



Electrical  
Placeholder



## Exercício - UFCD 1199 - Automatismos

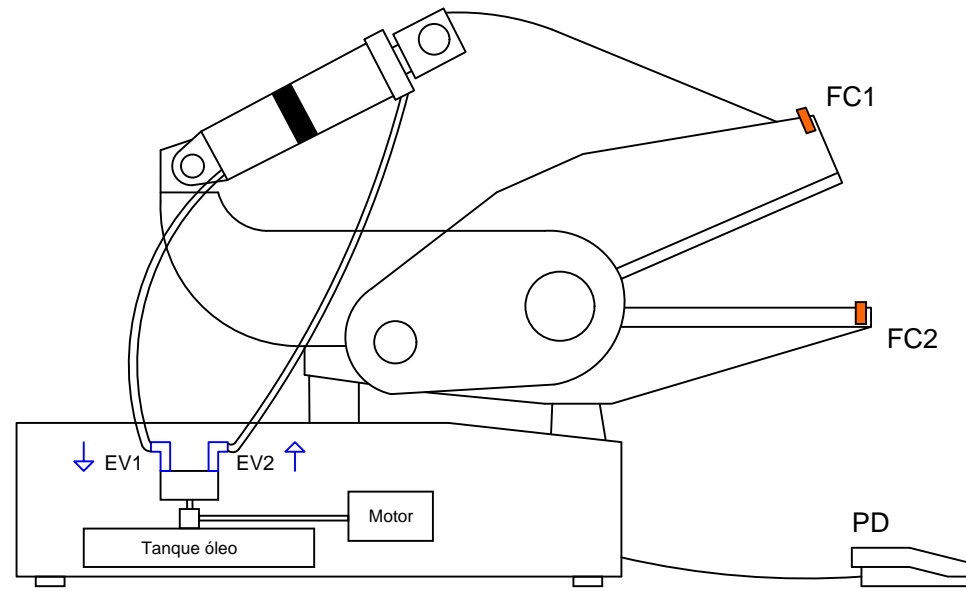


Responsável do Projeto:  
  
Alberto Peixoto

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Board			Page	Principal
Drawn		Exercicio 5		
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		Version	Size	Page 1 Total 8
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# ÍNDICE

1	Principal
2	Índice
3	Desenho
4	Componentes
5	Circuito de Comando e Montagem com Pedal
6	Circuito de Comando e Montagem com Pedal e Chave Automática
7	Circuito de Comando do Motor
8	Circuito de Força



Ao carregar no pedal a boca fecha até chegar ao FC2 e fica parada nessa posição enquanto o pedal está a ser carregado.

Ao levantar o pedal a boca abre até ser acionado o FC1 e para novamente a boca.

