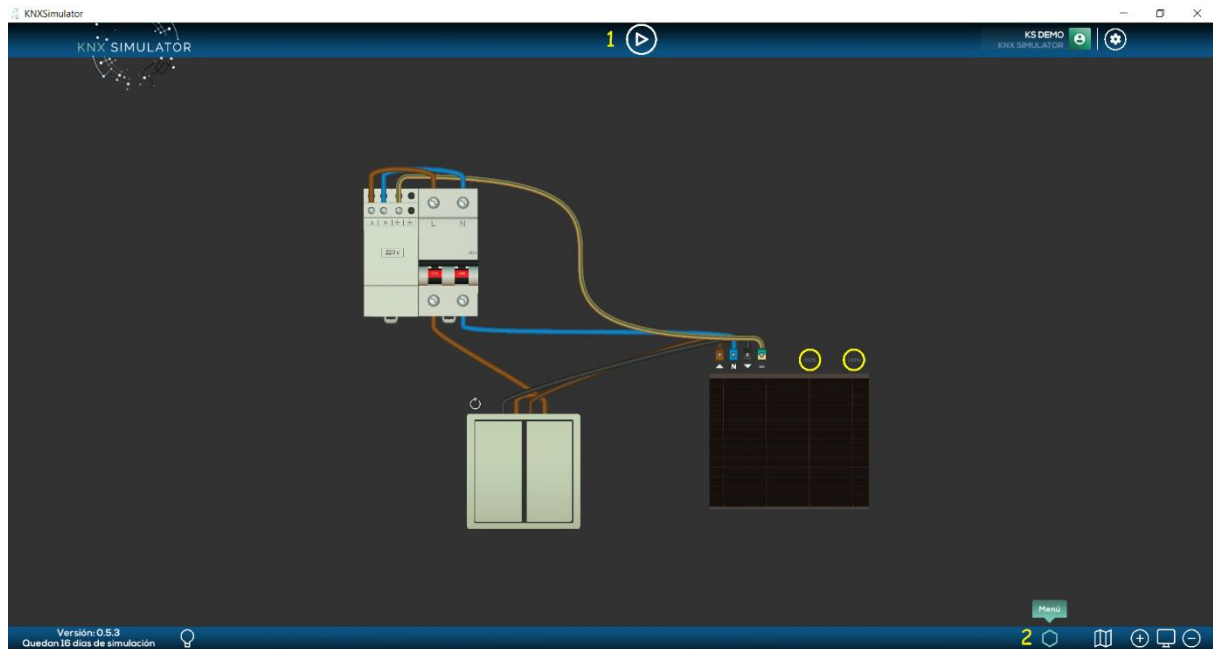
**Graphic 9: Simulation**

**Graphic 9** shows the sequence simulation: turn slats

1. Making short presses on the bottom surface of the push-button left gang will trigger that the blind slats turn clockwise (0% to 100%).
2. Making short presses on the bottom surface of the push-button right gang will trigger that the blind slats turn anticlockwise (100% to 0%).

## 2.4 Save Project

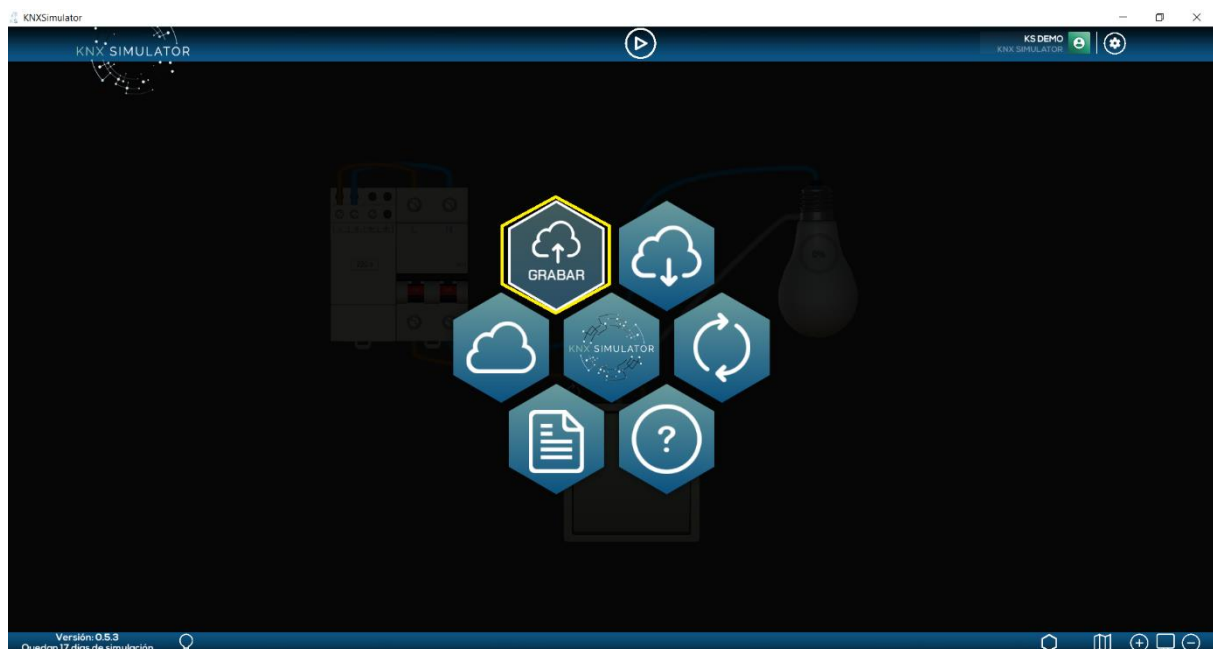
Once we have checked that our circuit functions correctly, we save it.



