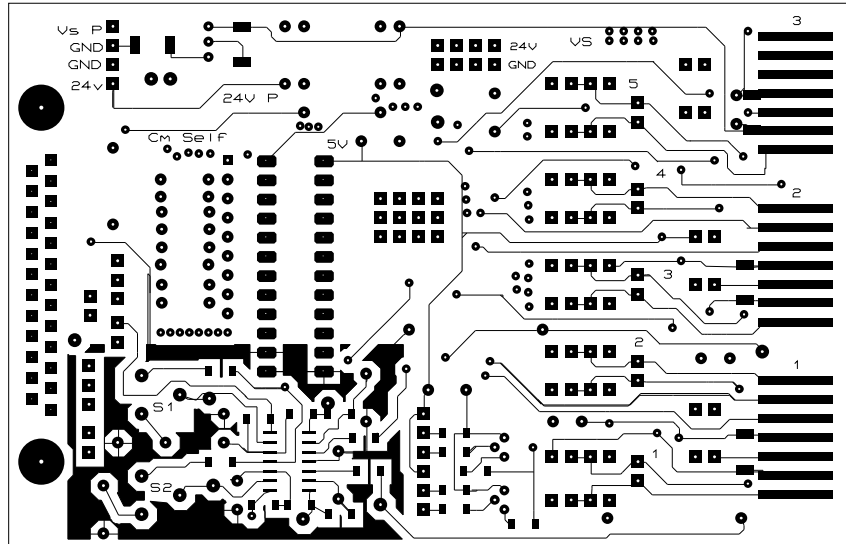
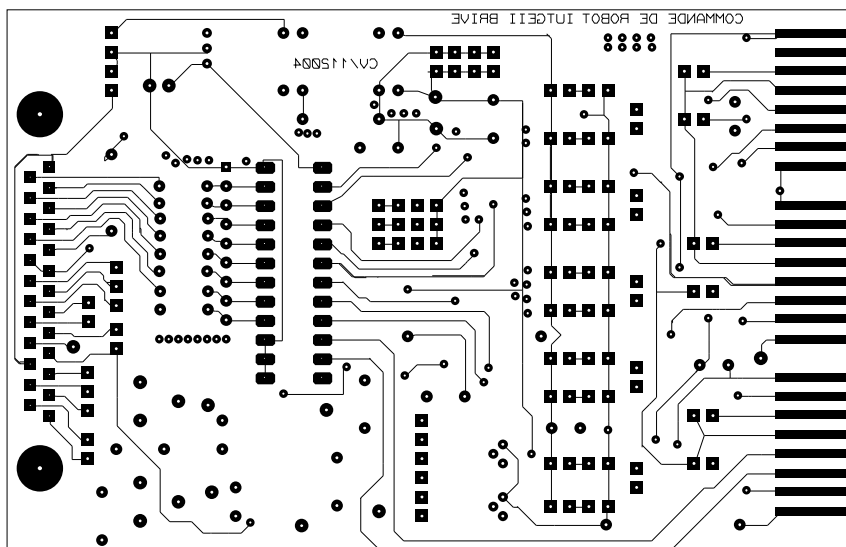


