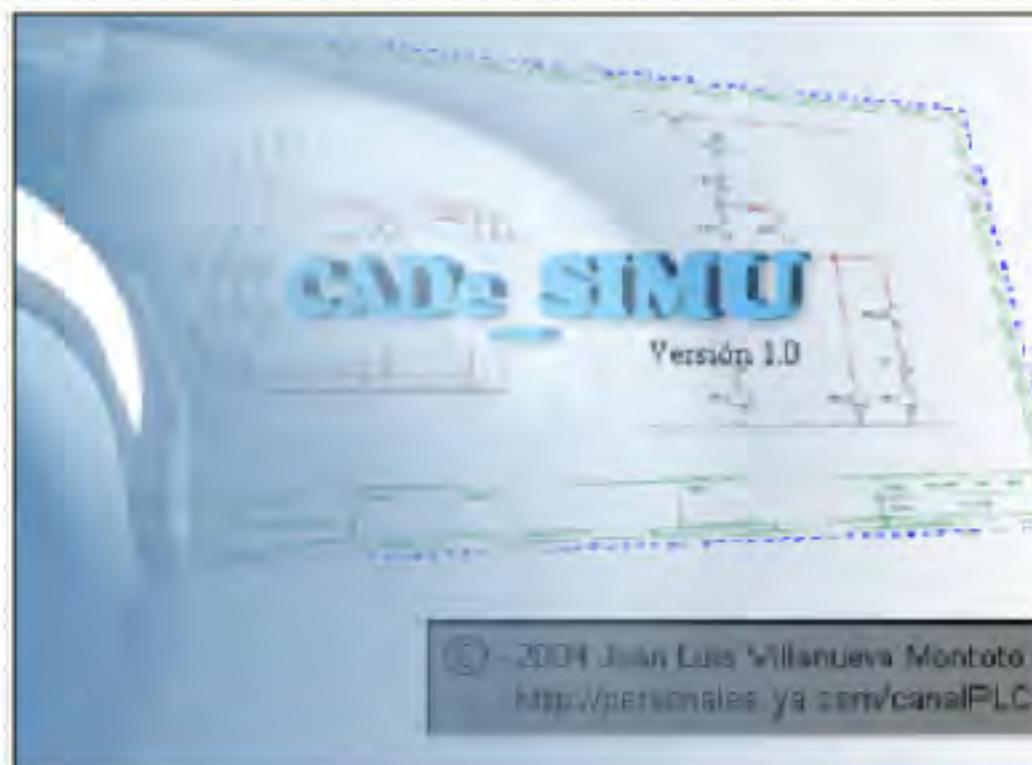




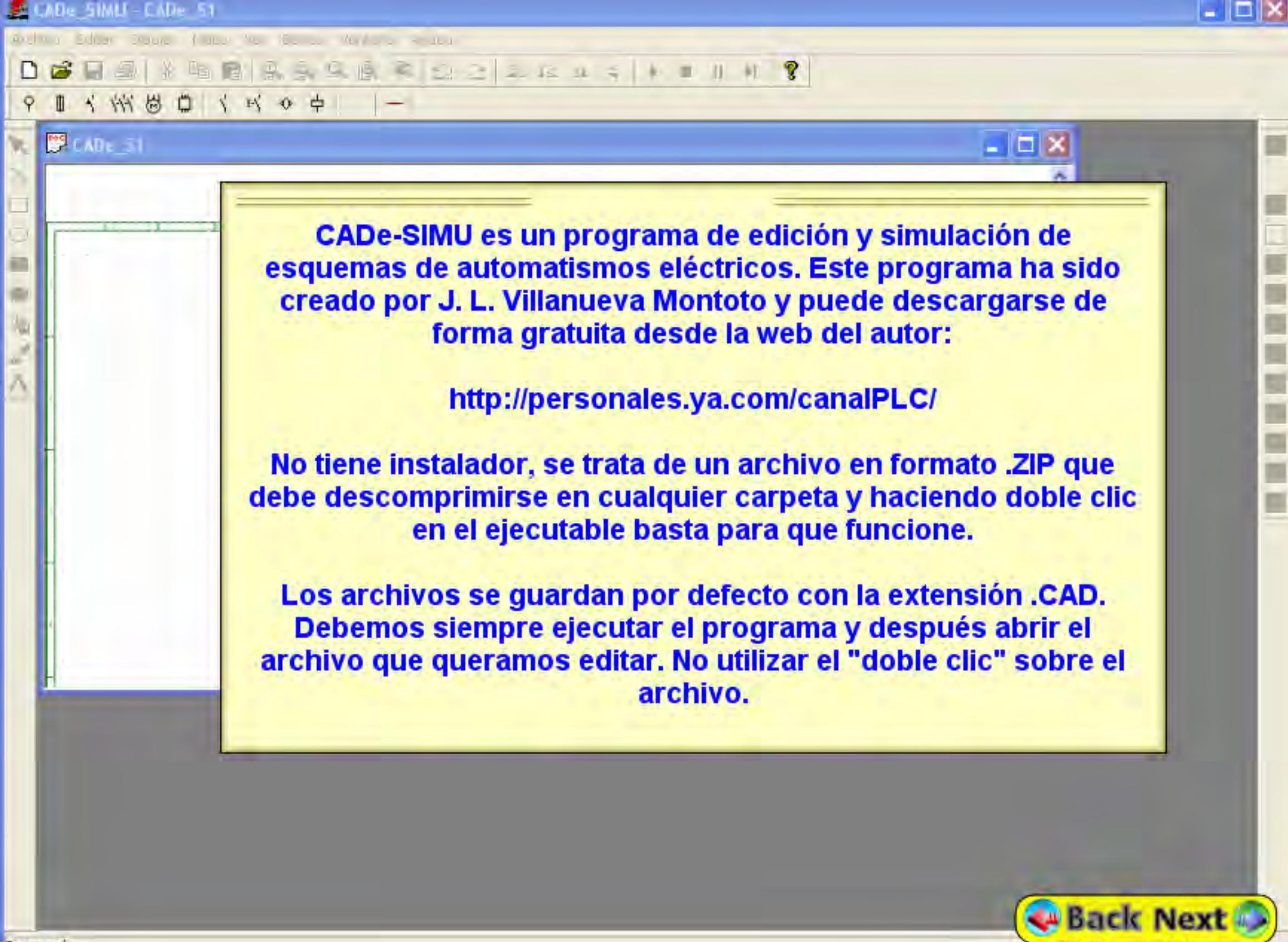
CADE_S1



Para movernos por el tutorial,
pulsamos en los botones NEXT y
BACK de cada página.

Tutorial realizado por R. Álvarez
Profesor de Sistemas Electrotécnicos y
Automáticos

Next



CADe-SIMU es un programa de edición y simulación de esquemas de automatismos eléctricos. Este programa ha sido creado por J. L. Villanueva Montoto y puede descargarse de forma gratuita desde la web del autor:

<http://personales.ya.com/canalPLC/>

No tiene instalador, se trata de un archivo en formato .ZIP que debe descomprimirse en cualquier carpeta y haciendo doble clic en el ejecutable basta para que funcione.

**Los archivos se guardan por defecto con la extensión .CAD.
Debemos siempre ejecutar el programa y después abrir el archivo que queramos editar. No utilizar el "doble clic" sobre el archivo.**



CADe_SI

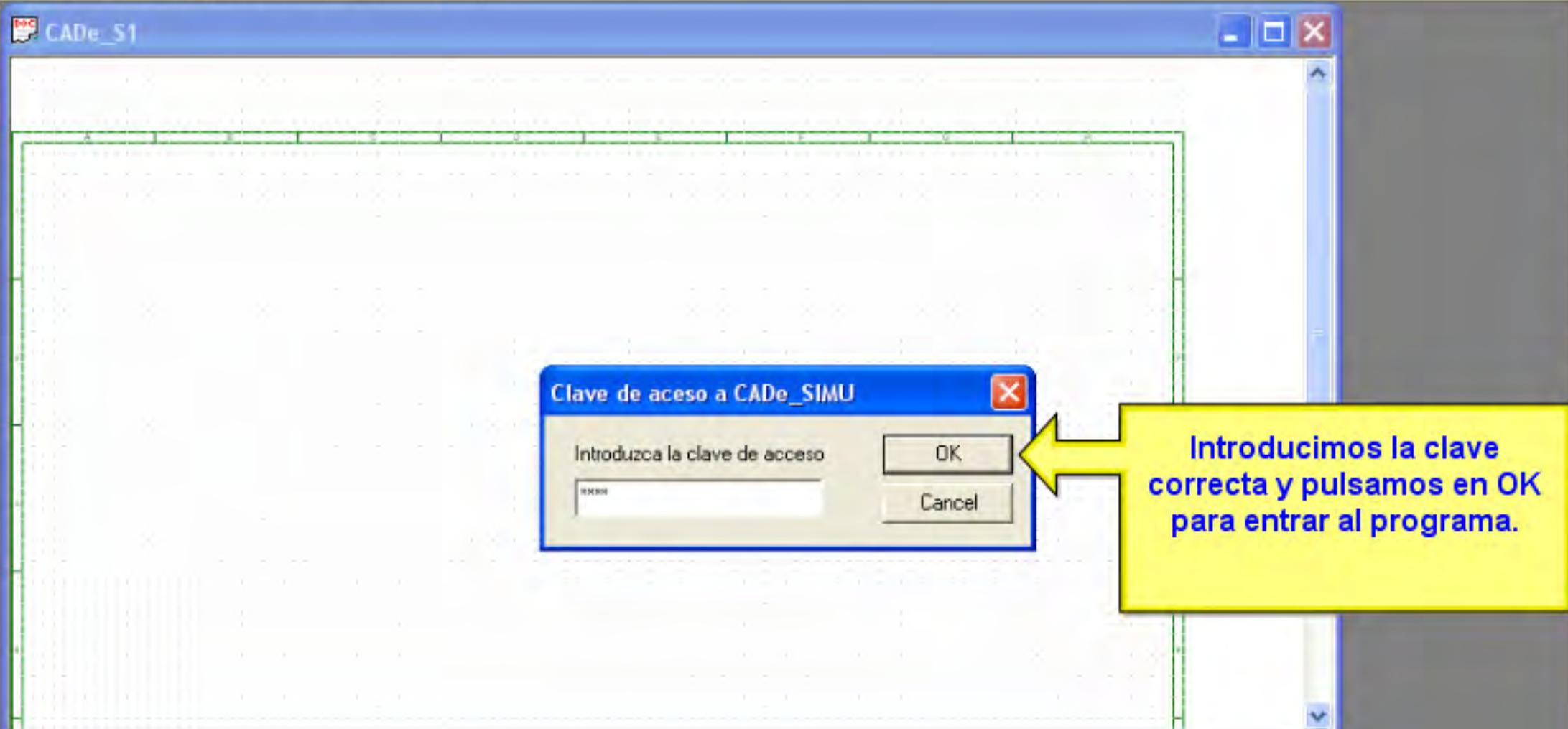
El programa tiene una clave de acceso que se proporciona por correo electrónico a través de la Web del programa.

Si no se introduce esta clave, no se podrán guardar los esquemas realizados

Clave de acceso a CADe_SIMU

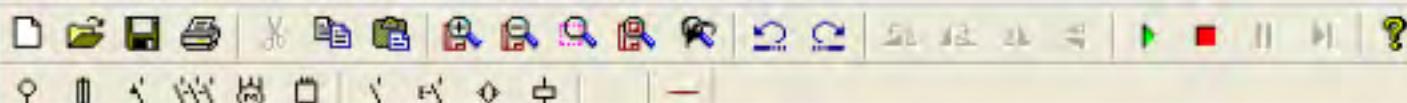
Introduzca la clave de acceso

OK Cancel





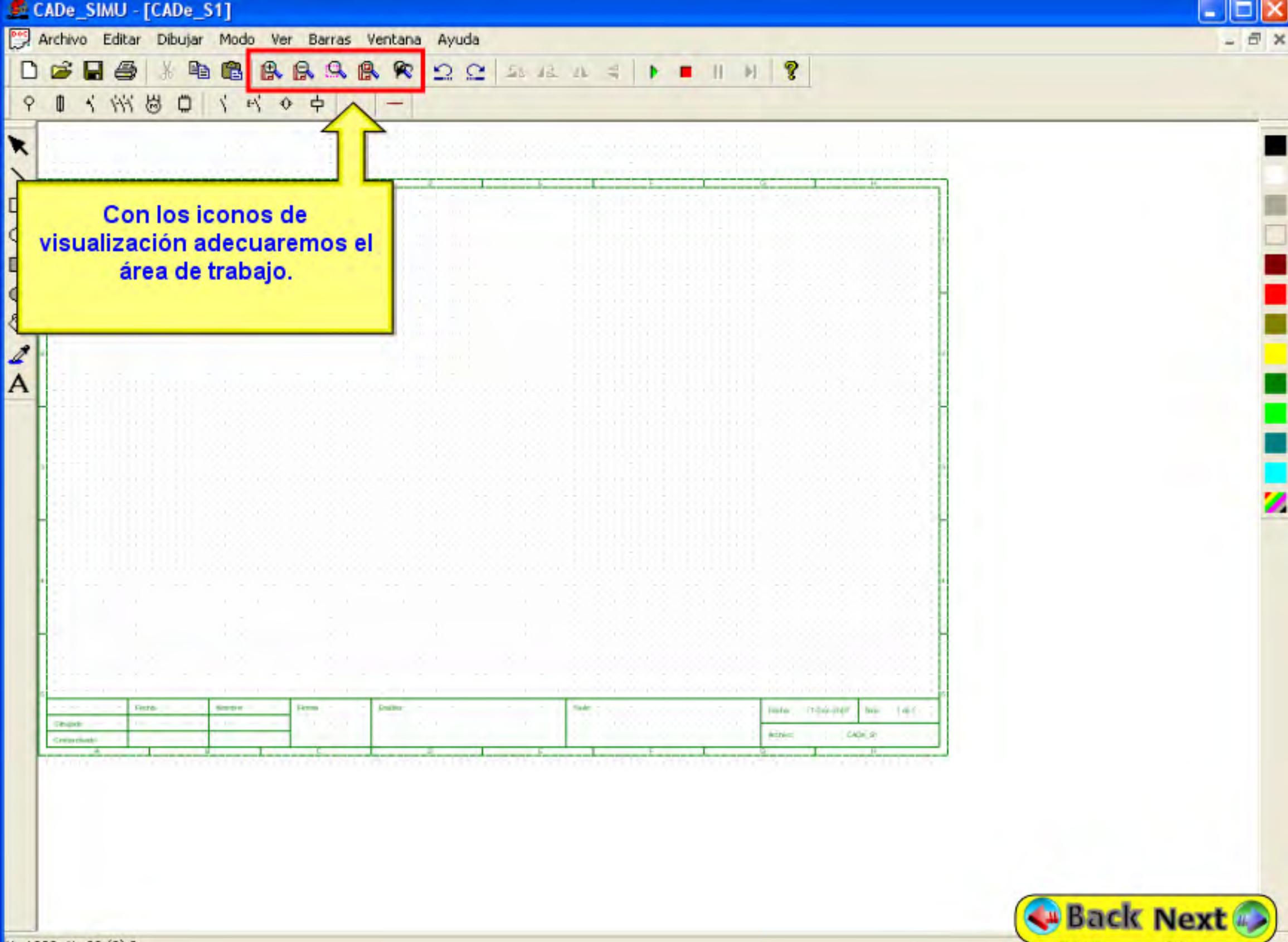
Archivo Editar Dibujar Modo Ver Barras Ventana Ayuda



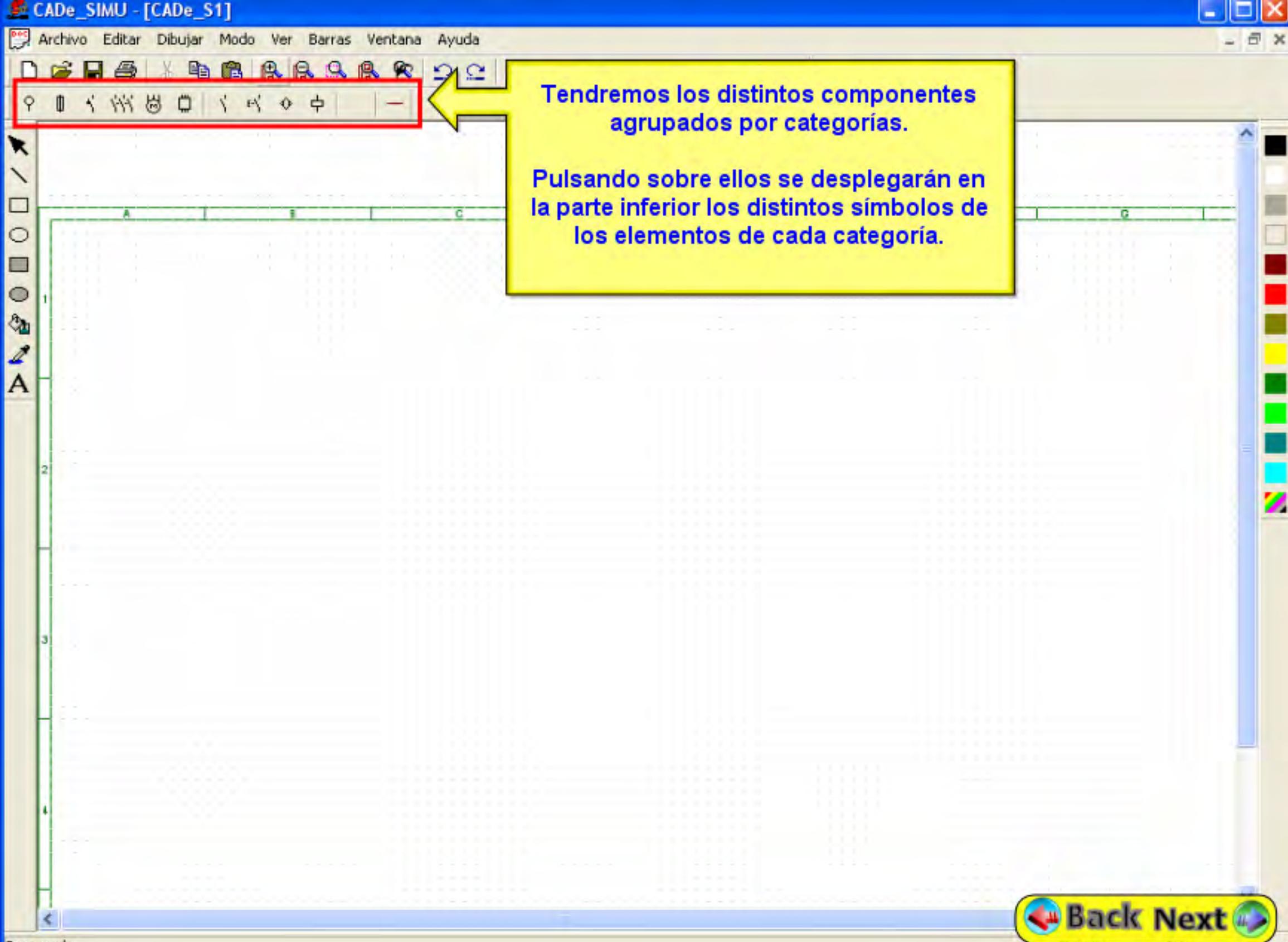
CADE_S1



Maximizaremos el área
de trabajo y ajustaremos
después el ZOOM a
nuestro dibujo.



Nombre	Fijo	Movible	Fixo	Movible	Nombre	Fijo	Movible	Nombre	Fijo	Movible
Despacho										
Comunicación										





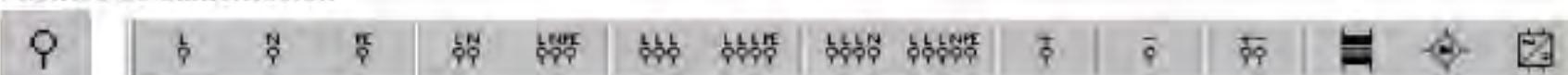
Las distintas categorías podemos verlas desplegadas en la página siguiente.

Pasando el cursor por encima del componente, nos parecerá una descripción del mismo.

Para insertarlo, bastará con pulsar sobre él y desplazar el cursor hasta el área de dibujo.

Símbolos de componentes

Fuentes de alimentación



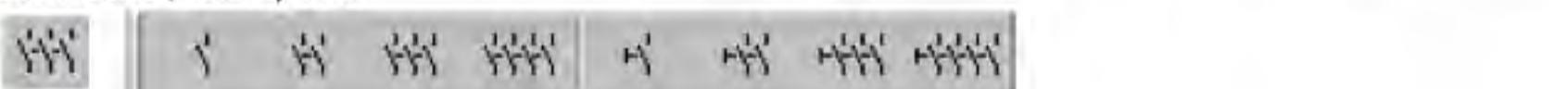
Fusibles, seccionadores



Automáticos, disyuntores



Contactores, interruptores



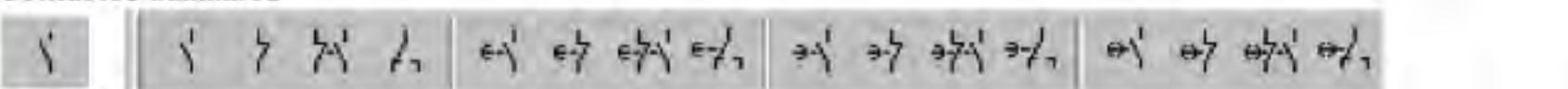
Motores



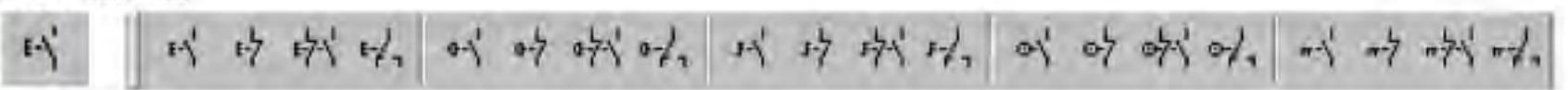
Potencia, arrancadores, variadores



Contactos auxiliares



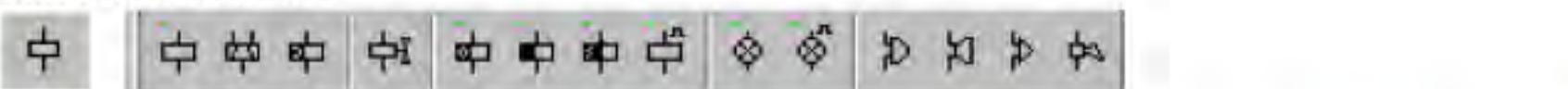
Accionadores



Detectores

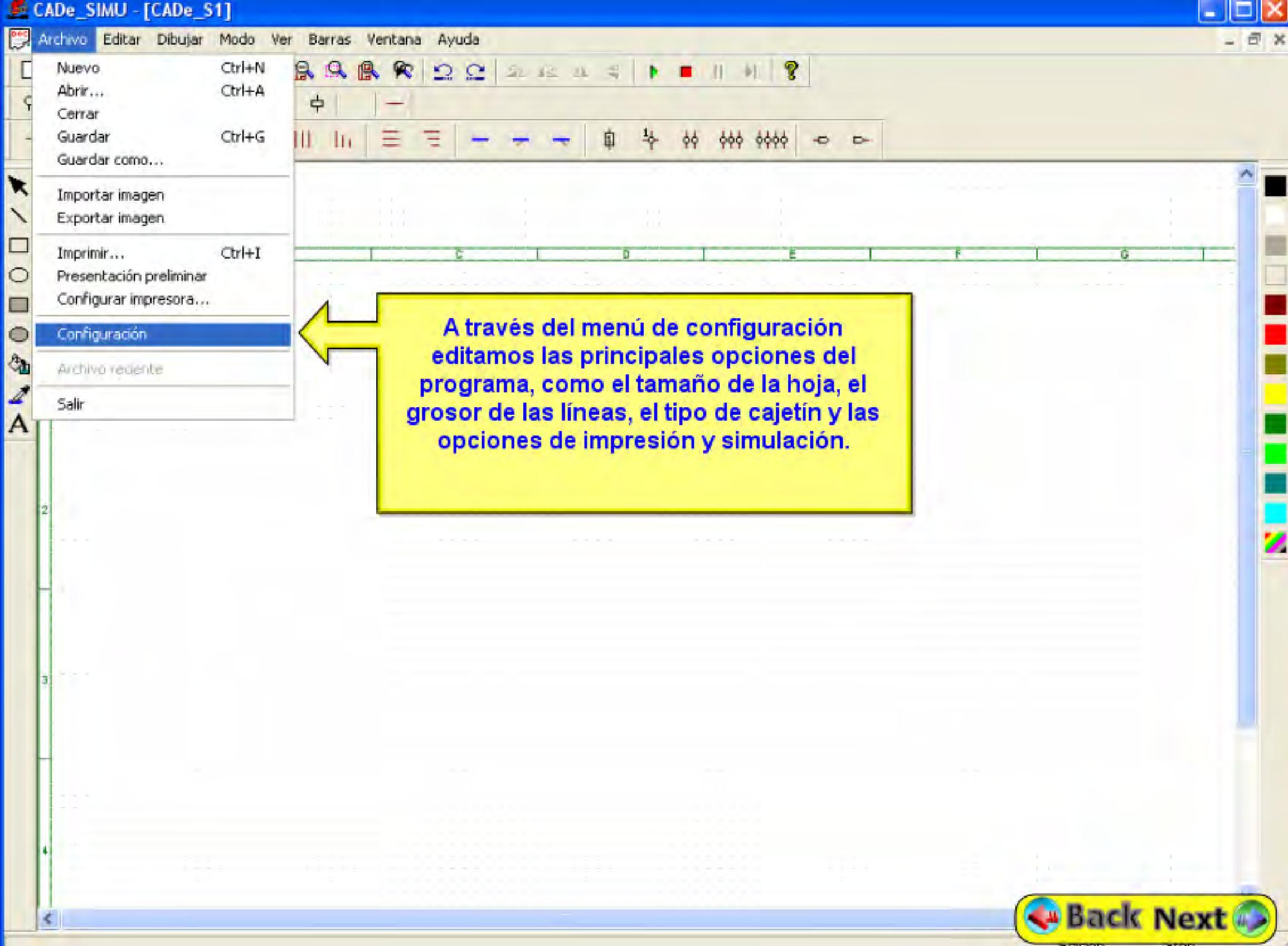


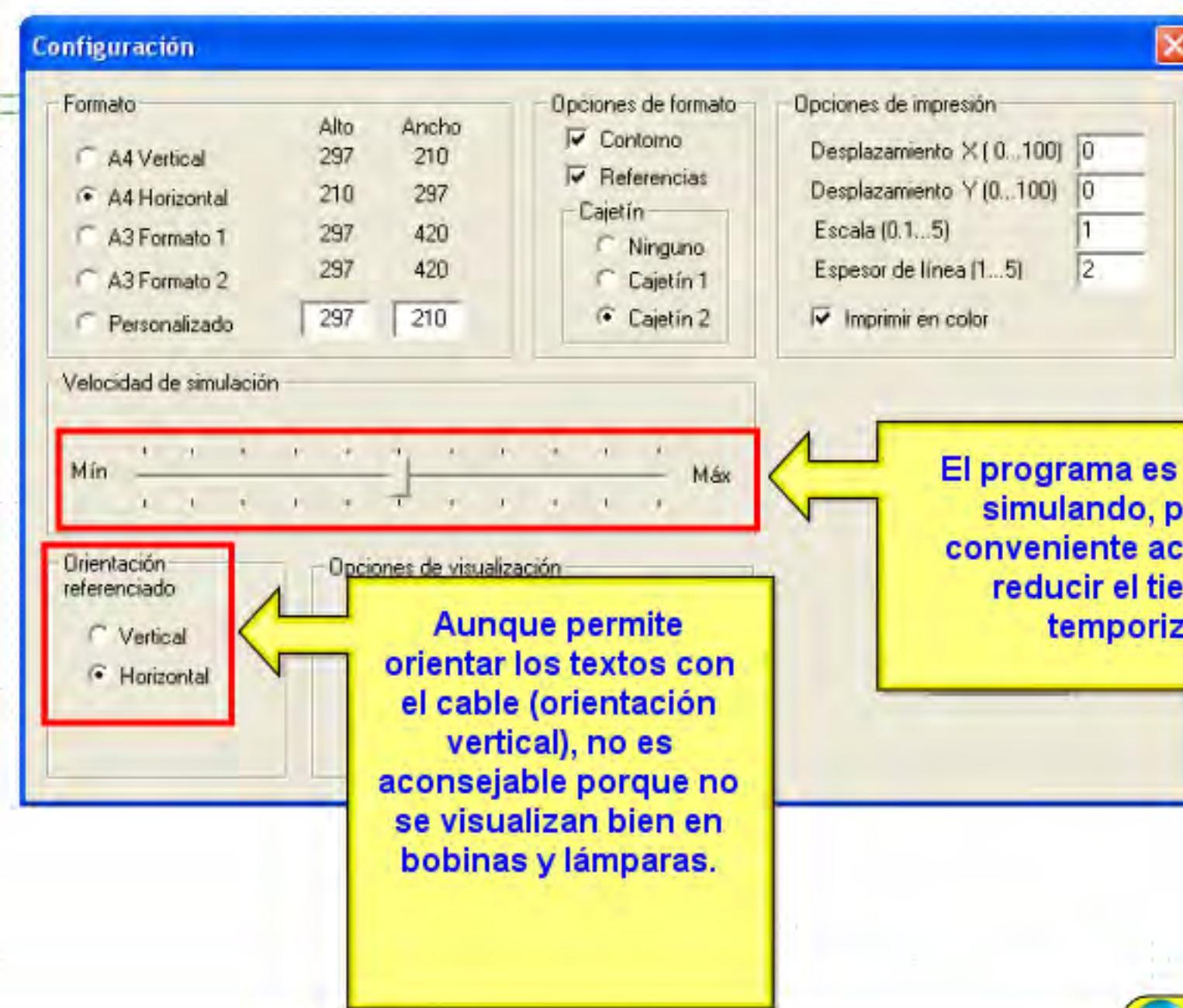
Bobinas, señalizaciones



Cables y conexiones



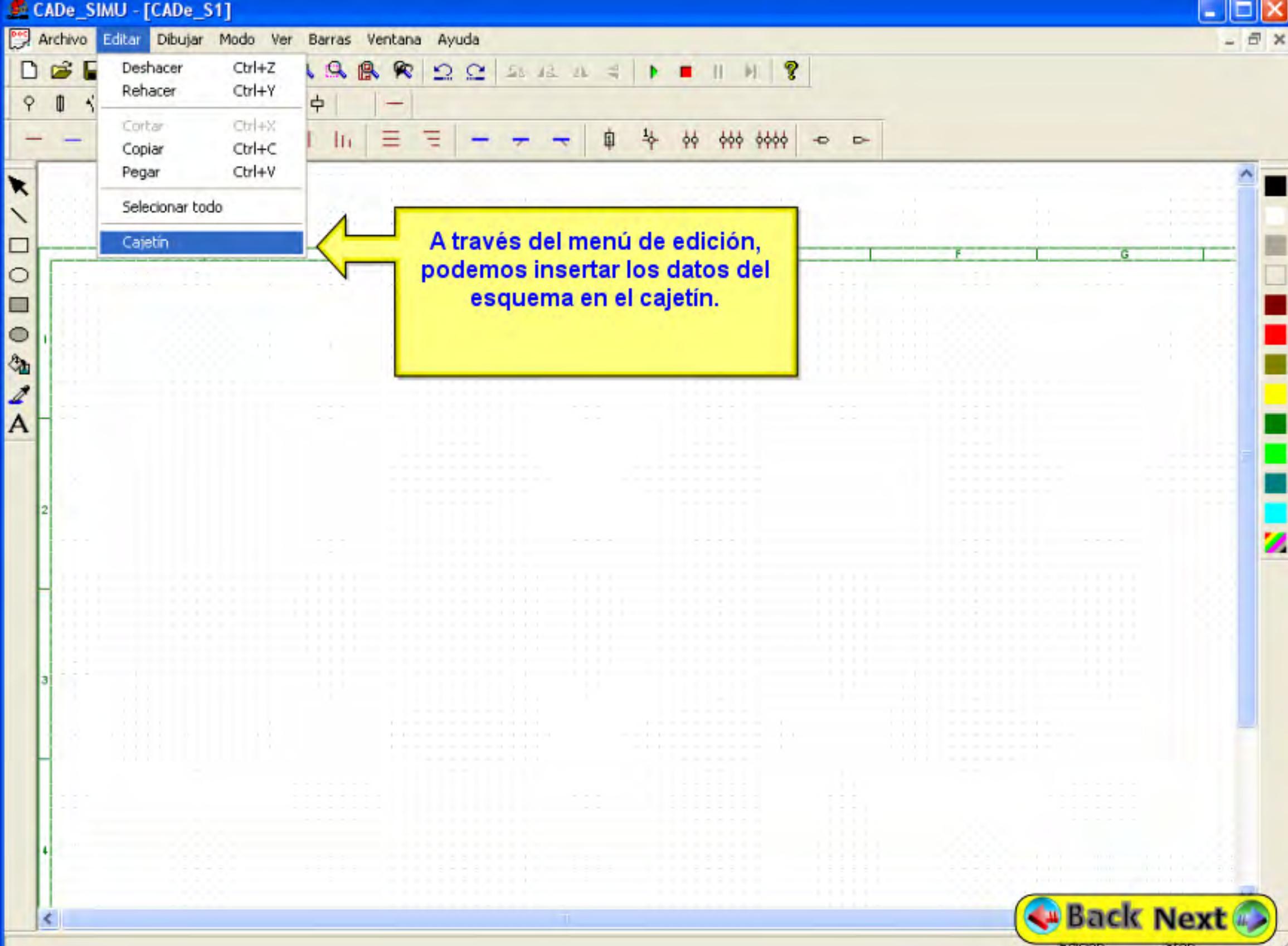






Deberemos ajustar la
escala a 2 para imprimir
correctamente un A4
apaisado.

También será necesario
desplazar el dibujo para
que quede centrado.

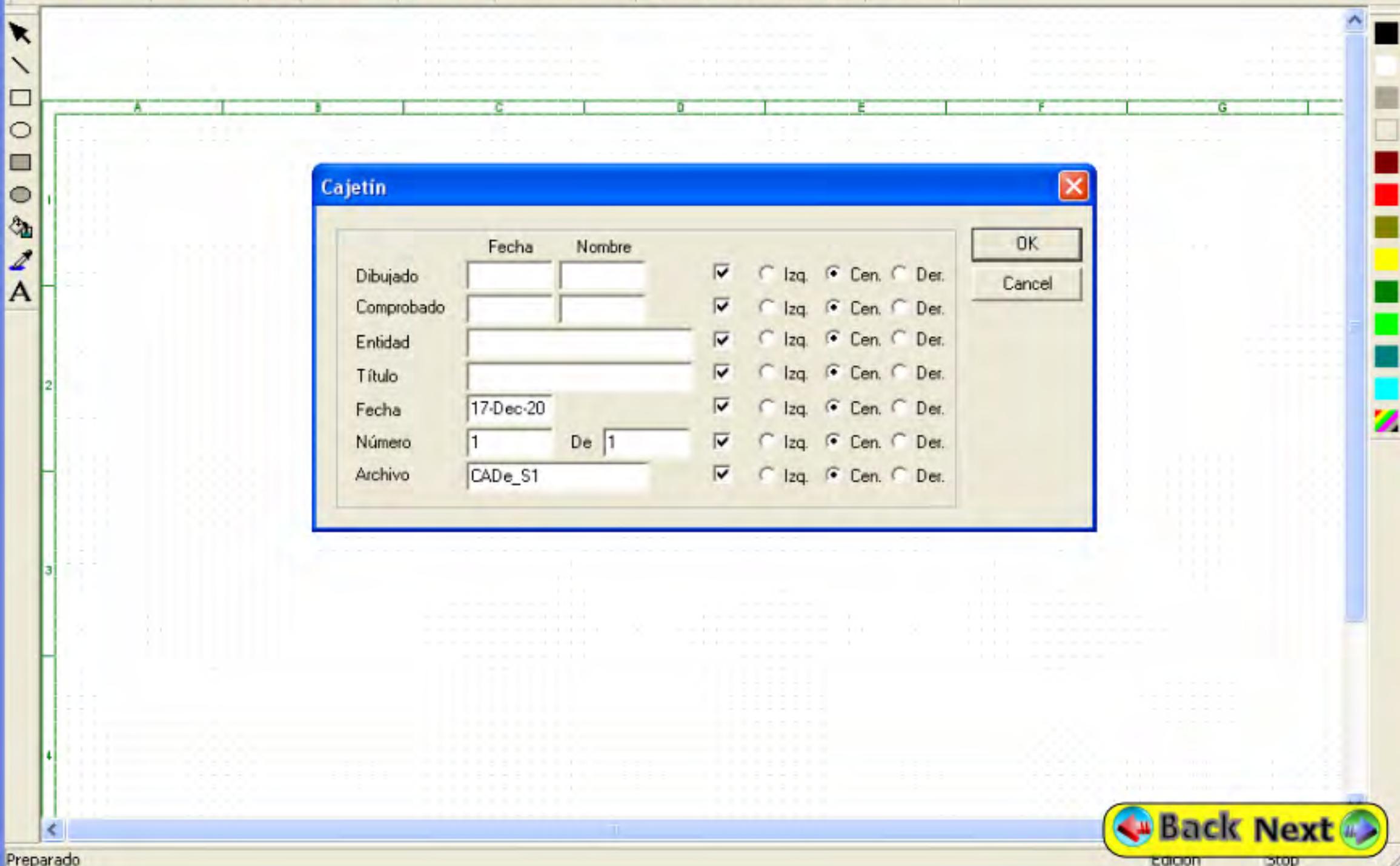


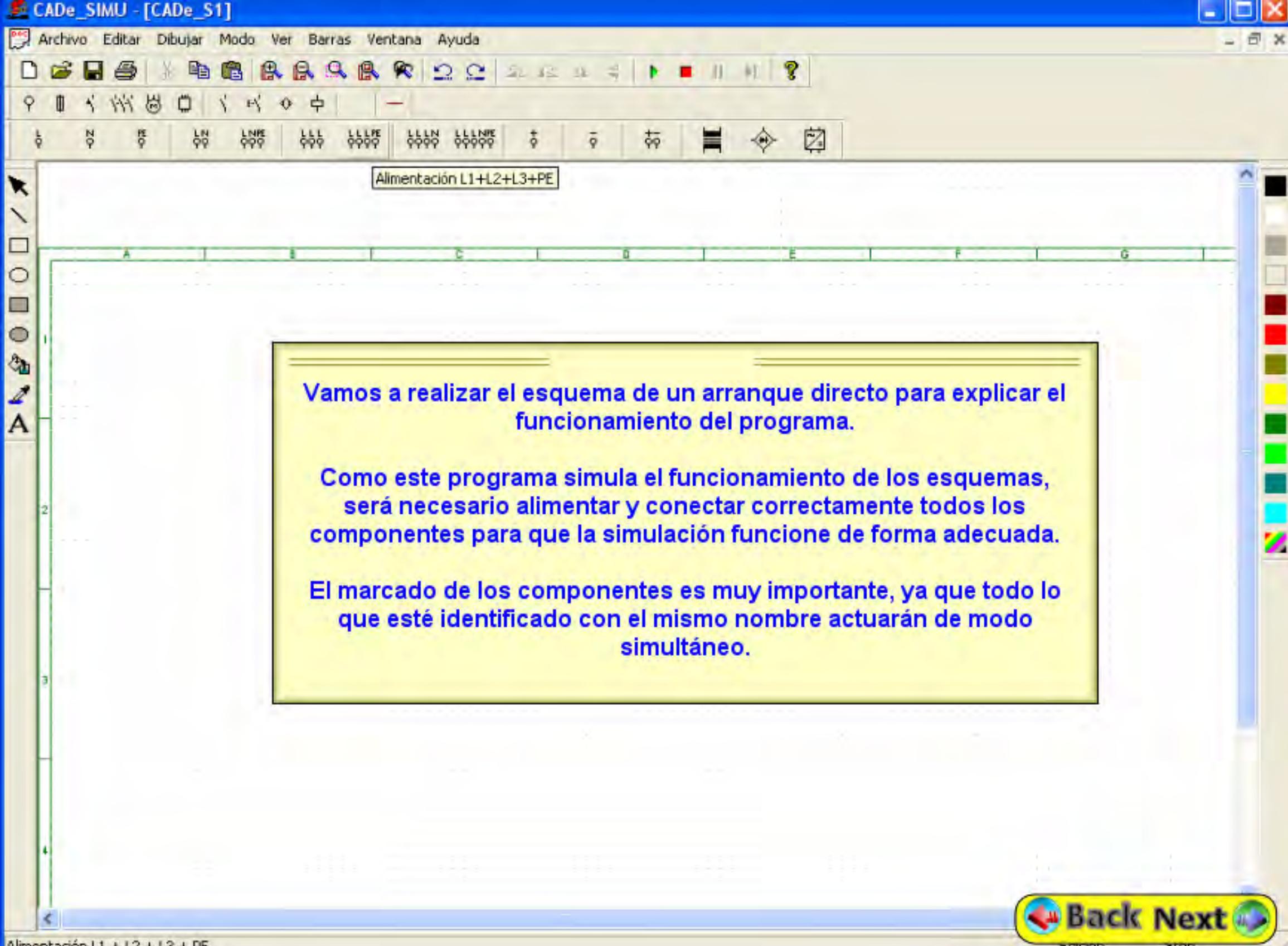


Cajetín

	Fecha	Nombre	
Dibujado			<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.
Comprobado			<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.
Entidad			<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.
Título			<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.
Fecha	17-Dec-20		<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.
Número	1	De 1	<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.
Archivo	CADe_S1		<input checked="" type="checkbox"/> Izq. <input type="radio"/> Cen. <input type="checkbox"/> Der.

OK Cancel







A B C D E F G

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Necesitaremos la alimentación eléctrica, las protecciones (un guardamotor), el contactor y el motor.