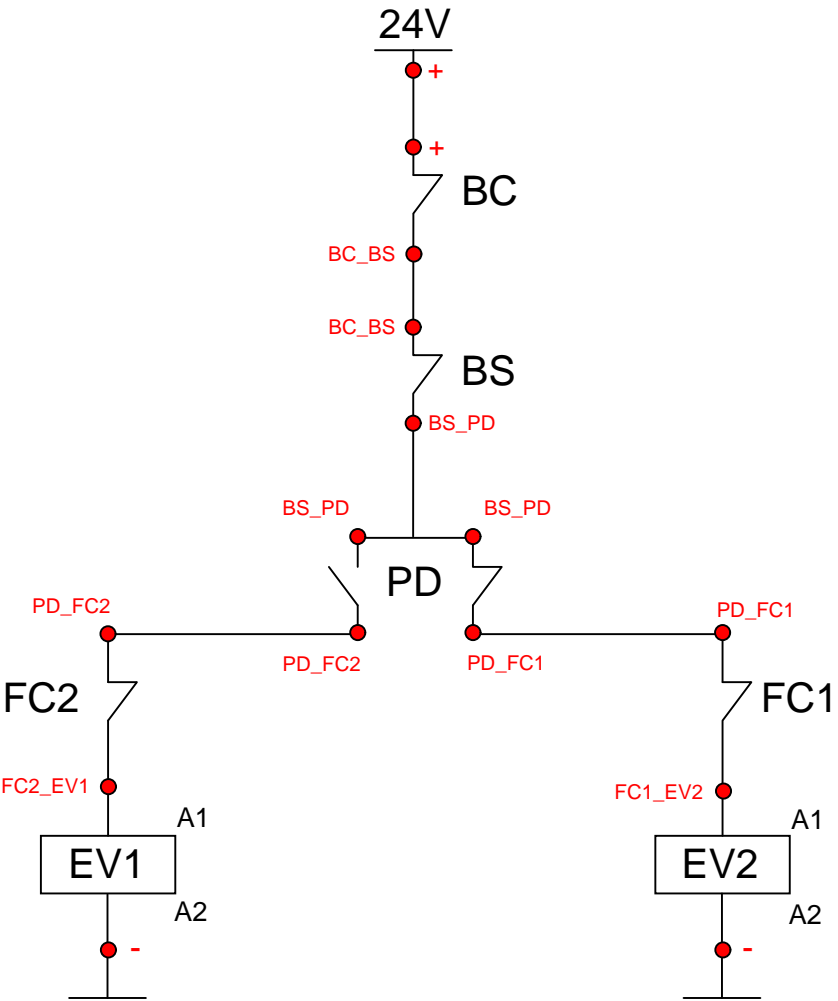
Ao adicionar uma chave seletora é possível fazer a boca abrir e fechar, de forma automática, por tempo indeterminado.

O pedal é instalado de forma a interromper o circuito automático e forçar a boca a fechar manualmente.

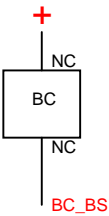
## Componentes

Função	Código Montagem	Fabricante	Modelo	Preço	Ficha Técnica	Unidades
Caixa básica AX em chapa de aço	CX1	Rittal	AX 1057.000	180,00 €	<a href="https://www.rittal.com/ie-en/products/PG0002SCHRANK1/PG0021SCHRANK1/PGRP30564SCHRANK1/PRO70743?variantId=1057000">https://www.rittal.com/ie-en/products/PG0002SCHRANK1/PG0021SCHRANK1/PGRP30564SCHRANK1/PRO70743?variantId=1057000</a>	1
Interruptor Geral	ES1	Siemens	3LD2203-1TL53	48,44 €	<a href="https://docs.rs-online.com/431d/A700000006968853.pdf">https://docs.rs-online.com/431d/A700000006968853.pdf</a>	1
Disjuntor Diferencial	DF1	ABB	FH204 AC-40/0.03	45,00 €	<a href="https://new.abb.com/products/2CSF204004R1400/fh204-ac-40-0-03">https://new.abb.com/products/2CSF204004R1400/fh204-ac-40-0-03</a>	1
Disjuntor proteção de motor	PM1	Siemens	3RV 2011-1CA15	60,00 €	<a href="https://support.industry.siemens.com/cs/pd/488518?pdti=td&amp;dl=pt&amp;lc=en-PT">https://support.industry.siemens.com/cs/pd/488518?pdti=td&amp;dl=pt&amp;lc=en-PT</a>	1
Contator	KM	WEG	CWC-09	33,00 €	<a href="https://static.weg.net/medias/downloadcenter/hed/hd6/WEG-minicontatores-50009832-pt.pdf">https://static.weg.net/medias/downloadcenter/hed/hd6/WEG-minicontatores-50009832-pt.pdf</a>	1
Transformador 400/24V	TR	INDEL	TMB 80/009M/ 1	70,00 €	<a href="https://www.tme.eu/Document/519c9f2174aa535bd1d22a2f58560551/tmb.pdf">https://www.tme.eu/Document/519c9f2174aa535bd1d22a2f58560551/tmb.pdf</a>	1
