

Projekt :

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ROBODRINKS

Ersteller :

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Luis Winkler

## PROJEKTINFORMATIONEN

**Projektname.....** : ROBODRINKS

**Programmname.....** : 1

**Verzeichnis.....** : C:\Program Files (x86)\COSIROP\Projects\ROBODRINKS\

**Ersteller.....** : Luis Winkler

**Projektbeschreibung** : Abschlussprojekt LM15

**Robotertyp.....** : RV-6S

**Bestückung.....** :

- Zusatzachsen : 0

- E/A-Karten..... : 1

- Hände..... : 1

**Änderungen.....** :

**PROGRAMM****1**

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'Ersteller: Luis Winkler
'Klasse: FSAPZ 18
'Letzte Bearbeitung: 03.01.2022
5 DEF INTE G1 '30% der Max. Geschwindigkeit
8 DEF INTE G2 '60% der Max. Geschwindigkeit
11 DEF INTE G3 '95% der Max. Geschwindigkeit
14 G1 = 30
17 G2 = 60
20 G3 = 95
40 ACCEL 100,100
43 OVRD G3
45 HCLOSE 1
50 MOV P350
53 M_OUT(10)=0 'Roboter nicht mehr Busy
60 IF (M_IN(7)=1)THEN
70 GOSUB *KAGET
80 ENDIF
90 IF (M_IN(9)=1) THEN
94 GOSUB *BIER
97 ENDIF
100 IF (M_IN(8)=1) THEN
110 GOSUB *COCKDO
130 ENDIF
140 IF (M_IN(6)=1) THEN
150 GOSUB *KADO
170 ENDIF
180 IF (M_IN(13)=1)THEN
190 GOSUB *SPUEGG
210 ENDIF
220 IF (M_IN(14)=1) THEN
230 GOSUB *SPUEKG
240 ENDIF
250 GOTO 5
300 'Spülen großes Glas
301 *SPUEGG
302 M_OUT(10)=1 'Roboter Busy
304 MOV P29
306 MOV P23
307 MVS P24
309 OVRD G1
310 MVS P21
320 HOPEN 1
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```
323 DLY 0.5
340 MVS P22
343 MVS P1
346 DLY 0.5
350 HCLOSE 1
360 DLY 0.5
361 MVS P3
364 OVRD G3
370 MVS P23
373 MOV P29
375 MOV P350
376 OVRD G1
380 MOV P9
381 DLY 3
382 OVRD G2
383 MOV P350
400 MOV P4
403 OVRD G1
410 MVS P5
413 DLY 0.5
420 HOPEN 1
430 DLY 0.5
433 MVS P4
436 OVRD G2
439 MVS P6
441 DLY 0.5
442 HCLOSE 1
443 DLY 0.5
444 MVS P14
450 MVS P7
460 M_OUT(9)=1    'Vakuumsauger an
462 OVRD G1
464 MVS P8
466 DLY 0.5
468 MVS P7
470 OVRD G2
474 MOV P13
477 MOV P12
481 MOV P55
490 MOV P51
503 DEF INTE M1
506 M1 = 0
509 WHILE (M1<=4)
520 MVS P56
530 MVS P51
533 M1 = (M1+1)
540 WEND
550 MVS P51
560 MOV P53
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```
570 MVS P54
580 DLY 3
590 MVS P53
596 MOV P55
610 MOV P12
613 MOV P13
619 MVS P7
620 OVRD G1
630 MVS P8
633 DLY 0.5
636 M_OUT(9)=0 'Vakuumsauger aus
640 DLY 0.5
641 MVS P7
642 OVRD G2
643 MVS P14
644 MVS P6
645 HOPEN 1
647 DLY 0.5
650 OVRD G1
653 MVS P4
660 MVS P5
663 DLY 0.5
670 HCLOSE 1
680 DLY 0.5
683 MVS P4
686 OVRD G2
690 MOV P350
694 MOV P29
700 MOV P109
710 OVRD G1
720 MVS P110
730 MVS P111
733 DLY 0.5
740 HOPEN 1
750 DLY 0.5
760 MVS P110
763 MOV P109
770 M_OUT(11)=1 DLY 2 'Spuelen fertig
773 OVRD G3
776 MOV P29
779 HCLOSE 1
781 MOV P350
784 M_OUT(10)=0 'Roboter nicht mehr Busy
788 RETURN
800 'Spülen kleines Glas
803 *SPUEKG
806 M_OUT(10)=1 'Roboter Busy
807 MOV P29
808 MOV P23
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```
809 MVS P24
812 OVRD G1
815 MVS P21
818 HOPEN 1
821 DLY 0.5
840 MVS P22
843 DLY 0.5
850 HCLOSE 1
860 DLY 0.5
861 MVS P3
864 OVRD G2
870 MVS P29
873 MOV P350
876 OVRD G1
880 MOV P9
883 DLY 3
886 OVRD G2
889 MOV P350
900 MOV P4
903 OVRD G1
910 MVS P25
913 DLY 0.5
920 HOPEN 1
930 DLY 0.5
940 MVS P26
943 DLY 0.5
944 HCLOSE 1
945 DLY 0.5
947 OVRD G2
949 MVS P6
950 MVS P7
960 M_OUT(9)=1   'Vakuumsauger an
963 OVRD G1
966 MVS P28
970 DLY 0.5
971 MVS P7
972 OVRD G2
974 MOV P13
977 MOV P12
981 MOV P55
990 MOV P51
993 MOV P57
1009 DEF INTE M2
1012 M2 = 0
1015 WHILE (M2<=4)
1020 MVS P52
1030 MVS P57
1033 M2 = (M2+1)
1040 WEND
```