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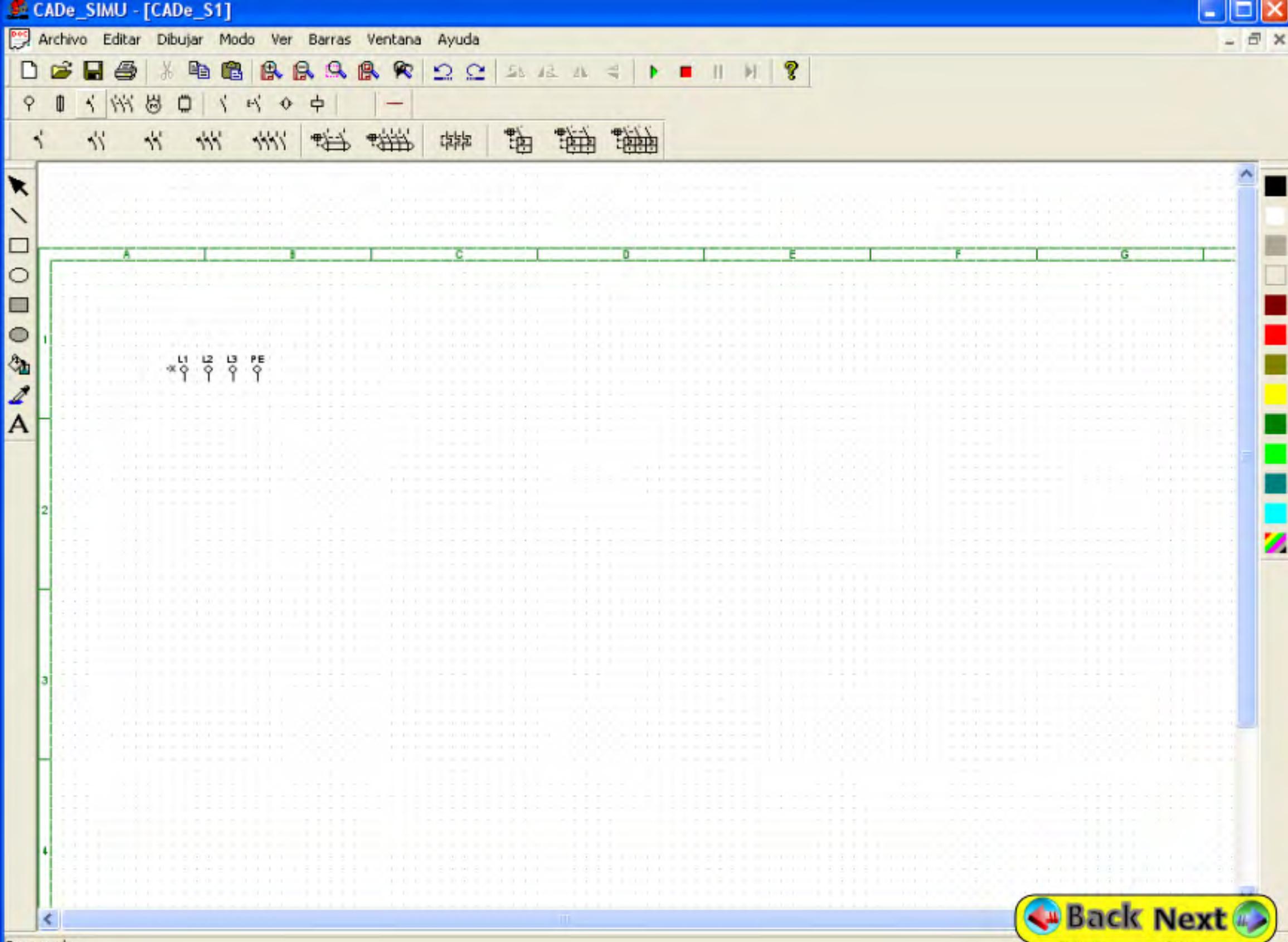
72482

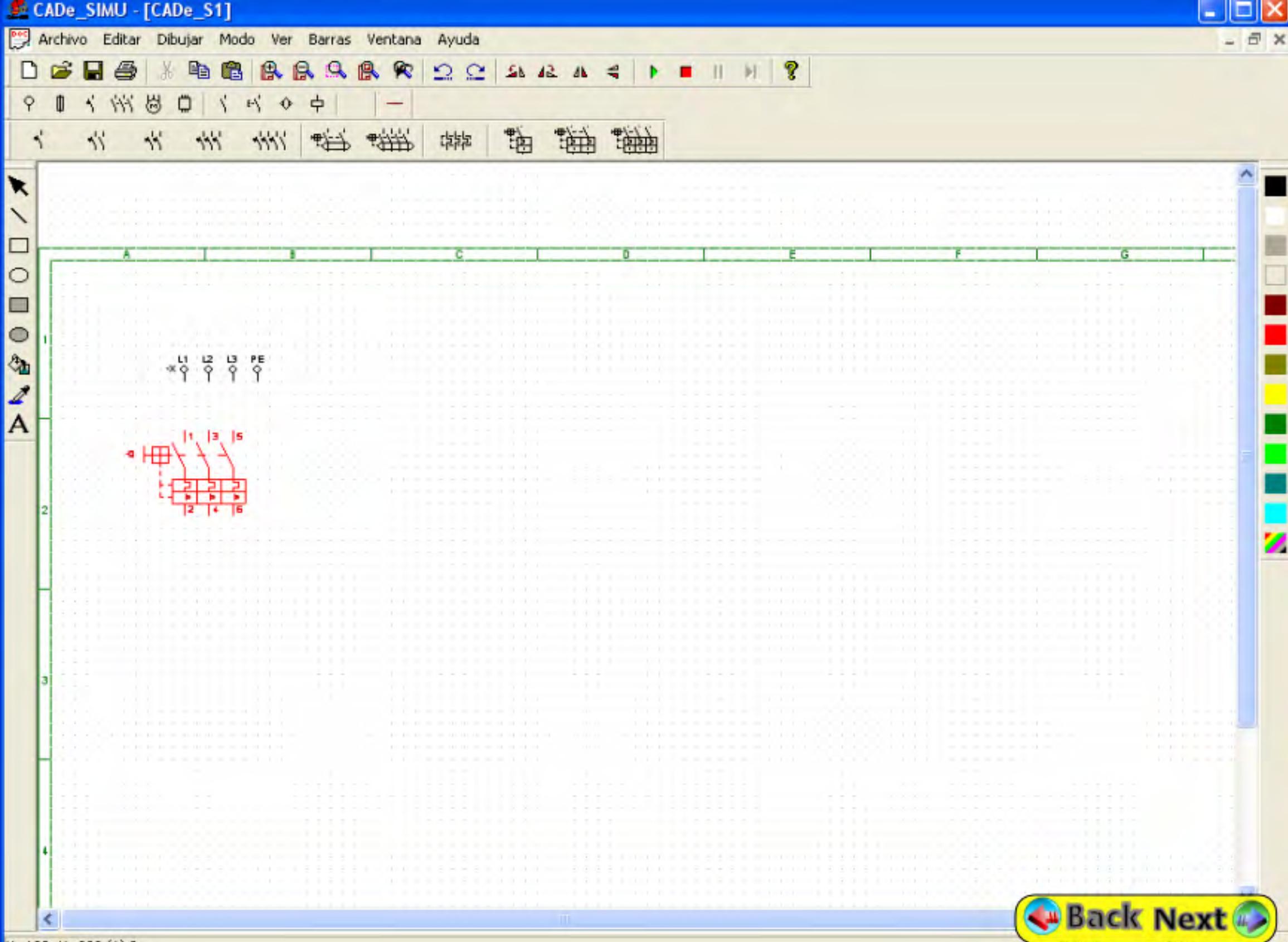
72483

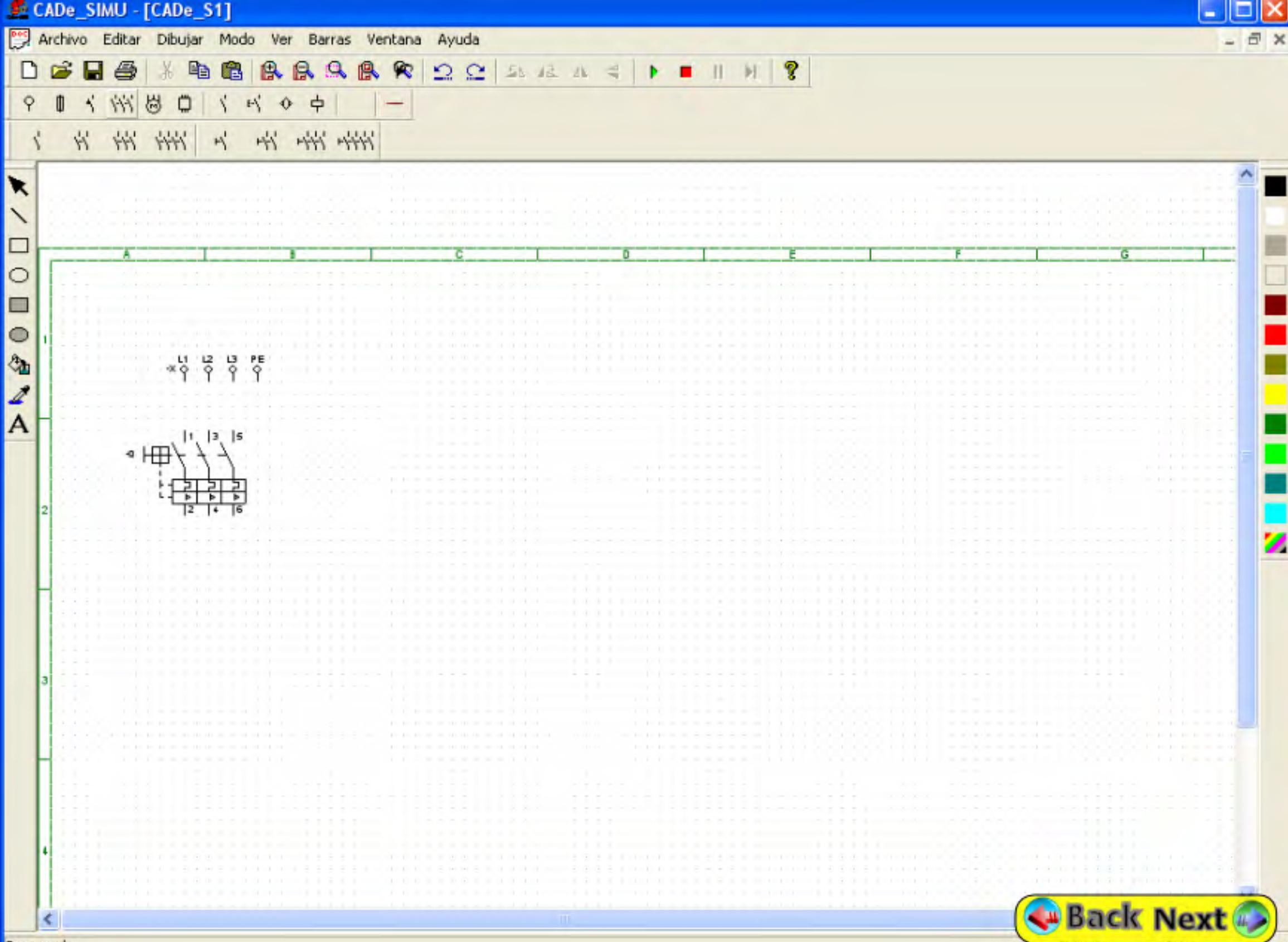
72484

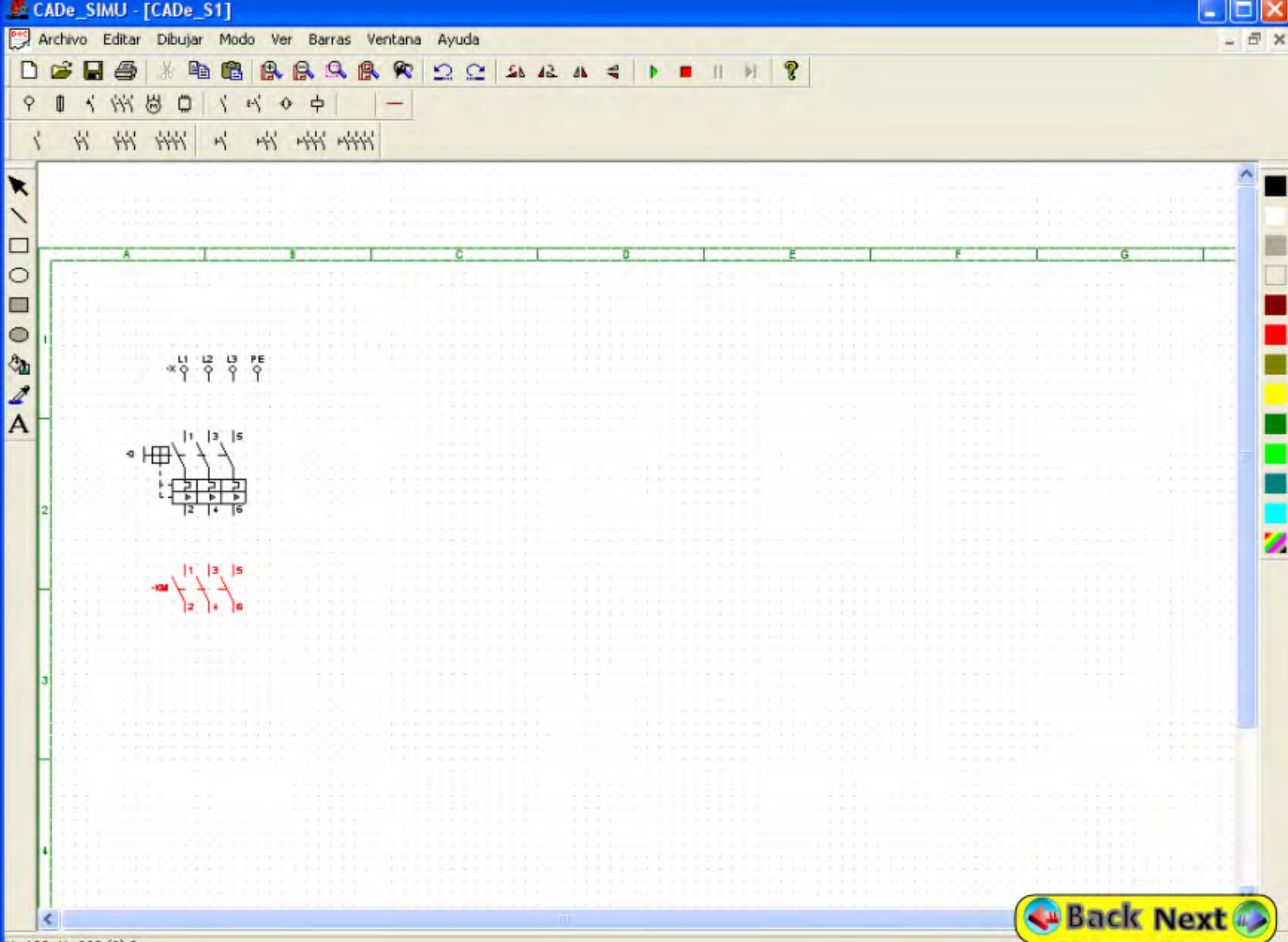
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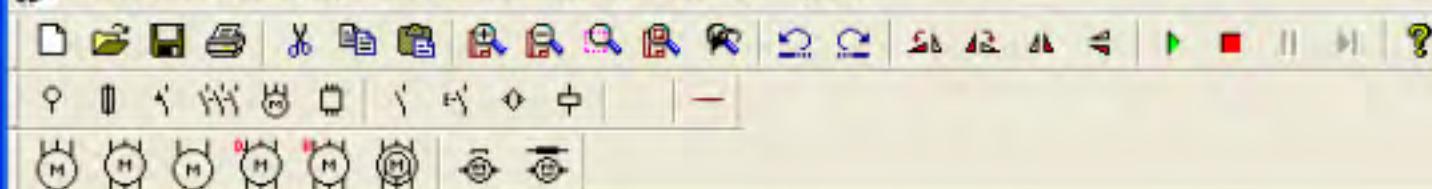
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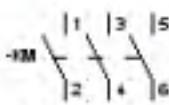
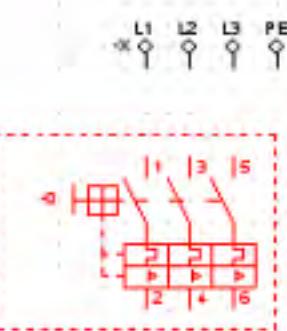








Haciendo DOBLE CLIC sobre un componente accedemos a sus opciones de marcado.





Editar

Disyuntor III

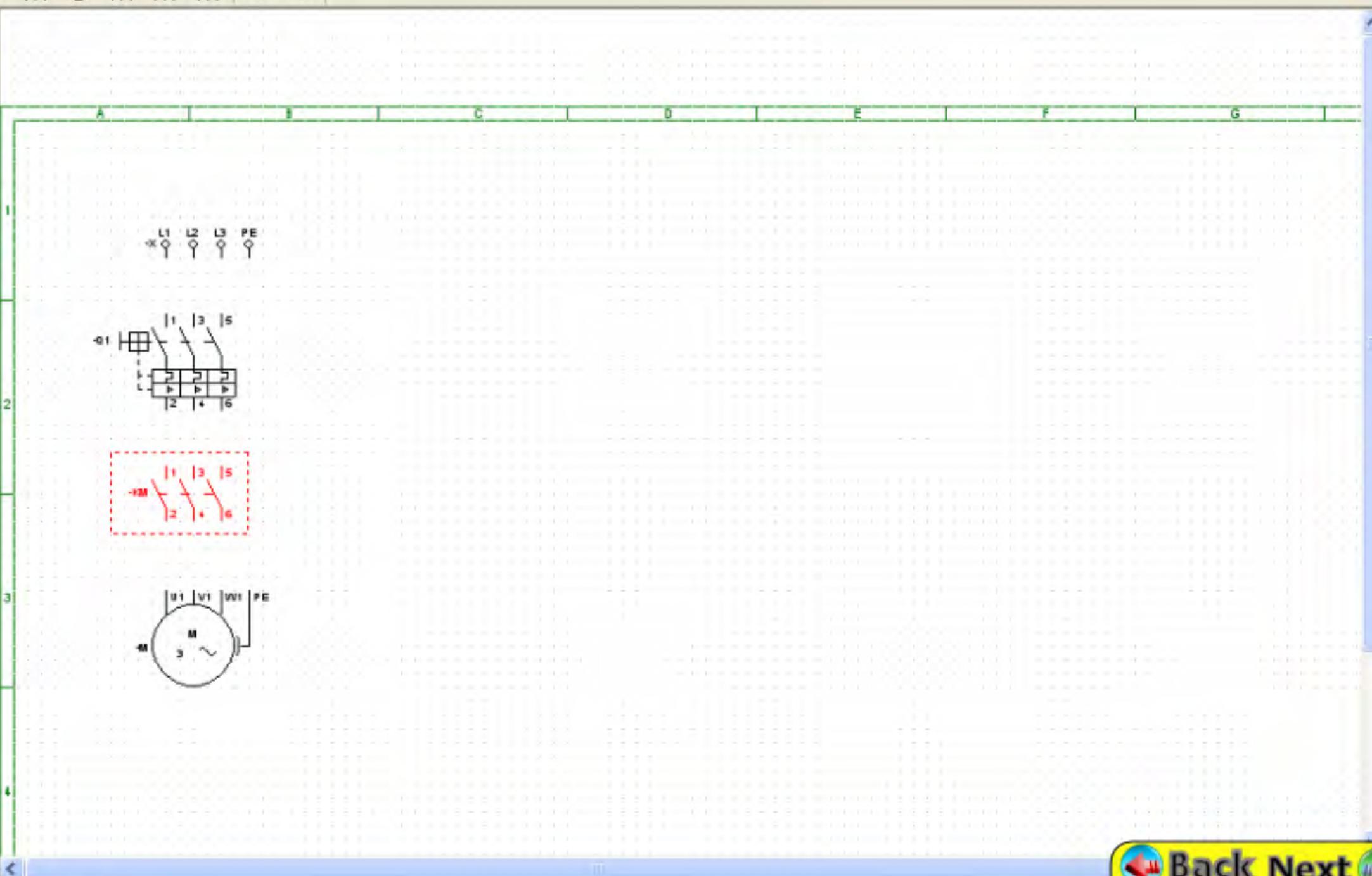
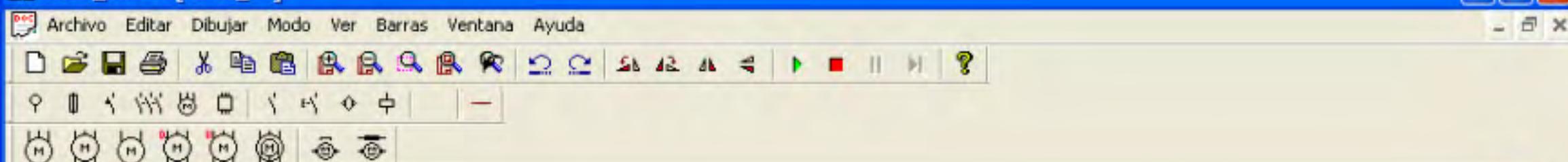
	Visualizar
Nombre:	<input checked="" type="checkbox"/> -Q1
Función:	<input type="checkbox"/>
Conexión 1:	<input checked="" type="checkbox"/> 1
Conexión 2:	<input checked="" type="checkbox"/> 3
Conexión 3:	<input checked="" type="checkbox"/> 5
Conexión 4:	<input checked="" type="checkbox"/> 2
Conexión 5:	<input checked="" type="checkbox"/> 4
Conexión 6:	<input checked="" type="checkbox"/> 6
Conexión 7:	<input type="checkbox"/>
Conexión 8:	<input type="checkbox"/>
Conexión 9:	<input type="checkbox"/>

OK

Cancel

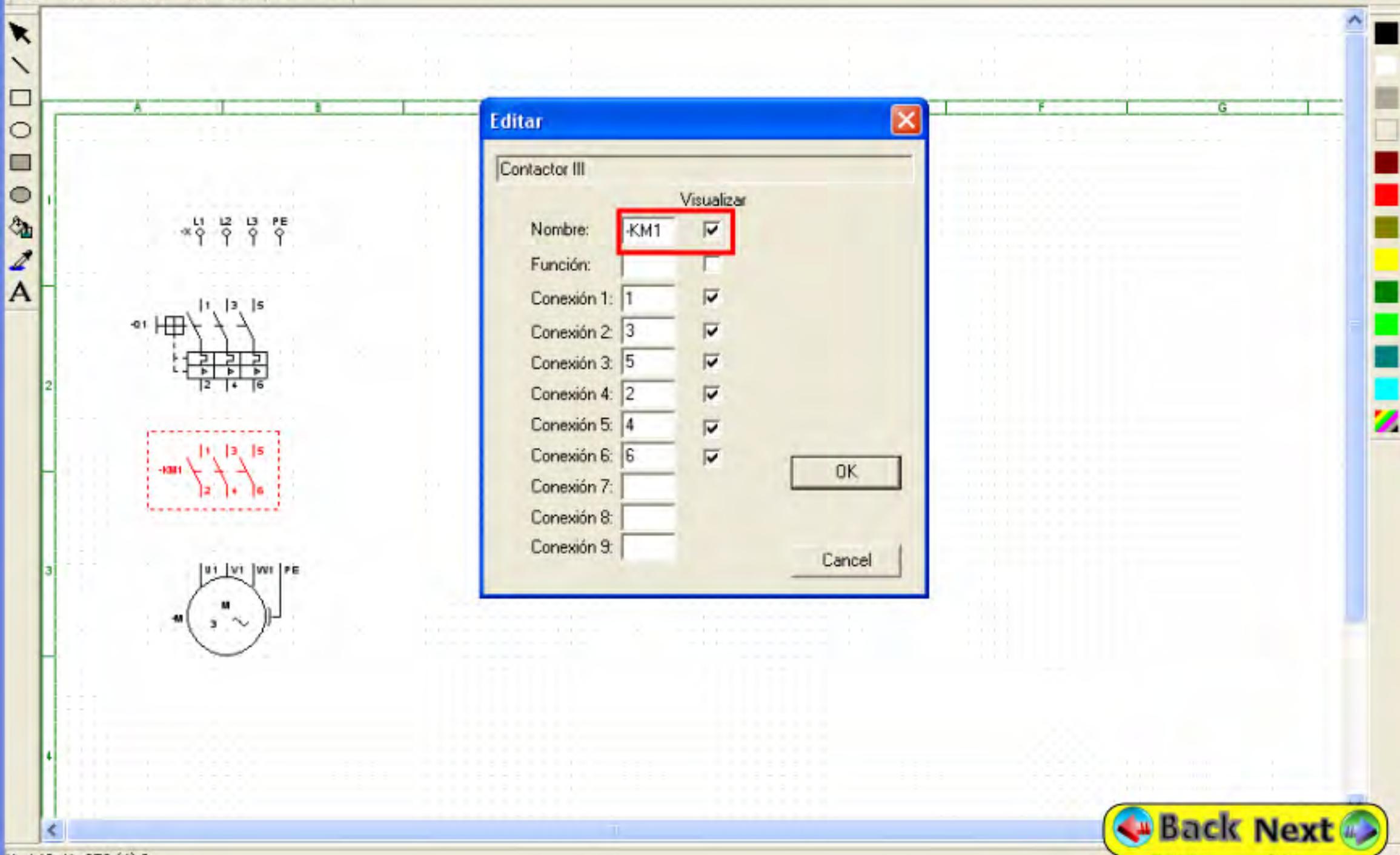
Lo identificamos como (-Q1) y nos aseguramos de que se visualicen los datos (por defecto aparecerá así).

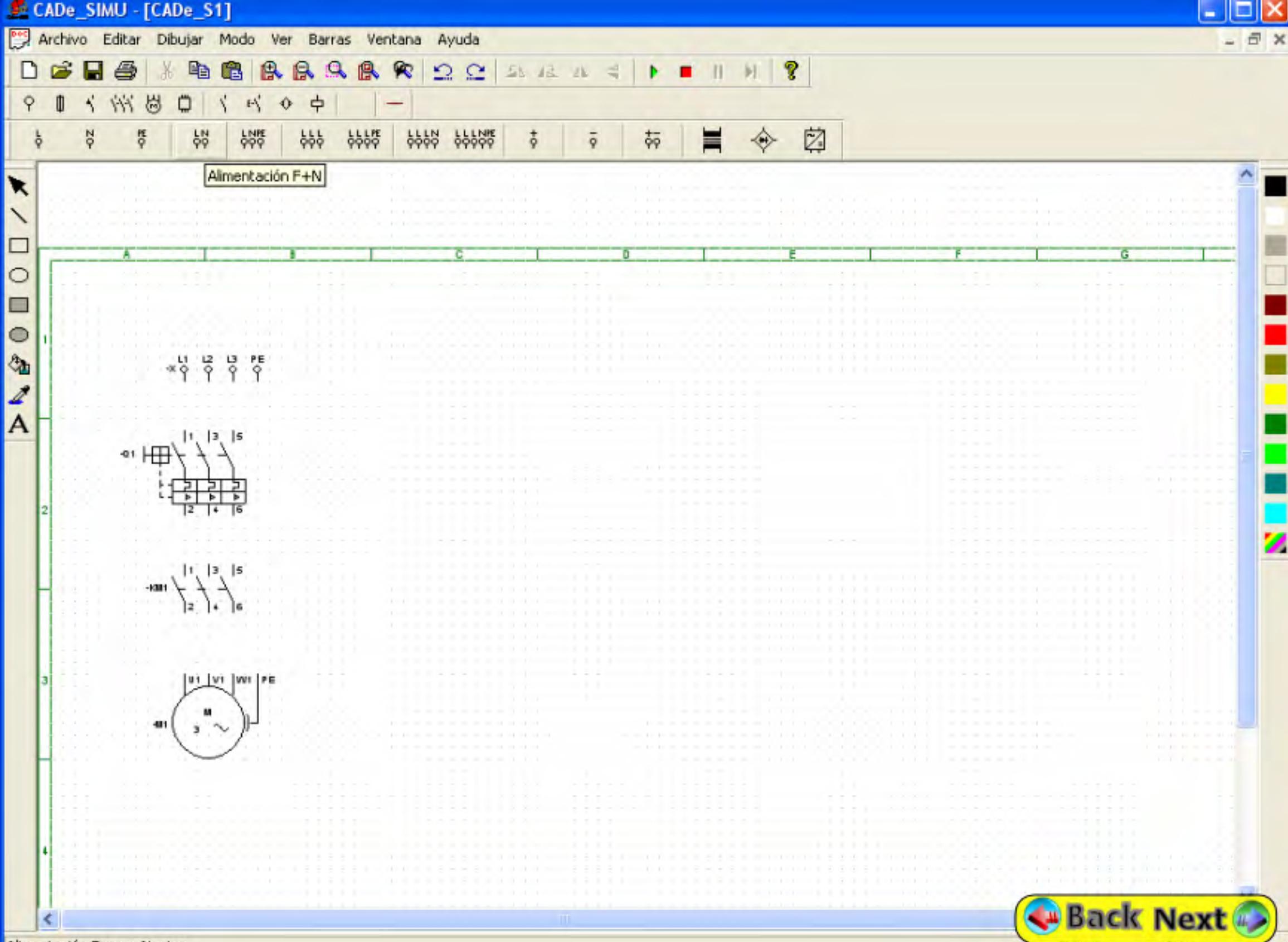
CADe_SIMU - [CADe_S1]

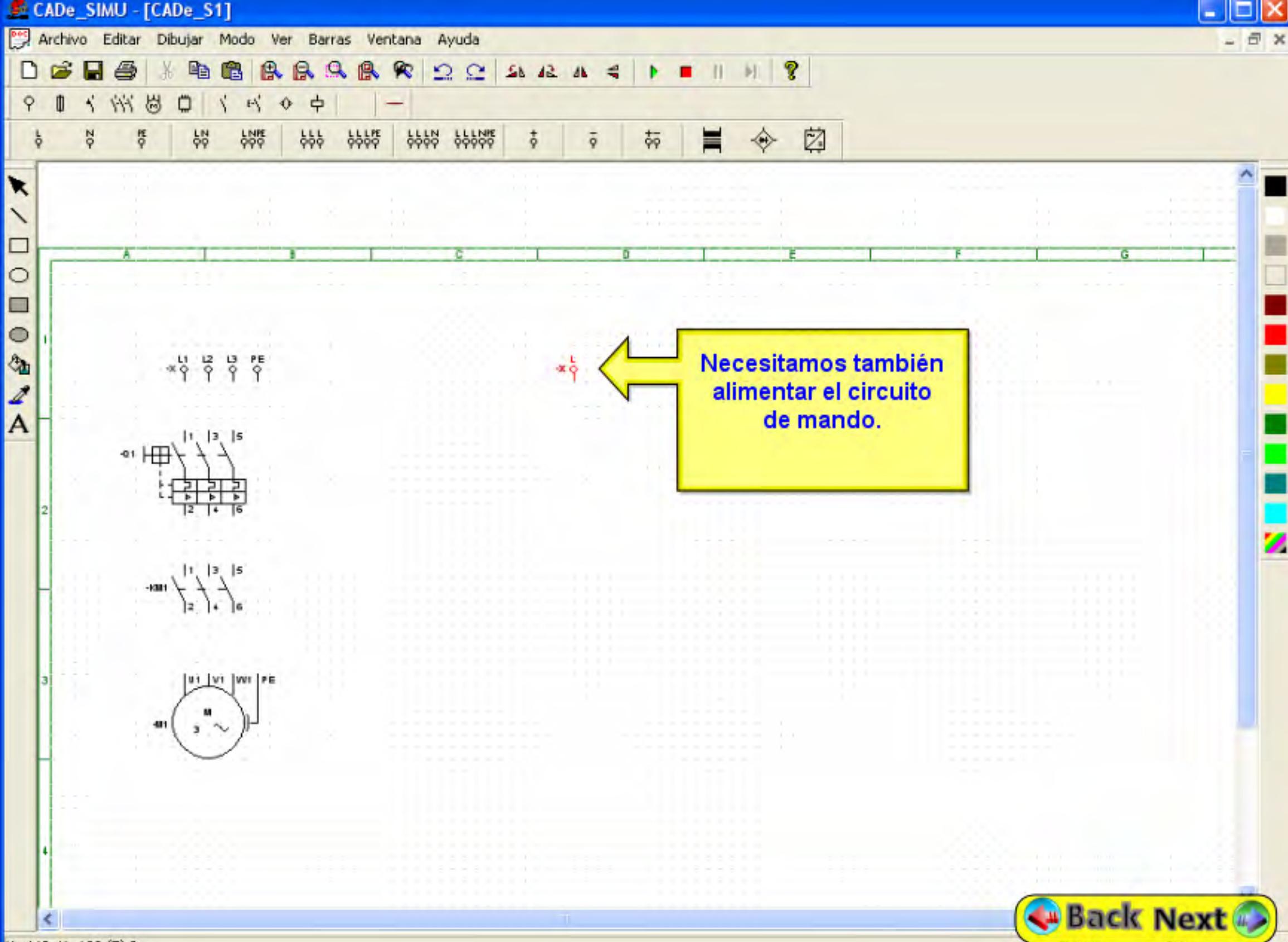


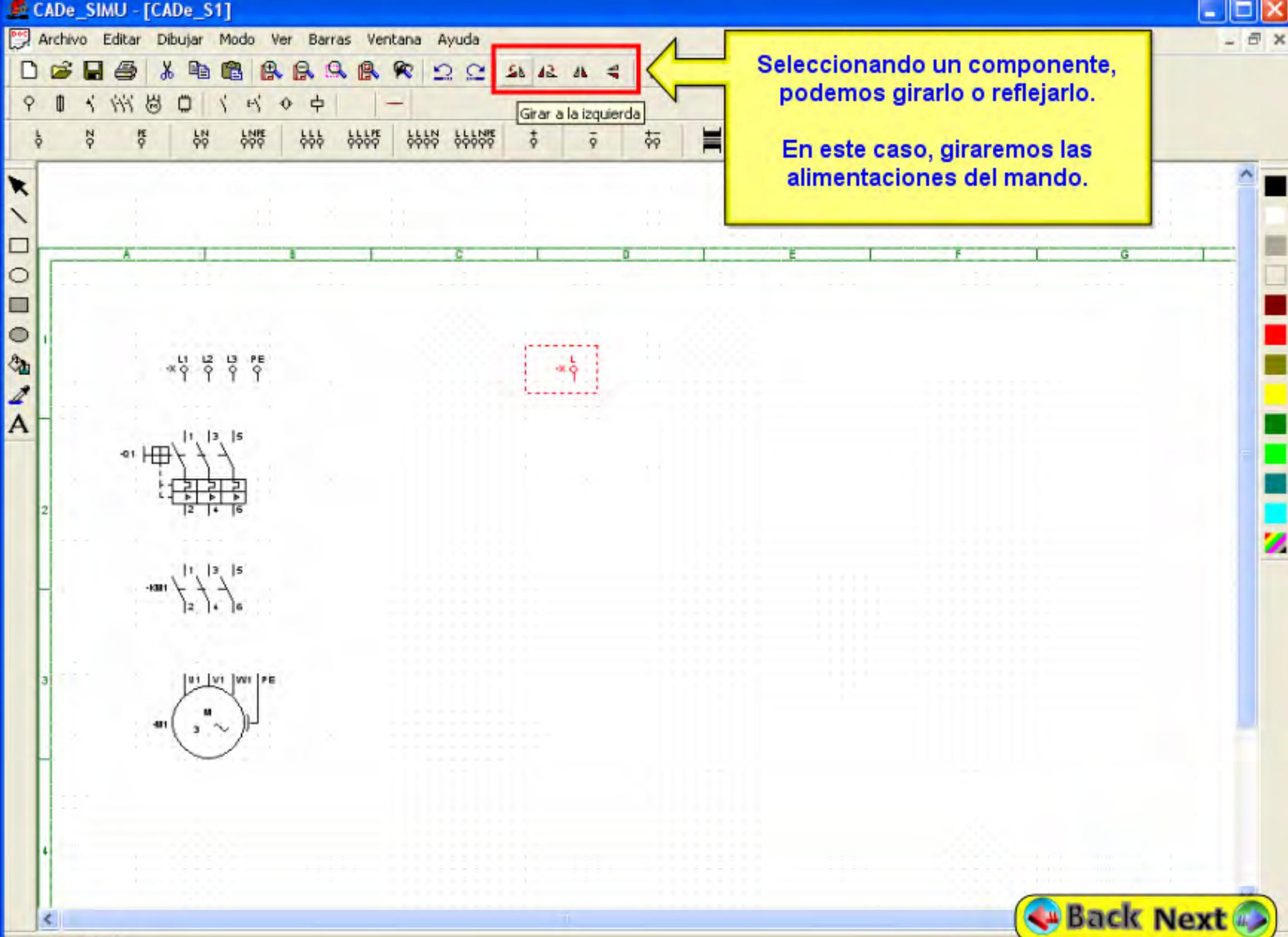
X=110, Y=340 (4) 3

A set of navigation buttons located at the bottom right of the slide. It includes a blue 'Back' button with a left-pointing arrow icon and a blue 'Next' button with a right-pointing arrow icon.