Botão cogumelo	BC	Siemens	3SU1100-1HB20 -1CJ0	37,00 €	<a href="https://mall.industry.siemens.com/mall/pt/pt/Catalog/Product/3SU1100-1HB20-1CJ0">https://mall.industry.siemens.com/mall/pt/pt/Catalog/Product/3SU1100-1HB20-1CJ0</a>	1
Botão Stop	BS/BSM	Siemens	3SU1100-0AB20 -1BA0	15,00 €	<a href="https://docs.rs-online.com/dae2/0900766b81634a81.pdf">https://docs.rs-online.com/dae2/0900766b81634a81.pdf</a>	2
Pedal	PD	Schneider	XPEM110	89,00 €	<a href="https://www.se.com/pt/pt/product/XPEA110/interruptor-de-pedal-%C3%BAnico-xpea-sem-tampa-pl%C3%A1stico-preto-1nc+1no/">https://www.se.com/pt/pt/product/XPEA110/interruptor-de-pedal-%C3%BAnico-xpea-sem-tampa-pl%C3%A1stico-preto-1nc+1no/</a>	1
Fim de Curso	FC1/FC2	Omron	D4N-1120	42,00 €	<a href="https://files.omron.eu/downloads/latest/datasheet/pt/c130_d4n_miniature_safety_limit_switch_data_sheet_pt.pdf?v=1">https://files.omron.eu/downloads/latest/datasheet/pt/c130_d4n_miniature_safety_limit_switch_data_sheet_pt.pdf?v=1</a>	2
Chave seletora	CV	Siemens	3SU1100-2BF60 -1MA0	25,00 €	<a href="https://docs.rs-online.com/24f1/0900766b813cc740.pdf">https://docs.rs-online.com/24f1/0900766b813cc740.pdf</a>	1
Eletro Válvula	EV1/EV2	Aignep	Serie 04F	44,00 €	<a href="https://adajusa.pt/pt/electrovalvulas-de-controle-de-processo-fluidos-e-domoticos/12024-valvula-solenoide-de-fluido-1-2-2-2-fechado-12vcc-8w-unidade-indireta-d14-8445340120247.html?gad_source=1">https://adajusa.pt/pt/electrovalvulas-de-controle-de-processo-fluidos-e-domoticos/12024-valvula-solenoide-de-fluido-1-2-2-2-fechado-12vcc-8w-unidade-indireta-d14-8445340120247.html?gad_source=1</a>	2
Relé	RC1/RC2	Finder	58.34.9.024.0050 SPA	25,00 €	<a href="https://cdn.findernet.com/app/uploads/S58EN.pdf">https://cdn.findernet.com/app/uploads/S58EN.pdf</a>	2