```
1050 MVS P57
1060 MOV P53
1070 MVS P58
1080 DLY 3
1090 MVS P53
1096 MOV P55
1103 MOV P12
1106 MOV P13
1110 MVS P7
1120 OVRD G1
1130 MVS P28
1131 DLY 0.5
1132 M_OUT(9)=0 'Vakuumsauger aus
1133 DLY 0.5
1136 MVS P7
1139 OVRD G2
1141 MVS P6
1144 MVS P26
1147 HOPEN 1
1153 DLY 0.5
1156 OVRD G1
1160 MVS P25
1163 DLY 0.5
1170 HCLOSE 1
1180 DLY 0.5
1183 MVS P4
1186 OVRD G2
1189 MOV P350
1193 MOV P29
1200 IF (M_IN(11)=1)THEN
1205 MOV P105
1210 OVRD G1
1220 MVS P106
1223 DLY 0.5
1230 MVS P107
1233 DLY 0.5
1240 HOPEN 1
1250 DLY 0.5
1260 MVS P106
1263 DLY 0.5
1266 MVS P105
1270 M_OUT(11)=1 DLY 2 'Spuelen fertig
1271 OVRD G3
1274 MOV P29
1277 HCLOSE 1
1278 MOV P350
1280 RETURN
1290 ELSE
1300 MOV P101
```

```
1310 OVRD G1
1320 MVS P102
1323 DLY 0.5
1330 MVS P103
1333 DLY 0.5
1340 HOPEN 1
1350 DLY 0.5
1360 MVS P102
1363 DLY 0.5
1366 MVS P101
1370 M_OUT(11)=1 DLY 2      'Spuelen fertig
1371 OVRD G3
1374 MOV P29
1377 HCLOSE 1
1378 MOV P350
1381 M_OUT(10)=0 'Roboter nicht mehr Busy
1383 RETURN
1385 ENDIF
1400 'Kaffeeglas holen und an Kaffeemaschine abstellen
1410 *KADO
1413 M_OUT(10)=1 'Roboter Busy
1420 IF (M_IN(11)=1)THEN
1423 MOV P29
1430 MOV P105
1440 OVRD G1
1450 HOPEN 1
1453 DLY 0.5
1460 MVS P106
1463 DLY 0.5
1466 MVS P107
1469 DLY 0.5
1472 HCLOSE 1
1480 DLY 0.5
1490 MVS P106
1493 DLY 0.5
1500 MVS P105
1510 OVRD G2
1513 MOV P29
1516 MOV P350
1519 MOV P205
1520 MOV P201
1530 OVRD G1
1540 MVS P202
1543 DLY 0.5
1550 MVS P203
1560 HOPEN 1
1570 DLY 0.5
1582 MVS P202
1585 DLY 0.5
```