**Graphic 10: Access to Menu**

**Graphic 10** shows the sequence to accessing the Menu.

1. We press STOP. The icon will turn to white colour.
2. We press on the Menu icon, located at the bottom bar.

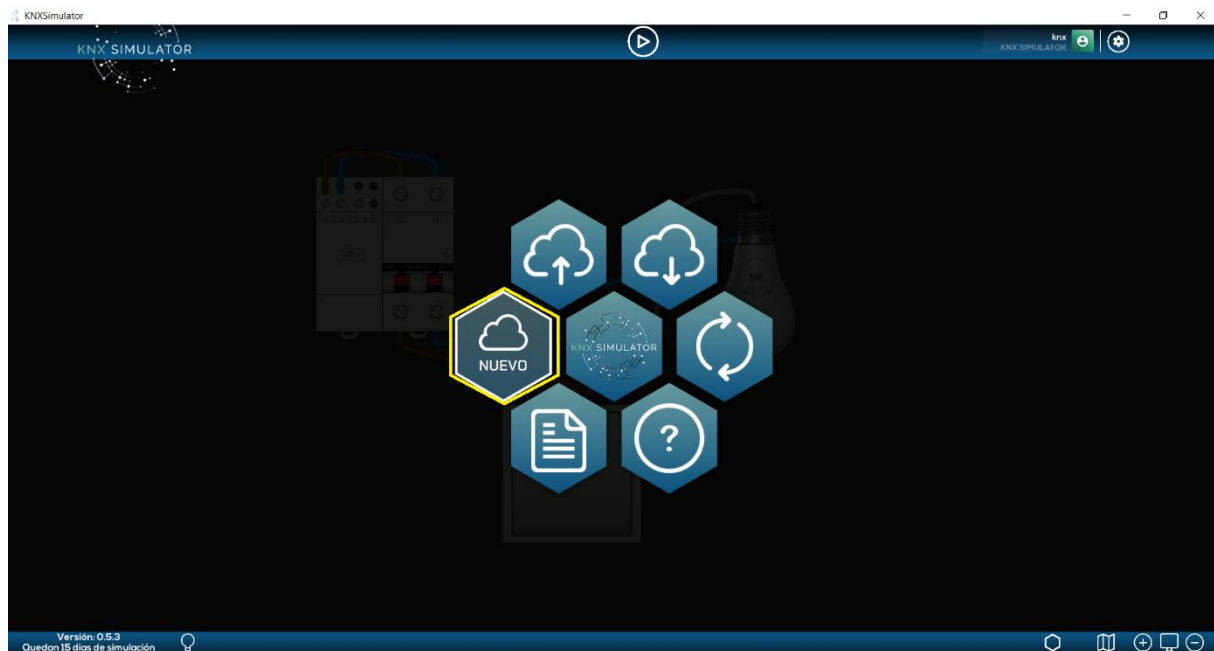


**Graphic 11: Save project**

We can **SAVE** the project by pressing on the corresponding icon (**Graphic 11**, marked in yellow).

A window will pop-up, in which we will indicate the name and location of the project within our computer. The file with the saved project will have the (.ks.) extension.

Once we have saved the circuit, we can go back to the installation and continue simulating – by pressing on the black area (outside the Menu options) – or we can start a **NEW** project.



**Graphic 12: New project**

After pressing on **NEW** (**Graphic 12**, marked in yellow), all devices that may be within the working area will be deleted to foster the beginning of a new project.