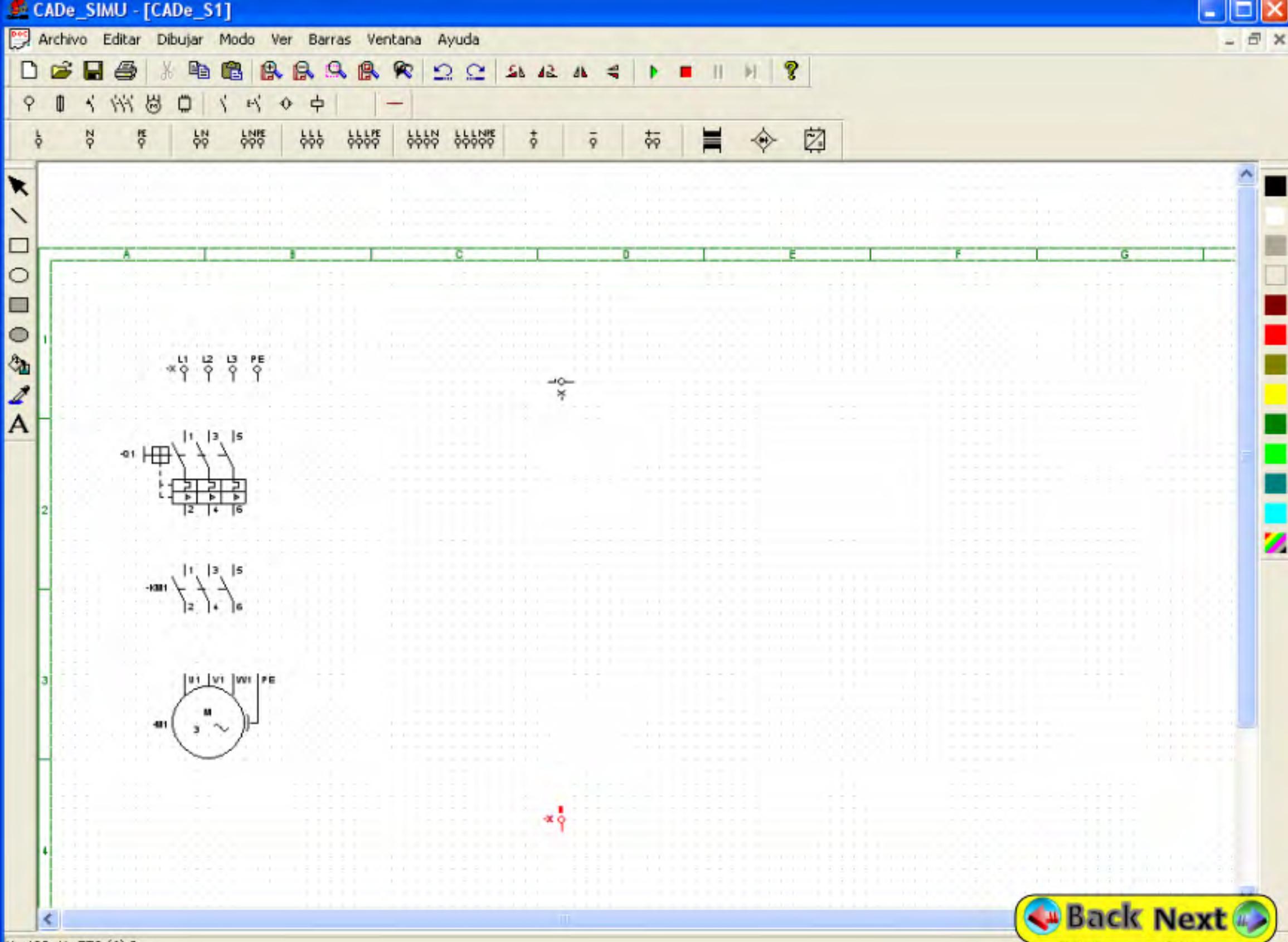


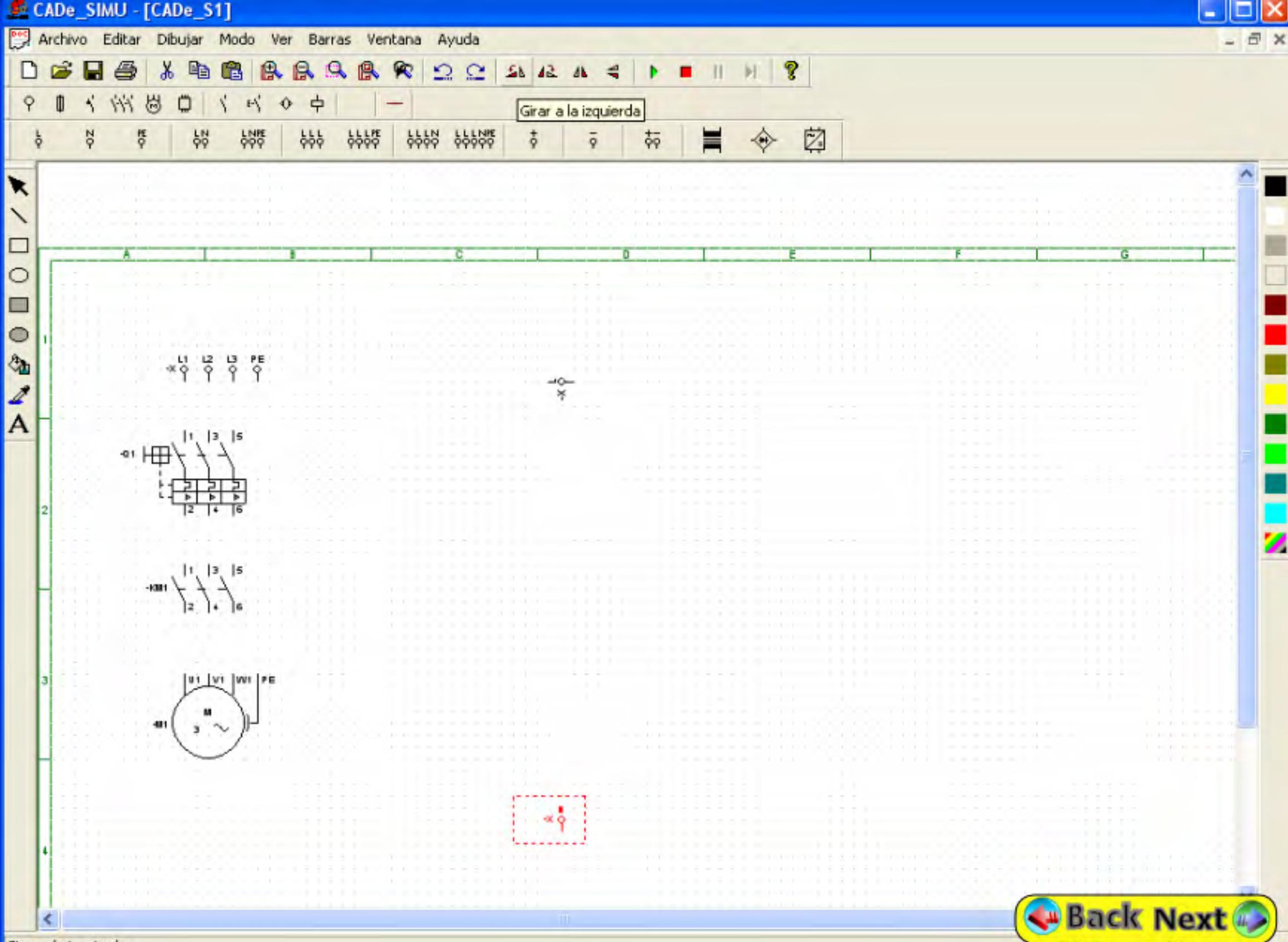


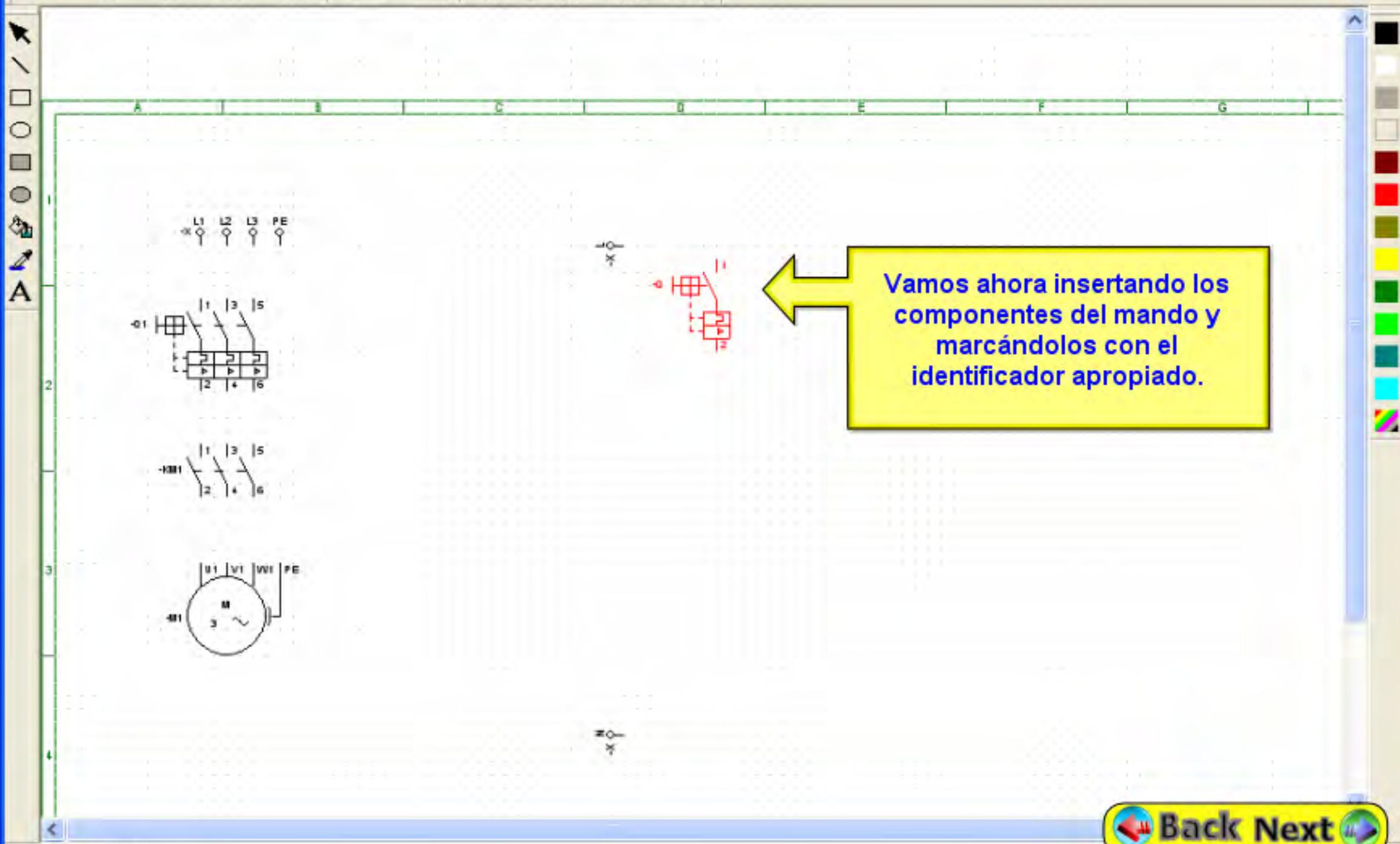
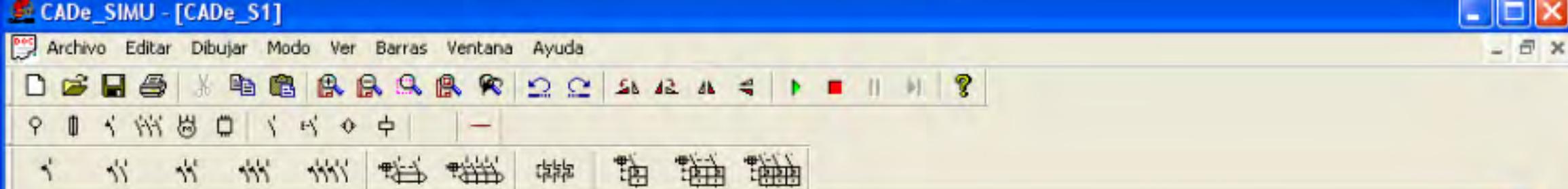


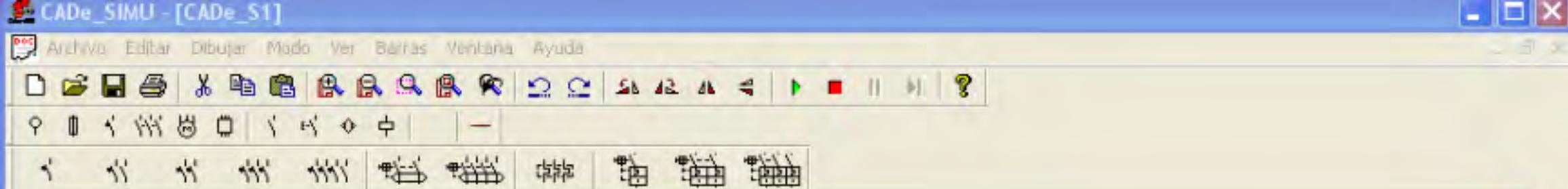


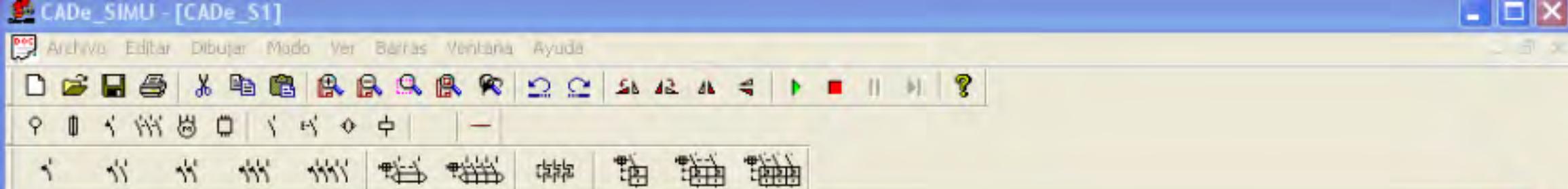
Back Next











Editar

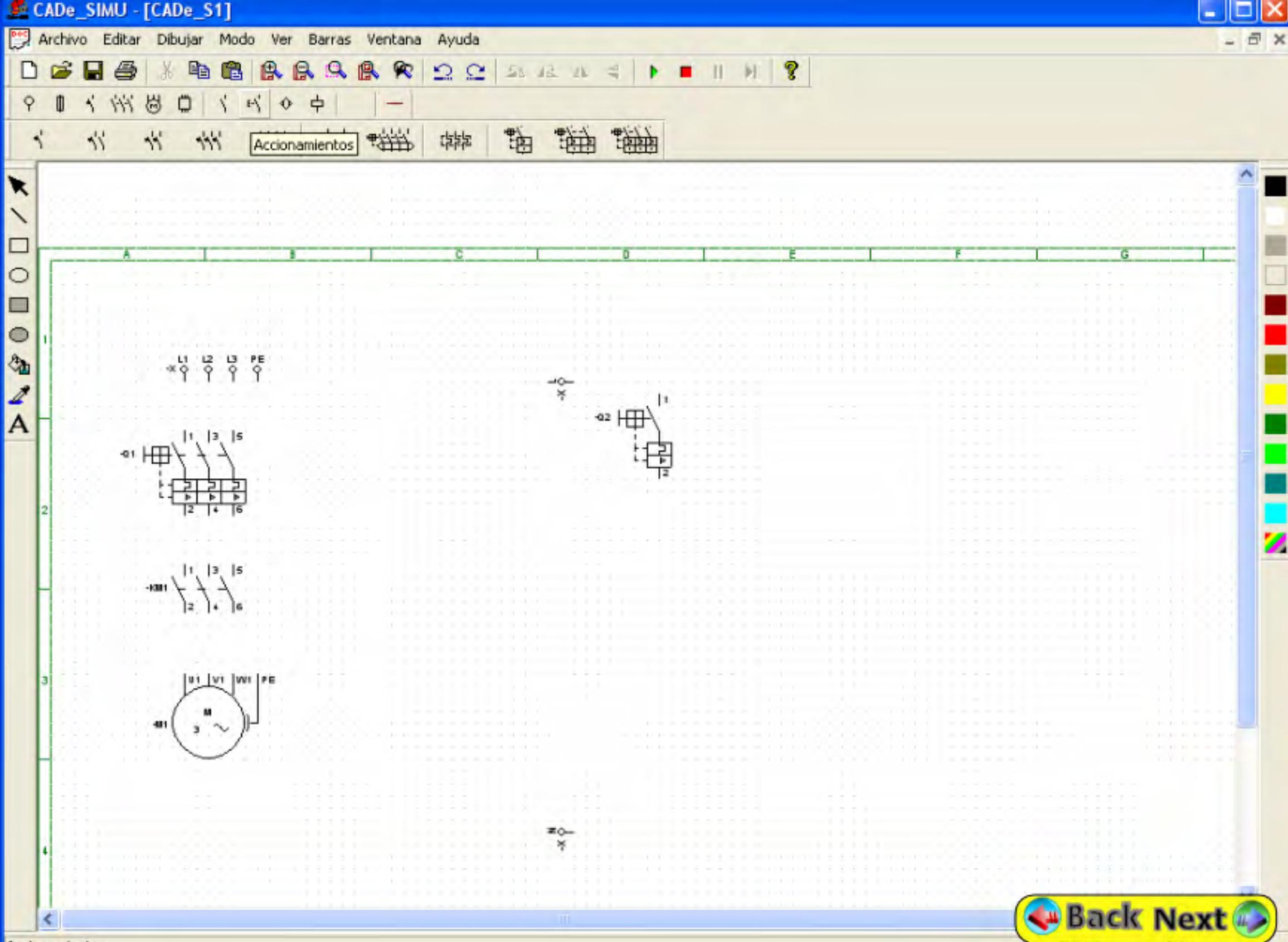
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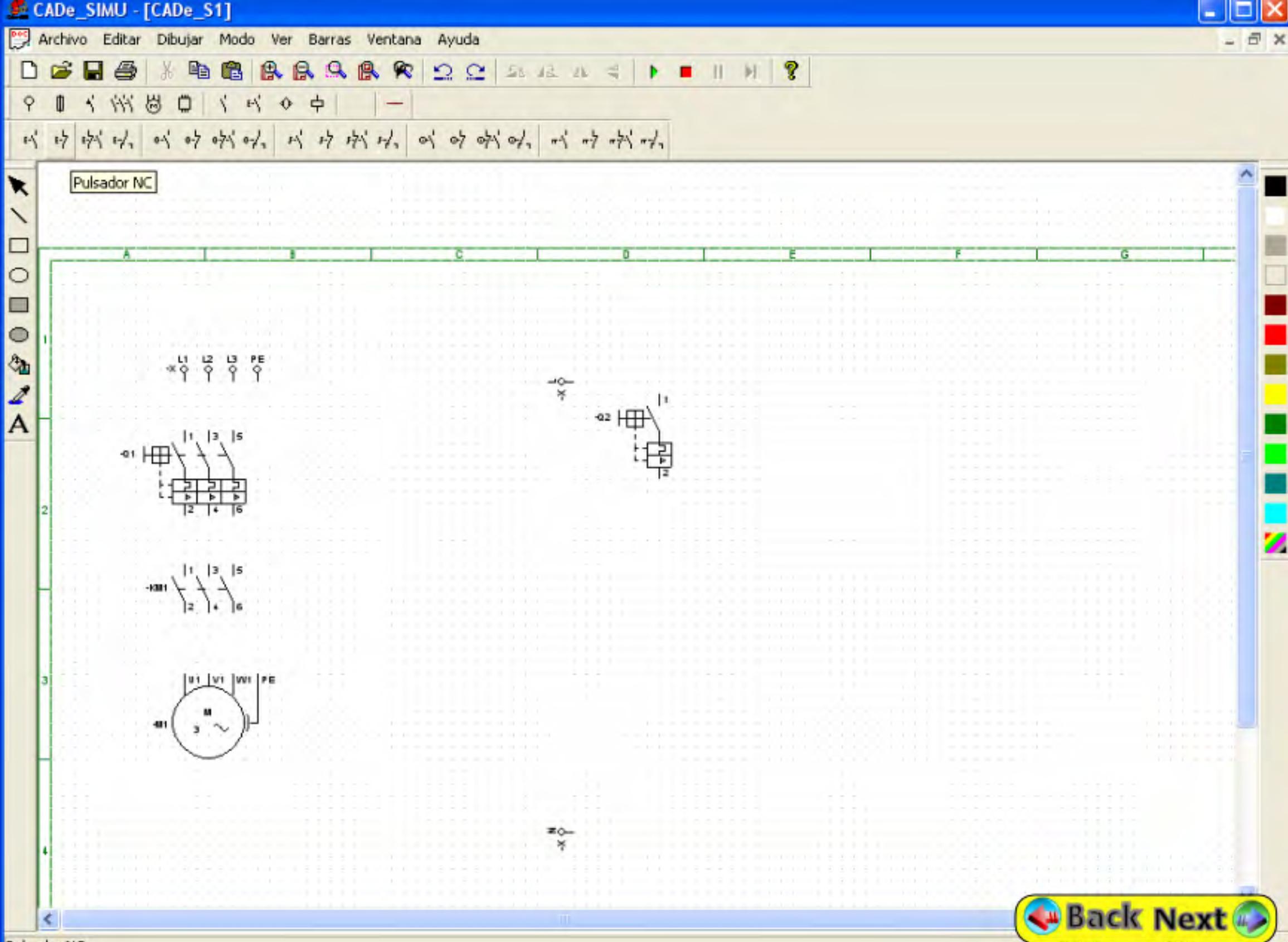
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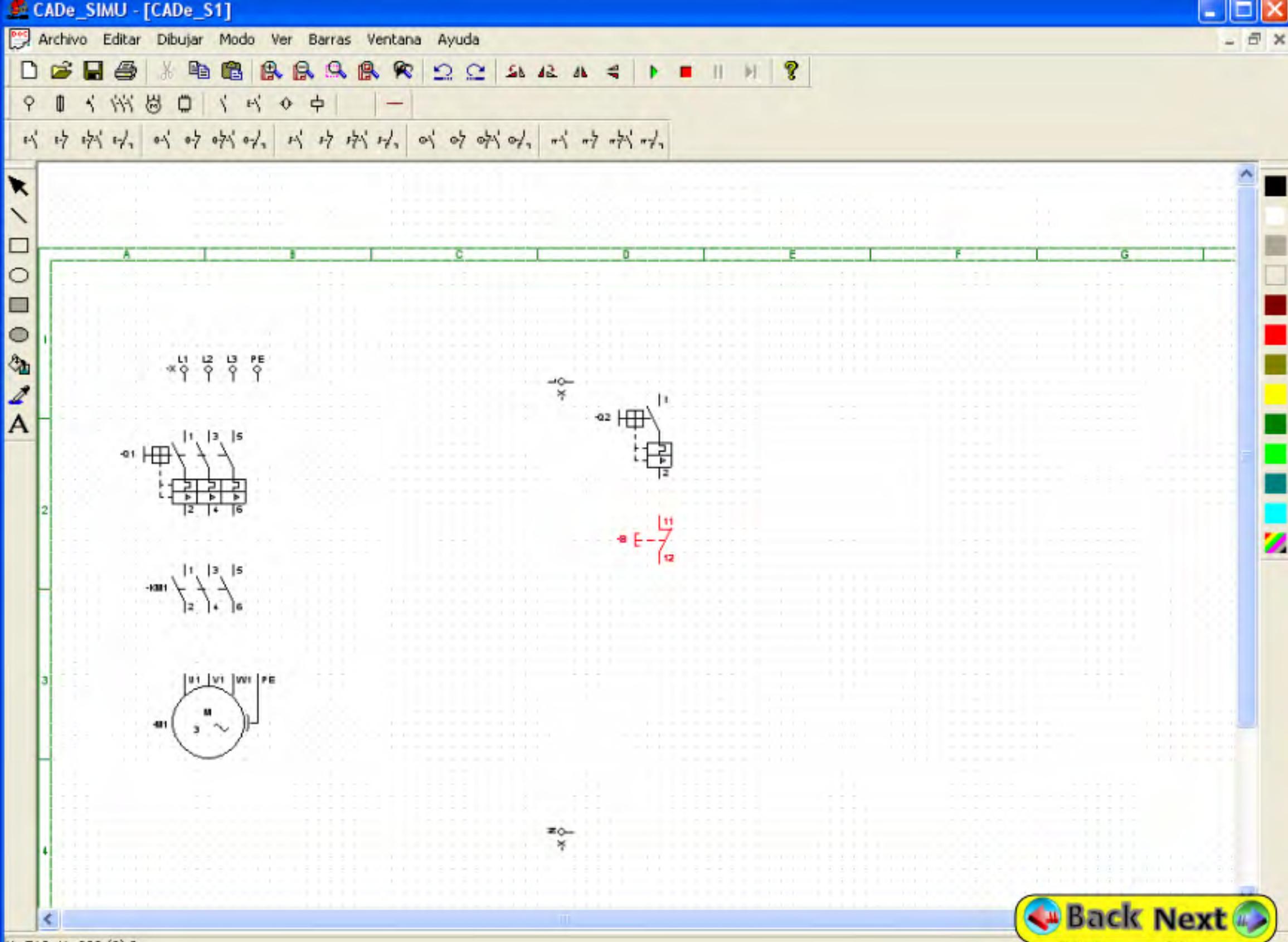
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| Función: | | <input type="checkbox"/> |
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| Conexión 2: | 2 | <input checked="" type="checkbox"/> |
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| Conexión 4: | | |
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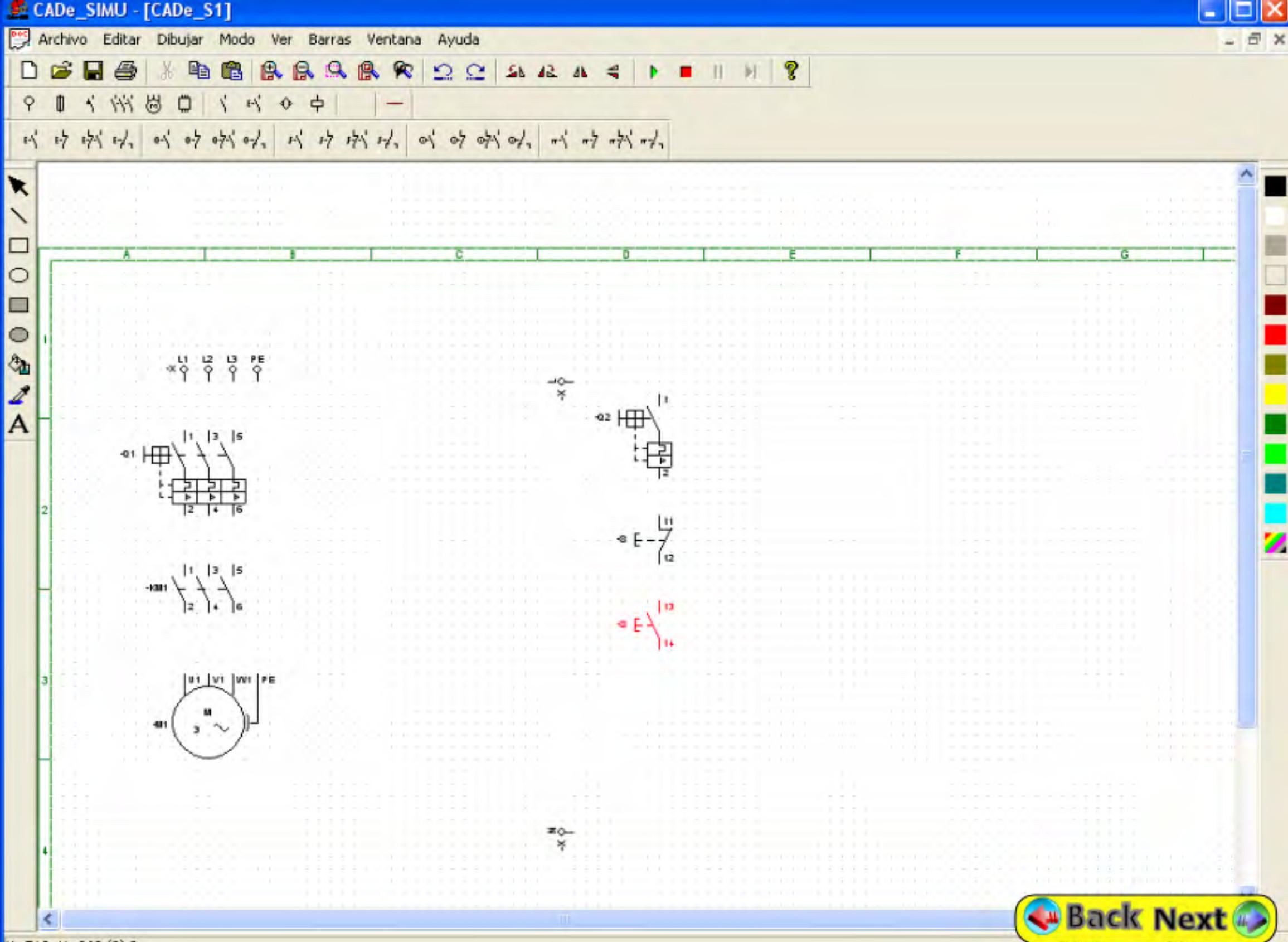
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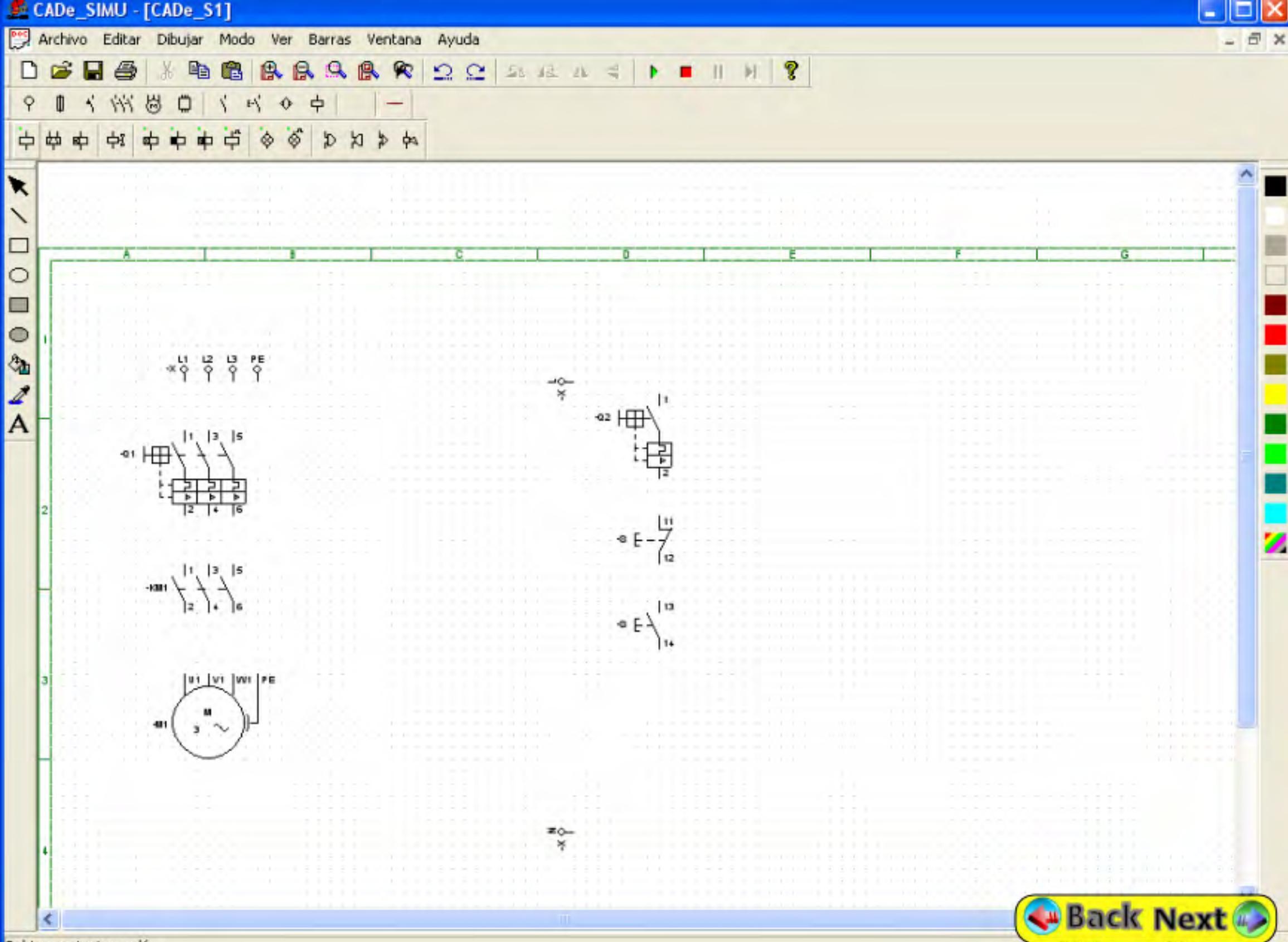
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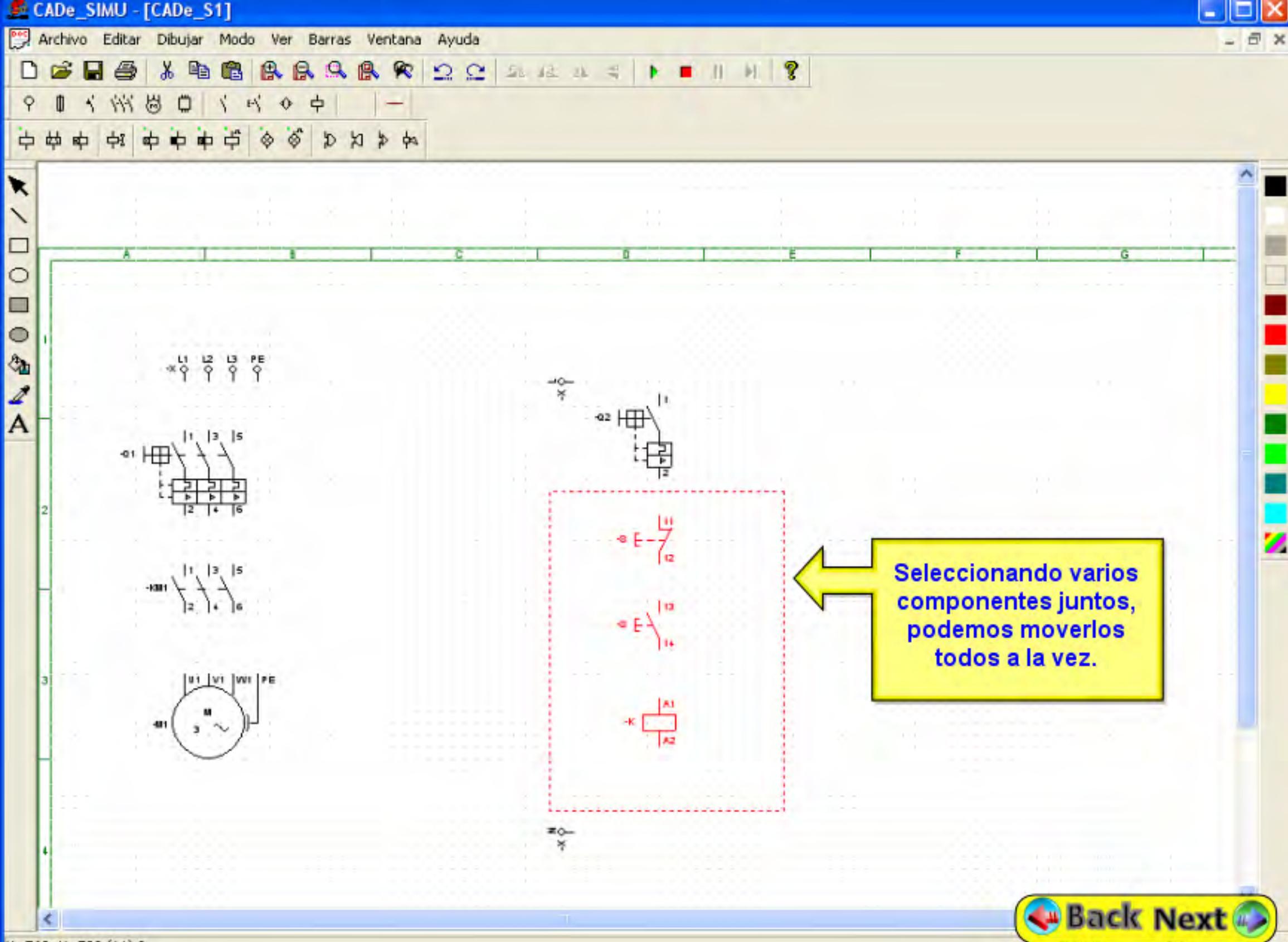


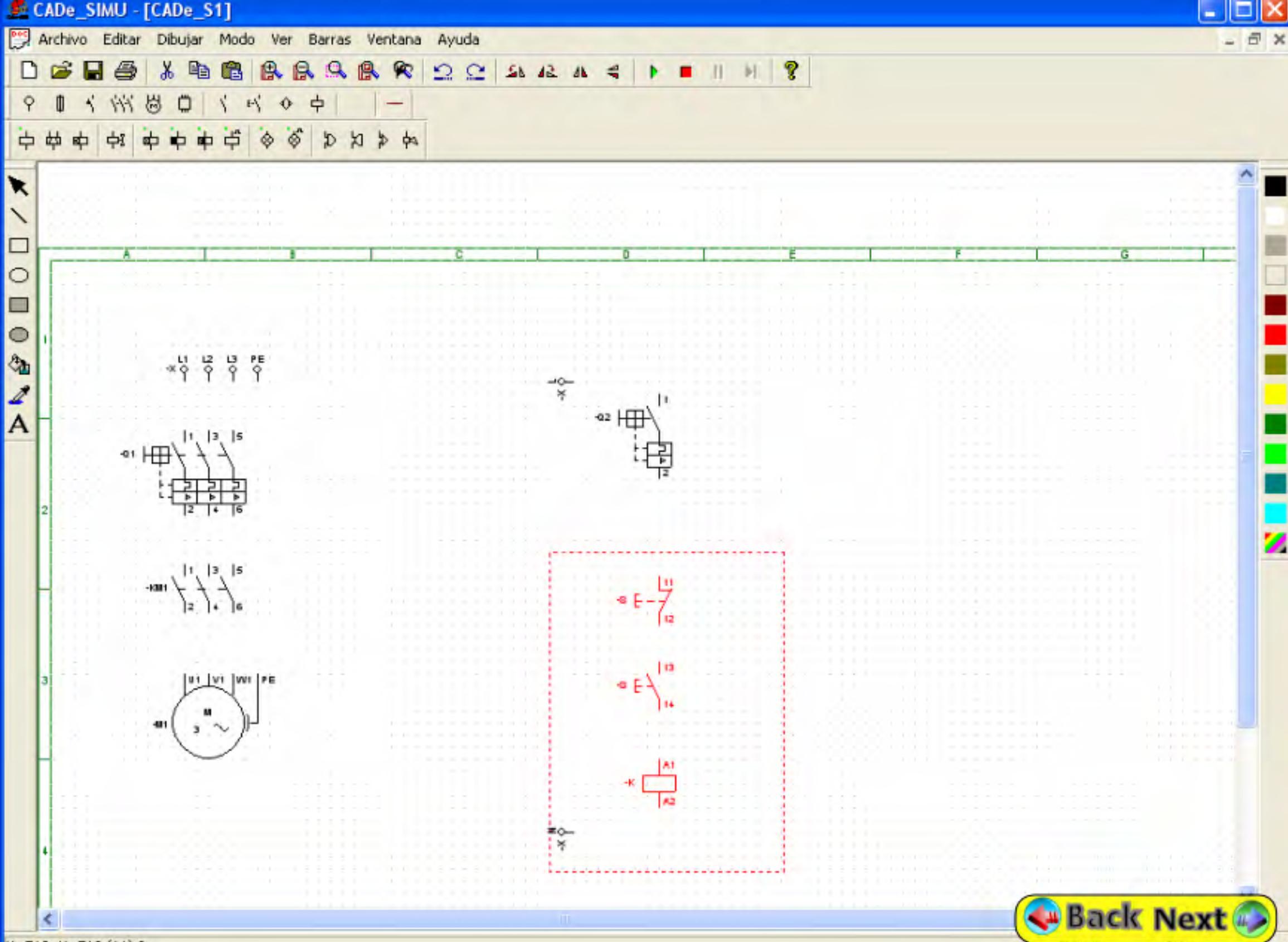


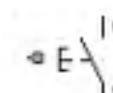
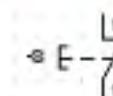
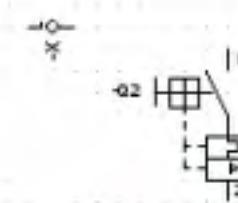
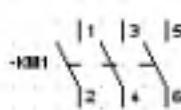
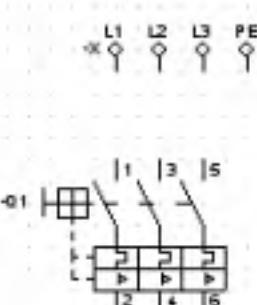


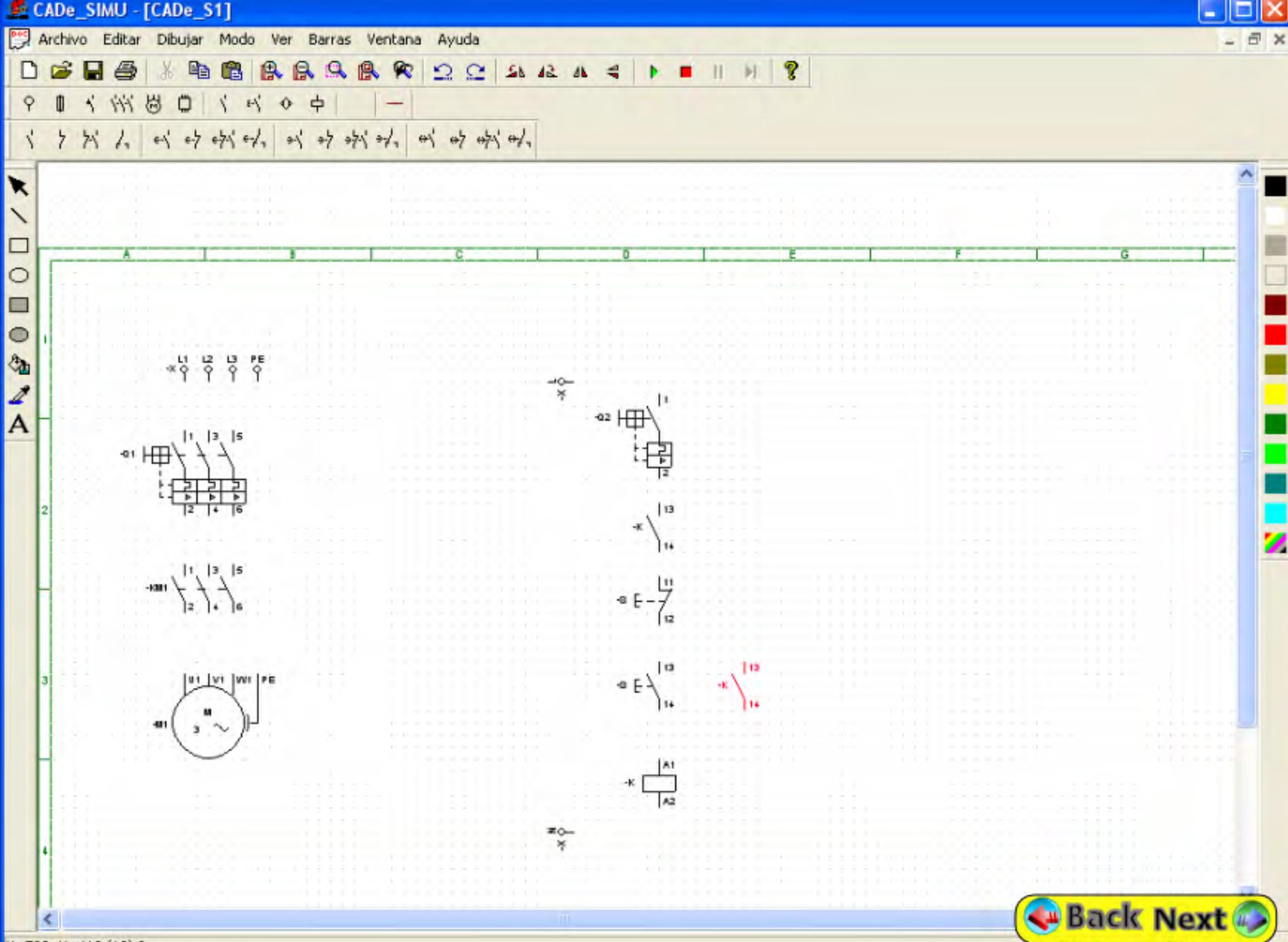


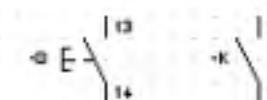
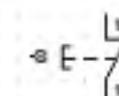
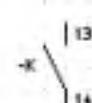
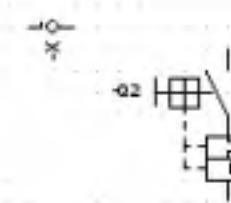
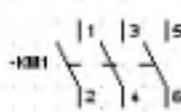
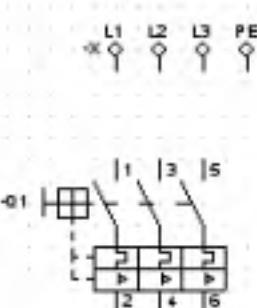
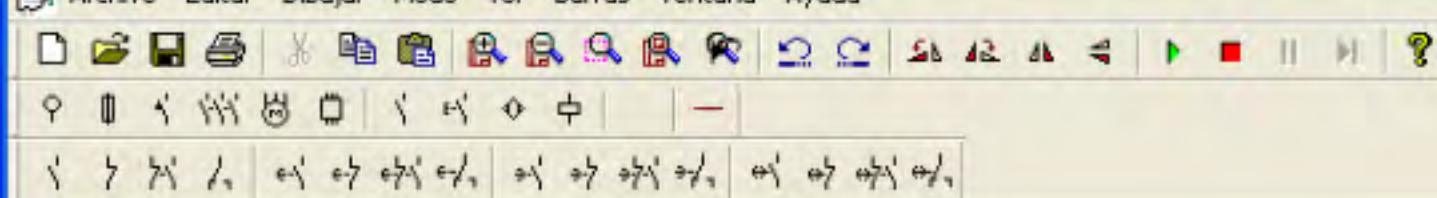