Typons de la carte Bras Robot

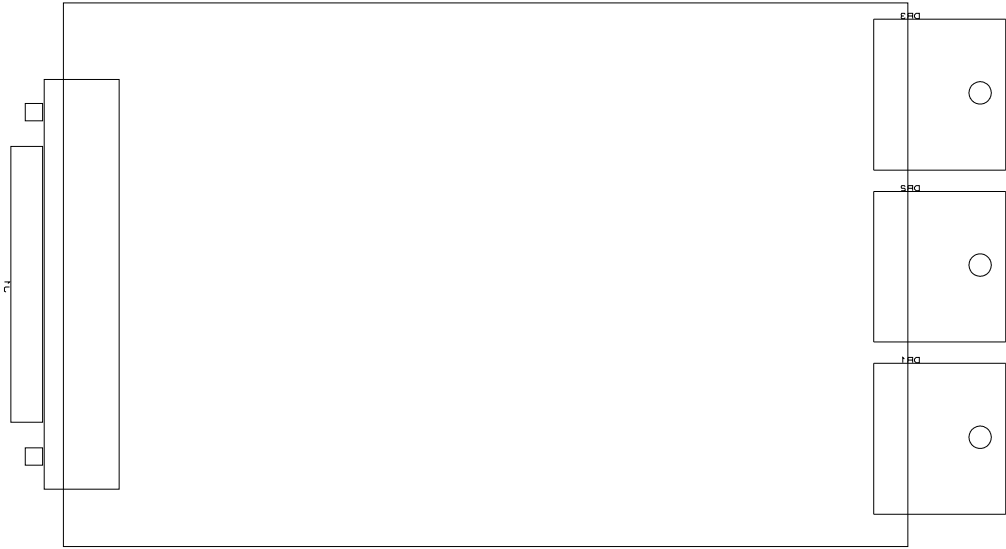


TopCopper

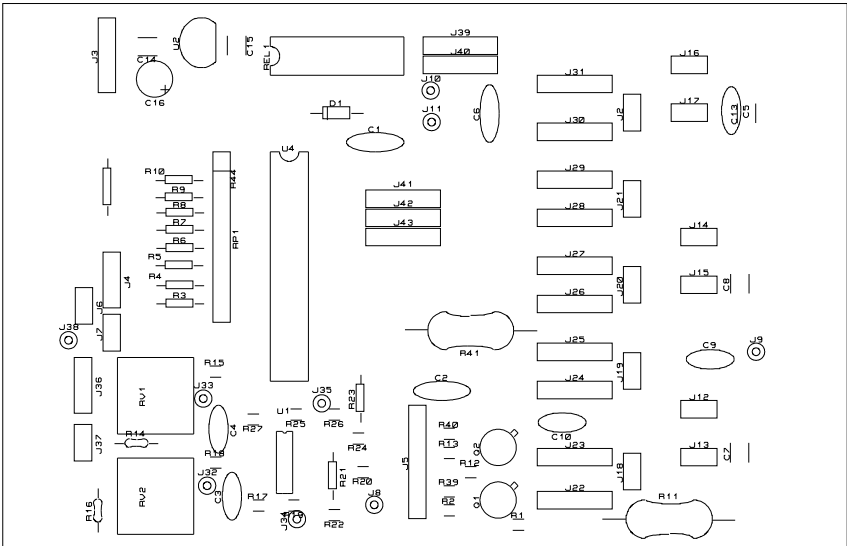


Bottom Copper

Emplacement des composants



Bottom Silk



Top Silk

Liste de composants

Bill Of Materials For COMMANDE DE ROBOT

Design Title : COMMANDE DE
Author : Carlos Valente
Revision :
Design Created : mardi 19 novembre 2002
Design Last Modified : jeudi 2 juin 2005
Total Parts In Design : 101

31 Resistors

Quantity:	References	Value
2	R1, R12	130k
7	R2, R13, R15, R17, R20, R24, R27	10k
8	R3-R10	4,7k
2	R11, R41	0.47
2	R14, R16	2.2k
1	R18	1.3k
4	R19, R22, R25, R26	50k
2	R21, R23	2k
2	R39, R40	820
1	R44	50

14 Capacitors

Quantity:	References	Value
2	C1, C2	100n
2	C3, C4	470nf
3	C5, C9, C10	100uf
4	C6-C8, C13	100nF
2	C14, C15	1nF
1	C16	1uF

3 Integrated Circuits

Quantity:	References	Value
1	U1	LM324
1	U2	78L05
1	U4	PAL 22V10

2 Transistors

Quantity:	References	Value
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2	Q1, Q2	2N2222
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1 Diodes

Quantity:	References	Value
1	D1	1N4148

50 Miscellaneous

Quantity:	References	Value
3	DR1-DR3	L298
1	J1	CONN-D25
13	J2, J6, J7, J12-J21	CONN-H2
16	J3, J22-J31, J39-J43	CONN-H4
2	J4, J36	CONN-H3
1	J5	CONN-H6
1	J8	IN2
2	J9, J11	GND
1	J10	ALIM
3	J32, J34, J35	seuil1
1	J33	Seuil2
1	J37	Entrées analogiques
		12v
1	J38	libre
1	REL1	Celduc-24v
3	RP1, RV1, RV2	10k