```
1587 MVS P201
1589 M_OUT(5)=1 DLY 2      'Kaffeestation erreicht
1592 OVRD G3
1595 HCLOSE 1
1596 MOV P205
1598 MOV P350
1600 M_OUT(8)=1 DLY 2      'Grundstellung erreicht
1603 M_OUT(10)=0 'Roboter nicht mehr Busy
1606 RETURN
1610 ELSE
1613 MOV P29
1620 MOV P101
1630 OVRD G1
1640 HOPEN 1
1643 DLY 0.5
1650 MVS P102
1653 DLY 0.5
1656 MVS P103
1659 DLY 0.5
1660 HCLOSE 1
1670 DLY 0.5
1680 MVS P102
1683 DLY 0.5
1690 MVS P101
1700 OVRD G2
1703 MOV P29
1706 MOV P350
1709 MOV P205
1710 MOV P201
1720 OVRD G1
1730 MVS P202
1733 DLY 0.5
1740 MVS P203
1750 HOPEN 1
1760 DLY 0.5
1770 MVS P202
1773 DLY 0.5
1776 MVS P201
1779 M_OUT(5)=1 DLY 2      'Kaffeestation erreicht
1782 OVRD G3
1784 HCLOSE 1
1785 MOV P205
1787 MOV P350
1790 M_OUT(8)=1 DLY 2      'Grundstellung erreicht
1793 M_OUT(10)=0 'Roboter nicht mehr Busy
1796 RETURN
1800 ENDIF
1810 'Kaffeeglas holen und am Ausgabeband abstellen
1813 *KAGET
```

```
1818 M_OUT(10)=1 'Roboter Busy
1823 MOV P205
1826 MOV P201
1829 OVRD G1
1840 HOPEN 1
1843 DLY 0.5
1850 MVS P202
1853 DLY 0.5
1880 MVS P203
1883 DLY 0.5
1886 HCLOSE 1
1888 DLY 0.5
1890 MVS P202
1893 DLY 0.5
1896 MVS P201
1900 OVRD G2
1910 MOV P205
1930 MOV P301
1933 OVRD G1
1960 MVS P302
1963 DLY 0.5
1966 HOPEN 1
1968 DLY 0.5
1969 MVS P301
1970 M_OUT(4)=1 DLY 2      'Start Ausgabeband
1975 OVRD G3
1980 MVS P350
1985 M_OUT(8)=1 DLY 2      'Grundstellung erreicht
1988 M_OUT(10)=0 'Roboter nicht mehr Busy
1990 RETURN
2000 'Cocktail herstellen
2010 *COCKDO
2013 M_OUT(10)=1 'Roboter Busy
2020 IF (M_IN(11)=1)THEN
2023 MOV P29
2030 MOV P105
2040 OVRD G1
2050 HOPEN 1
2053 DLY 0.5
2060 MVS P106
2063 DLY 0.5
2066 MVS P107
2068 DLY 0.5
2070 HCLOSE 1
2080 DLY 0.5
2090 MVS P106
2093 DLY 0.5
2100 MVS P105
2110 OVRD G2
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```
2113 MOV P29
2120 MOV P151
2130 OVRD G1
2140 MOV P152
2150 M_OUT(6)=1 DLY 2      'Cocktailstation erreicht (Eis)
2160 WAIT M_IN(8)=1      'Warten auf Weiterschaltbedingung
2170 MOV P151
2180 MVS P153
2190 M_OUT(6)=1 DLY 2      'Cocktailstation erreicht (Saft)
2200 WAIT M_IN(8)=1      'Warten auf Weiterschaltbedingung
2210 MVS P151
2220 OVRD G2
2223 MVS P29
2226 MVS P154
2228 MOV P350
2230 MVS P301
2240 OVRD G1
2250 MVS P302
2253 DLY 0.5
2260 HOPEN 1
2270 DLY 0.5
2280 MVS P301
2290 M_OUT(4)=1 DLY 2      'Start Ausgabeband
2300 OVRD G3
2310 MVS P350