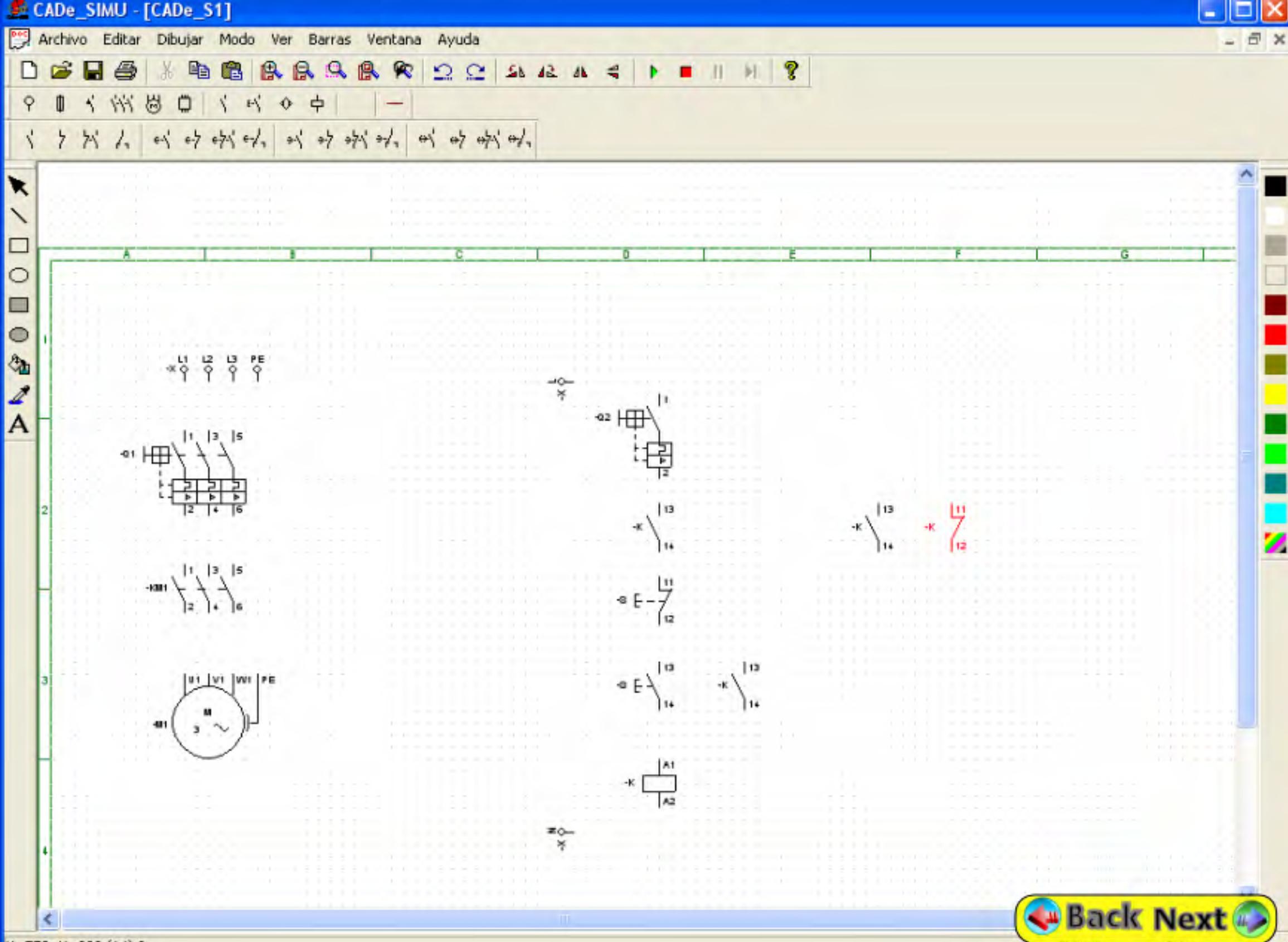


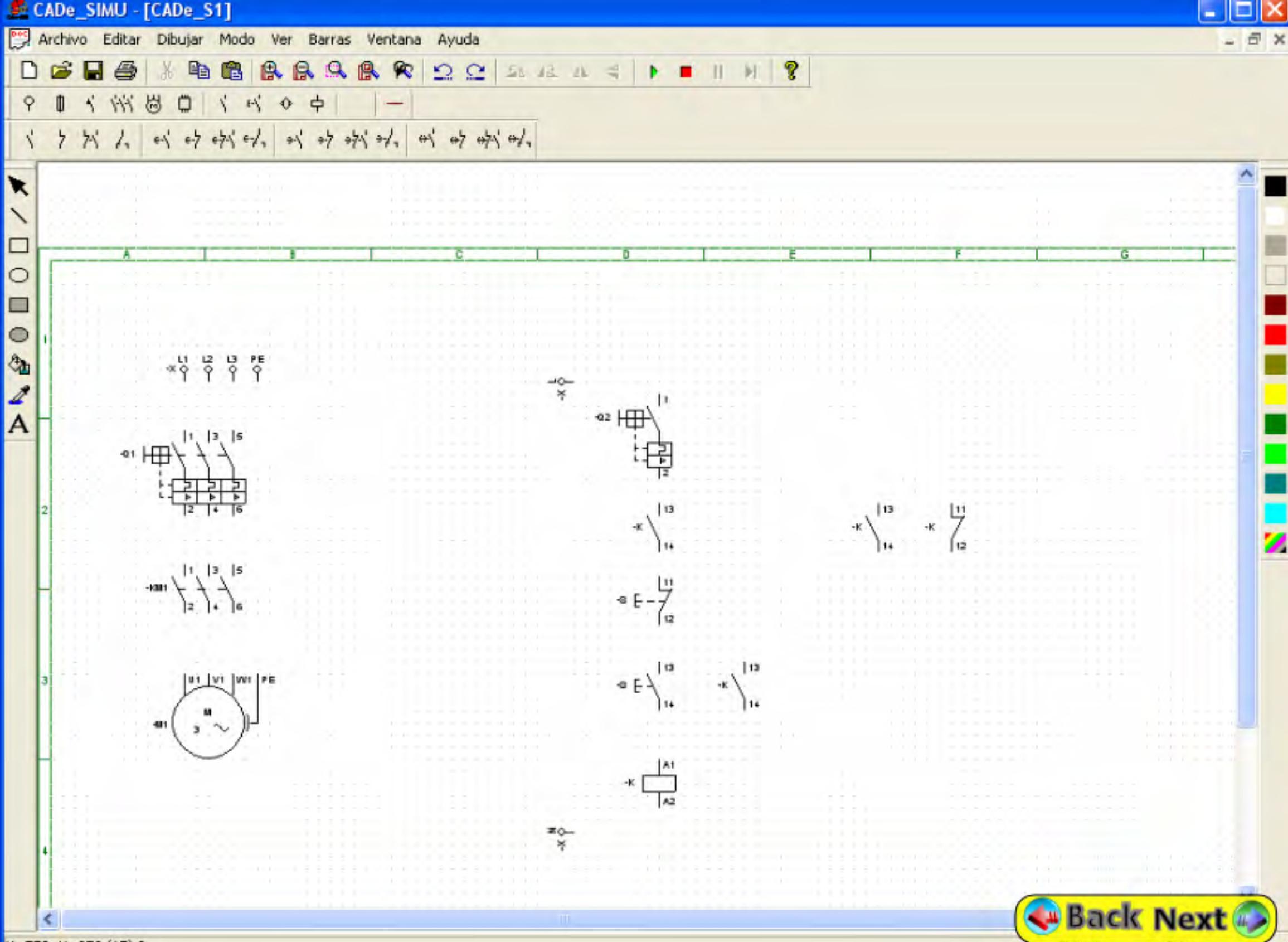


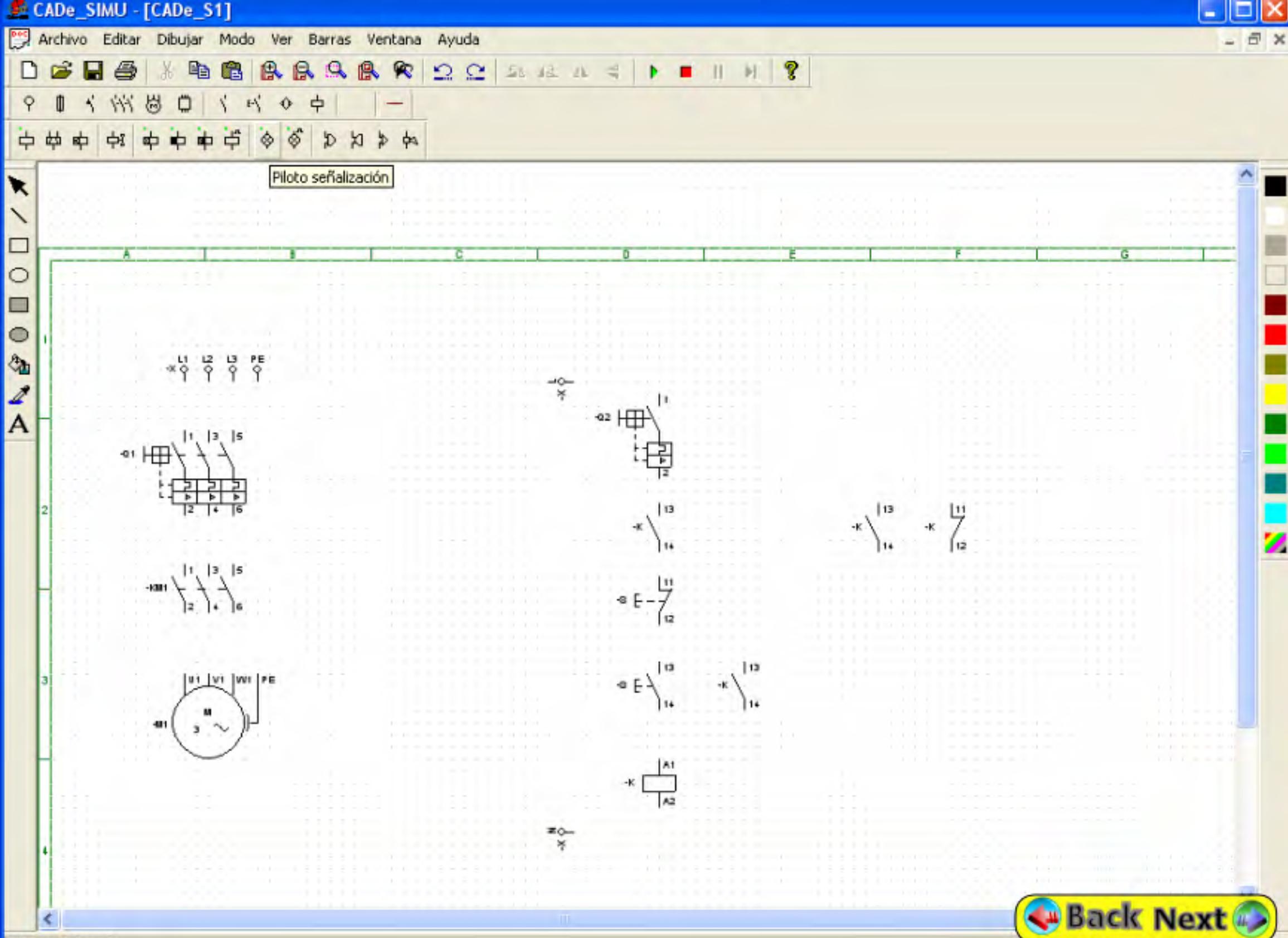


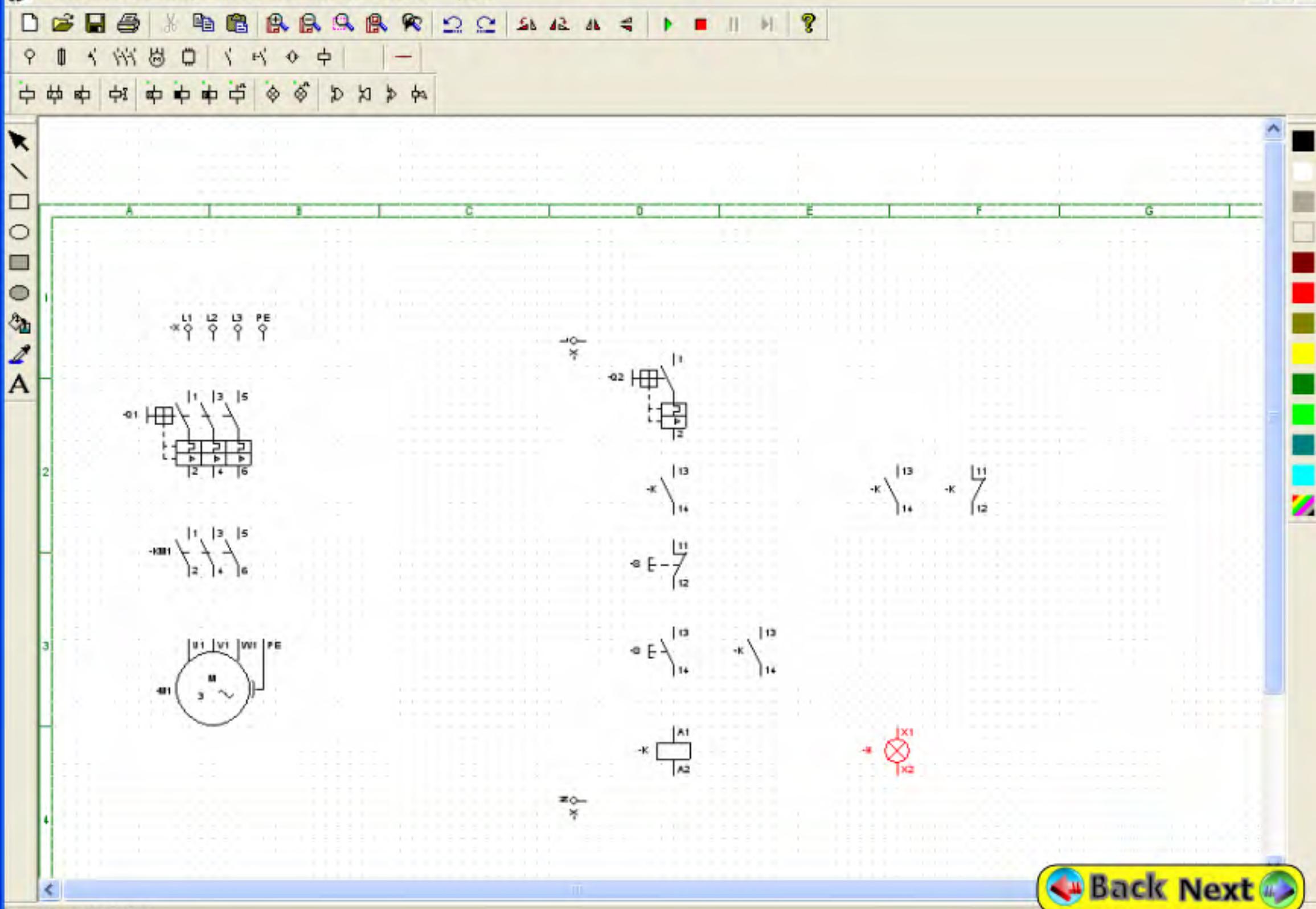


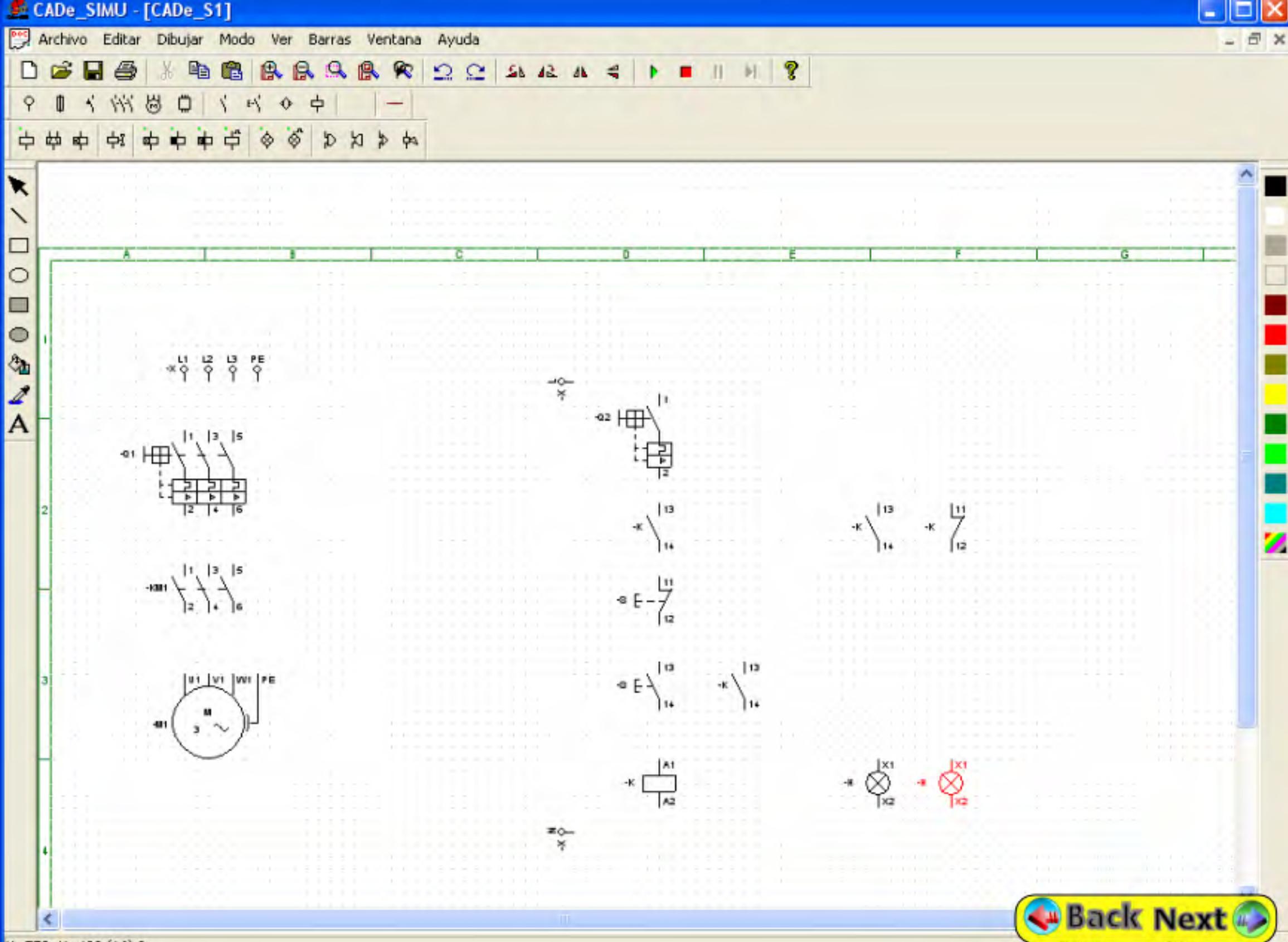


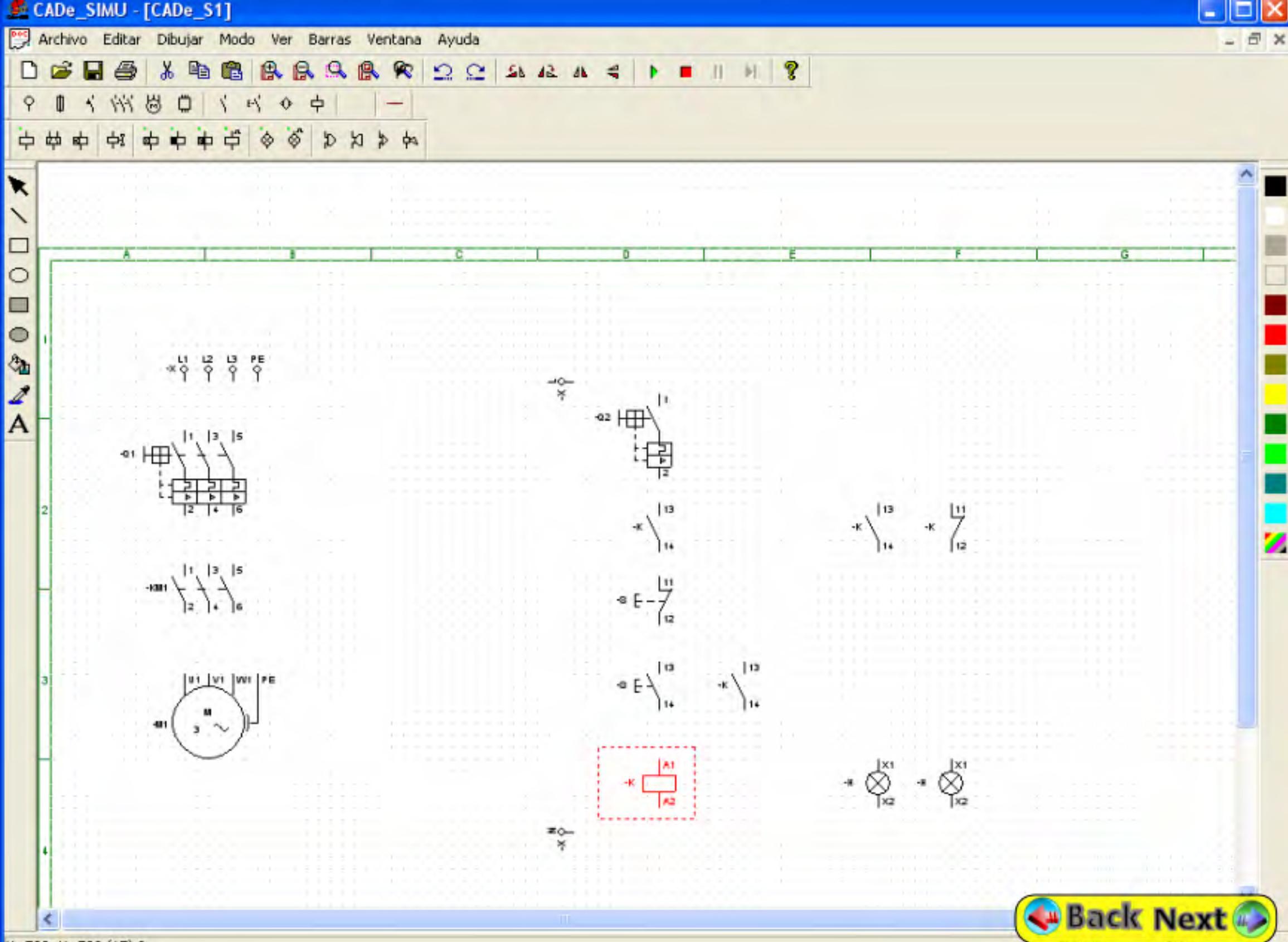


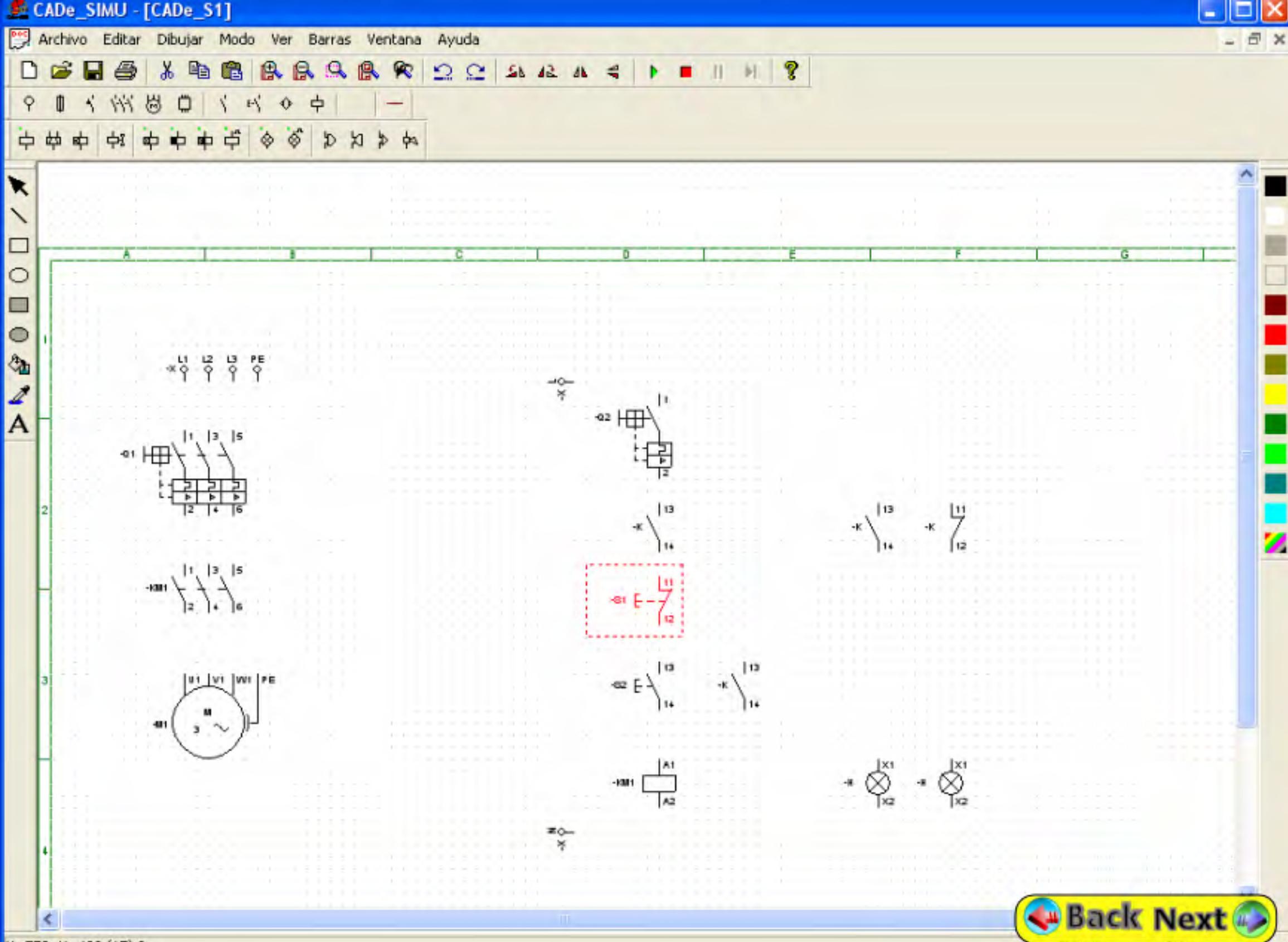


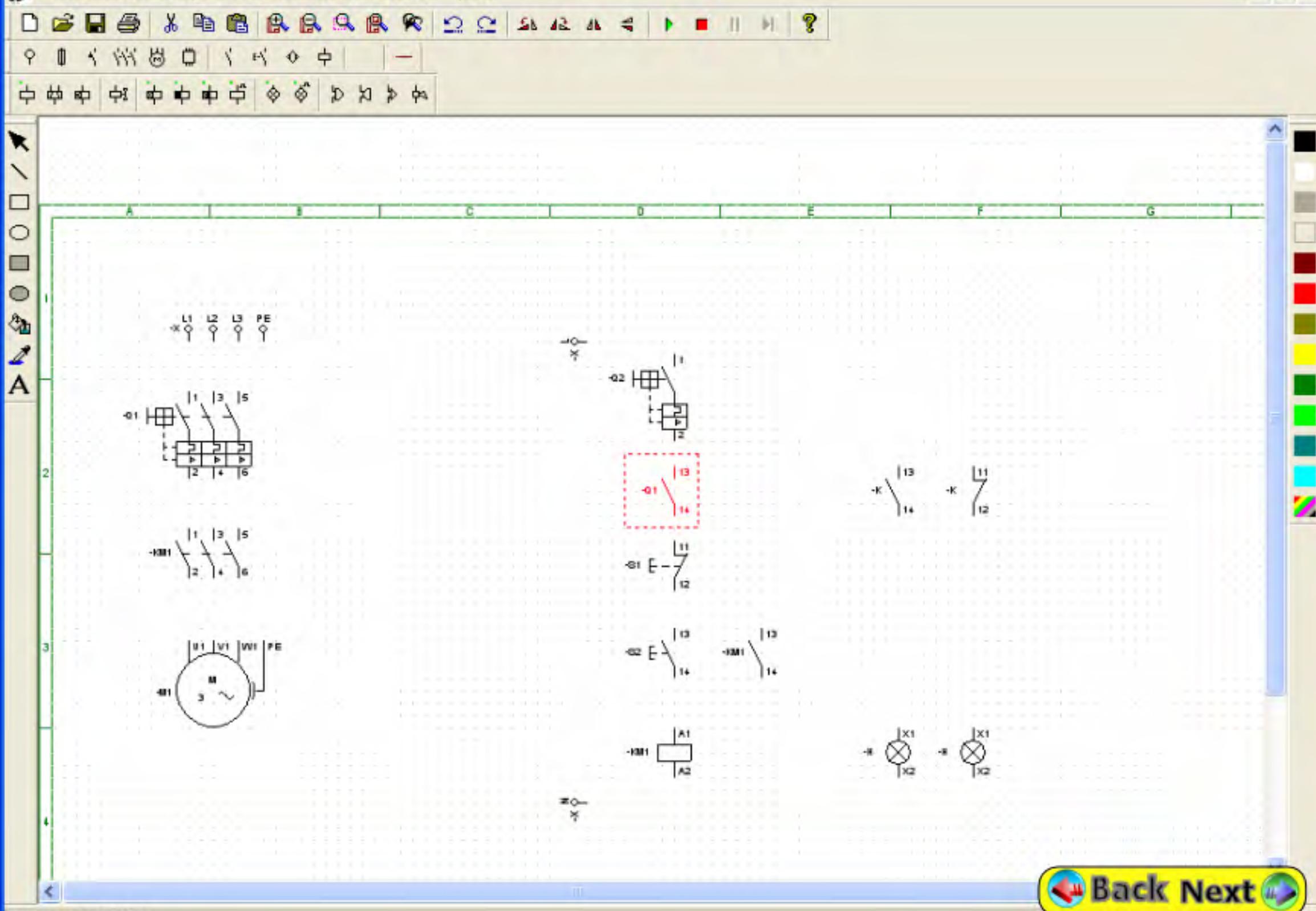


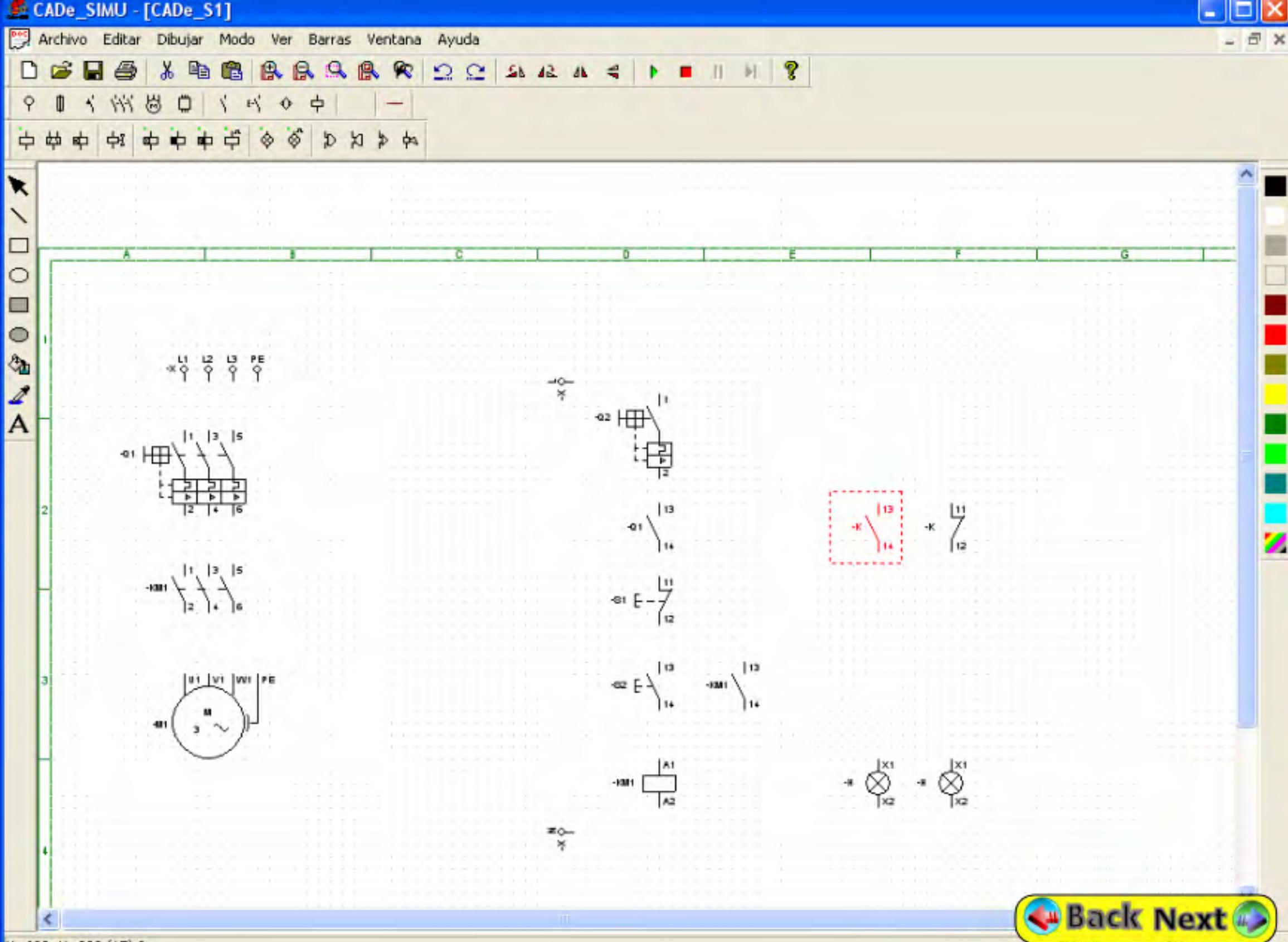














Editar

Contacto auxiliar NA

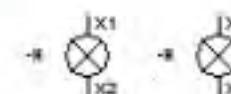
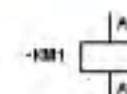
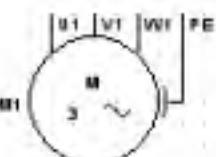
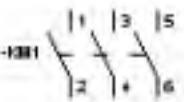
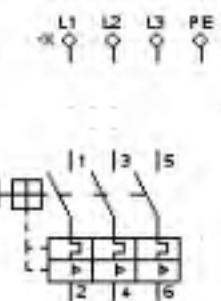
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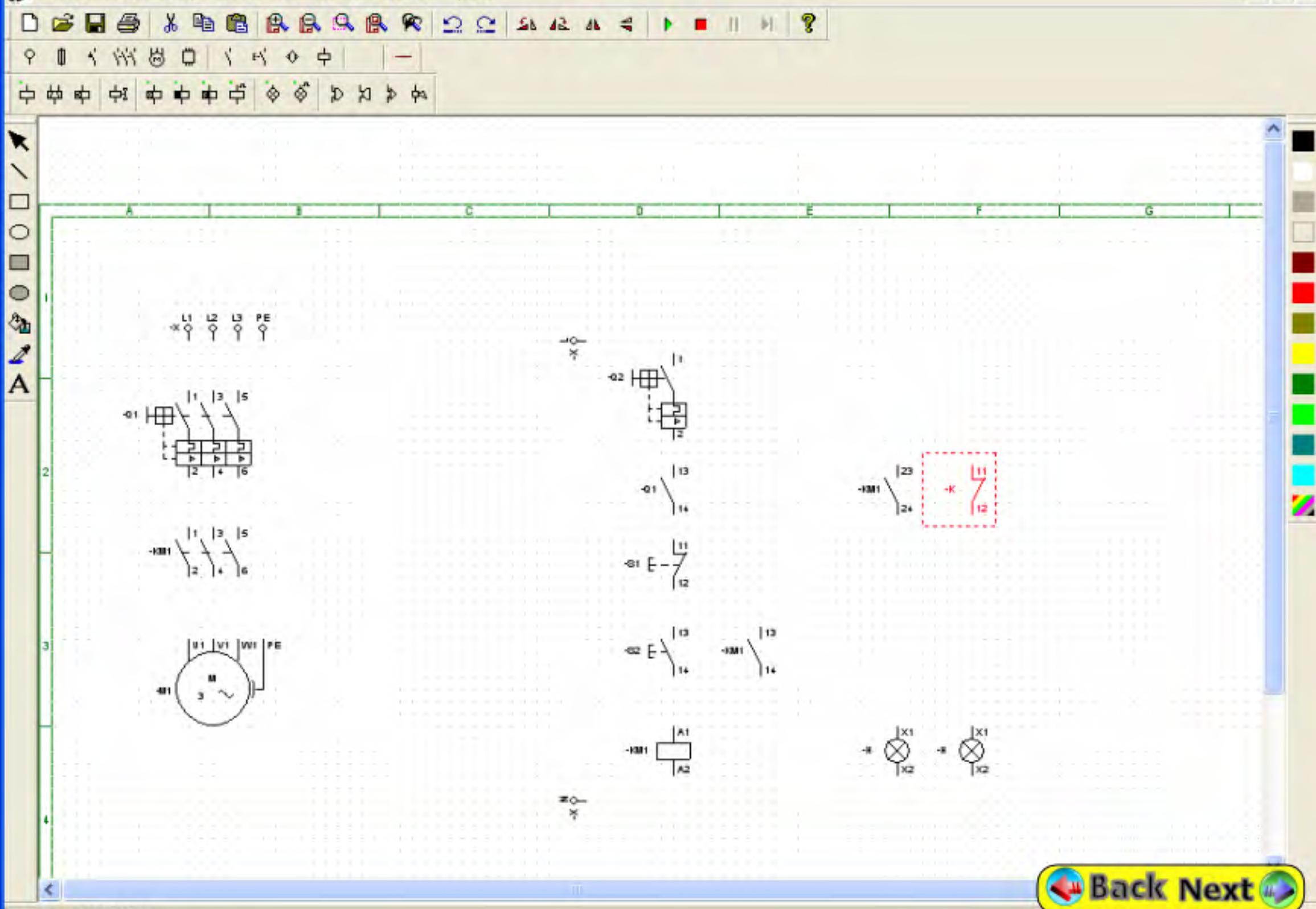
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Función:		<input type="checkbox"/>	.3-4
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Conexión 2:	24	<input checked="" type="checkbox"/>	23-24
Conexión 3:			43-44
Conexión 4:			53-54
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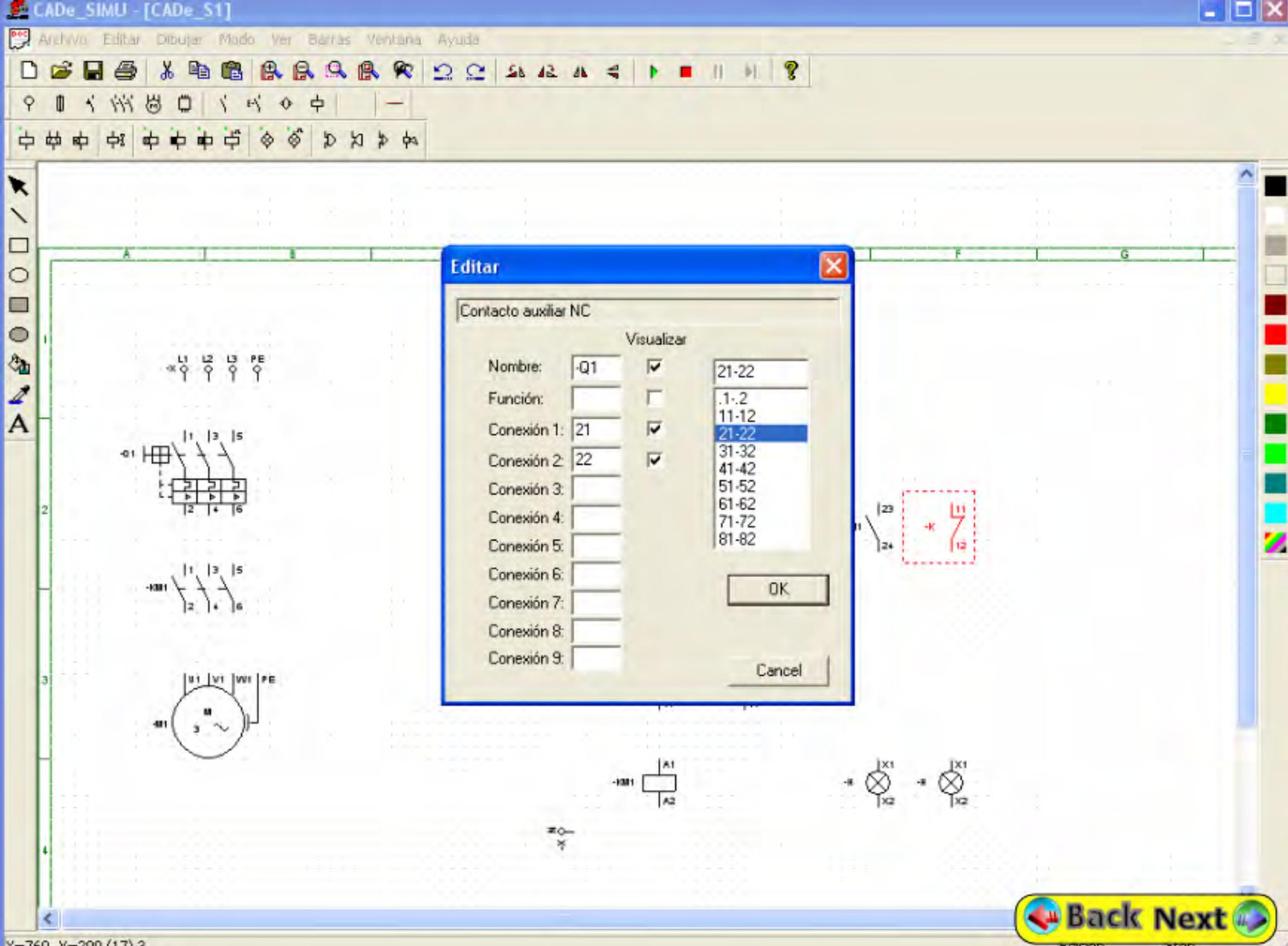
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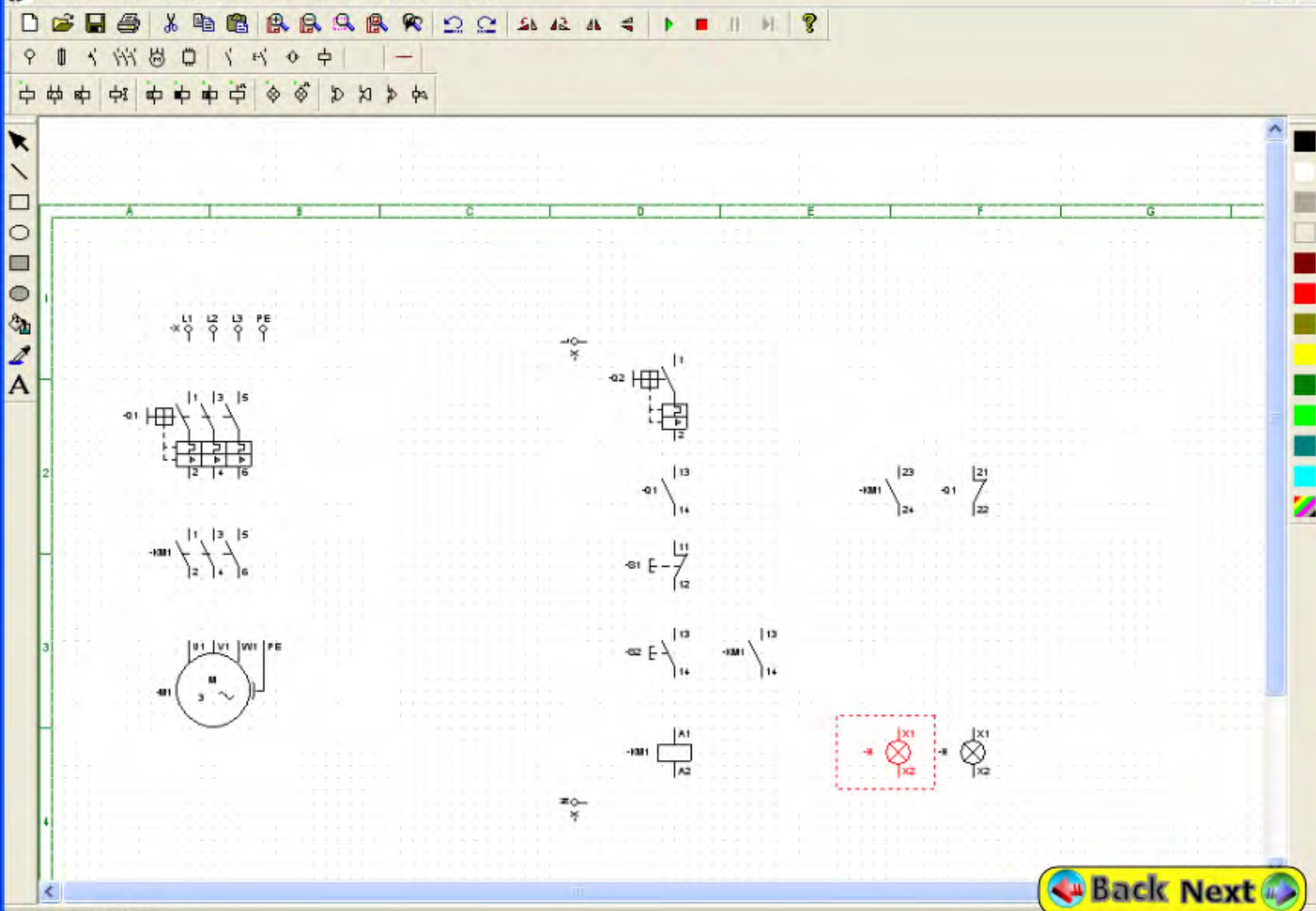
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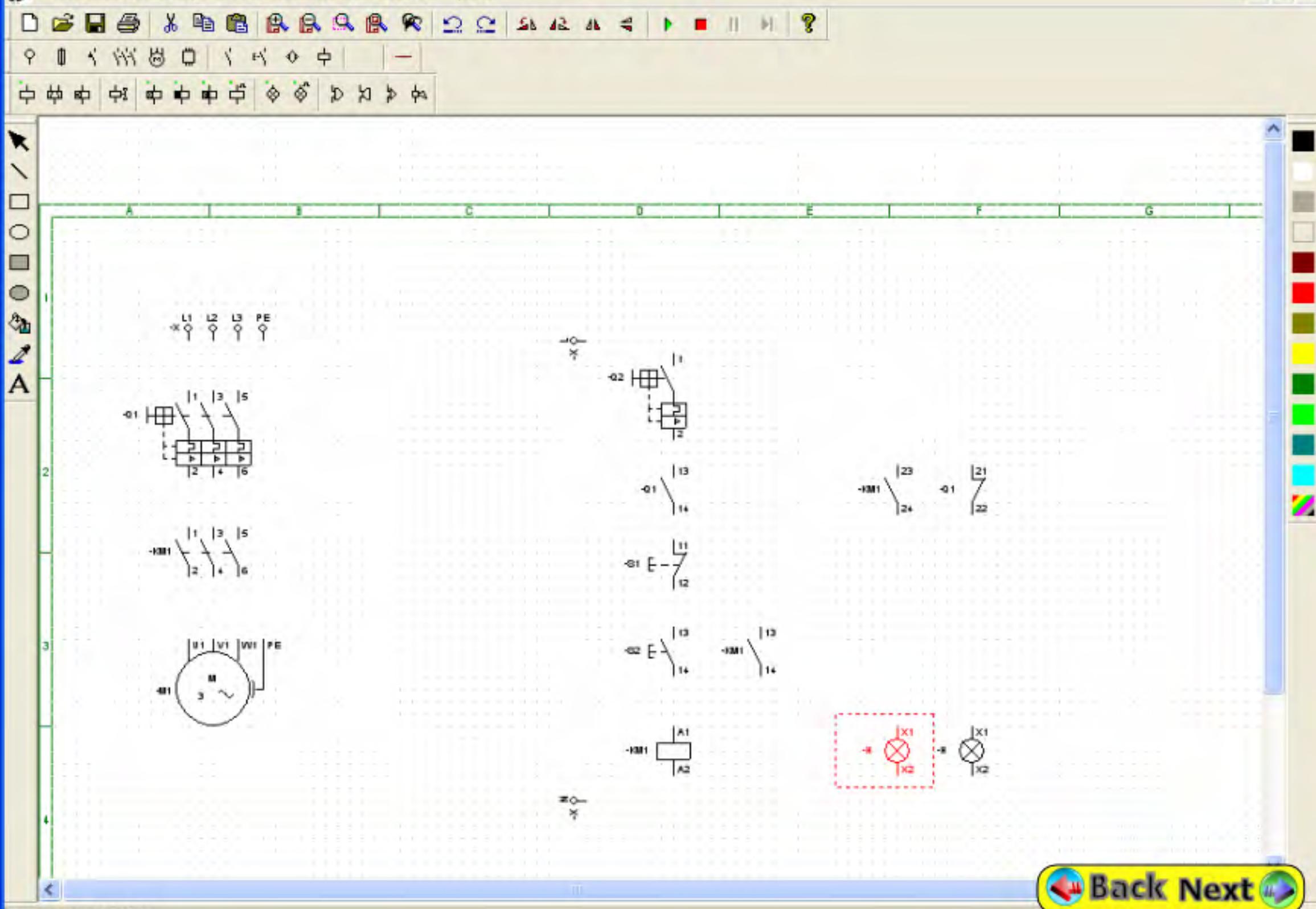
Si hemos de cambiar el
marcado, es mejor hacerlo
antes de identificarlo, ya que
si no se borrará.

