

Lab Assignment 2

Test Cases :

1. INPUT : F1 = 1
 Ascending = 1
 B2 = 1
 B0 = 1
 UP2 = 1
 and rest all = 0
OUTPUT :
 Go_up=1

2. INPUT : F1 = 1
 Descending = 1
 B2 = 1
 B0 = 1
 UP2 = 1
 and rest all = 0
OUTPUT :
 Go_down = 1

3. INPUT : F2 = 1
 Descending = 1
 DN1 = 1
 UP2 = 1
 and rest all = 0
OUTPUT :
 Go_down=1

SCHEMATIC :

Explained in lab assignment 1 report.

CONSTRAINT FILE :

In Basys 3 board ;
 Inputs assigned :
V17 = Ascending
V16 = B0
W16 = B1
W17 = B2
W15 = B3
V15 = Descending
W14 = UP0
W13 = UP1
V2 = UP2
T3 = DN1
T2 = DN2
R3 = DN3
W2 = F0

U1 = F1

T1 = F2

R2 = F3

Outputs assigned:

U16 = Go_down

E19 = Go_up

Manoj Kumar 2018CS50411

Nikita Bhamu 2018CS50413