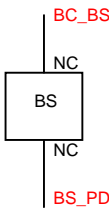
# Circuito de Comando e Montagem Pedal



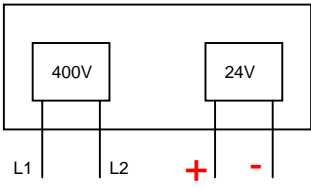
Botão Cogumelo



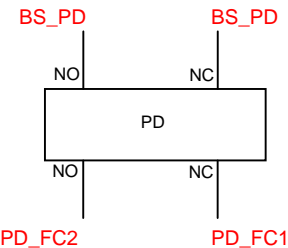
Botão Stop



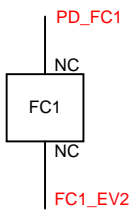
Transformador



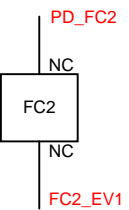
Pedal



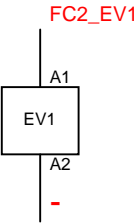
Fim de Curso 1



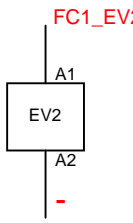
Fim de Curso 2



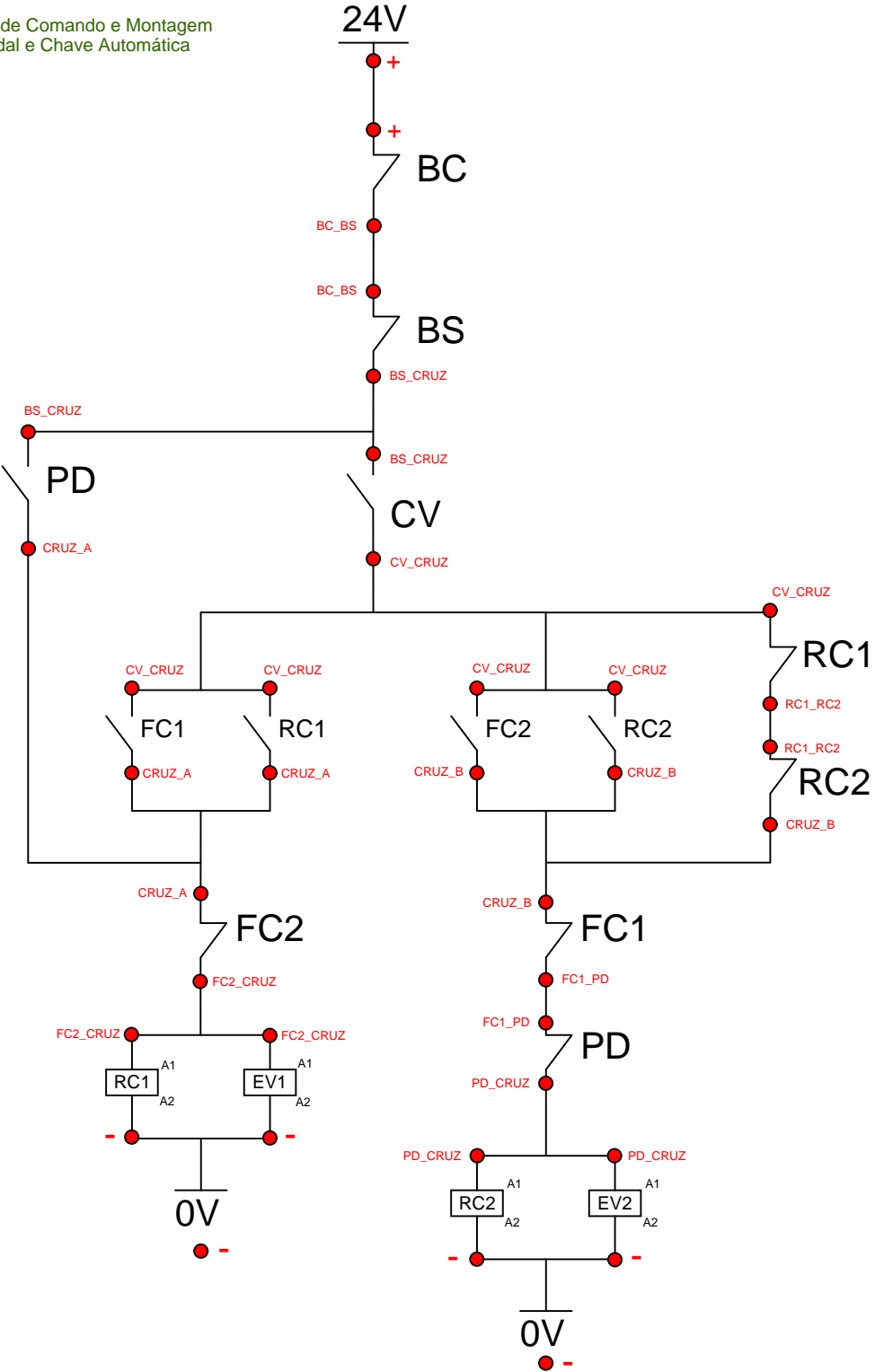
EV1



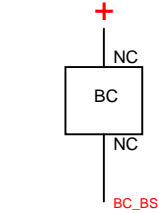
EV2



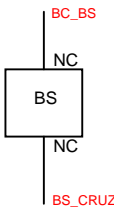
Circuito de Comando e Montagem com Pedal e Chave Automática



