# **Puzzle #1**

**while** [**led1**, **led2**, **led3**, **led4**] is NOT [BLUE, YELLOW, GREEN, PURPLE]**:**

**while BCenter** is not pressed**:**

**if** S1 is up:

**led8**.red = ON

**else**:

**led8**.red = OFF

**if** S2 is up:

**led8**.green = ON

**else**:

**led8**.green = OFF

**if** S3 is up:

**led8**.blue = ON

**else**:

**led8**.blue = OFF

**led4** = **led2**

**led2** = **led3**

**led3** = **led1**

**led0 = led8**

**while BCenter** is pressed**:**

do nothing

Play beep sound

Print “You win” on **LCD screen**

# **Puzzle #2**

A = 0;

B = 0;

Print A, “+”, B, “=”, A+B on **LCD screen**

**while** A + B != 10 or A < 2 or B < 2:

**if BUp is pressed and BRight is pressed:**

**A = A + 1**

clear **LCD screen**

**led1 = BLUE;**

**delay(1.0);**

**led1 = OFF;**

Print A, “+”, B, “=”, A+B on **LCD screen**

**if BCenter is pressed and BDown is pressed:**

**B = B + 1**

clear **LCD screen**

**led8 = GREEN;**

**delay(1.0);**

**led8 = OFF;**

Print A, “+”, B, “=”, A+B on **LCD screen**

delay(1.0);

Play beep sound

Print “You win” on **LCD screen**

# **Puzzle #3**

loop {

led1 = YELLOW

wait 5.0 seconds

led1 = OFF

if S4 is UP:

led1 = RED;

loop {

if S4 is DOWN:

exit loop

}

else:

wait 0.5 seconds

if S4 is UP:

exit loop

}

Play beep sound

Print “You win” on **LCD screen**

# **#4 – Learning Loops 1**

**while BDown** is not pressed**:**

led1 = RED

wait 3.0 seconds

led1 = OFF

wait 1.0 seconds

led1 = BLUE

wait 3.0 seconds

led1 = OFF

wait 1.0 seconds

led1 = GREEN

wait 3.0 seconds

led1 = OFF

wait 1.0 seconds

Play beep sound

Print “You win” on **LCD screen**

# **#5 – Learning Ifs 1**

**loop forever:**

**if** **BLeft** is pressed:

led5 = RED

led6 = ORANGE

led7 = YELLOW

**else**

led5 = BLUE

led6 = AQUA

led7 = GREEN

**if** **Bright** is pressed:

**exit loop**

Play beep sound

Print “You win” on **LCD screen**