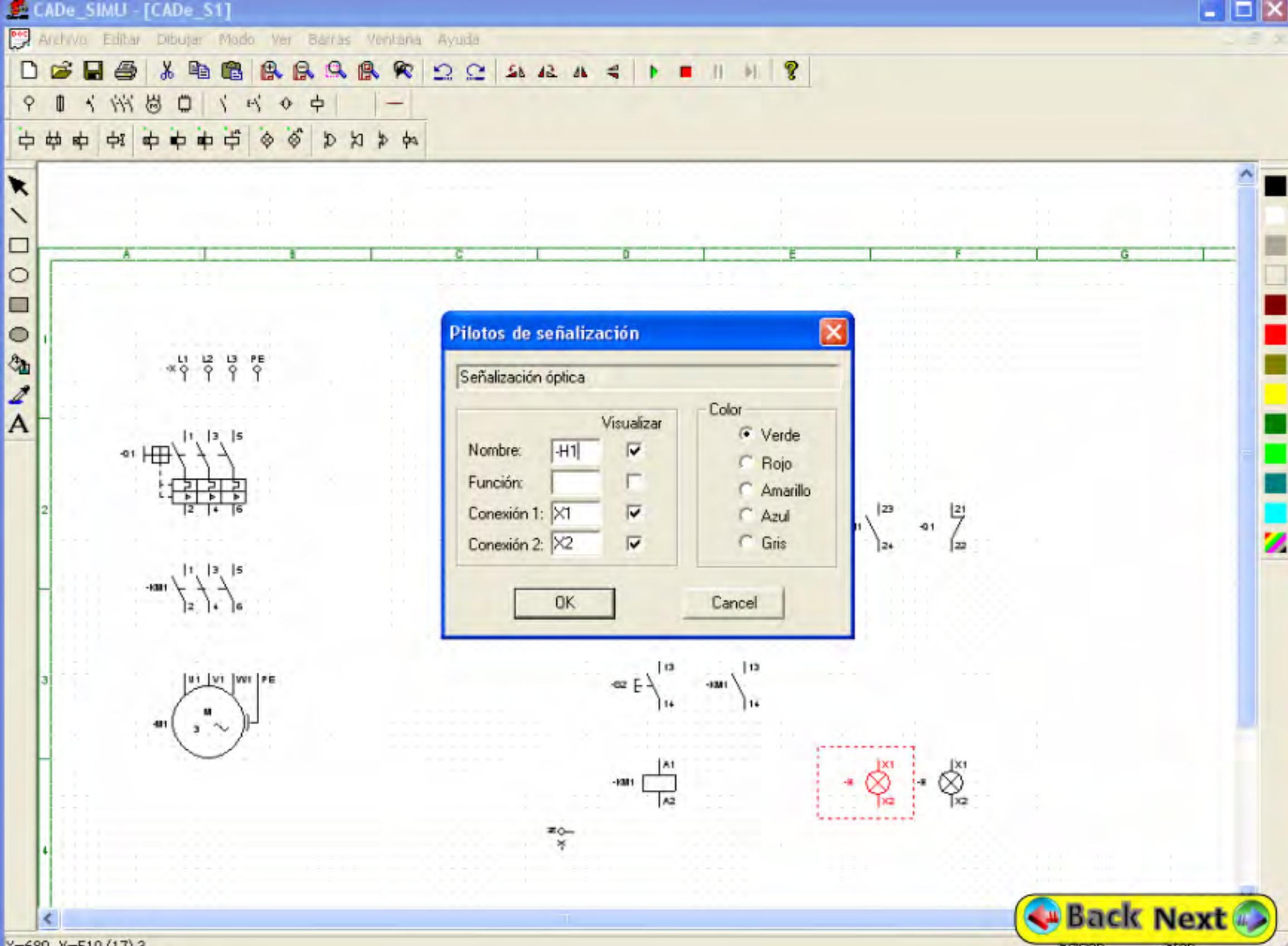


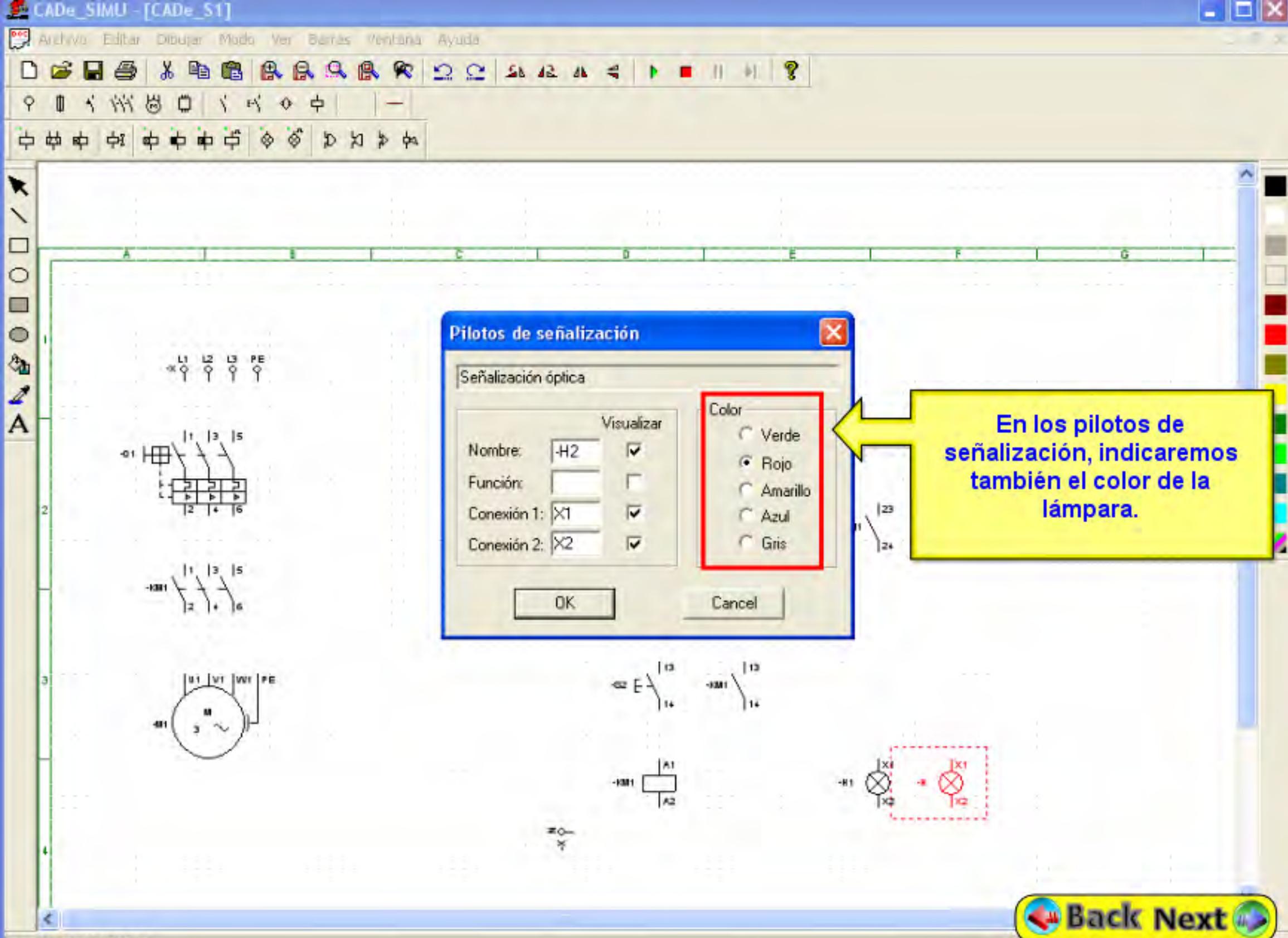


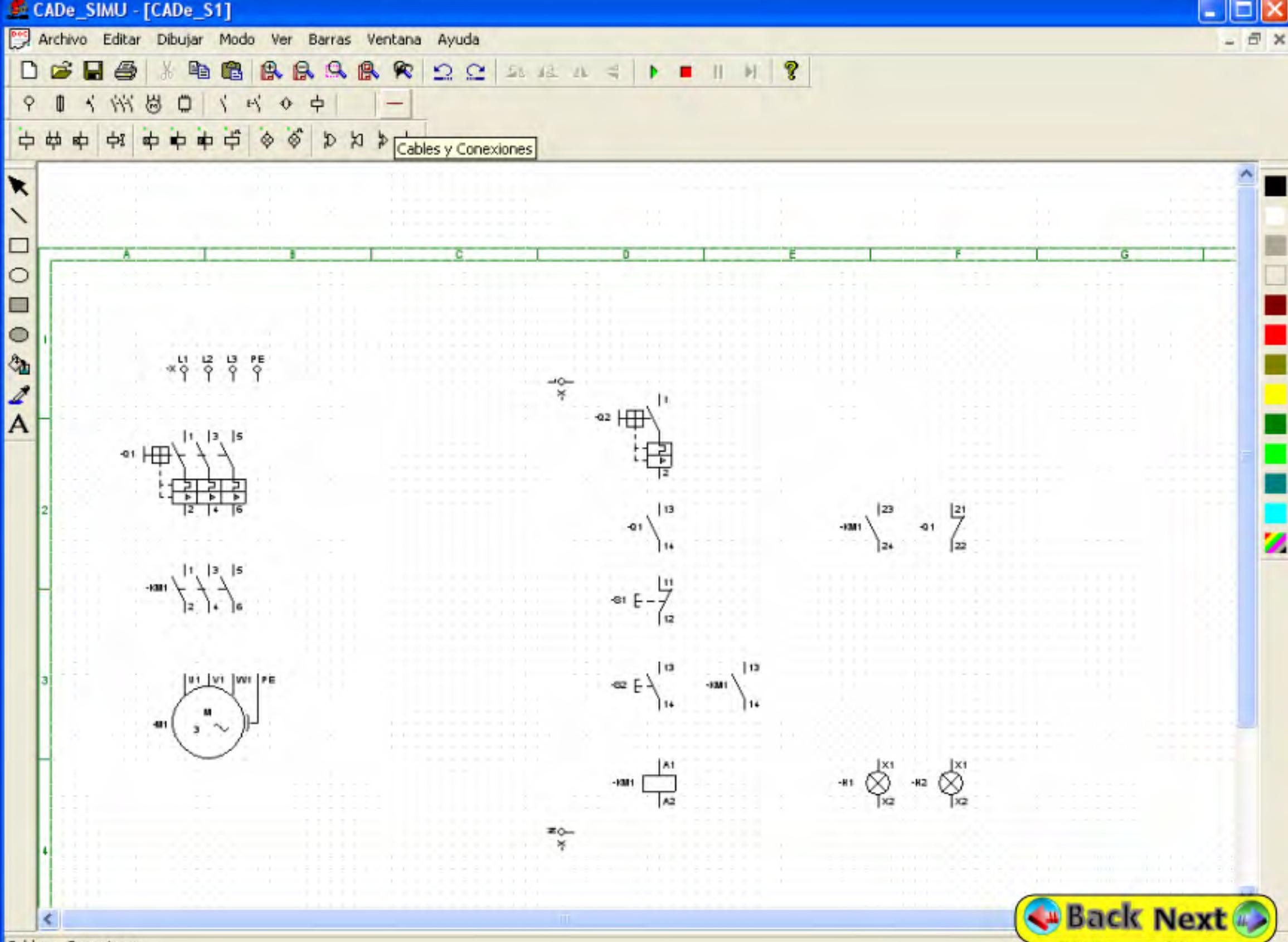


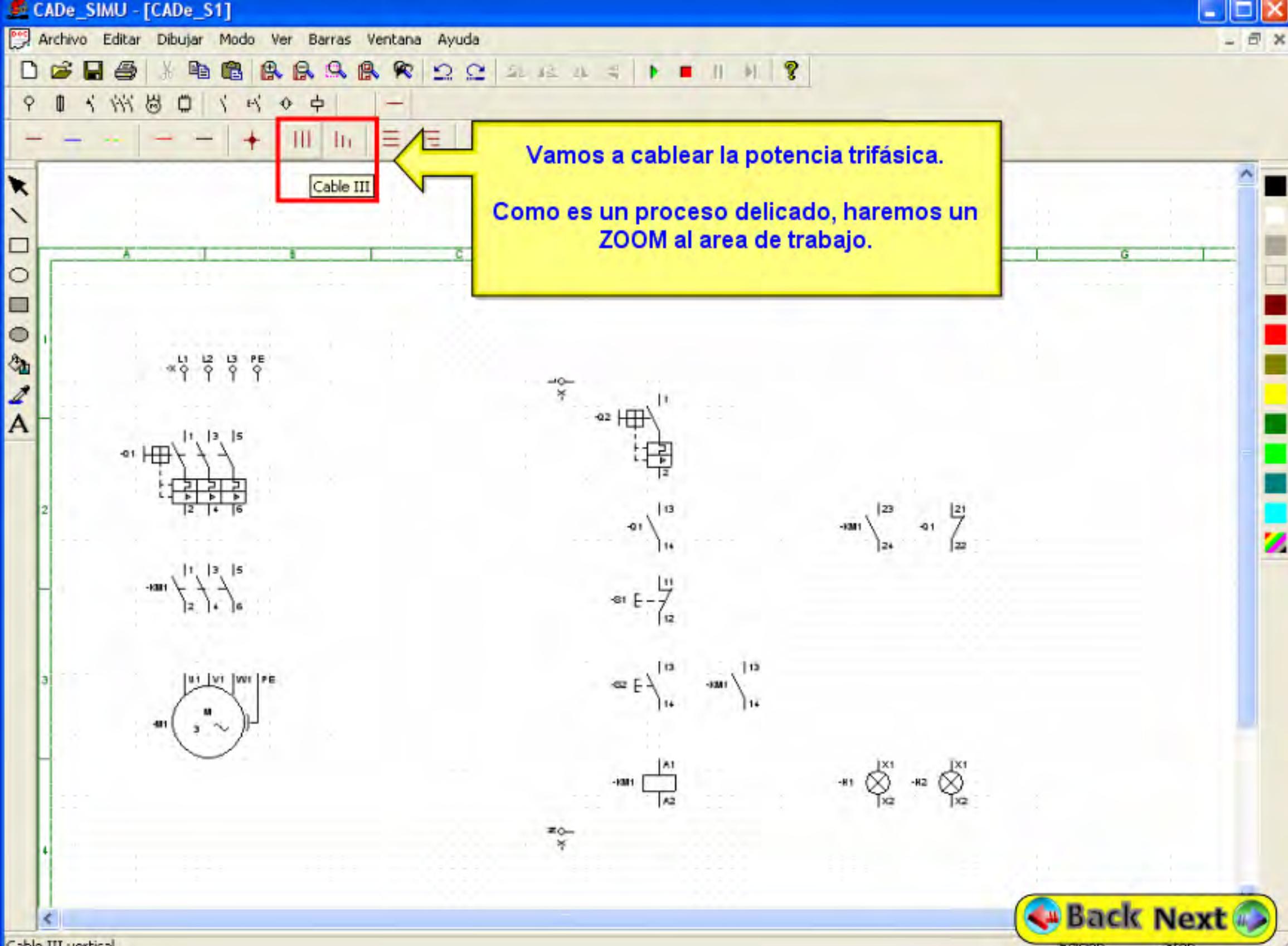


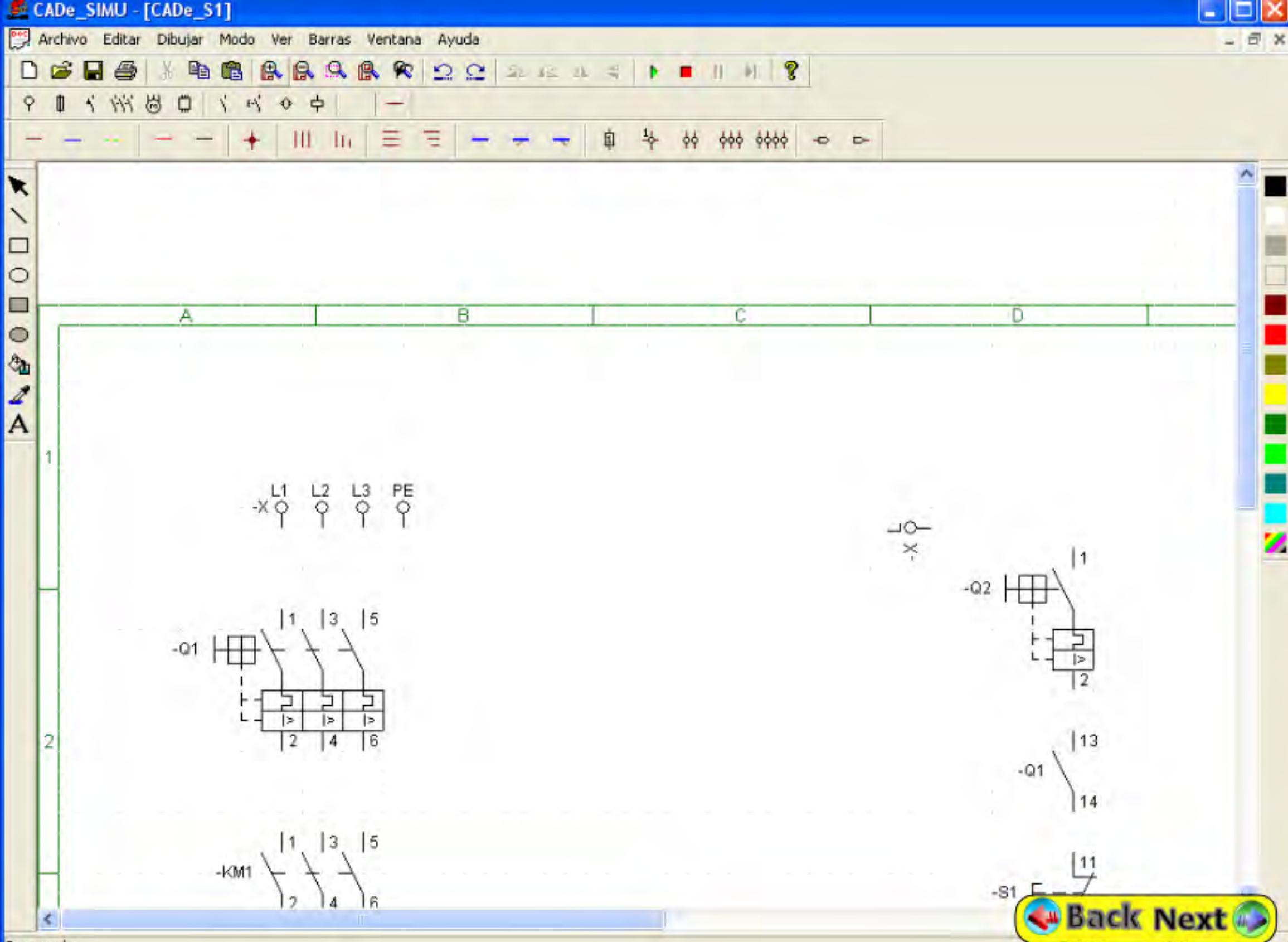








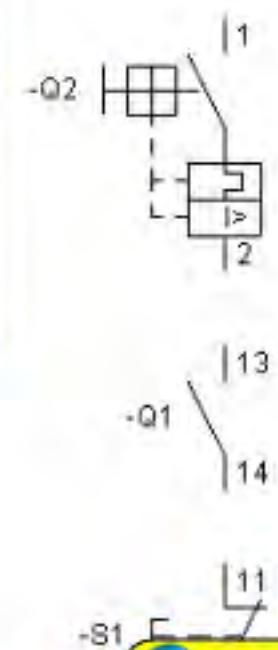


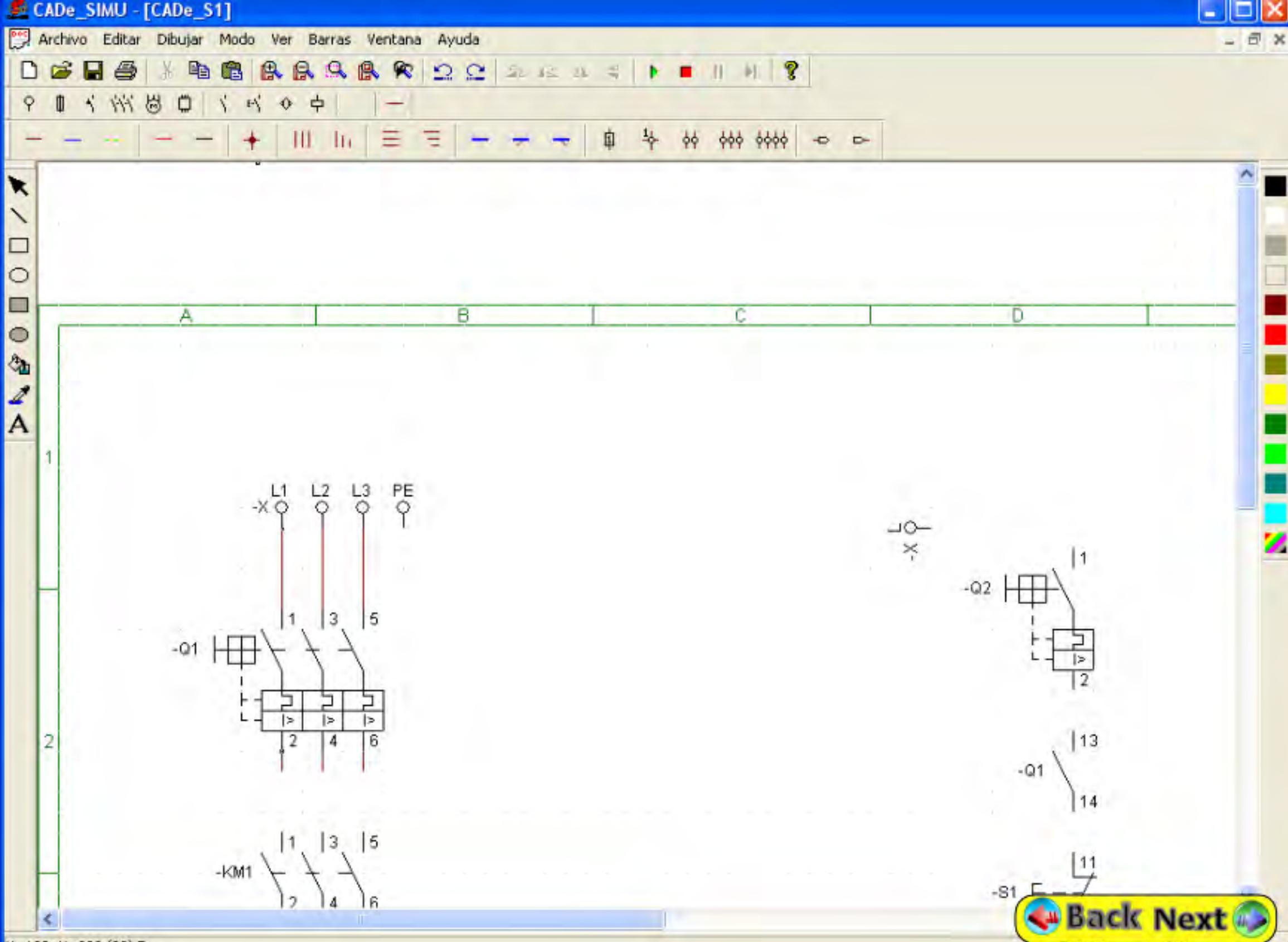


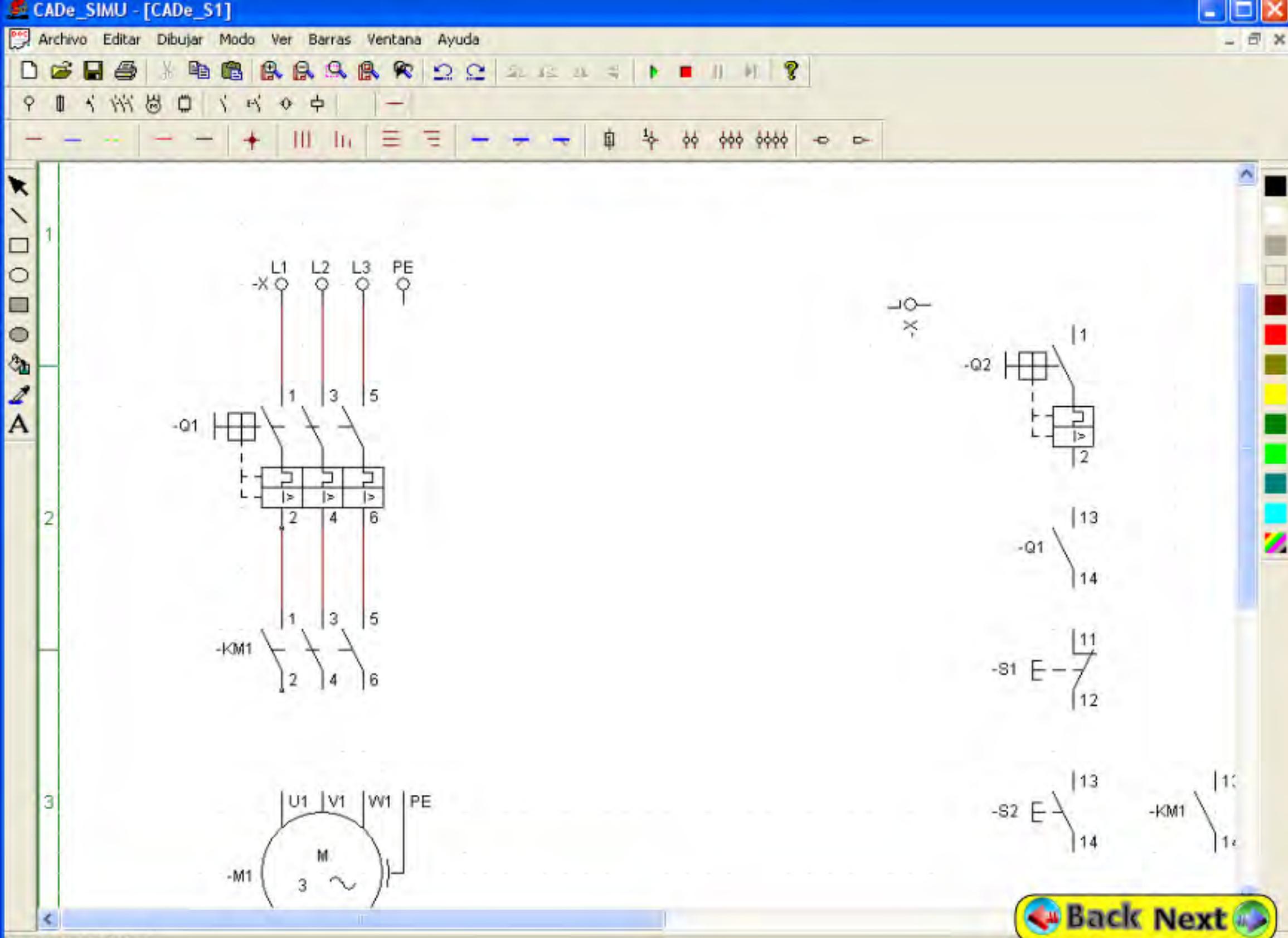


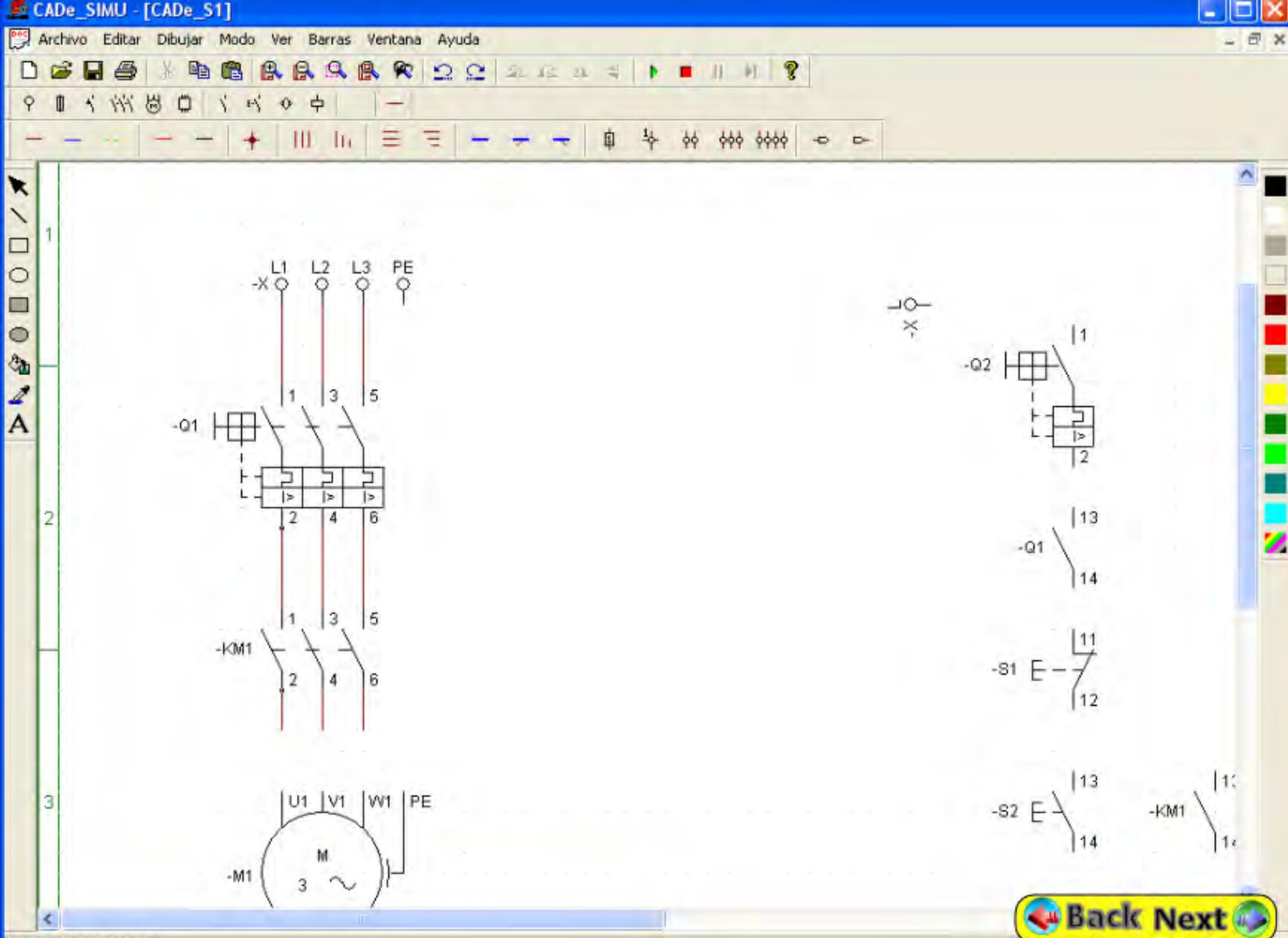
Ese pequeño punto es la única indicación para cablear correctamente. Debemos ser muy cuidados, ya que si no se hace bien, la simulación no funcionará.

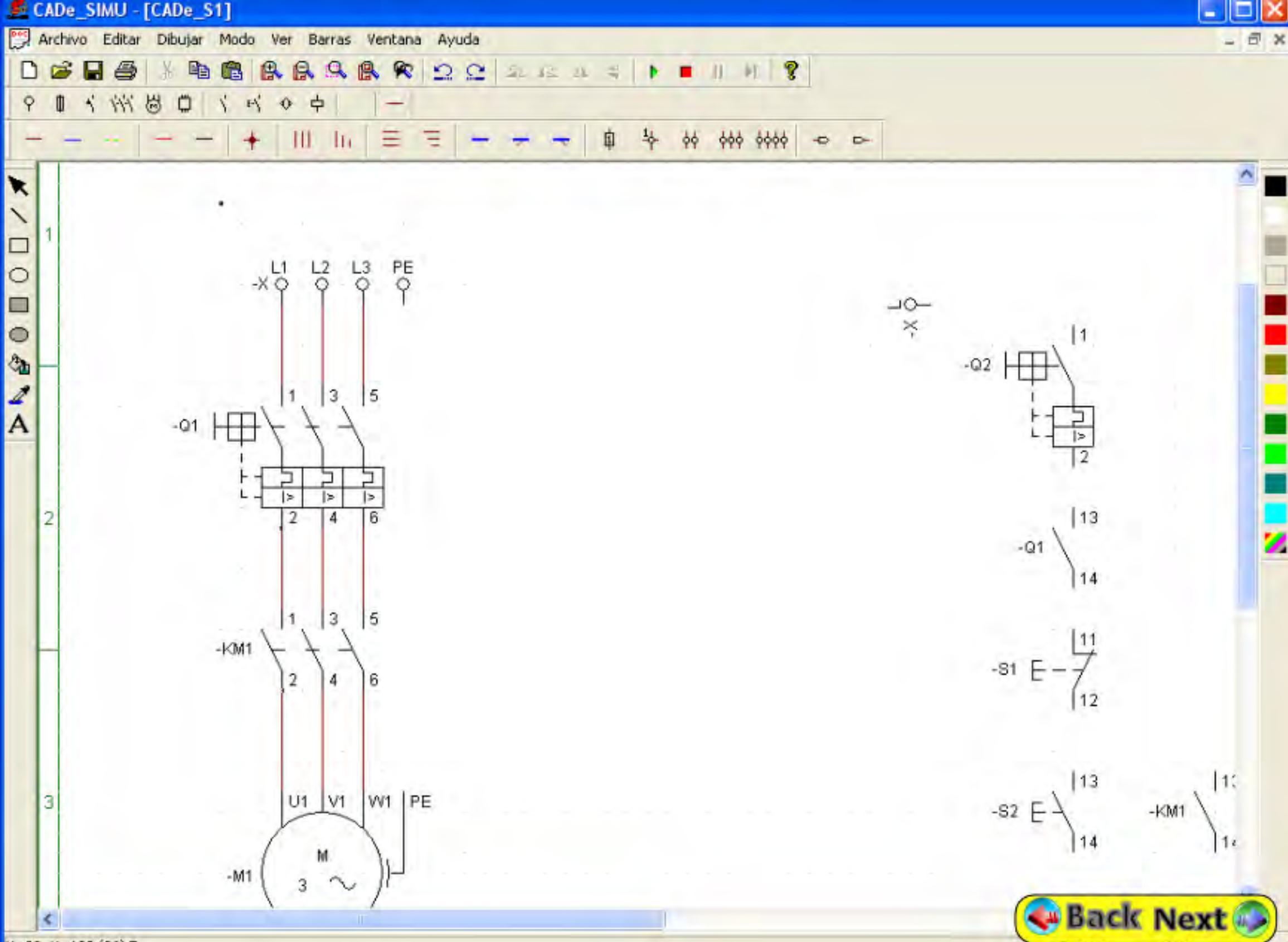
Iremos conectando componente a componente desde unos terminales a otros.