2320 M_OUT(8)=1 DLY 2      'Grundstellung erreicht
2323 M_OUT(10)=0 'Roboter nicht mehr Busy
2330 RETURN
2340 ELSE
2343 MOV P29
2350 MOV P101
2360 OVRD G1
2370 HOPEN 1
2373 DLY 0.5
2380 MVS P102
2383 DLY 0.5
2386 MVS P103
2390 DLY 0.5
2400 HCLOSE 1
2403 DLY 0.5
2410 MVS P102
2413 DLY 0.5
2420 MVS P101
2430 OVRD G2
2433 MOV P29
2440 MOV P151
2450 OVRD G1
2460 MOV P152
2470 M_OUT(6)=1 DLY 2      'Cocktailstation erreicht (Eis)
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```
2480 WAIT M_IN(8)=1           'Warten auf Weiterschaltbedingung
2490 MOV P151
2500 MVS P153
2510 M_OUT(6)=1 DLY 2         'Cocktailstation erreicht (Saft)
2520 WAIT M_IN(8)=1           'Warten auf Weiterschaltbedingung
2530 MVS P151
2540 OVRD G2
2543 MVS P29
2546 MVS P154
2548 MOV P350
2550 MVS P301
2560 OVRD G1
2570 MVS P302
2573 DLY 0.5
2580 HOPEN 1
2590 DLY 0.5
2600 MVS P301
2610 M_OUT(4)=1 DLY 2         'Start Ausgabeband
2620 OVRD G3
2630 MVS P350
2640 M_OUT(8)=1 DLY 2         'Grundstellung erreicht
2643 M_OUT(10)=0 'Roboter nicht mehr Busy
2650 RETURN
2660 ENDIF
2700 'Bier Zapfen
2703 *BIER
2705 M_OUT(10)=1 'Roboter Busy
2707 MOV P29
2709 MOV P109
2712 OVRD G1
2715 HOPEN 1
2718 DLY 0.5
2720 MVS P110
2723 DLY 0.5
2724 MVS P111
2725 DLY 0.5
2726 HCLOSE 1
2728 DLY 0.5
2730 MVS P110
2733 DLY 0.5
2734 MVS P109
2736 OVRD G2
2739 MOV P29
2740 MOV P350
2742 MOV P4
2745 OVRD G1
2747 MVS P5
2749 DLY 0.5
2751 HOPEN 1
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2753 DLY 0.5  
2755 MVS P4  
2758 OVRD G2  
2760 MVS P6  
2763 DLY 0.5  
2766 HCLOSE 1  
2769 DLY 0.5  
2770 MVS P14  
2771 MVS P7  
2772 M\_OUT(9)=1 'Vakuumsauger an  
2773 OVRD G1  
2774 MVS P8  
2775 DLY 0.5  
2777 MVS P7  
2778 OVRD G2  
2780 MOV P53  
2786 MVS P54  
2789 DLY 3  
2792 MVS P53  
2797 MVS P55  
2799 MOV P12  
2801 MOV P13  
2804 MVS P7  
2807 OVRD G1  
2810 MVS P8  
2813 DLY 0.5  
2814 M\_OUT(9)=0 'Vakuumsauger aus  
2816 DLY 0.5  
2819 MVS P7  
2820 OVRD G2  
2821 MVS P14  
2822 MVS P6  
2825 HOPEN 1  
2828 DLY 0.5  
2830 OVRD G1  
2832 MVS P4  
2835 MVS P5  
2837 DLY 0.5  
2839 HCLOSE 1  
2841 DLY 0.5  
2842 MVS P4  
2844 OVRD G2  
2846 MOV P350  
2848 MOV P251  
2850 OVRD G1  
2852 MVS P253  
2854 MVS P252  
2856 M\_OUT(7)=1 DLY 2 'An Bierkühler angekommen  
2858 WAIT M\_IN(10)=1 'Wenn Eingang 10 kommt dann fahre senkrecht

