

```
IF EnableTSSS  
  THEN
```

```
    (*Crossing 1 Forward*)
```

```
    IF TrainDataPrim.Position = 1 AND TrainDataPrim.Next_Position = 2 AND TrainData.Track_Number = 2  
      AND TrainDataPrim.Pos_X_Cam1 < 250 AND TrainDataPrim.Pos_X_Cam1 > 50  
      AND TrainDataPrim.Direction AND SwitchSignals.Crossing1 = TRUE  
      THEN  
        SwitchSignals.Crossing1 := false;  
        Alarmtrig3:= true;
```

```
    (*Crossing 1 Reverse*)
```

```
    ELSIF TrainDataPrim.Next_Position = 11 AND NOT TrainDataPrim.Direction AND TrainDataPrim.Track_Number = 1  
      AND SwitchSignals.Crossing1 = TRUE AND TrainDataPrim.Pos_X_Cam1 < 820  
      AND TrainDataPrim.Pos_X_Cam1 > 700  
      THEN  
        SwitchSignals.Crossing1 := false;  
        Alarmtrig1:= true;
```

```
    (*Crossing 2 Forward*)
```

```
    ELSIF TrainDataPrim.Position = 2 AND TrainDataPrim.Direction AND TrainDataPrim.Next_Position = 13  
      AND SwitchSignals.Crossing2 = TRUE AND TrainDataPrim.Track_Number = 1  
      AND TrainDataPrim.Pos_X_Cam2 > 950 AND TrainDataPrim.Pos_X_Cam2 < 1150  
      THEN  
        SwitchSignals.Crossing2 := false;  
        Alarmtrig6:= true;
```

```
    (*Crossing 2 Reverse*)
```

```
    ELSIF TrainDataPrim.Position = 2 AND NOT TrainDataPrim.Direction AND TrainDataPrim.Next_Position = 1  
      AND SwitchSignals.Crossing2 = TRUE AND TrainDataPrim.Track_Number = 2  
      AND TrainDataPrim.Pos_X_Cam2 > 1300  
      THEN  
        SwitchSignals.Crossing2 := false;  
        Alarmtrig5:= true;
```

```
    (*When parked*)
```

```
    ELSIF TrainDataPrim.Position = 31 AND NOT TrainDataPrim.Direction AND TrainDataPrim.Speed > 0
```

```

    AND TrainDataPrim.Next_Position = 1 AND SwitchSignals.Servo_2 = FALSE
    THEN
    SwitchSignals.Servo_2 := true;
    Alarmtrig2:= true;
ELSIF TrainDataPrim.Position = 32 AND TrainDataPrim.Direction AND TrainDataPrim.Speed > 0
    AND TrainDataPrim.Next_Position = 2 AND SwitchSignals.Servo_4 = FALSE
    THEN
    SwitchSignals.Servo_4 := true;
    Alarmtrig4:= true;

```

```

(*When a train driving towards Servo 2 and Servo 4*)

```

```

ELSIF TrainDataPrim.Next_Position = 21 AND NOT TrainDataPrim.Direction AND SwitchSignals.Servo_2 = TRUE
    AND TrainDataPrim.Track_Number = 2 AND TrainDataPrim.Pos_X_Cam1 < 650
    AND TrainDataPrim.Pos_X_Cam1 > 300
    THEN
    SwitchSignals.Servo_2 := false;
    Alarmtrig2:= true;
ELSIF TrainDataPrim.Next_Position = 23 AND TrainDataPrim.Direction AND SwitchSignals.Servo_4 = TRUE
    AND TrainDataPrim.Track_Number = 2 AND TrainDataPrim.Pos_X_Cam2 < 800
    AND TrainDataPrim.Pos_X_Cam2 > 600
    THEN
    SwitchSignals.Servo_4 := false;
    Alarmtrig4:= true;

```

```

    END_IF;

```

```

END_IF;

```

```

IF TOn_ALARM1.Q
    Then
        Alarmtrig1:=false;
END_IF;

```

```

IF TOn_ALARM2.Q
    Then
        Alarmtrig2:=false;
END_IF;

```

```

IF TOn_ALARM3.Q
    Then
        Alarmtrig3:=false;
END_IF;

```

```

IF TOn_ALARM4.Q
    Then
        Alarmtrig4:=false;
END_IF;

```

```
IF TOn_ALARM5.Q
    Then
        Alarmtrig5:=false;
END_IF;

IF TOn_ALARM6.Q
    Then
        Alarmtrig6:=false;
END_IF;
```