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1  PROGRAM Main
2  VAR
3    (* Inputs *)
4    start : BOOL ; (* For starting the process*)
5    trans : BOOL ; (* Signal from M1 or M2 controller telling that the workpiece is
6                      received *)
7
8    c1_s : BOOL ; (* Sensor of the conveyor *)
9    r_mnb : BOOL ; (* Signal from robot controller telling that robot is ready to
10                   take a workpiece - not busy *)
11    r_ba1 : BOOL ; (* Signal from robot controller telling that the workpiece is
12                   available to be loaded to M1 *)
13    r_ba2 : BOOL ; (* Signal from robot controller telling that the workpiece is
14                   available to be loaded to M2 *)
15    m1_s : BOOL ; (* Signal from M1 controller telling that the workpiece is present
16                   in the M1 *)
17    m2_s : BOOL ; (* Signal from M2 controller telling that the workpiece is present
18                   in the M2 *)
19
20    (* Outputs *)
21    c1_m : BOOL ; (* Motor of the conveyor *)
22    c1_ba : BOOL ; (* Signal telling the robot controller that the workpiece is
23                   available *)
24    r_m1 : BOOL ; (* Signal telling the robot that the workpiece should be unloaded
25                   to the M1 - used when unloading C1 to tell robot where the robot should proceed
26                   with the workpiece *)
27    r_m2 : BOOL ; (* Signal telling the robot that the workpiece should be unloaded
28                   to the M2 - used when unloading C1 to tell robot where the robot should proceed
29                   with the workpiece *)
30    m1_mnb : BOOL ; (* Signal telling the robot that the workpiece can be received by
31                    M1 *)
32    m2_mnb : BOOL ; (* Signal telling the robot that the workpiece can be received by
33                    M2 *)
34
35    (* Transitions *)
36    T1 , T2 , T3 , T4 , T5 , T6 , T7 , T8 , T9 , T10 , T11 , T12 , T13 , T14 : BOOL ;
37
38    (* Functions *)
39    F1 , F2 , F3 , F4 , F5 , F6 , F7 , F8 , F9 , F10 , F11 , F12 , F13 , F14 : BOOL ;
40
41  END_VAR
```