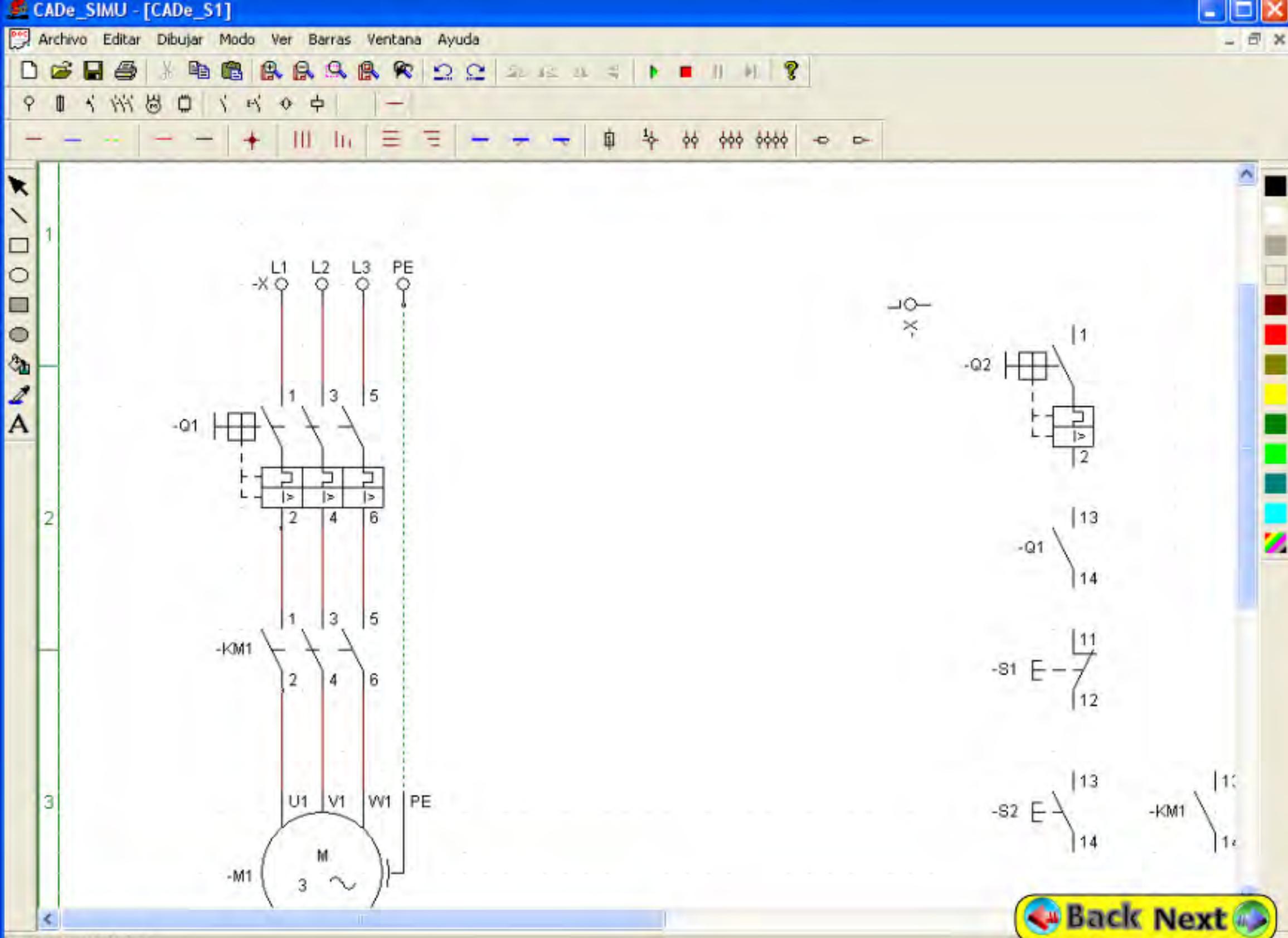


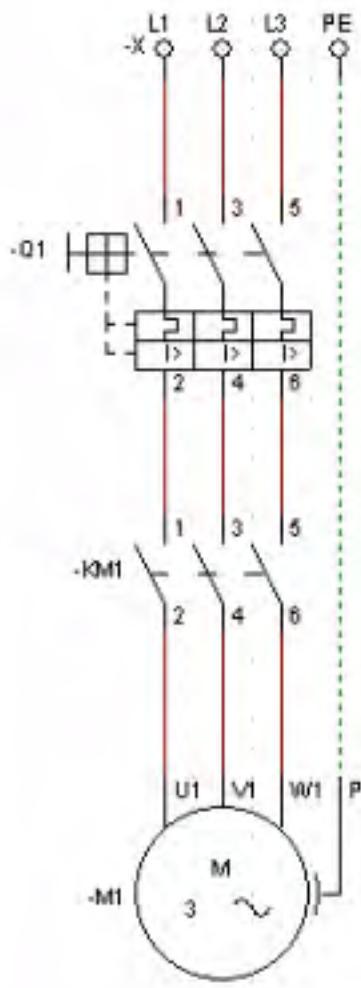




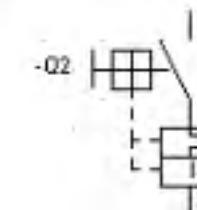








XO
X



-Q1
13
14

-KM1
23
24
-Q1
21
22

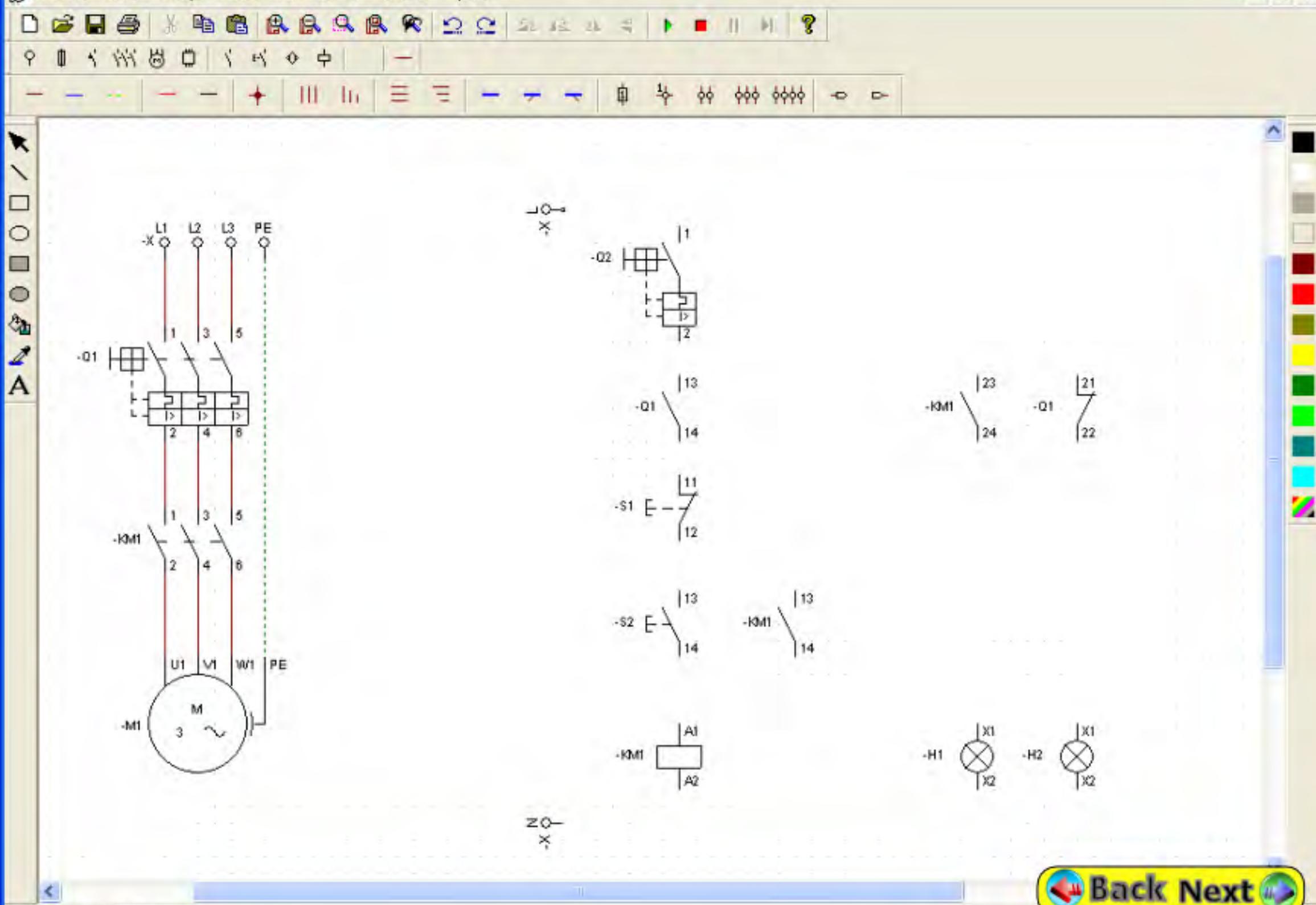
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11
12

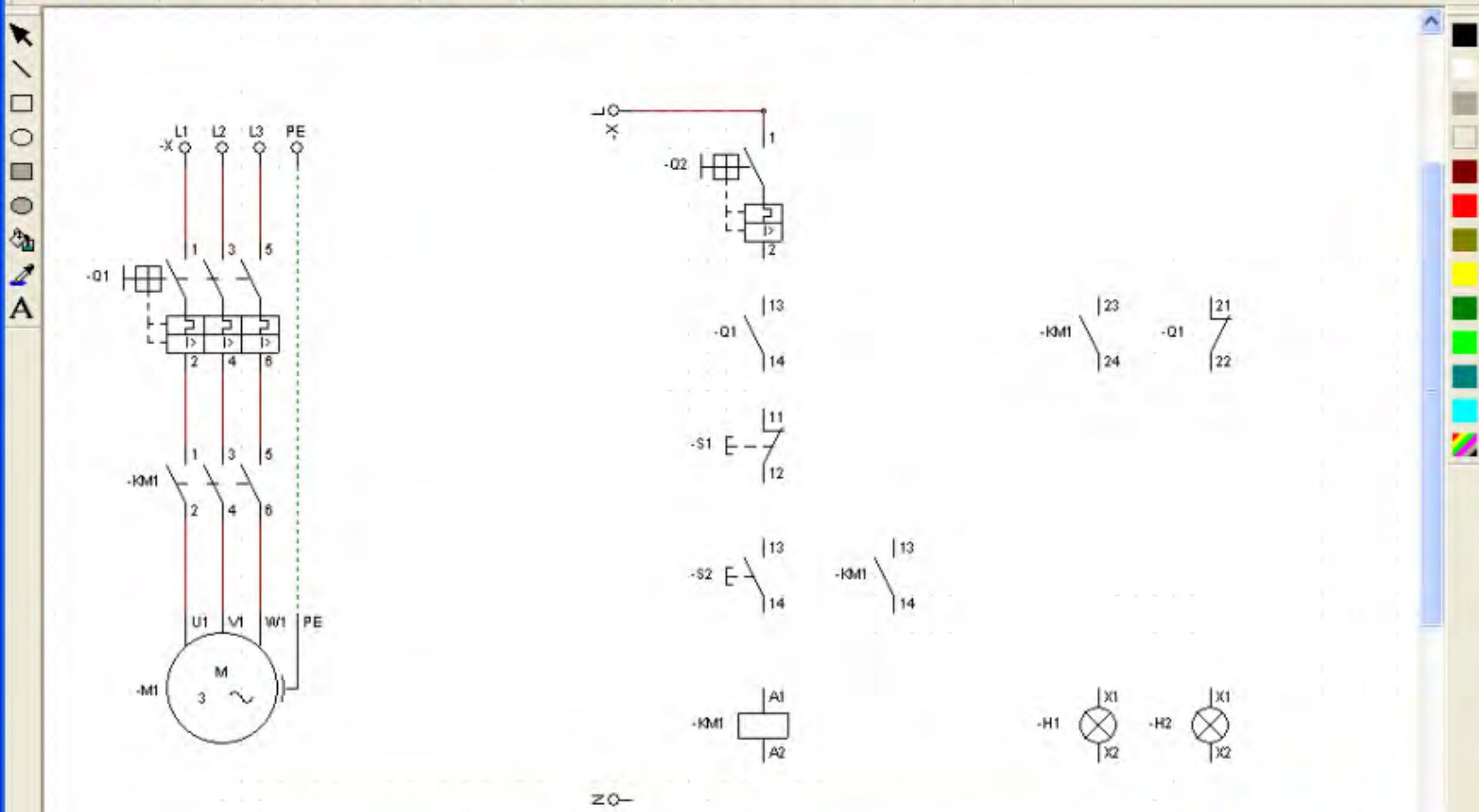
-S2
13
14
-KM1
13
14

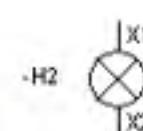
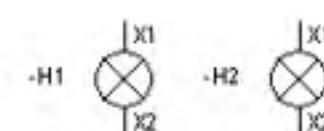
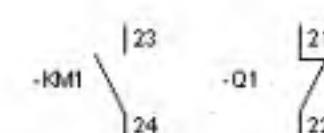
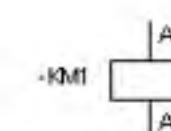
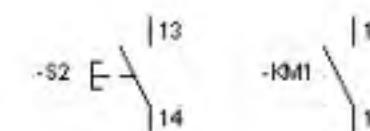
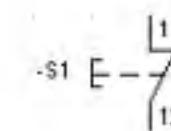
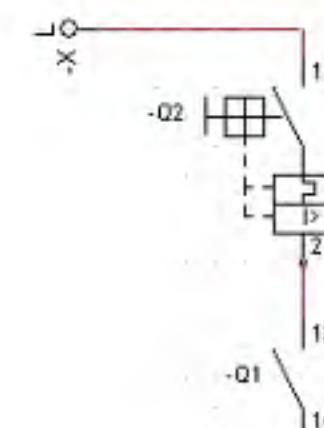
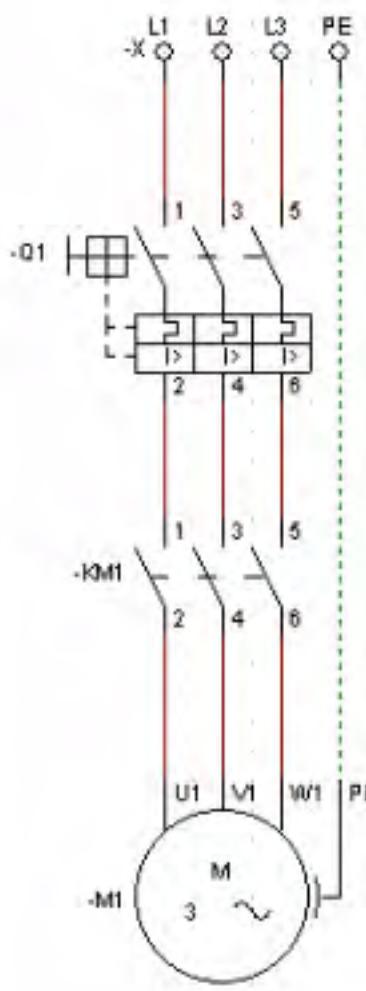
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A1
A2

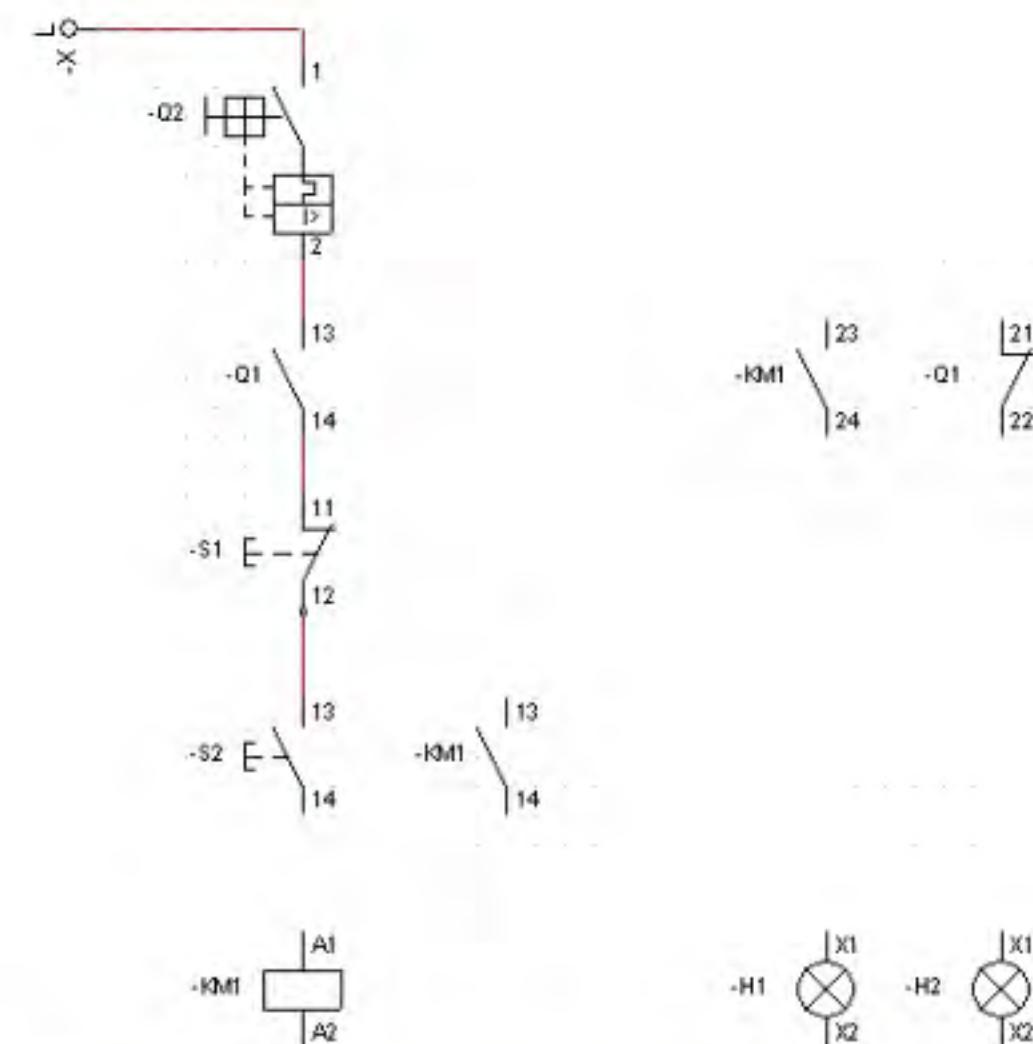
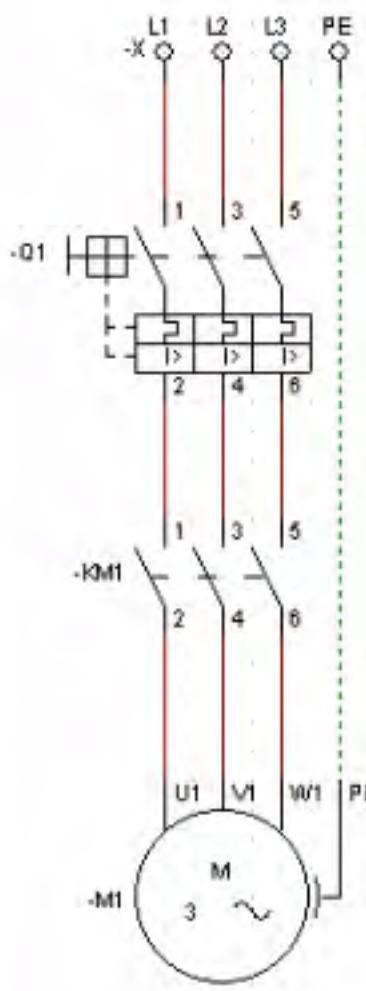
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X1
X2
-H2
D1
D2

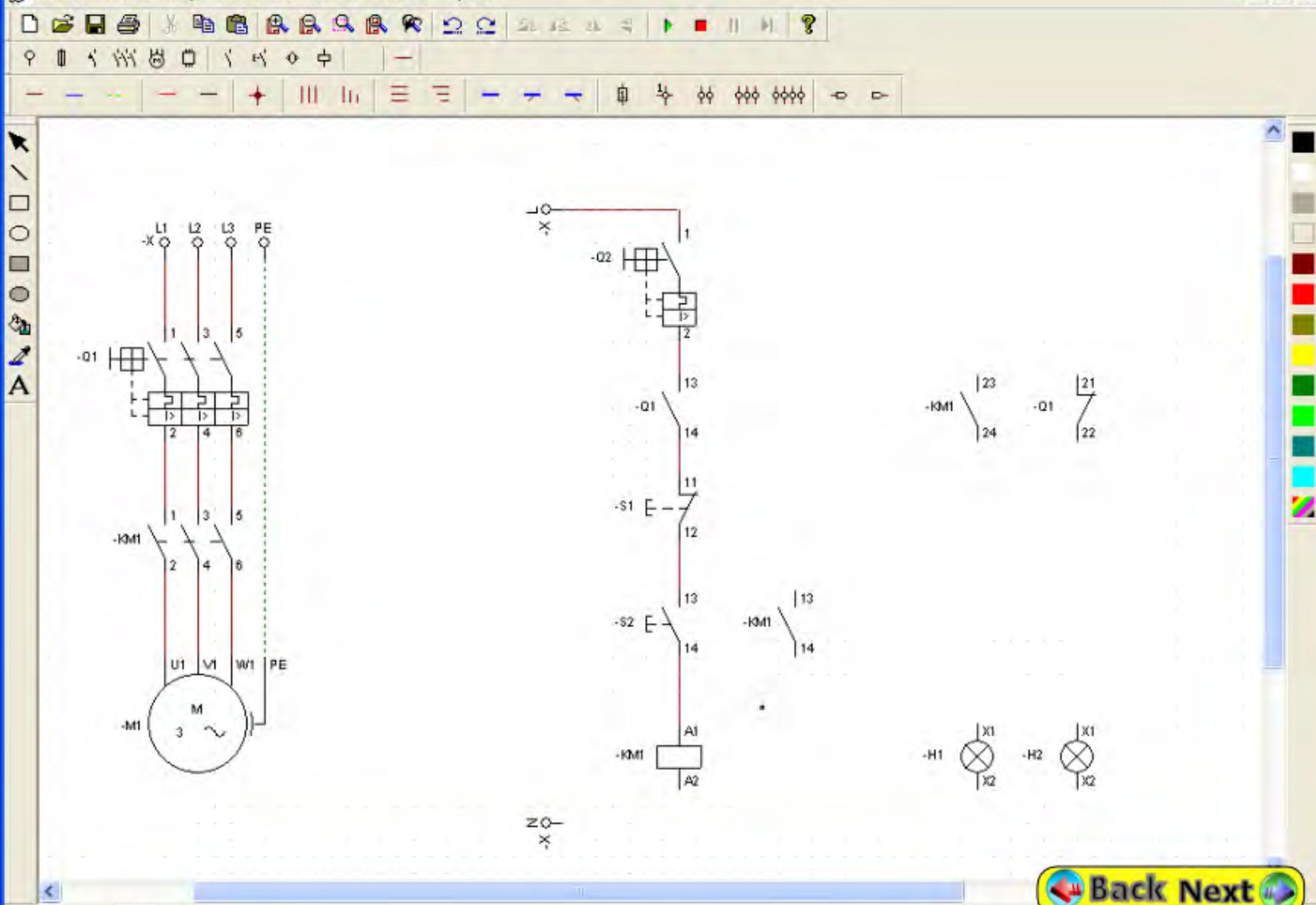
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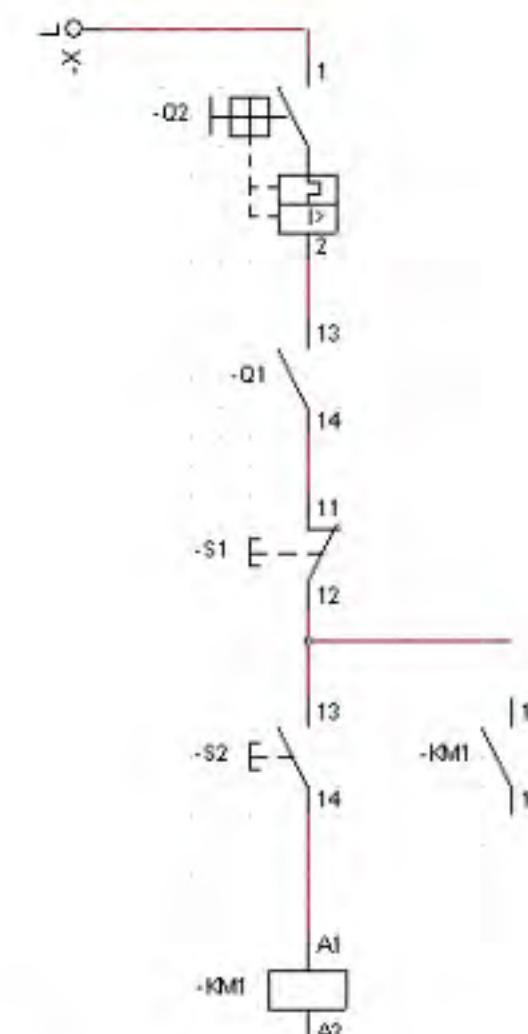
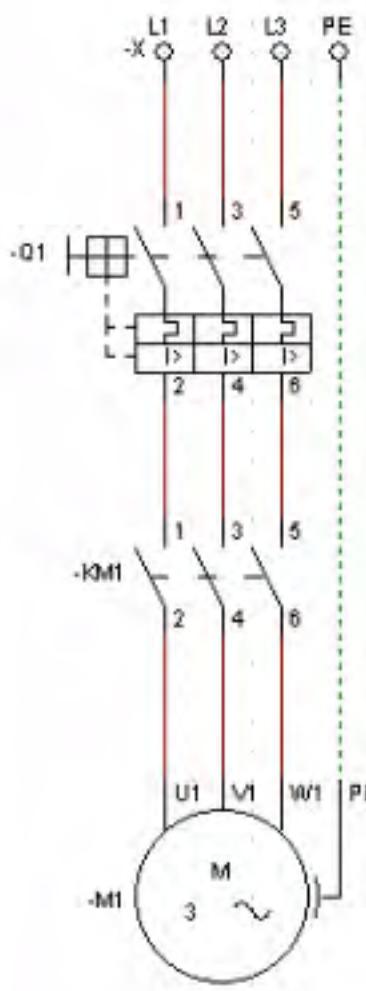


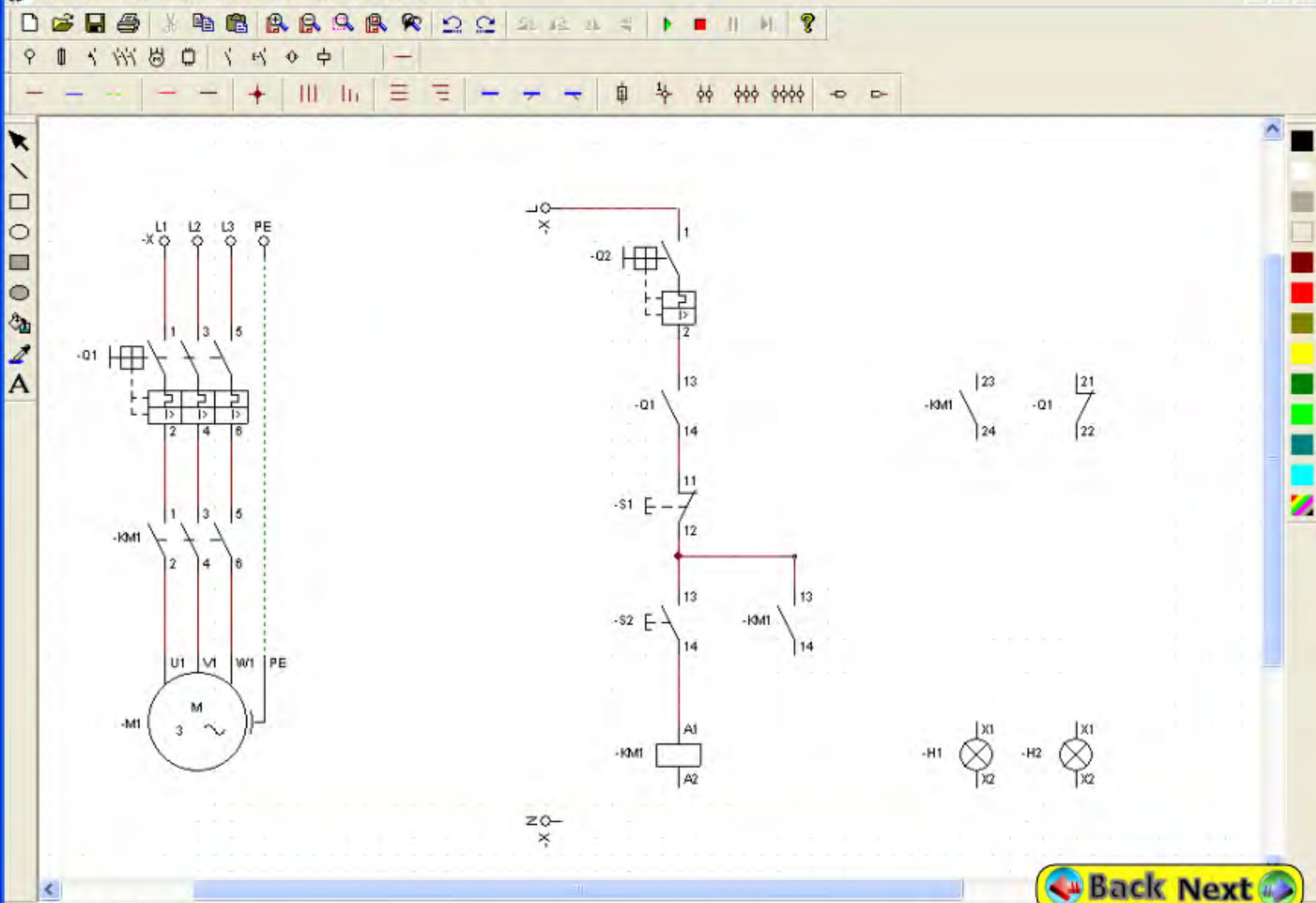


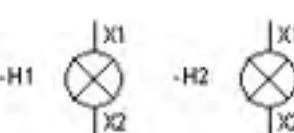
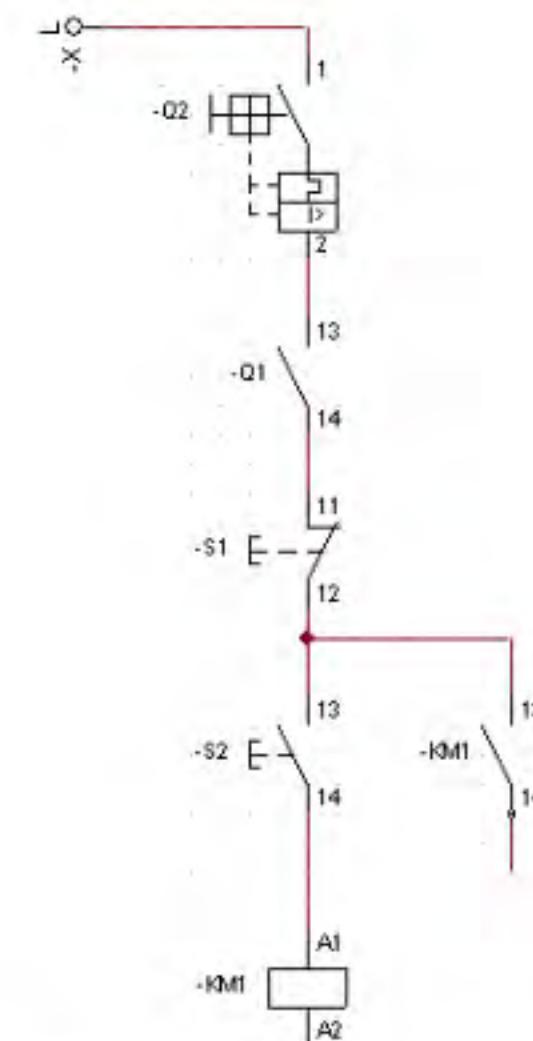
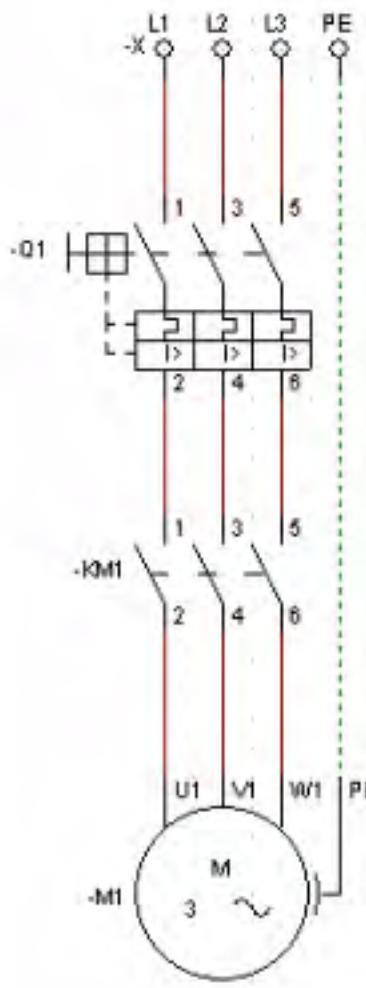


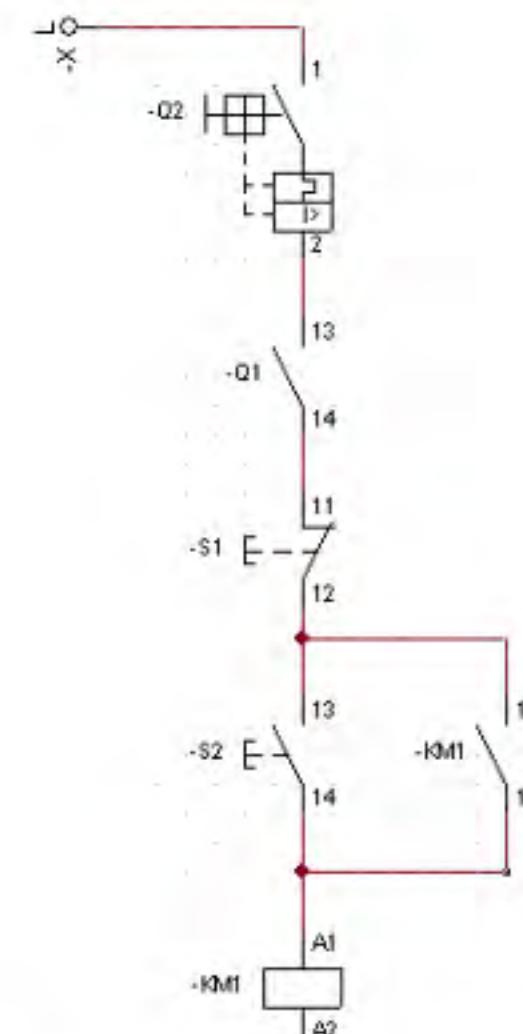
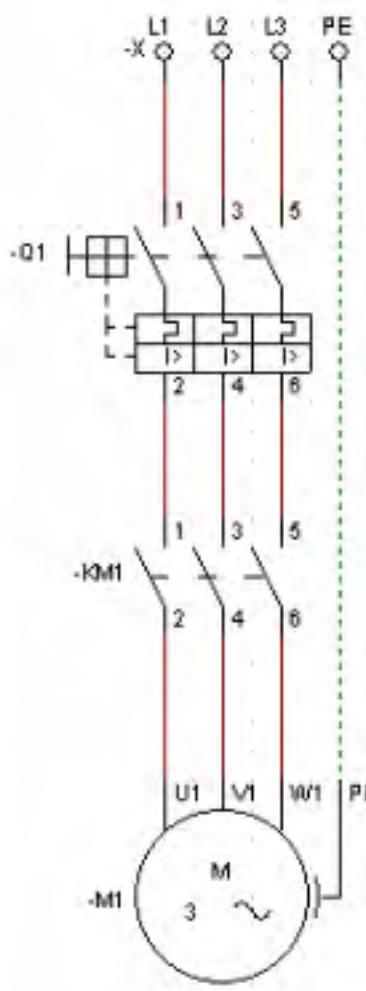


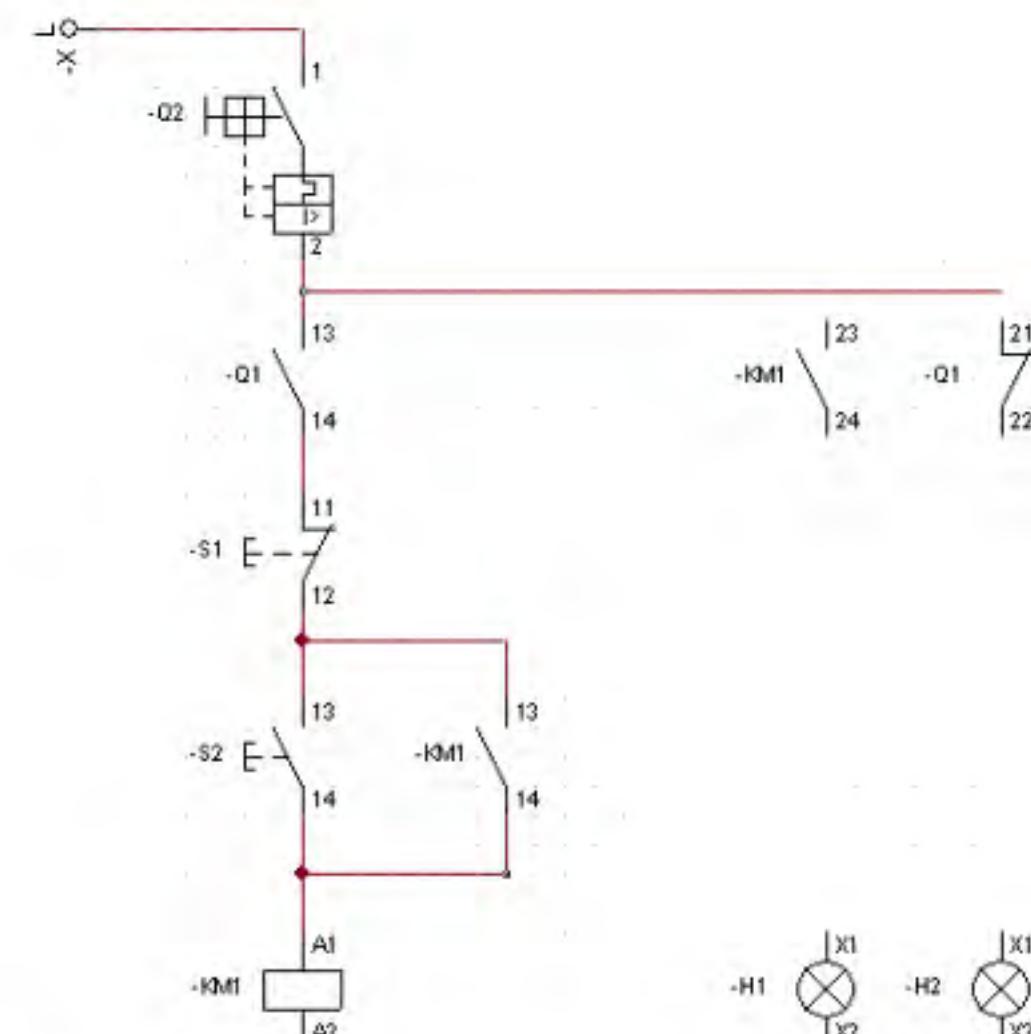
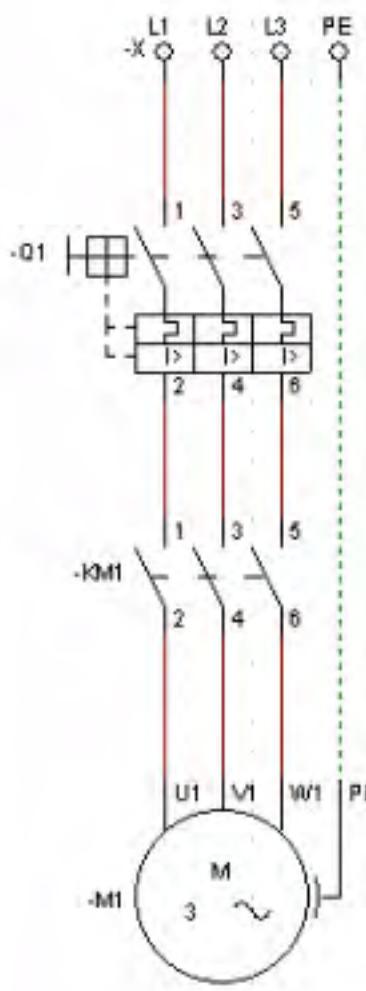


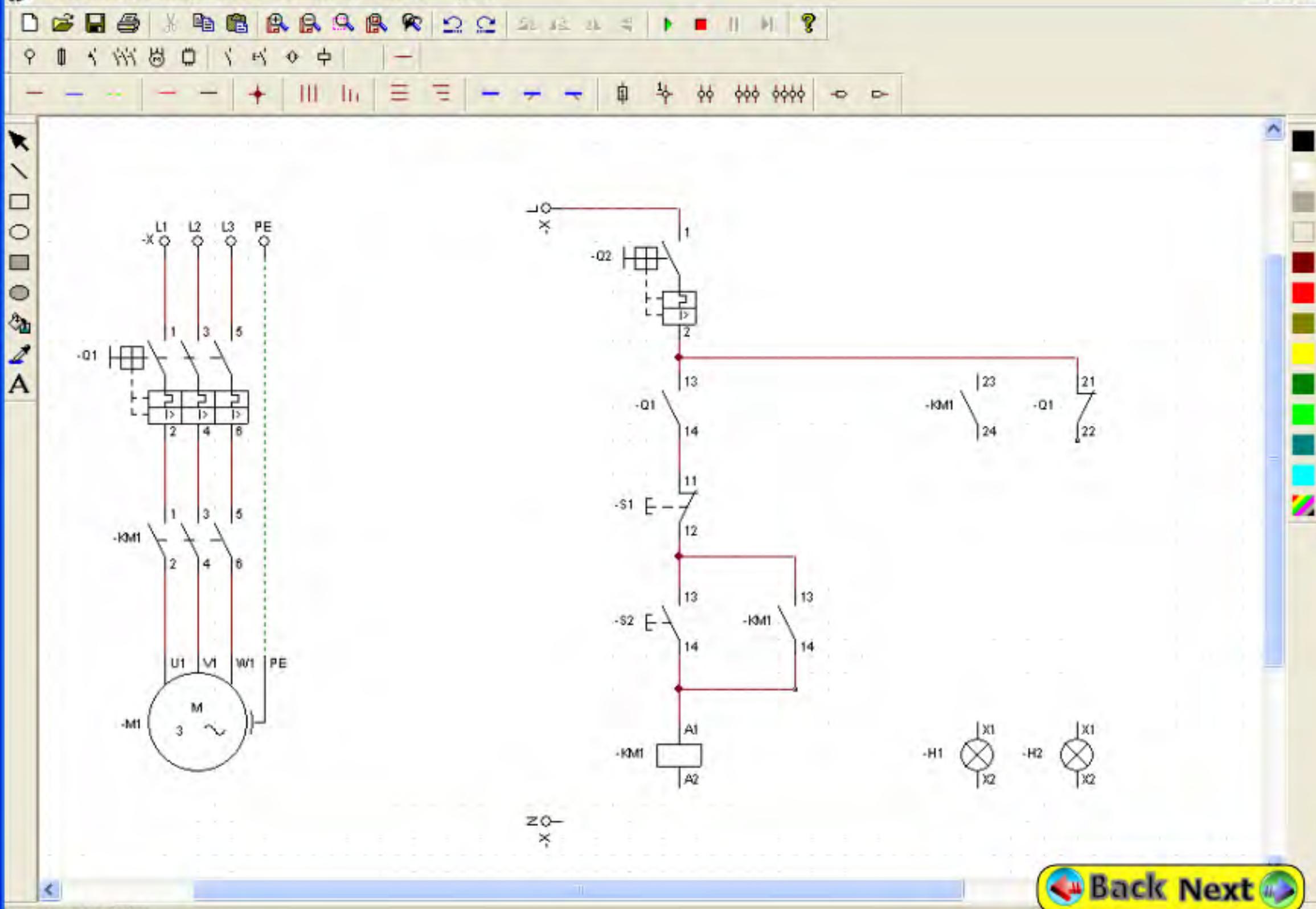


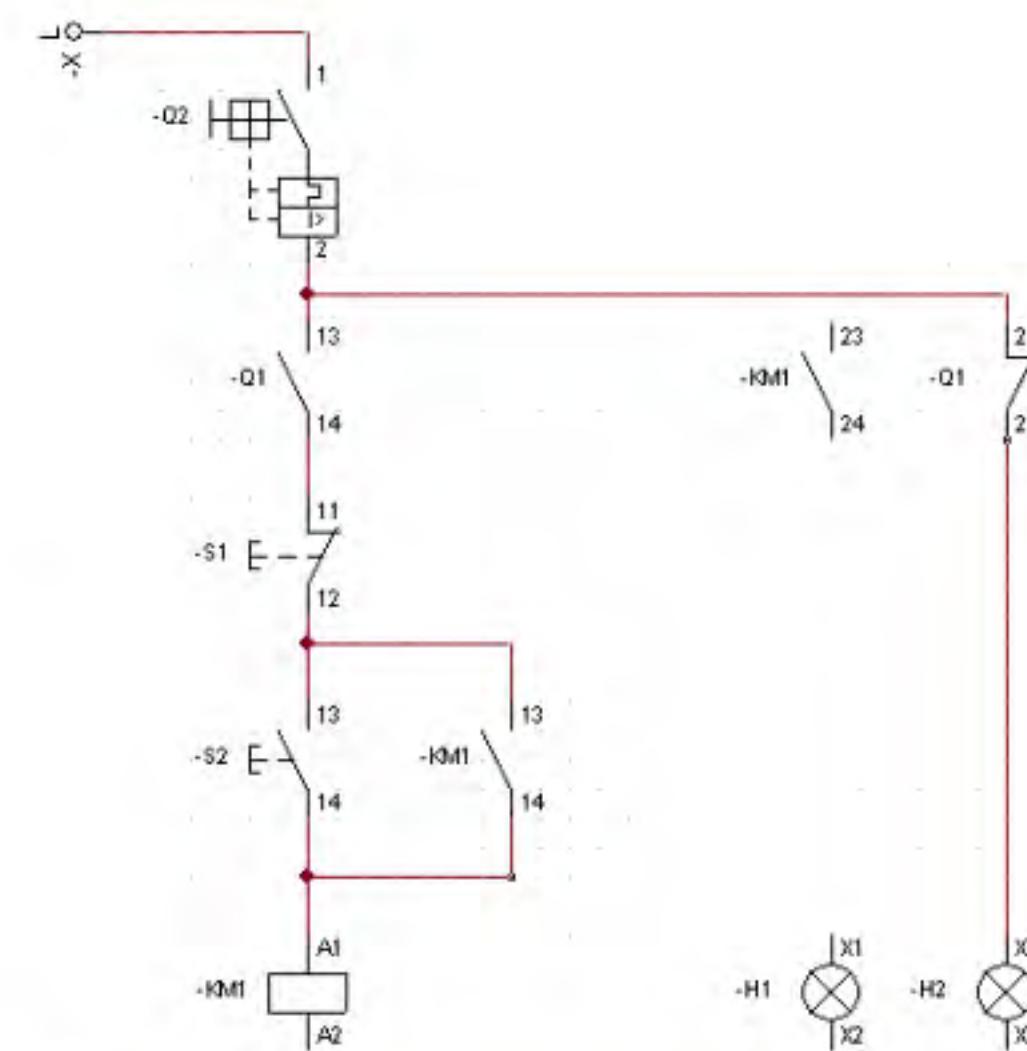
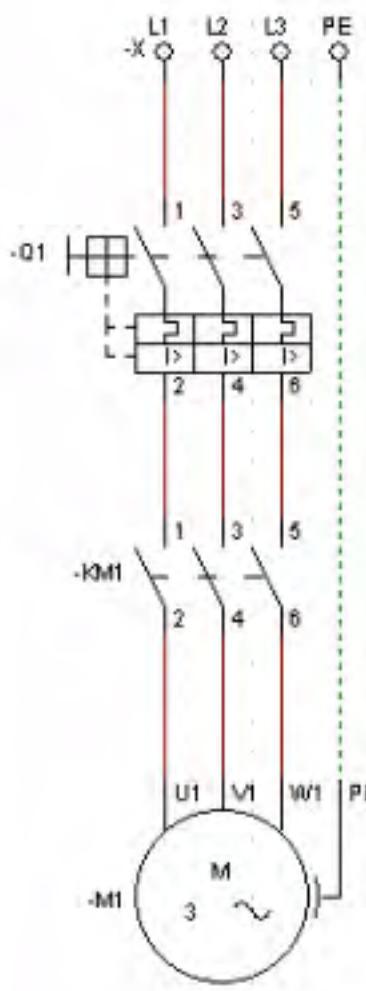


