

Annexe- Le code du Festo

E

Program 0 - Initialisation

```
STEP INIT
IF
THEN SET      NOP
          P1
          SET  P2
          SET  P3
          SET  P4
          SET  P5
          LOAD V$C1
          TO   FWPince
          LOAD V$C2
          TO   FWPoigne
          LOAD V$C3
          TO   FWCoude
          LOAD V$C4
          TO   FWEpaule
          LOAD V$C5
          TO   FWSocle
          RESET T31

STEP ecoute
IF
THEN CMP 0      NOP
      WITH     V2000
      WITH     V20
      LOAD     FU32
      TO       OK
      LOAD     FU33
      TO       index
IF
      =        ok
      THEN     V0
              NOP
STEP lance23
IF
THEN SET      NOP
          P23
```

Program 1 – Gestion Moteur Pince

```
STEP INIT
IF
THEN RESET    NOP
          T1

STEP E1
IF
      <>
THEN LOAD     IMPince
          FWPince
          V$80
          TO   sortie
          SET  T1
          WITH 0.1s
STEP E11
IF
      N
THEN LOAD     T1
          FWPince
          TO   Sortie
          TO   IMPince
```

```

                SET          P11
                SET          T1
                WITH        0.1s

STEP E2
  IF              N        T1
  THEN           NOP

STEP BOUCLE
  IF              NOP
  THEN  JMP TO E1

```

Program 2 – Gestion Moteur Poignet

```

STEP INIT
  IF              NOP
  THEN  RESET    T2

STEP E1
  IF              IMPoigne
              <>    FWPoigne
  THEN  LOAD      V$80
              TO    sortie
              SET   T2
              WITH  0.1s

STEP E11
  IF              N        T2
  THEN  LOAD      FWPoigne
              TO    Sortie
              TO    IMPoigne
              SET   X21
              SET   T2
              WITH  0.1s

STEP E2
  IF              N        T2
  THEN           NOP

STEP BOUCLE
  IF              NOP
  THEN  JMP TO E1

```

Program 3 – Gestion Moteur Coude

```

STEP INIT
  IF              NOP
  THEN  RESET    T3

STEP E1
  IF              IMCoude
              <>    FWCoude
  THEN
    LOAD      V$80
    TO        sortie
    SET       T3
    WITH      0.1s

```

```

STEP E11
  IF          N      T3
  THEN  LOAD   FWCoude
        TO     Sortie
        TO     IMCoude
        SET    X31
        SET    T3
        WITH   0.1s

STEP E2
  IF          N      T3
  THEN        NOP

STEP BOUCLE
  IF          NOP
  THEN  JMP TO E1

```

Program 4 – Gestion Moteur Epaule

```

STEP INIT
  IF          NOP
  THEN  RESET  T4

STEP E1
  IF          IMEpaule
        <>      FWEpaule
  THEN  LOAD   V$80
        TO     sortie
        SET    T4
        WITH   0.1s

STEP E11
  IF          N      T4
  THEN  LOAD   FWEpaule
        TO     Sortie
        TO     IMEpaule
        SET    X41
        SET    T4
        WITH   0.1s

STEP E2
  IF          N      T4
  THEN        NOP

STEP BOUCLE
  IF          NOP
  THEN  JMP TO E1

```

Program 5 – Gestion Moteur Socle

```

STEP INIT
  IF          NOP
  THEN  RESET  T5

STEP E1
  IF          IMSocle
        <>      FWSocle
  THEN  LOAD   V$80
        TO     sortie

```

```

                SET          T5
                WITH         0.1s
STEP E11
  IF              N          T5
  THEN  LOAD      FWSocle
        TO        Sortie
        TO        IMSocle
        SET       X51
        SET       T5
        WITH      0.1s

STEP E2
  IF              N          T5
  THEN            NOP

STEP BOUCLE
  IF              NOP
  THEN  JMP TO E1

```

Program 11 – Fonctionnement du Moteur Pince

```

STEP INIT
  IF              NOP
  THEN  RESET     T11

STEP E2
  IF              SPince
  THEN  SET       T11
        WITH      3s

STEP OU
  IF              N          T11
  THEN  JMP TO fin
  IF              N          Spince
  THEN  LOAD      V0
        TO        ButeeP

STEP E3
  IF              Spince
  THEN  LOAD      FWPince
        AND       V$30
        TO        ButeeP

STEP fin
  IF              NOP
  THEN  LOAD      V$C1
        TO        FWPince

```

Program 23 – Communication TCP/IP

```

STEP connect
  IF              NOP
  THEN  CMP 2     'TCP_STAT
        WITH      index
        LOAD      FU32
        TO        ok
        LOAD      FU33
        TO        connect
        LOAD      FU34
        TO        status

```

```

IF                                connect
    =                            V1
THEN                             NOP
STEP connecte
IF                                NOP
THEN SET                         P24
STEP deconnect
IF                                NOP
THEN CMP 2                       'TCP_STAT
    WITH                         index
    LOAD                         FU32
    TO                           ok
    LOAD                         FU33
    TO                           connect
    LOAD                         FU34
    TO                           status
IF                                connect
    <>                           V1
THEN                             NOP
STEP fin
IF                                NOP
THEN RESET                       P24
    JMP TO connect

```

Program 24 – Traitement de la Trame IP

```

STEP init
IF                                NBPaquets
    <>                           ImPaquets
THEN LOAD                       NBPaquets
    TO                           IMPaquets
STEP trait
IF                                NOP
THEN
    LOAD                         recu
    TO                           moteur
STEP Tmoteur
IF                                NOP
THEN LOAD                       moteur
    AND                         V$000F
    TO                           moteur
STEP choix
IF                                moteur
    =                            V1
THEN LOAD                       recu
    TO                           FWPince
IF                                moteur
    =                            V2
THEN LOAD                       recu
    TO                           fwPoigne
IF                                moteur
    =                            V3
THEN LOAD                       recu
    TO                           fwCoude
IF                                moteur
    =                            V4
THEN LOAD                       recu
    TO                           fwEpaule
IF                                moteur

```

| | | |
|----------|--------|---------|
| | = | V5 |
| THEN | LOAD | recu |
| | TO | fwSocle |
| IF | | NOP |
| THEN | | NOP |
| STEP fin | | |
| IF | | NOP |
| THEN | JMP TO | init |