```
PROGRAM Robot_Drive_1
VAR
    Robot_Drive_FWD : BOOL ;
    Robot_Drive_REV : BOOL ;
    Robot_Drive_Left : BOOL ;
    Robot_Drive_Right : BOOL ;

    Robot_Drive_Speed : REAL := 0.0 ;
    Robot_Speed_Left_Stopped : REAL := 2.60 ;
    Robot_Speed_Right_Stopped : REAL := 2.60 ;

    Robot_Speed_Left : REAL ;
    Robot_Speed_Right : REAL ;
    Motor_Shutdown : F_TRIG ;
END_VAR
```

```
//Set Speeds
LTC2619.Analog1 := Robot_Speed_Left ;
LTC2619.Analog2 := Robot_Speed_Right ;

//Shutdown commands if Estop shuts off
Motor_Shutdown ( CLK := Estop_Good , Q => ) ;
IF Motor_Shutdown.Q THEN
    Robot_Drive_FWD := FALSE ;
    Robot_Drive_REV := FALSE ;
    Robot_Drive_Left := FALSE ;
    Robot_Drive_Right := FALSE ;
END_IF

//Determine Direction
//FWD
IF Robot_Drive_FWD = TRUE THEN
    Robot_Speed_Left := Robot_Speed_Left_Stopped + Robot_Drive_Speed ;
    Robot_Speed_Right := Robot_Speed_Right_Stopped + Robot_Drive_Speed ;
END_IF

//Rev
IF Robot_Drive_REV = TRUE THEN
    Robot_Speed_Left := Robot_Speed_Left_Stopped - Robot_Drive_Speed ;
    Robot_Speed_Right := Robot_Speed_Right_Stopped - Robot_Drive_Speed ;
END_IF

//Left
IF Robot_Drive_Left = TRUE THEN
    Robot_Speed_Left := Robot_Speed_Left_Stopped + Robot_Drive_Speed ;
    Robot_Speed_Right := Robot_Speed_Right_Stopped - Robot_Drive_Speed ;
END_IF

//Right
IF Robot_Drive_Right = TRUE THEN
```

```
35          Robot_Speed_Left  :=  Robot_Speed_Left_Stopped - Robot_Drive_Speed ;
36          Robot_Speed_Right  :=  Robot_Speed_Right_Stopped + Robot_Drive_Speed ;
37      END_IF
38
39      //Stopping
40      IF  Robot_Drive_FWD  =  FALSE  AND  Robot_Drive_REV  =  FALSE  AND
        Robot_Drive_Right  =  FALSE  AND  Robot_Drive_Left  =  FALSE  THEN
41          Robot_Speed_Left  :=  Robot_Speed_Left_Stopped ;
42          Robot_Speed_Right  :=  Robot_Speed_Right_Stopped ;
43      END_IF
44
45
46
```