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```
2860 MVS P253                                'Bier wird senkrecht gezapft (Schaum)
2864 WAIT M_IN(9)=1
2867 MVS P251
2870 MOV P301
2874 MVS P303
2876 DLY 0.5
2879 HOPEN 1
2882 DLY 0.5
2885 MVS P301
2888 M_OUT(4)=1 DLY 2      'Start Ausgabeband
2890 OVRD G3
2894 MVS P350
2896 M_OUT(8)=1 DLY 2      'Grundstellung erreicht
2898 M_OUT(10)=0 'Roboter nicht mehr Busy
2900 RETURN
```

## POSITIONEN

### 1

DEF POS P1=(-391.20,-331.25,425.28,89.26,41.95,64.43)(6,15728640) \*// Greifposition  
großes Glas Rückgabeband  
DEF POS P3=(-391.20,-331.25,554.08,89.26,41.95,64.43)(6,15728640) \*//  
Entnahmeposition großes Glas Rückgabeband  
DEF POS P4=(474.66,55.86,444.50,-88.81,-45.21,-91.75)(6,0) \*// Parkposition Drestation mit  
Glas  
DEF POS P5=(474.66,55.85,387.83,-91.66,-45.39,-89.72)(6,0) \*// Abgabeposition großes  
Glas Drehstation  
DEF POS P6=(388.58,55.84,444.53,-91.44,-46.16,-89.88)(6,0) \*// Parkposition Drehstation  
ohne großes Glas  
DEF POS P7=(516.42,11.36,737.12,88.09,-47.30,83.46)(6,15728640) \*// Parkposition  
Sauggreifer  
DEF POS P8=(513.70,10.39,699.29,88.04,-47.19,83.47)(6,15728640) \*// Ansaugposition  
großes Glas  
DEF POS P9=(502.97,-32.07,435.68,-117.80,9.35,-111.05)(7,15728640) \*// Reste  
Ausschüttoposition  
DEF POS P12=(506.50,-124.83,695.14,-91.31,-22.87,-100.10)(7,15728640) \*// Drehpunkt  
anti Tropfposition vor Spüle  
DEF POS P13=(469.01,-118.63,739.44,89.62,-48.35,74.50)(6,15728640) \*// Hilfspunkt 1  
Drehpunkt  
DEF POS P14=(365.54,9.61,737.12,92.97,-50.56,79.65)(6,15728640) \*// Hilfspunkt 2  
Drehpunkt großes Glas  
DEF POS P21=(-449.27,-304.85,346.09,89.26,41.96,64.43)(6,15728640) \*// Parkposition  
Rückgabeband kleines Glas  
DEF POS P22=(-398.37,-329.98,346.02,89.73,42.13,64.74)(6,15728640) \*// Greifposition  
kleines Glas Rückgabeband  
DEF POS P23=(-454.75,-288.12,568.96,108.66,42.49,72.02)(6,15728640) \*// Parkposition  
Rückgabeband  
DEF POS P24=(-449.27,-304.85,440.01,89.26,41.96,64.43)(6,15728640) \*// Sichere  
Parkposition Rückgabeband  
DEF POS P25=(474.66,55.86,375.36,-91.44,-46.16,-89.88)(6,0) \*// Abgabeposition kleines  
Glas Drehstation  
DEF POS P26=(388.58,55.84,375.37,-91.44,-46.16,-89.88)(6,0) \*// Parkposition Drehstation  
ohne kleines Glas  
DEF POS P28=(510.50,14.24,602.55,86.66,-45.86,84.50)(6,15728640) \*// Ansaugposition  
kleines Glas  
DEF POS P51=(-44.49,-673.73,628.64,89.23,-46.22,3.04)(6,0) \*// Parkposition Bürste  
großes Glas  
DEF POS P52=(-50.13,-672.76,417.25,88.47,-46.89,3.66)(6,15728640) \*// Schruppposition  
kleines Glas  
DEF POS P53=(134.49,-686.86,636.94,89.15,-46.04,3.15)(6,15728640) \*// Parkposition  
Sprühdüse

DEF POS P54=(124.31,-683.96,410.86,88.28,-49.07,3.80)(6,15728640) \*//  
Sprühdüsenposition großes Glas  
DEF POS P55=(-99.70,-673.89,546.73,-87.42,-19.63,177.47)(6,0) \*// Spüle anti Tropfposition  
DEF POS P56=(-44.49,-673.72,497.29,89.24,-46.21,3.04)(6,15728640) \*// Schruppposition  
großes Glas  
DEF POS P57=(-50.13,-672.76,538.67,88.47,-46.86,3.65)(6,15728640) \*// Parkposition  
Bürste kleines Glas  
DEF POS P58=(134.47,-686.86,407.96,89.17,-46.03,3.14)(6,15728640) \*//  
Sprühdüsenposition kleines Glas  
DEF POS P101=(-456.89,-228.65,351.17,-92.69,-45.31,168.09)(6,0) \*// Parkposition oben  
Magazin Etage A  
DEF POS P102=(-456.16,-337.27,353.73,-92.73,-45.33,168.12)(6,0) \*// Über  