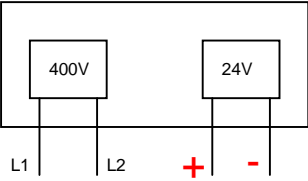
Botão Cogumelo



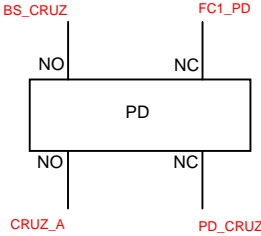
Botão Stop



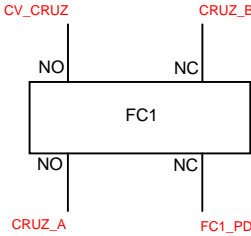
Transformador



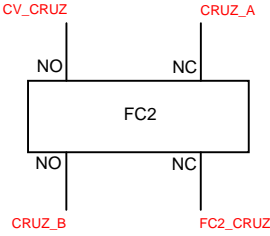
Pedal



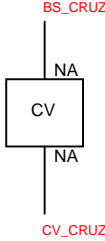
Fim de Curso 1



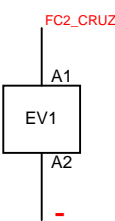
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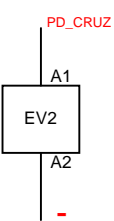
Chave



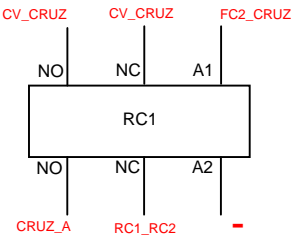
EV1



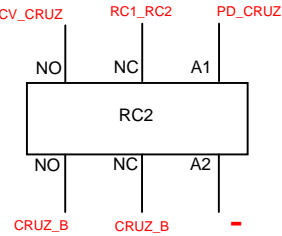
EV2



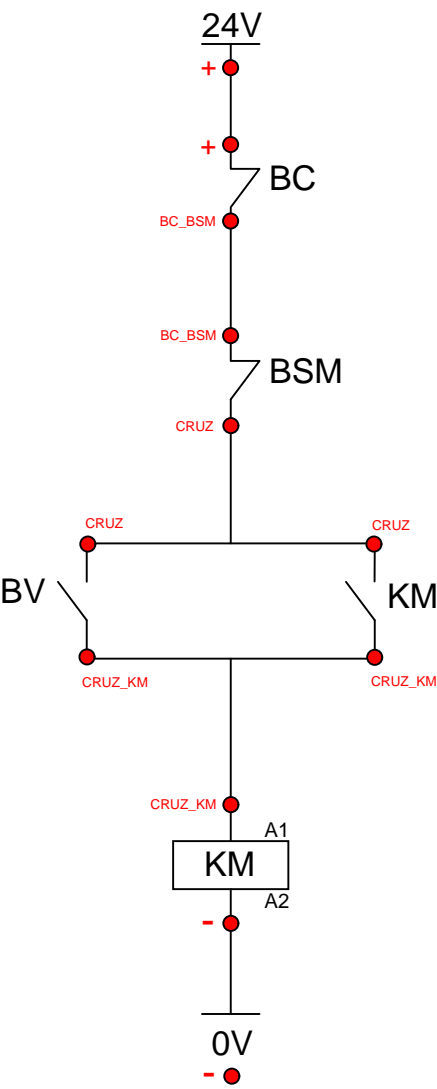
Relé Contacto 1



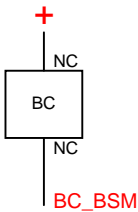
Relé Contacto 2



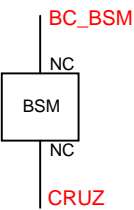
# Circuito Comando e Montagem Motor



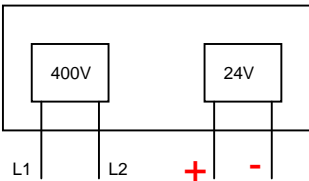
Botão Cogumelo



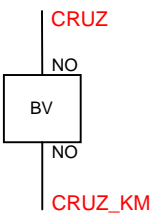
Botão Stop Motor



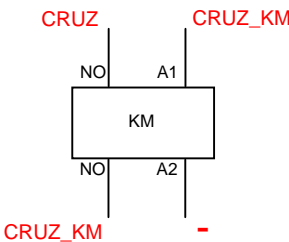
Transformador



Botão Verde



Contactor



Este circuito comanda o motor que bombeia o óleo para as electroválvulas.

Circuito de Força

