

Test status input function V. 1.0

Descriptions

This function, filter and acquires the state of the manual operator input command

Syntax: *TestStatusInput()*

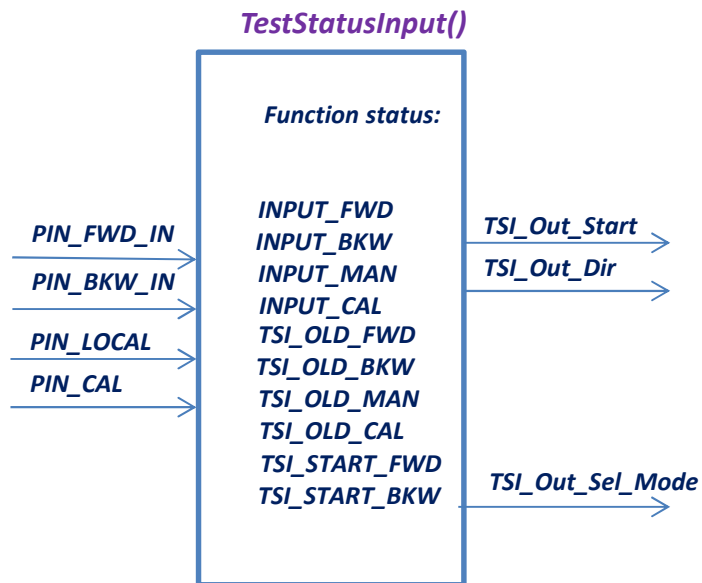
Input parameters: *PIN_FWD_IN, PIN_BKW_IN, PIN_LOCAL, PIN_CAL.*

Output parameters: *TSI_Out_Start, TSI_Out_Dir, TSI_Out_Sel_Mode*

Status: *TSI_ST_FWD, TSI_ST_BKW, TSI_ST_MAN, TSI_ST_CAL, TSI_OLD_FWD, TSI_OLD_BKW, TSI_OLD_MAN, TSI_OLD_CAL, TSI_START_FWD, TSI_START_BKW.*

Calls:

TestStatusInput function



```

void TestStatusInput()
{
    // Reed input signal and old state set status if both are true
    INPUT_FWD = !digitalRead(PIN_FWD_IN);
    TSI_ST_FWD = INPUT_FWD && TSI_OLD_FWD;
    INPUT_BKW = !digitalRead(PIN_BKW_IN);
    TSI_ST_BKW = INPUT_BKW && TSI_OLD_BKW;
    INPUT_MAN = !digitalRead(PIN_LOCAL);
    TSI_ST_MAN = INPUT_MAN && TSI_OLD_MAN;
    INPUT_CAL = !digitalRead(PIN_CAL);
    TSI_ST_CAL = INPUT_CAL && TSI_OLD_CAL;

    //Update old state
    TSI_OLD_FWD = INPUT_FWD;
    TSI_OLD_BKW = INPUT_BKW;
    TSI_OLD_MAN = INPUT_MAN;
    TSI_OLD_CAL = INPUT_CAL;

    //Update output
    if ((TSI_ST_FWD && !TSI_START_BKW) || TSI_START_FWD && !IMC_CMD_Alarm) {TSI_START_FWD = true;}
    if (!INPUT_FWD || TSI_START_BKW) {TSI_START_FWD = false;}
    if ((TSI_ST_BKW && !TSI_START_FWD) || TSI_START_BKW && !IMC_CMD_Alarm) {TSI_START_BKW = true;}
    if (!INPUT_BKW || TSI_START_FWD) {TSI_START_BKW = false;}

    TSI_Out_Start = ( TSI_START_FWD || TSI_START_BKW );
    TSI_Out_Dir = (!TSI_START_FWD && TSI_START_BKW);

    if (TSI_Out_Dir){Target_Position = 0;}
    else {Target_Position = Pos_End_Stroke;}

    if (!TSI_ST_MAN && !TSI_ST_CAL) {TSI_Out_Sel_Mode = 0;} //Manual mode
    if (!TSI_ST_MAN && TSI_ST_CAL) {TSI_Out_Sel_Mode = 1;CS_REQ = HIGH;} //Calibration mode
    if (TSI_ST_MAN && !TSI_ST_CAL) {TSI_Out_Sel_Mode = 2;} //Motion Tasks mode
    if (TSI_ST_MAN && TSI_ST_CAL) {TSI_Out_Sel_Mode = 3;} //Gear mode
    if (TSI_Out_Sel_Mode == 2){TSI_Out_Start = MT_Start; TSI_Out_Dir = MT_Dir; Target_Position = MT_Position;}
    if (CS_REQ) {TSI_Out_Sel_Mode = 1;} //Calibration in progress
}
    
```