Ablageposition Magazin Etage A  
DEF POS P103=(-456.16,-337.27,341.84,-92.74,-45.32,168.12)(6,0) \*// Ablageposition  
Magazin Etage A  
DEF POS P105=(-457.50,-200.16,515.30,-92.84,-44.99,173.48)(6,0) \*// Parkposition oben  
Magazin Etage B  
DEF POS P106=(-457.46,-337.40,515.30,-92.84,-44.99,168.13)(6,0) \*// Über  
Ablageposition Magazin Etage B  
DEF POS P107=(-457.46,-338.37,503.23,-91.72,-44.92,167.18)(6,0) \*// Ablageposition  
Magazin Etage B  
DEF POS P109=(-459.28,-200.13,754.50,-92.84,-44.98,168.13)(6,0) \*// Parkposition oben  
Magazin Etage C  
DEF POS P110=(-452.69,-339.38,754.52,-91.68,-44.10,167.51)(6,0) \*// Über  
Ablageposition Magazin Etage C  
DEF POS P111=(-452.74,-339.36,680.05,-91.68,-44.10,167.48)(6,0) \*// Ablageposition  
Magazin Etage C  
DEF POS P151=(-451.23,-222.97,523.38,90.50,44.63,-71.26)(6,15728640) \*// Parkposition  
Cocktailstation  
DEF POS P152=(-459.18,-150.39,549.21,88.16,35.77,-103.29)(6,15728640) \*// Parkposition  
Cocktailstation Eis Auswurf  
DEF POS P153=(-589.00,-299.65,523.36,90.49,44.63,-71.27)(6,15728640) \*// Parkposition  
Cocktailstation Cocktailmix  
DEF POS P154=(-4.13,-347.06,588.60,90.52,44.46,0.29)(6,15728640) \*// Hilfspunkt Cocktail  
DEF POS P201=(-308.11,442.47,597.34,88.28,44.62,-162.14)(6,15728640) \*// Parkposition  
oben außen Kaffeemaschine  
DEF POS P202=(-345.62,566.77,596.37,88.26,44.64,-162.17)(6,15728640) \*// Parkposition  
oben innen Kaffeemaschine  
DEF POS P203=(-345.66,566.76,591.86,88.28,44.65,-162.14)(6,15728640) \*// Parkposition  
unten außen Kaffeemaschine  
DEF POS P205=(32.02,478.89,723.21,90.48,44.64,176.54)(6,15728640) \*// Hilfspunkt Kaffee  
DEF POS P251=(242.94,439.23,563.42,88.31,44.52,150.61)(6,15728640) \*// Parkposition  
Bierkuehler  
DEF POS P252=(260.06,529.96,610.85,12.24,71.17,82.15)(6,15728640) \*// Zapfposition  
Schreg  
DEF POS P253=(253.82,525.95,611.50,87.65,45.48,152.26)(6,15728640) \*// Zapfposition  
Senkrecht  
DEF POS P301=(496.91,312.76,516.98,89.82,44.64,122.43)(6,15728640) \*// Parkposition  
Ausgabeband oben



DEF POS P302=(496.92,312.74,335.75,89.21,45.10,122.00)(6,15728640) \*// Ablageposition  
Ausgabeband kleines Glas  
DEF POS P303=(496.90,312.78,416.48,88.08,45.40,121.20)(6,15728640) \*// Ablageposition  
Ausgabeband großes Glas  
DEF POS P350=(479.14,-28.09,723.21,90.48,44.64,87.01)(6,15728640) \*// Grundstellung  
DEF POS P29=(-279.15,-143.17,688.75,97.00,44.15,31.51)(6,15728640) \*// Anti  
Kollisionspunkt am Magazin

## E/A-KONFIGURATION

### E/A-Karte 0

Digitaler Eingang 0 : STOP  
Digitaler Eingang 1 : SRVOFF  
Digitaler Eingang 2 : ERRRESET  
Digitaler Eingang 3 : START  
Digitaler Eingang 4 : SRVON  
Digitaler Eingang 5 : IOENA  
Digitaler Eingang 6 : KaffGlasHo  
Digitaler Eingang 7 : KaffAbhol  
Digitaler Eingang 8 : Cocktail  
Digitaler Eingang 9 : BierZapfen  
Digitaler Eingang 10 : BierSenk  
Digitaler Eingang 11 : Etage\_B  
Digitaler Eingang 13 : SpueGG  
Digitaler Eingang 14 : Etage\_A  
Digitaler Eingang 15 : SpuekB

Digitaler Ausgang 0 : START  
Digitaler Ausgang 1 : SRVON  
Digitaler Ausgang 2 : ERRRESET  
Digitaler Ausgang 3 : IOENA  
Digitaler Ausgang 4 : StartAus  
Digitaler Ausgang 5 : Kaffeesta  
Digitaler Ausgang 6 : CocktailSt  
Digitaler Ausgang 7 : Bierzapf  
Digitaler Ausgang 8 : Grundste  
Digitaler Ausgang 9 : Vakuum  
Digitaler Ausgang 10 : Busy

Digitaler Ausgang 11 : SpueFert