FUNCTION\_BLOCK Drive2Wiring

VAR\_INPUT

sensorLimitforward: BOOL;

sensorLimitbackward: BOOL;

driveId: INT;

actualId: INT;

safety: BOOL;

modeKey: BOOL;

forward: BOOL;

backward: BOOL;

fastShift: BOOL;

forwardMan: BOOL;

backwardMan: BOOL;

maxHz: REAL := 50.0;

speed: REAL := 10.0;

speedMan: REAL := 10.0;

speedActual: DINT;

END\_VAR

VAR\_OUTPUT

forwardOut: BOOL;

backwardOut: BOOL;

runningForward: BOOL;

runningBackward: BOOL;

logicError: BOOL;

speedOut: DINT;

END\_VAR

VAR

TonSafety: TON;

END\_VAR

TonSafety(IN := safety, PT := T#3S);

IF (forward AND backward) OR (forwardMan AND backwardMan) THEN

logicError := TRUE;

END\_IF

IF TonSafety.Q THEN

IF modeKey THEN // AUTOMATIC

forwardOut := forward;

backwardOut := backward;

ELSE // MANUAL

IF driveId = actualId THEN

forwardOut := forwardMan;

backwardOut := backwardMan;

ELSE

forwardOut := FALSE;

backwardOut := FALSE;

END\_IF;

END\_IF;

ELSE

forwardOut := FALSE;

backwardOut := FALSE;

END\_IF;

IF logicError THEN

forwardOut := FALSE;

backwardOut := FALSE;

END\_IF;

IF sensorLimitforward THEN

forwardOut:=FALSE;

END\_IF;

IF sensorLimitbackward THEN

backwardOut:=FALSE;

END\_IF;

IF modeKey THEN

// speed AUTO

IF fastShift THEN

speedOut := REAL\_TO\_WORD(speed \* 15);

ELSE

speedOut := REAL\_TO\_WORD(speed \* 8);

END\_IF;

ELSE

// speed MAN

speedOut := REAL\_TO\_WORD(speedMan \* 15);

END\_IF;

IF speedActual > 150 THEN

IF forwardOut AND NOT backwardOut THEN

runningForward := TRUE;

runningBackward := FALSE;

ELSIF backwardOut AND NOT forwardOut THEN

runningBackward := TRUE;

runningForward := FALSE;

ELSE

runningBackward := FALSE;

runningForward := FALSE;

END\_IF;

ELSE

runningBackward := FALSE;

runningForward := FALSE;

END\_IF;