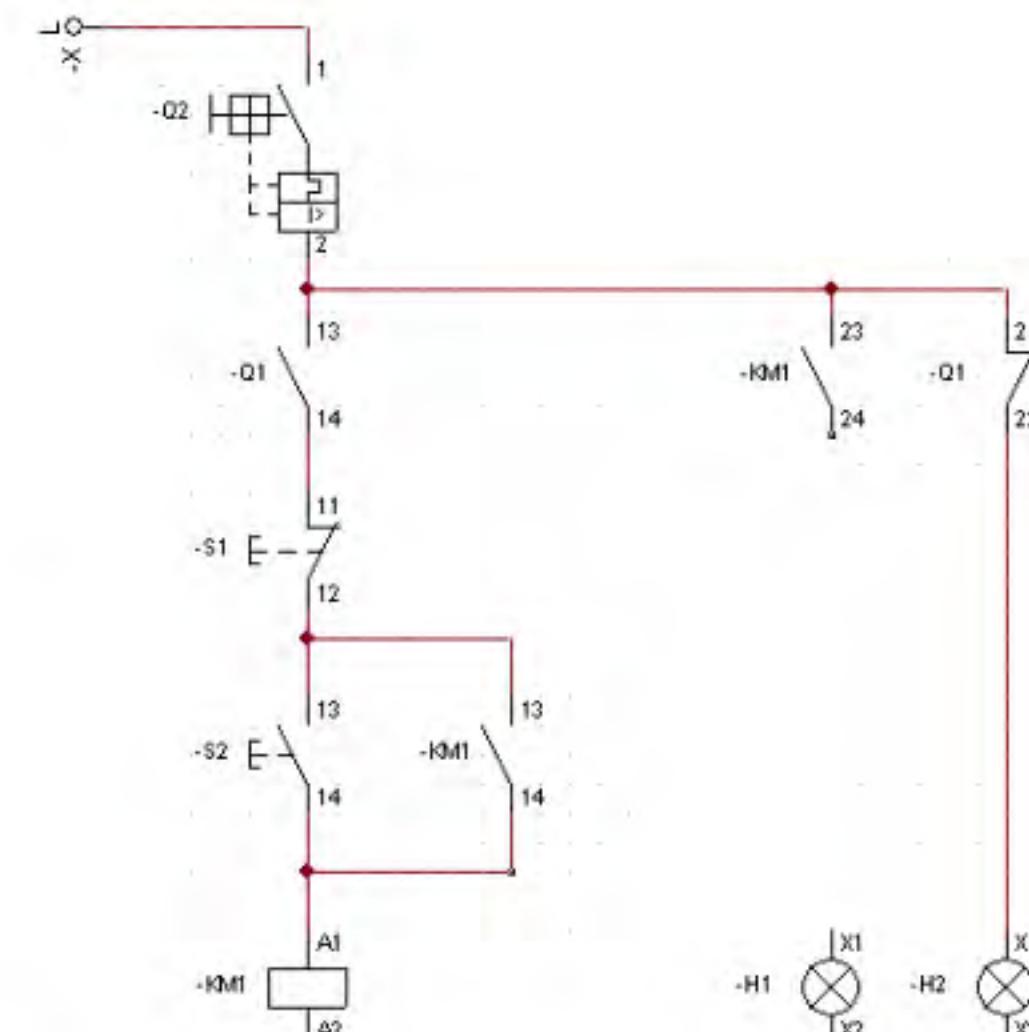
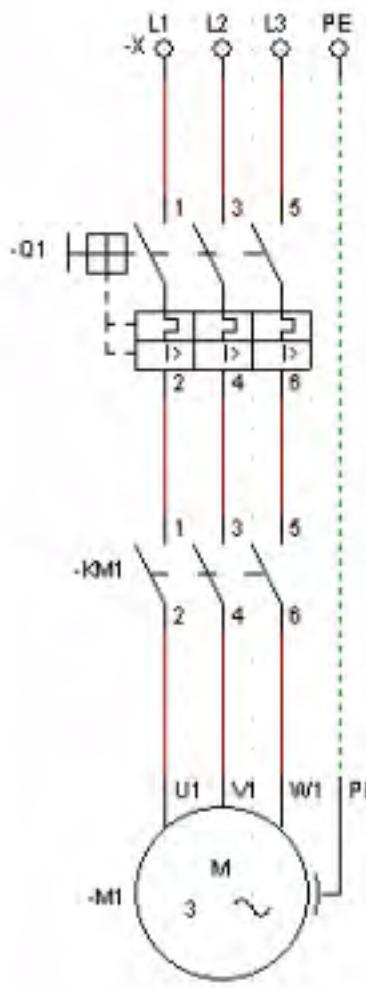


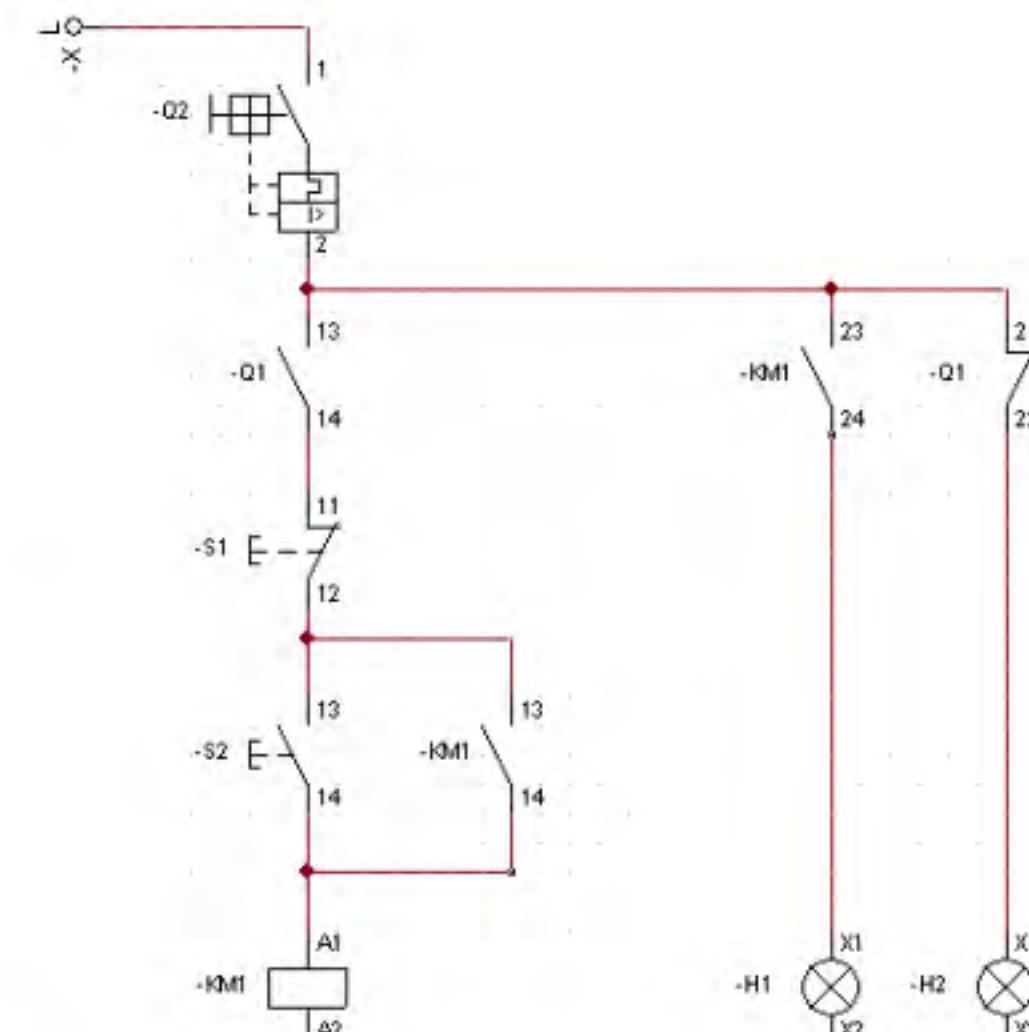
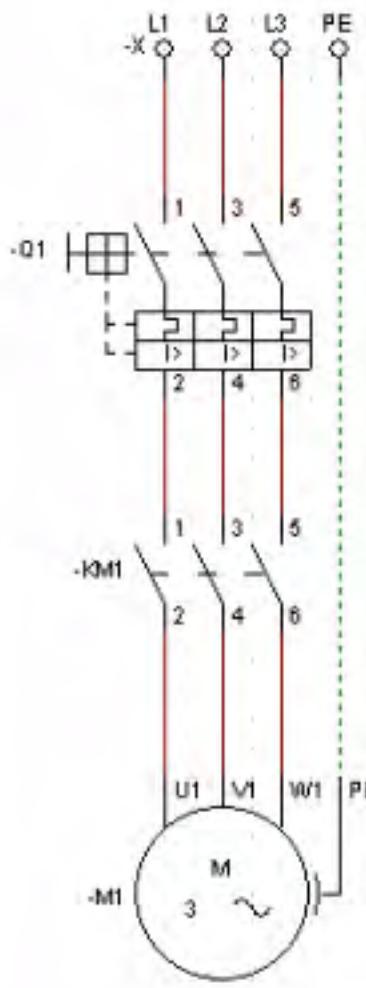


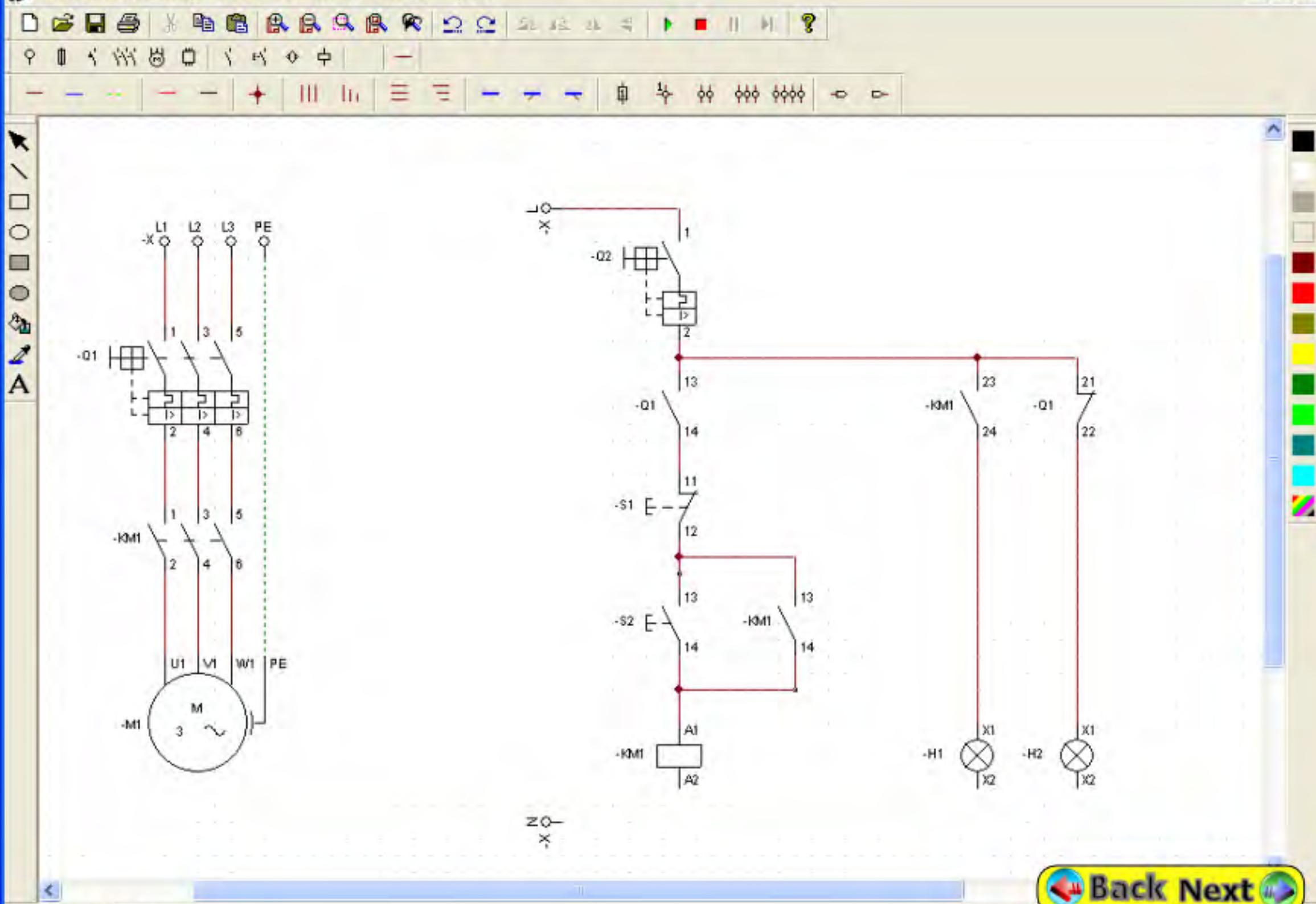


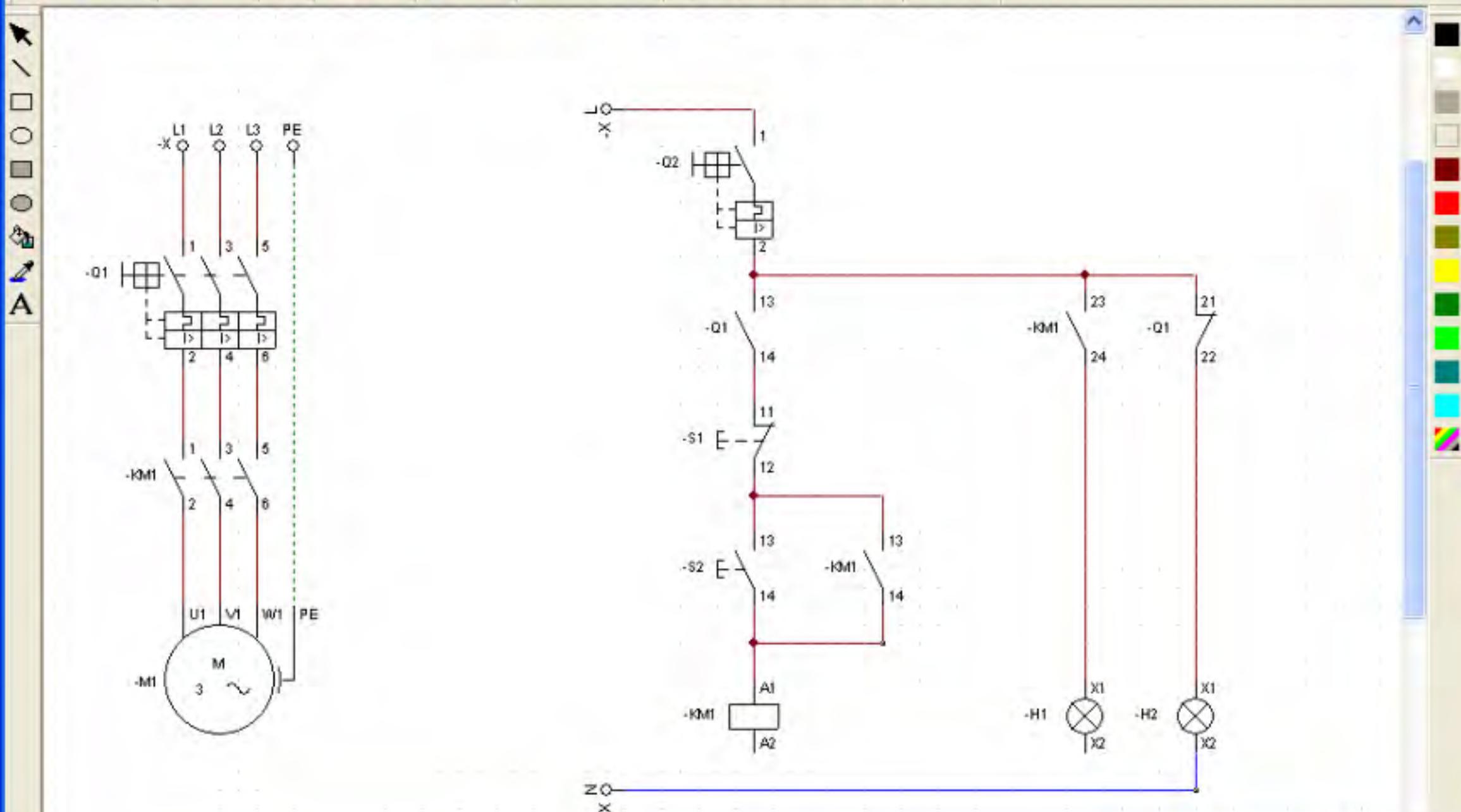


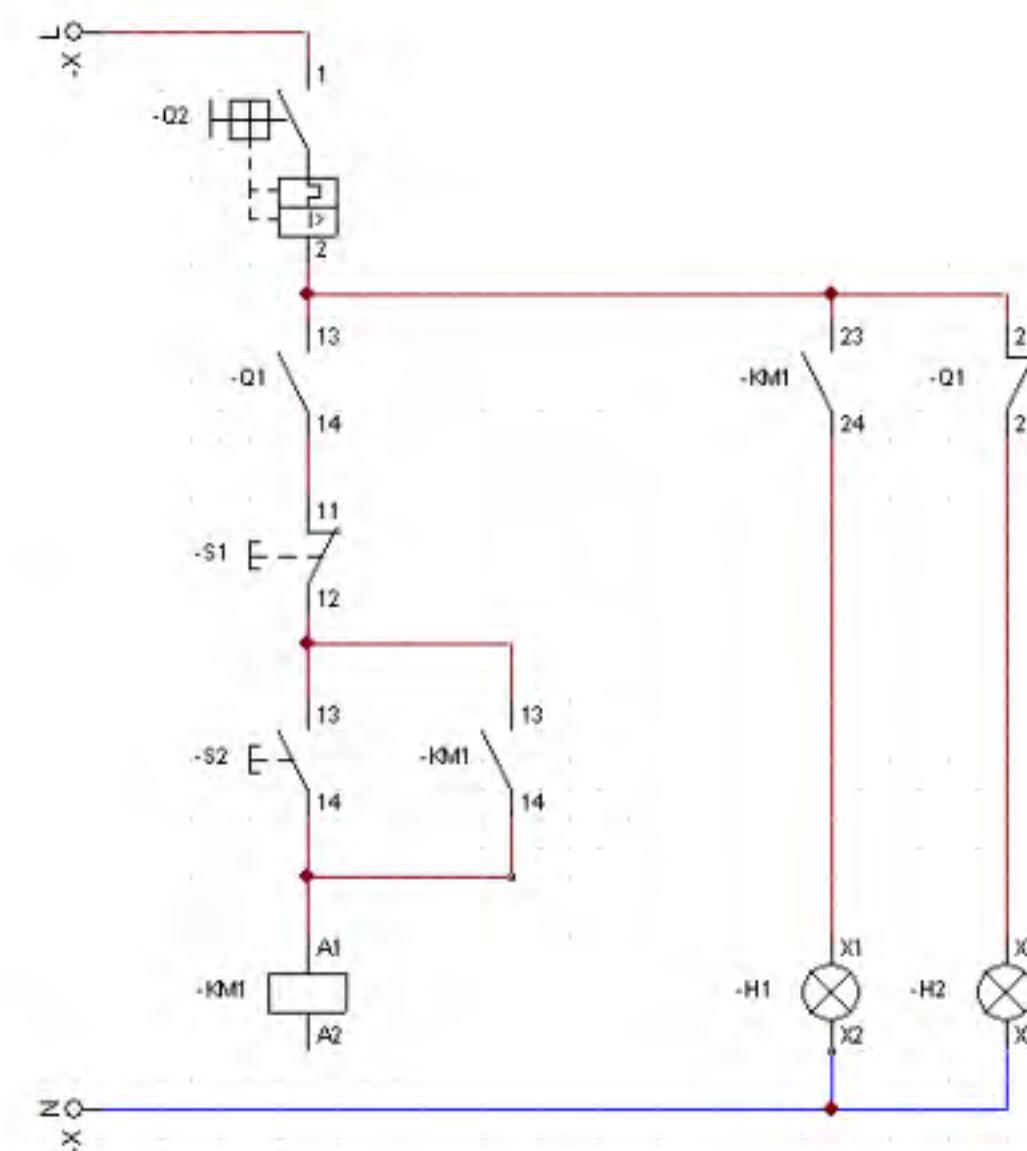
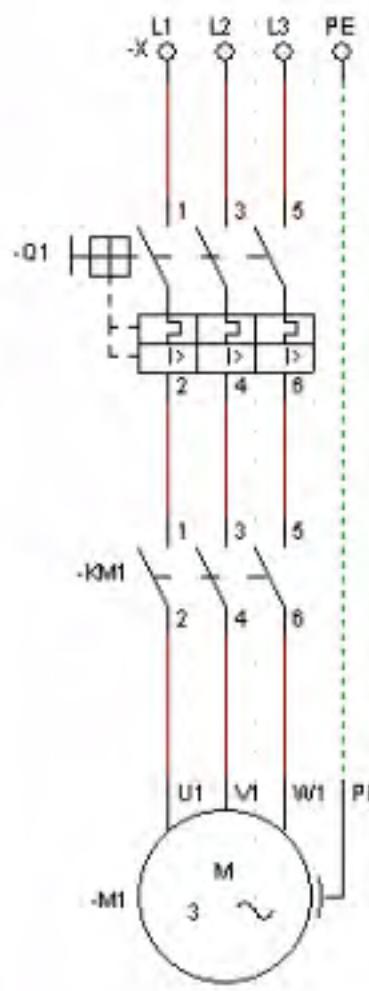


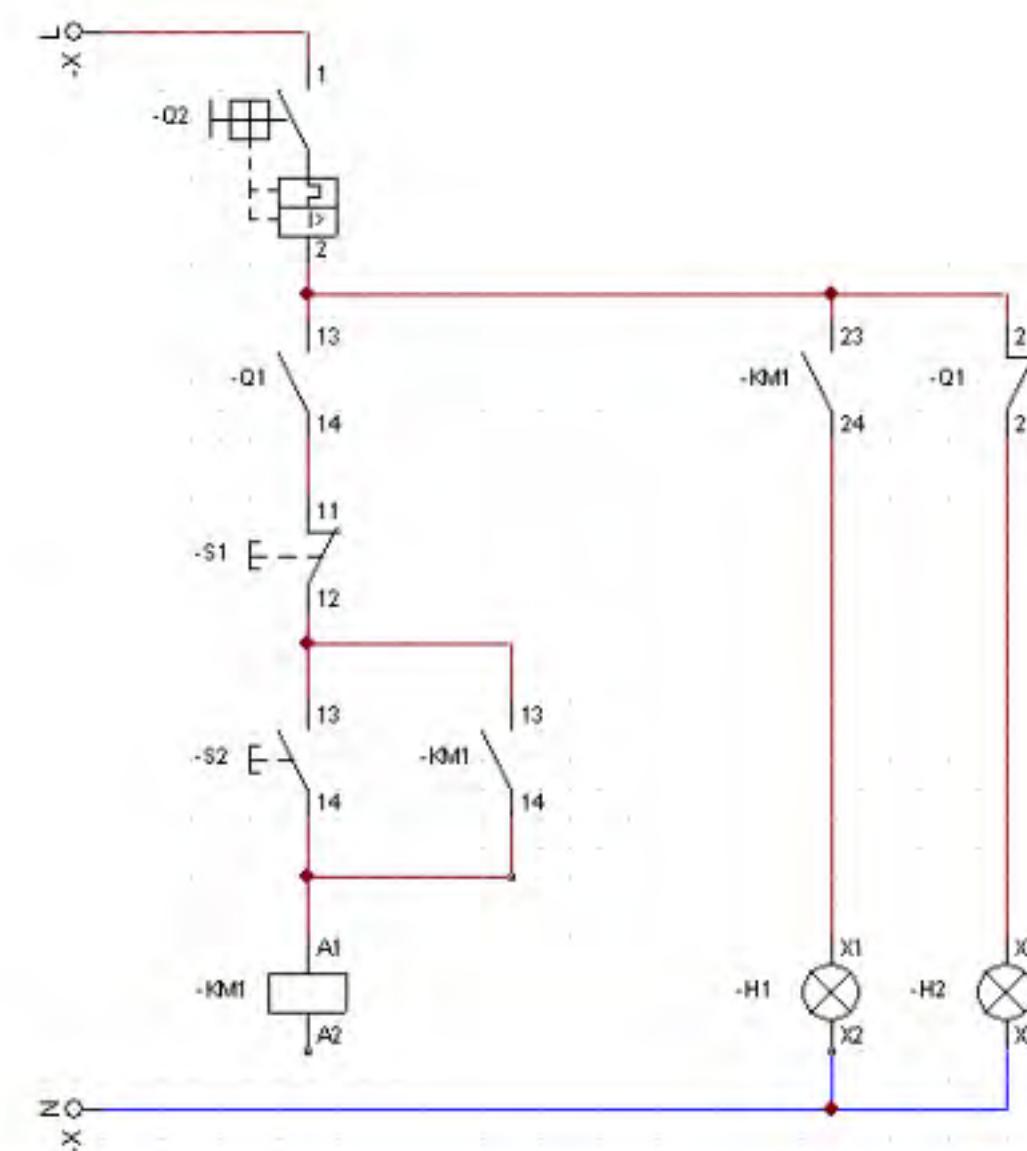
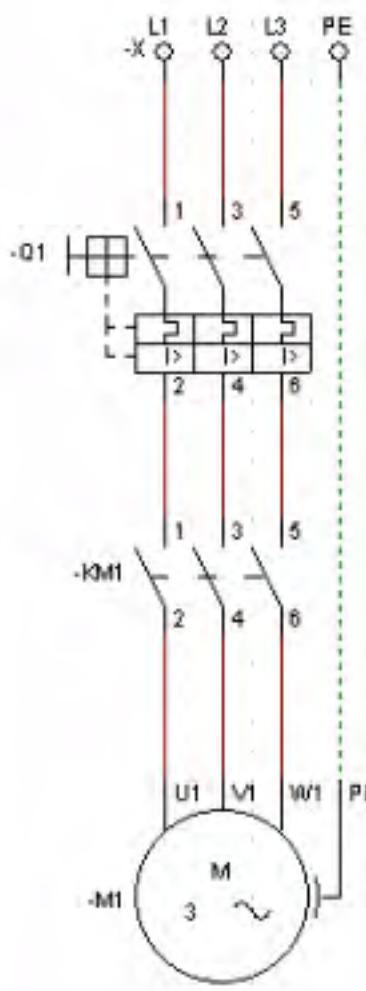


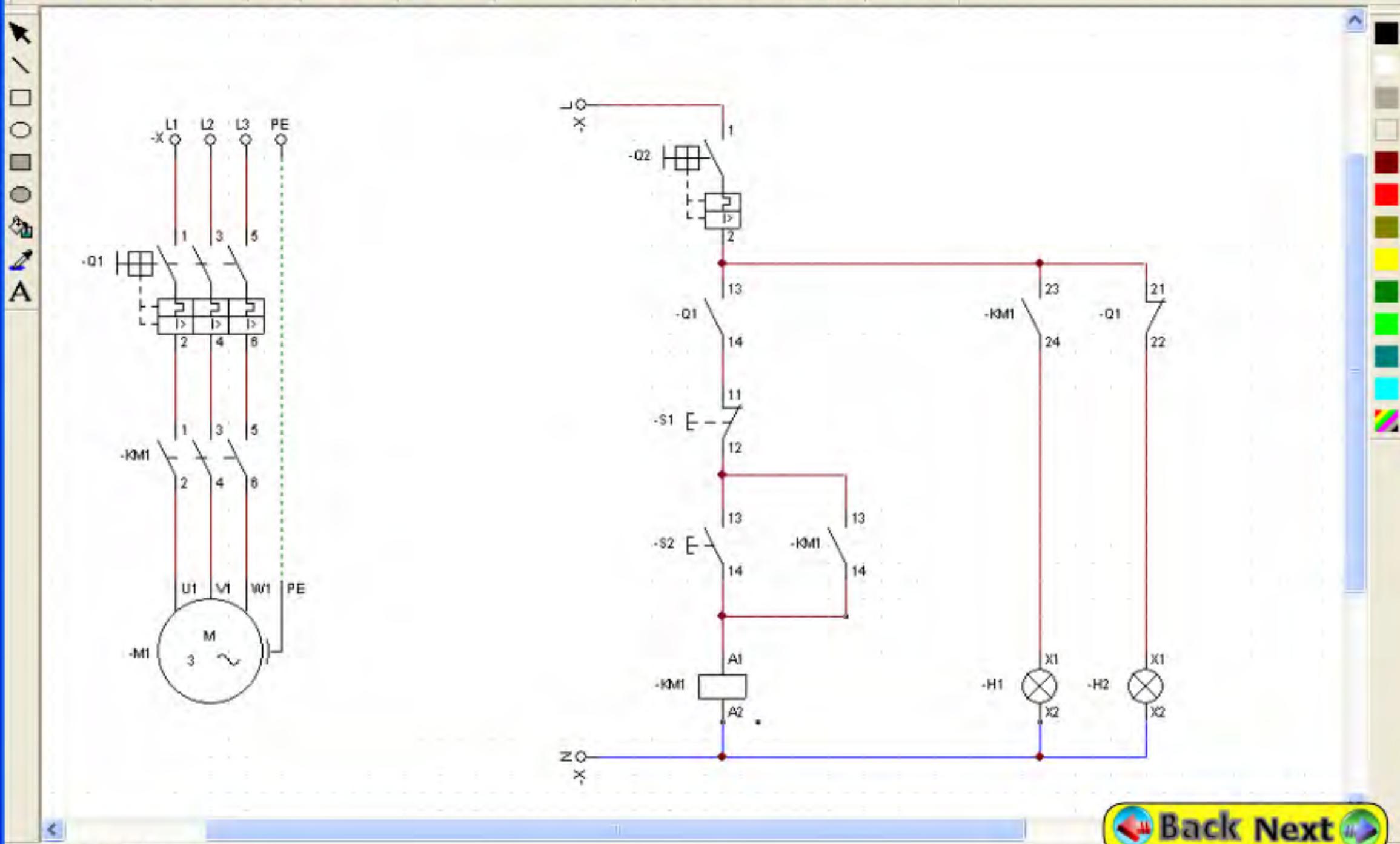


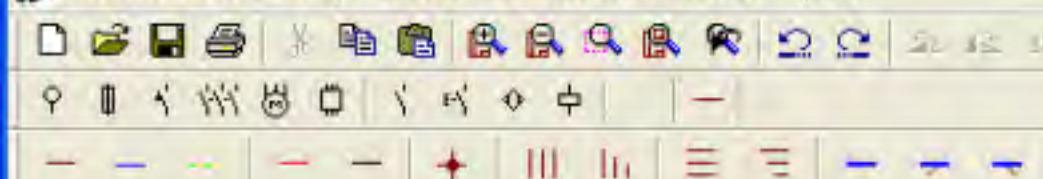






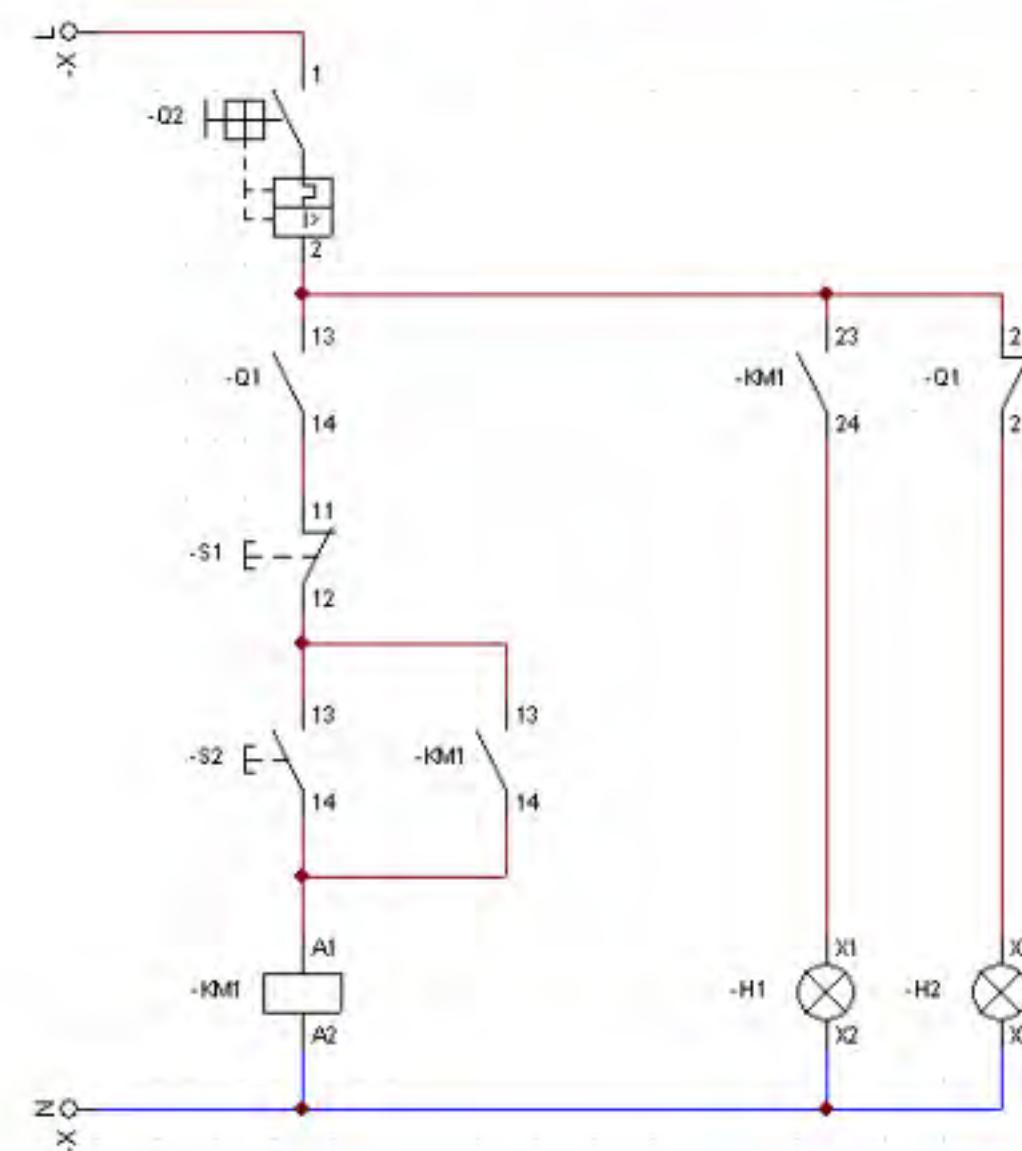
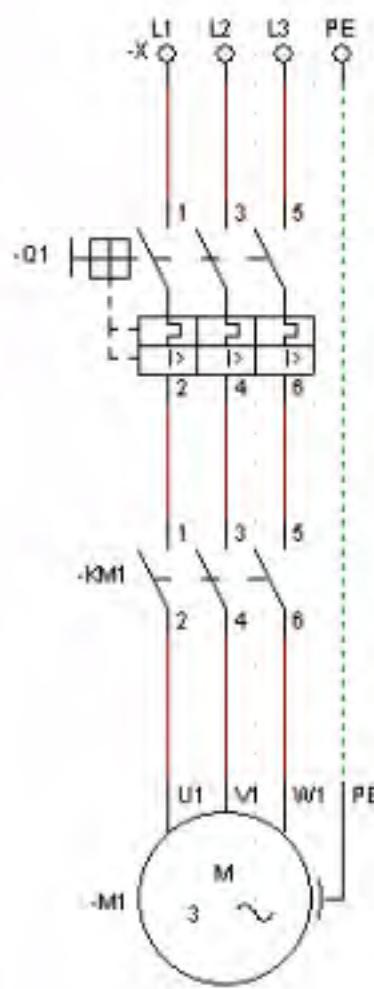


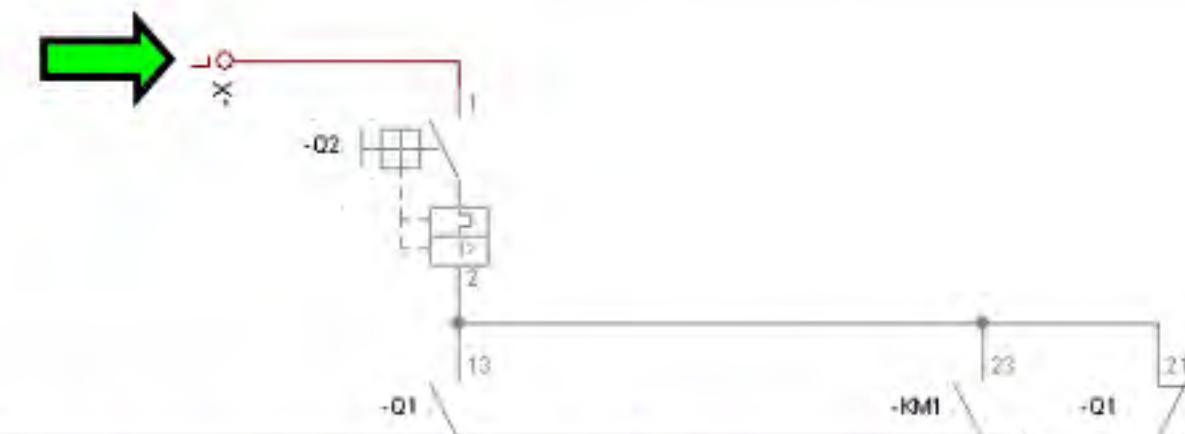
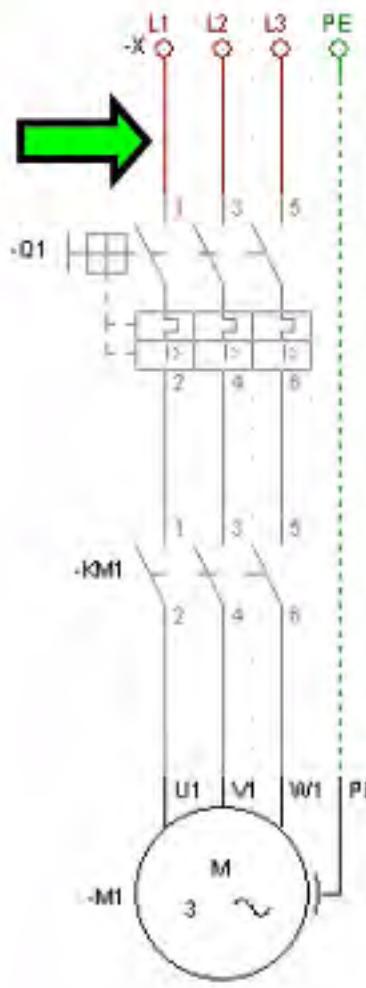




Simulación

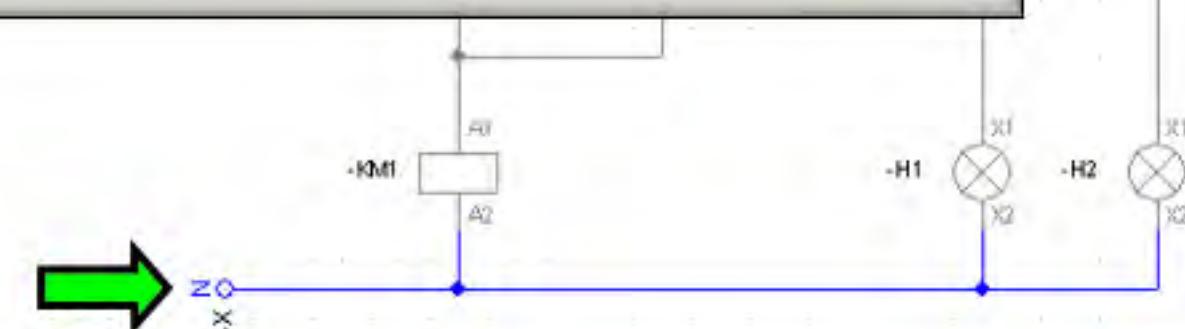
Una vez cableado todo,
procedemos a activar la
simulación pulsando sobre
el ícono.

