void delay(int k)

{

int i,j;

for (i=0;i<k;i++)

{

for (j=0;j<1000;j++);

}

}

void main()

{ TRISD = 0xFF; //PORTD as input

TRISC = 0x00; //PORTC as output

TRISB = 0x00; //PORTB as output

TRISA = 0x00; //PORTA as output

while (1) //Endless loop

{

if (PORTD.F0==1 && PORTD.F1==1 ) // Internal tracks are operational. Hence incoming Train has to wait.

{ PORTB = 0x01;// Signal 1 is RED

PORTC= 0x04; // Signal 2 is GREEN

PORTA= 0x04; // Signal 3 is GREEN

delay(5);

}

if (PORTD.F0==1 && PORTD.F1==0 ) // Switching starts, outward train has to switch to track 2.

{ PORTB = 0x04; // Signal 1 is GREEN

PORTC= 0x01; // Signal 2 is RED

PORTA= 0x01; // Signal 3 is RED

delay(5);

}

}

}