**How to address an accessory**

**Light signal**

The main address example 131

Address = (mainaddress/4)+1

Register = (mainaddress%4)-1

Byte1 = Address&63;

Byte1 = Byte1+128; // this is the first Byte

Byte2 = 128;

X = 0;

Y = Address & 64;

If (Y == 0) X = X + 64;

Y = Address & 128;

If (Y == 0) X = X + 128;

Y = Address & 256;

If (Y == 0) X = X + 256;

X = X >>2;

Byte2 = Byte2 + X;

Byte2 = Byte2 + (Register << 1);

**Turn the light to RED**

Byte 2 = Byte 2 + 8;

Send Byte 1 + Byte 2 // output 0 on

Wait 200 mS

Byte 2 = Byte 2 - 8;

Send Byte 1 + Byte 2 // output 0 off

**Turn the light to Green**

Byte 2 = Byte 2 + 9;

Send Byte 1 + Byte 2 // output 1 on

Wait 200 mS

Byte 2 = Byte 2 - 8;

Send Byte 1 + Byte 2 // output 1 off

More examples

Ex acc 5

A: Acc/4 = 1

B: Acc % 4 = 1

Addressing A+1 = address 2

B-1 = register 0

Ex acc 131

A: Acc/4 = 32

B: Acc % 4 = 3

Addressing A+1 = address 33

B-1 = register 2

How to assemble the bitcombination

Byte 1

10xxxxxx for Basic Accessory Decoder

Xx100001 for adresse 33

Byte 2

10000000 1xxxxxxx

11111100 1AAABCCD AAA inv MSB adressebit 000

B 1=on 0=off

CC = register 0-3

D output 0-1

**For lightsignals send :**

**Turn to RED:**

Address reg output 0 on

Address reg output 0 off

**Turn to GREEN:**

Address reg output 1 on

Address reg output 1 off

**For track switch send:**

**For straight:**

Address reg output 1 on

Address reg output 1 off

wait 200 mS

**For turn:**

Address reg output 0 on

Address reg output 0 off

Evt pause 200 mS

**Cross switch:**

**Straight**

Address reg Output 1 on

Address reg Output 1 off

**Cross:**

Address reg Output 0 on

Address reg Output 0 off

**Tripple switch**

**Straight**

Address reg Output 1 on

Address reg Output 1 off

Address reg+1 Output 1 on

Address reg+1 Output 1 off

**Right**

Address reg Output 0 on

Address reg Output 0 off

Address reg+1 Output 1 on

Address reg+1 Output 1 off

**Left**

Address reg Output 1 on

Address reg Output 1 off

Address reg+1 Output 0 on

Address reg+1 Output 0 off

Address 223 = 56:2 224 = 56:3

Address 231 = 58:2 232 = 58:3

Address 233 = 59:0 234 = 59:1