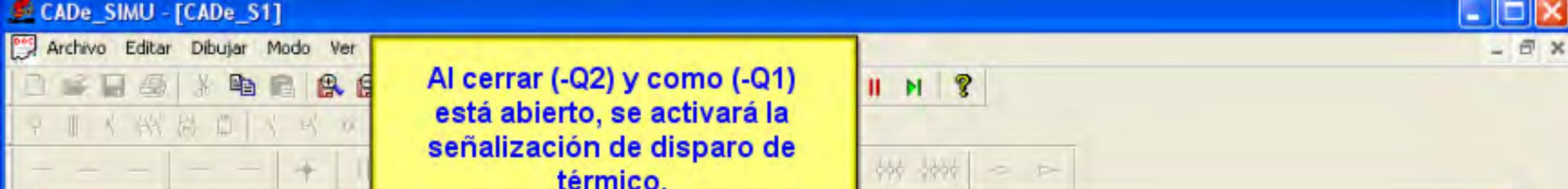




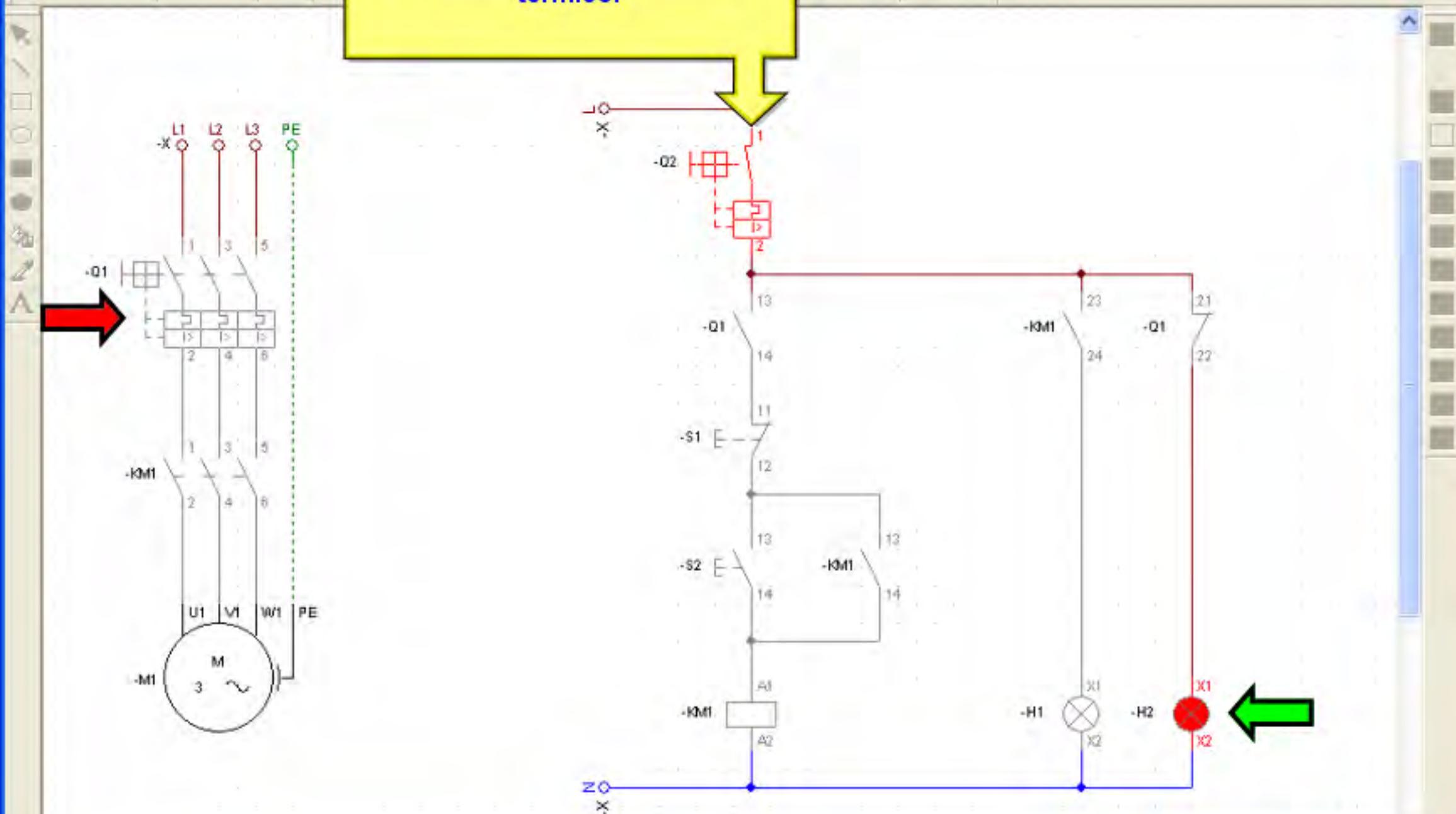
Al activar la simulación, los cables en tensión, tendrán un color más vivo, mientras que los que no tienen tensión, aparecerán difuminados.

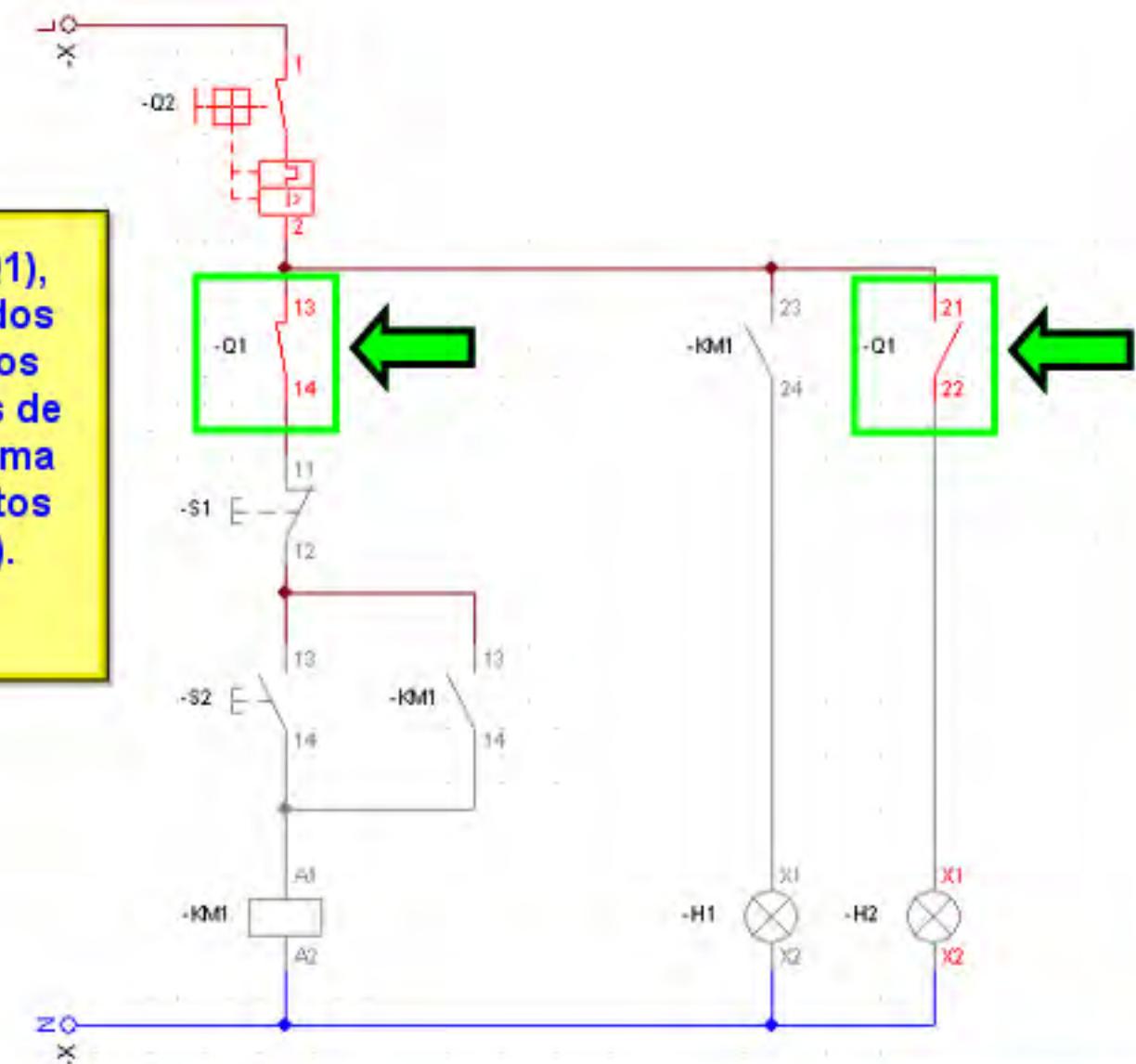
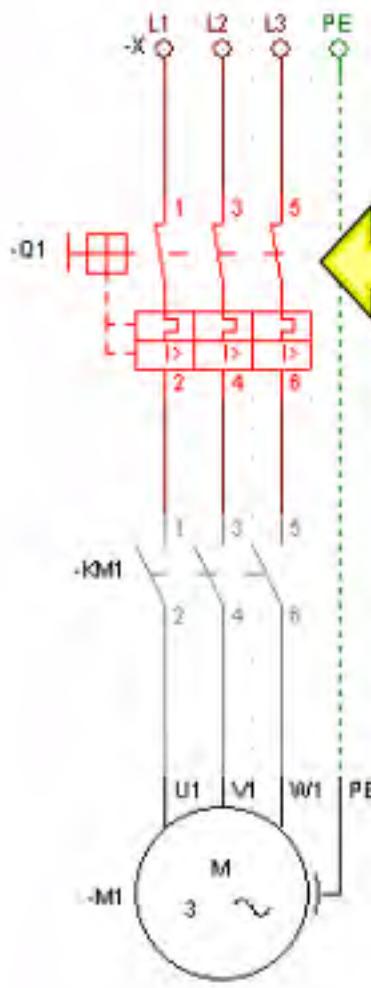
Según vayamos activando los mecanismos, se irán poniendo en tensión los componentes.

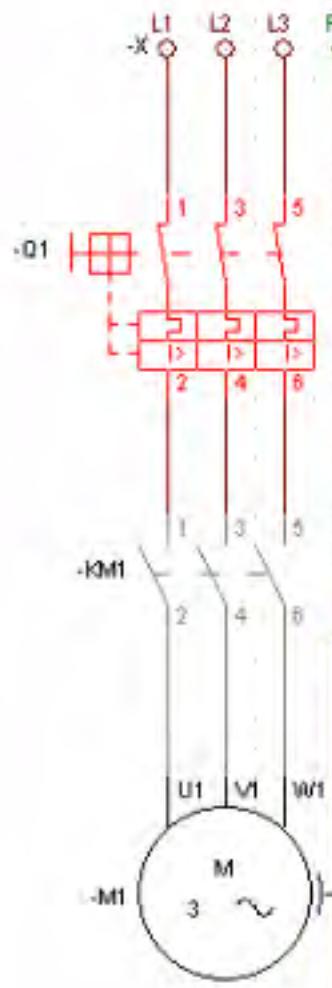




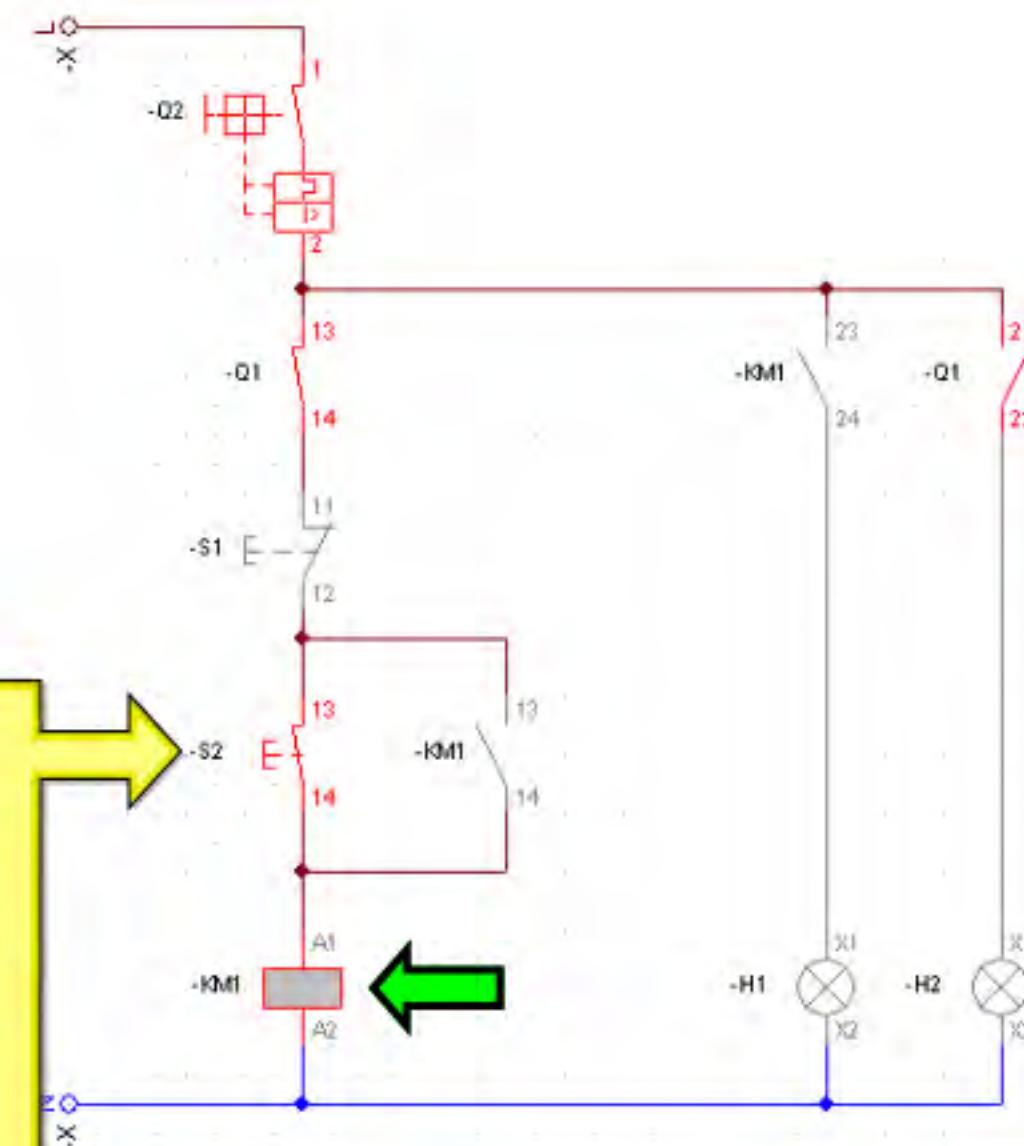
Al cerrar (-Q2) y como (-Q1)
está abierto, se activará la
señalización de disparo térmico.

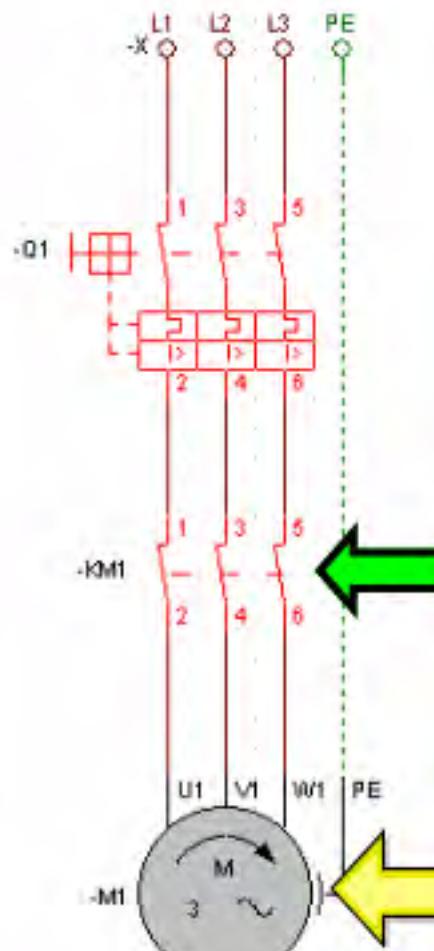




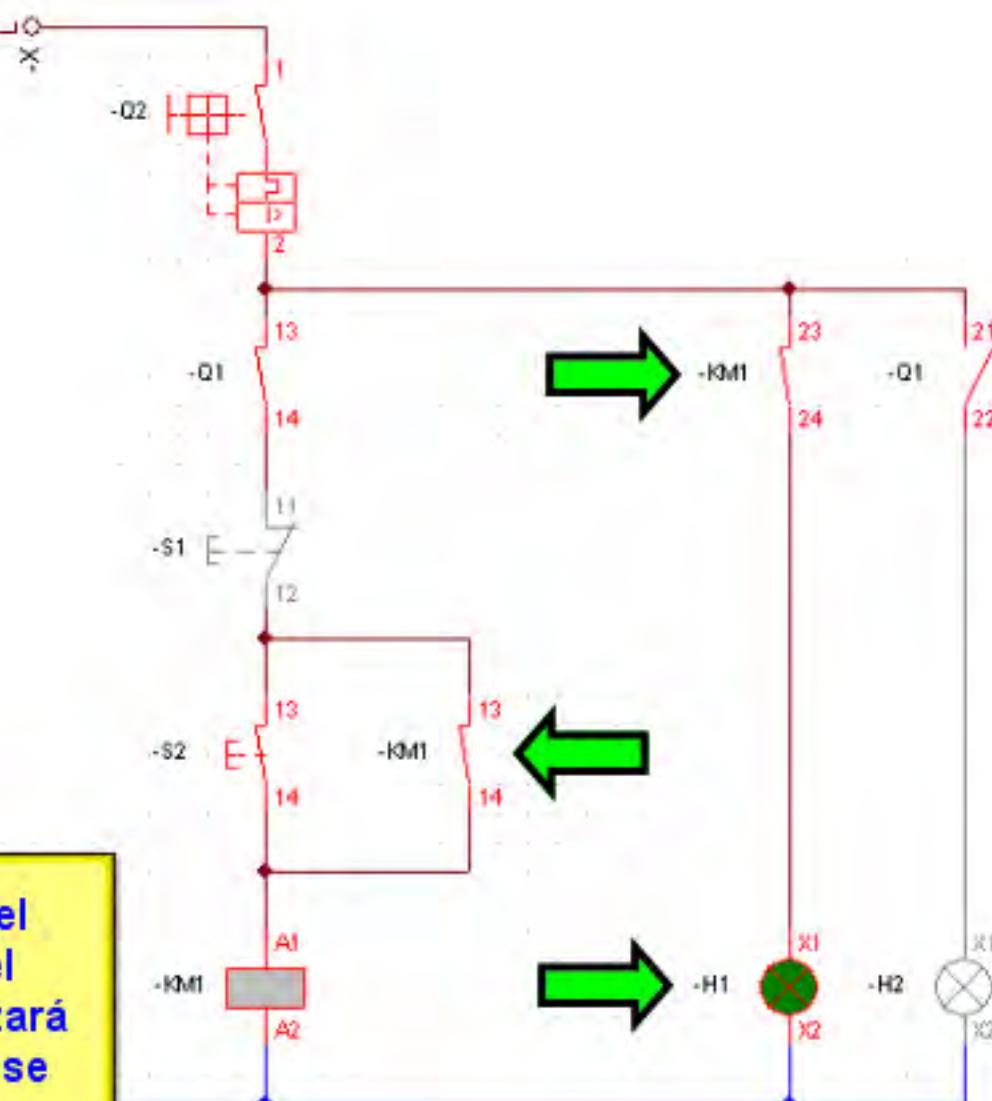


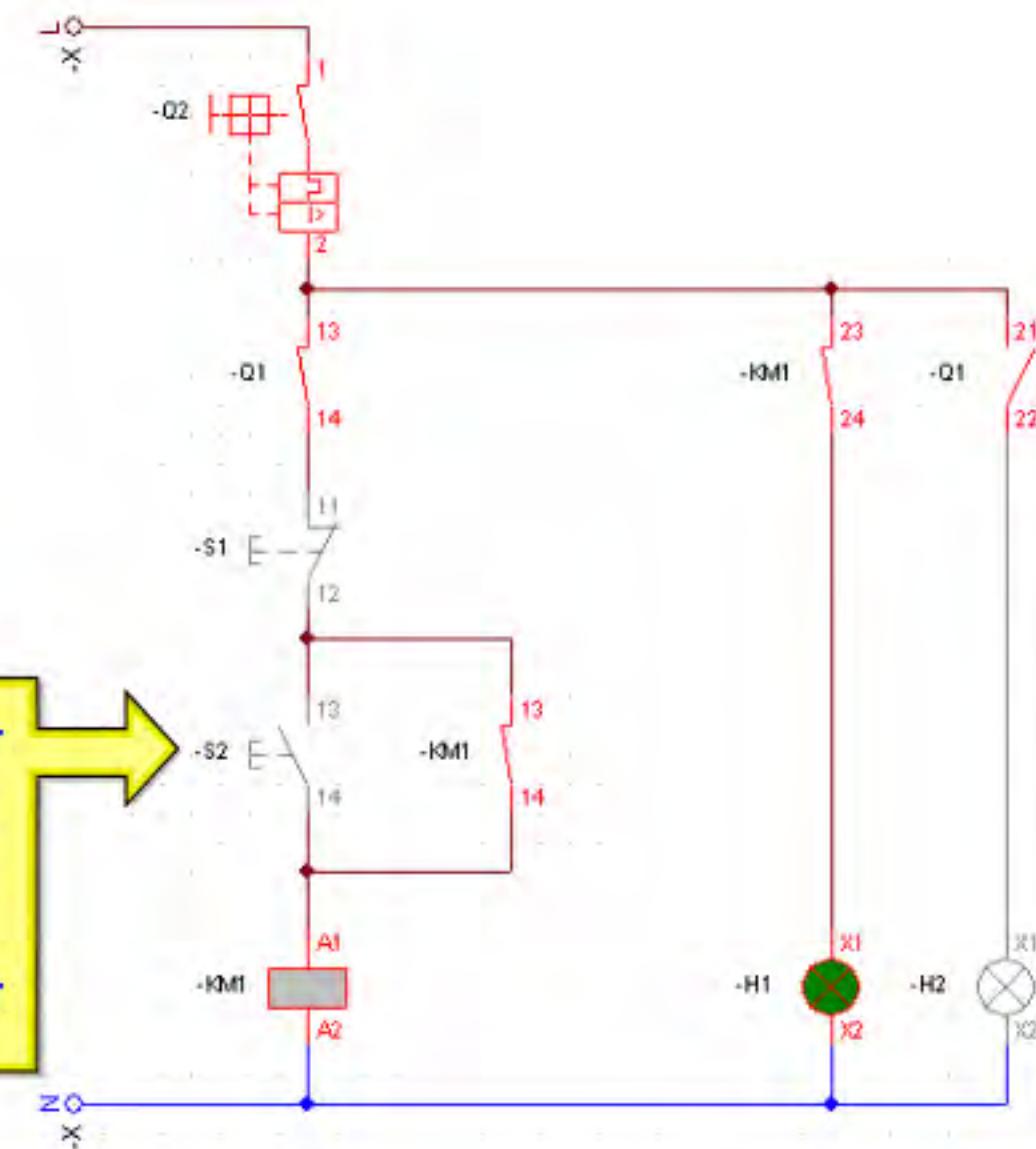
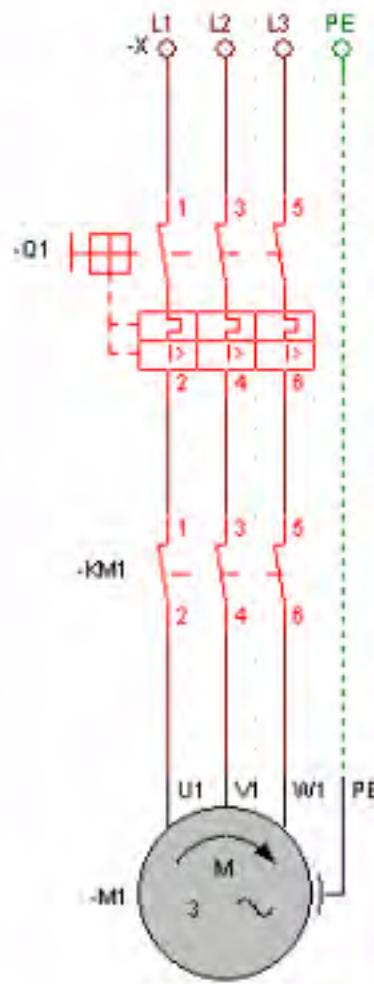
Al accionar la marcha, se alimentará la bobina del contactor (-KM1), con lo que se activarán sus contactos.





Al activarse el contactor, el motor comenzará a funcionar y se activará la señalización.

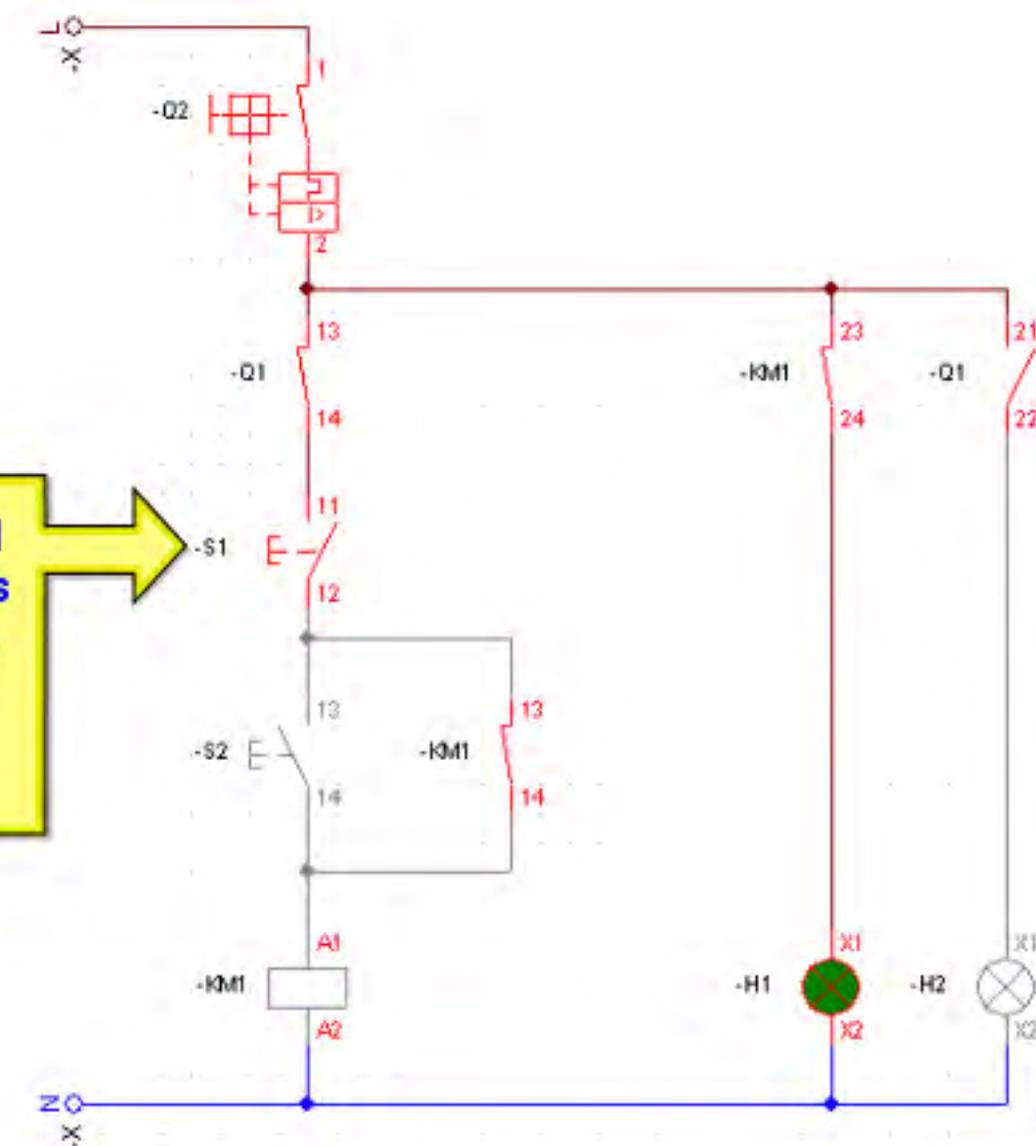




Podremos soltar el pulsador de marcha ya que enclavamos mediante un contacto auxiliar

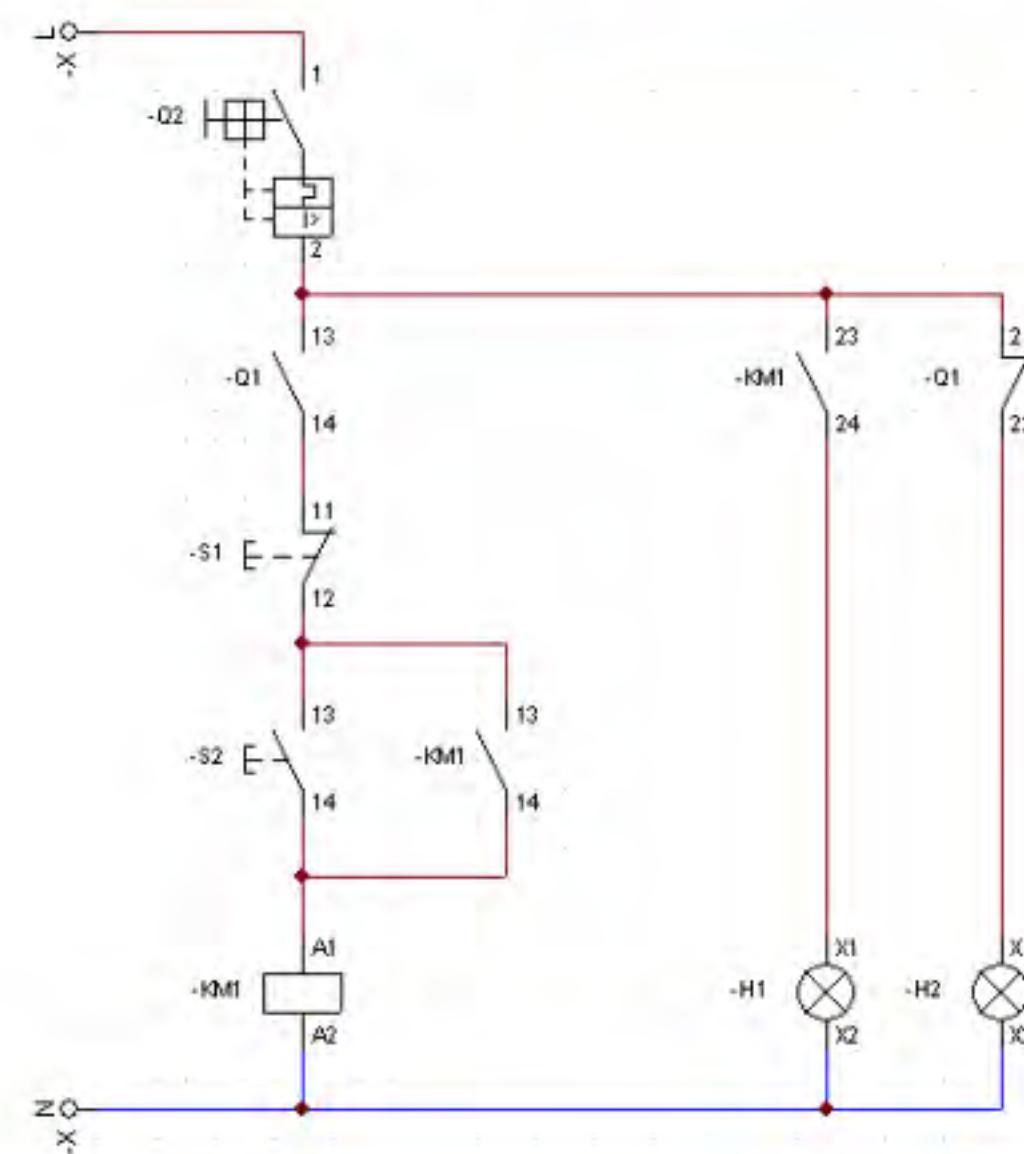
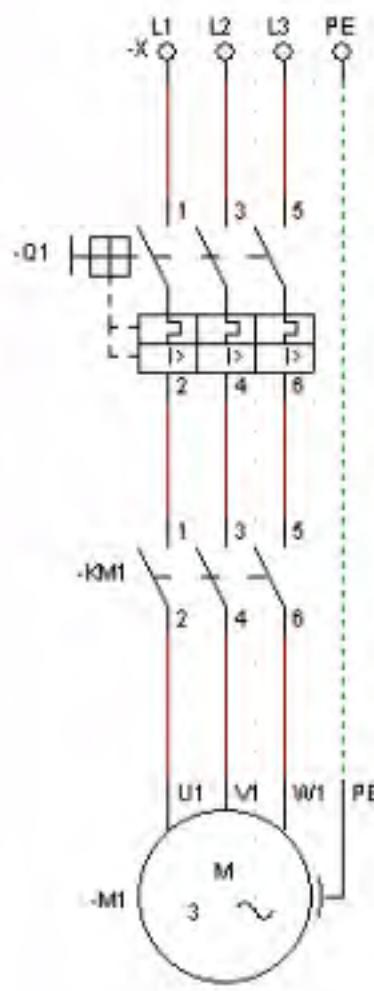


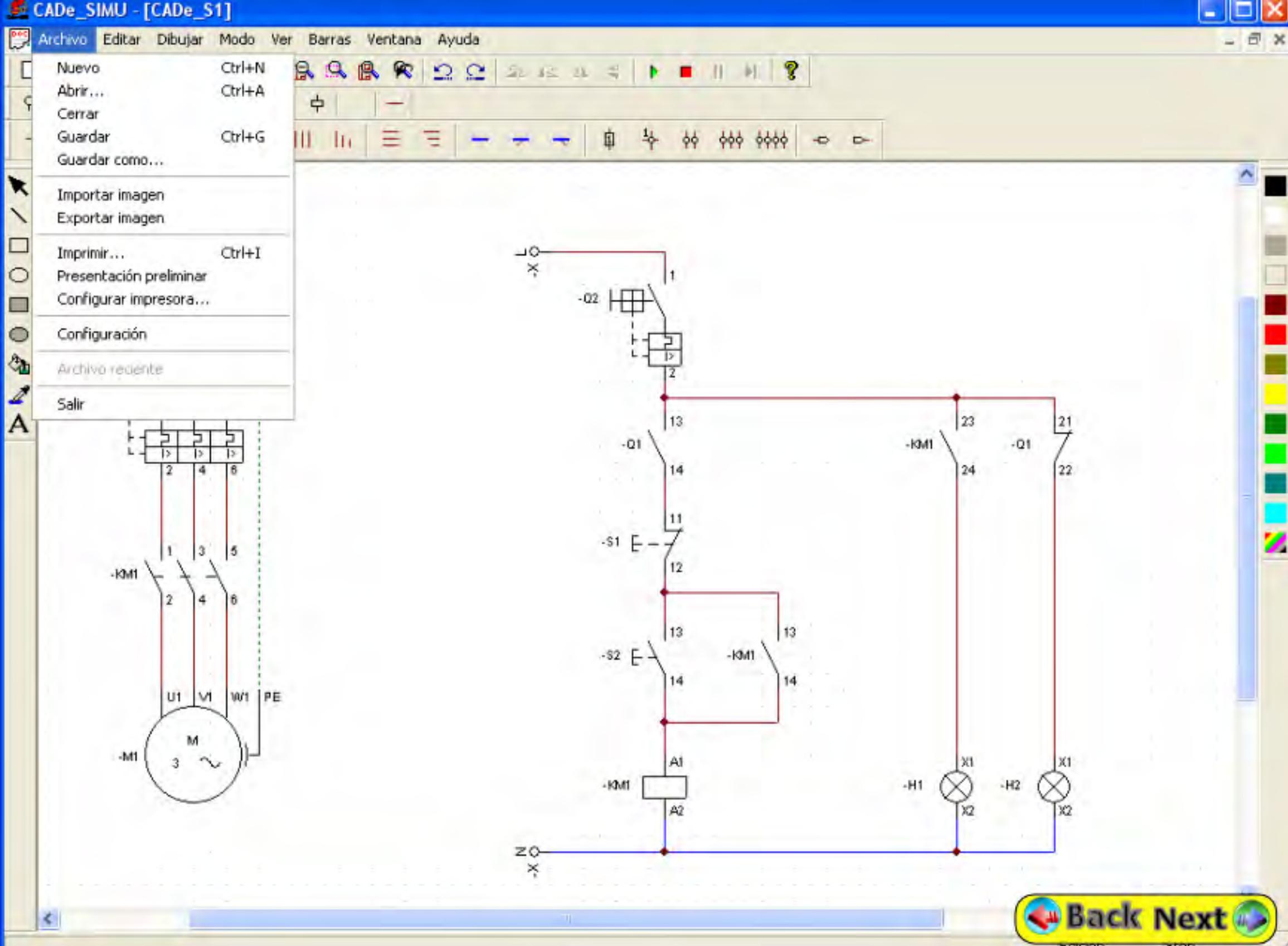
Pulsando sobre el
paro, detendremos
el funcionamiento
de la máquina.





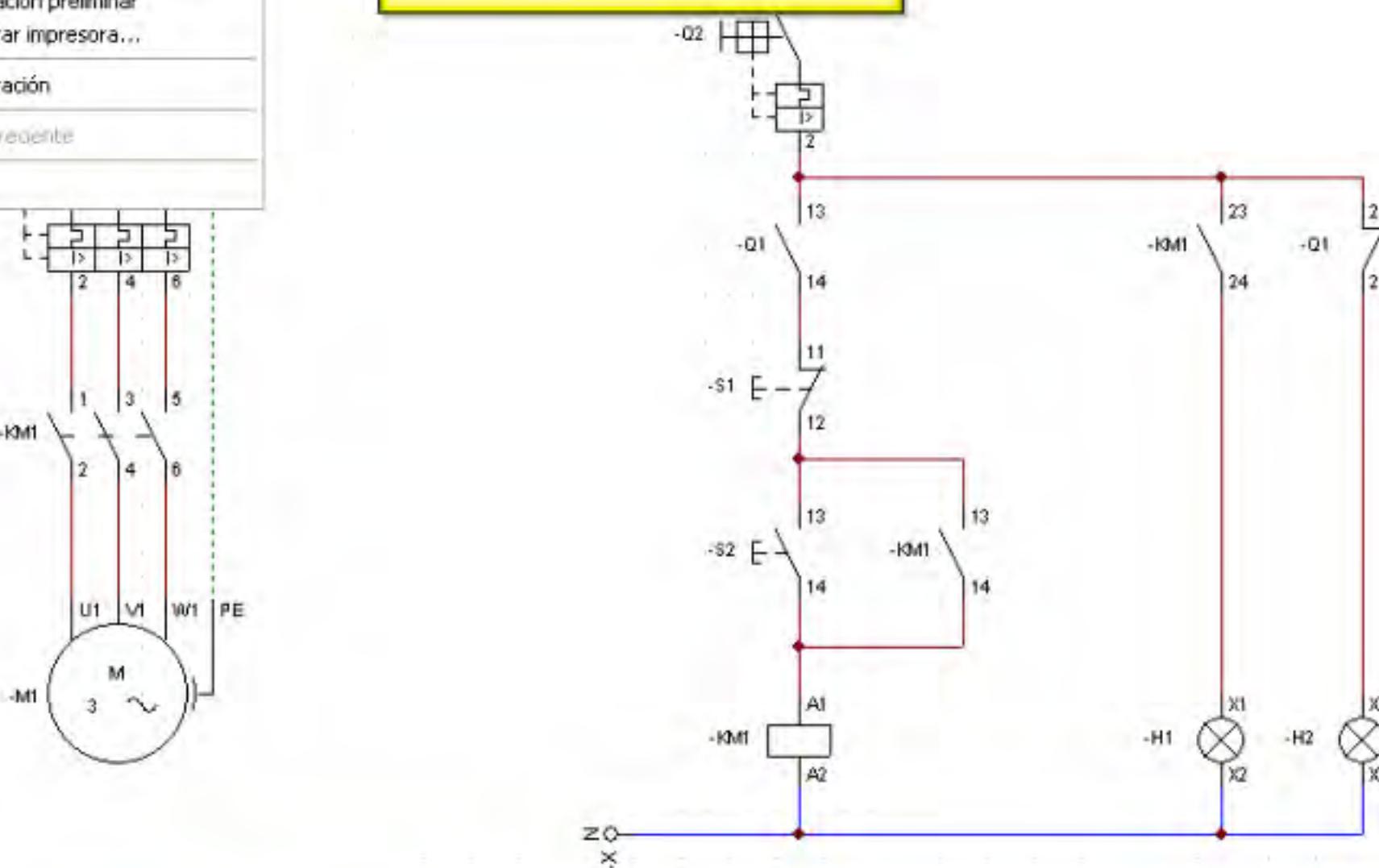
Detendremos la simulación pulsando sobre el cuadrado.





- Nuevo Ctrl+N
- Abrir... Ctrl+A
- Cerrar
- Guardar Ctrl+G
- Guardar como...
- Importar imagen
- Exportar imagen
- Imprimir... Ctrl+I
- Presentación preliminar
- Configurar impresora...
- Configuración
- Archivo reciente
- Salir

 Guardaremos el esquema
través del menú archivo,
Guardar como...





La extensión por defecto es .CAD y debemos escribirla nosotros ya que si lo borramos, el programa no lo añade de forma automática.

