**Description**

LED Basket is a simple game built on the Microbit platform. The objective of the game is to catch falling LED using a virtual basket controlled by the player. The game is designed to be played on a Microbit device with buttons for control.

**Features**

- Catch falling LED by moving the basket left and right.

- Increase your score by catching more LED's.

- Game speed should increase every 30 seconds up to 5x difficulty

- Player has 3 lives and the game ends when you miss catching an LED 3 times.

**How to Play**

1. Game Autoload on start of MicroBit.

2. Use the A button to move the basket left and the B button to move it right.

3. Try to catch as many LED's as possible to score points.

4. The game ends when you miss catching 3 LED's.

5. The game can be reset at any time by pressing A and B together.

**Code block**

def Bomb():

    basic.show\_leds("""

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        . . . . .

        """)

    basic.pause(100)

    basic.show\_leds("""

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        . . . . .

        """)

    basic.pause(100)

    basic.show\_leds("""

        # # # # #

        # # # # #

        # # # # #

        # # # # #

        # # # # #

        """)

    basic.pause(100)

    basic.clear\_screen()

def on\_button\_pressed\_a():

    Bucket.move(-1)

input.on\_button\_pressed(Button.A, on\_button\_pressed\_a)

def on\_button\_pressed\_ab():

    control.reset()

input.on\_button\_pressed(Button.AB, on\_button\_pressed\_ab)

def on\_button\_pressed\_b():

    Bucket.move(1)

input.on\_button\_pressed(Button.B, on\_button\_pressed\_b)

LEDdot: game.LedSprite = None

Bucket: game.LedSprite = None

basic.show\_string("Hi!")

Counter = 3

while Counter > 0:

    basic.show\_number(Counter)

    Counter -= 1

    basic.pause(100)

music.\_play\_default\_background(music.built\_in\_playable\_melody(Melodies.POWER\_UP),

    music.PlaybackMode.IN\_BACKGROUND)

Bomb()

game.set\_score(0)

life = 3

Diff = 500

Bucket = game.create\_sprite(2, 4)

def on\_forever():

    global LEDdot, life, Diff

    LEDdot = game.create\_sprite(randint(0, 4), 0)

    LEDdot.turn(Direction.RIGHT, 90)

    basic.pause(Diff)

    for index in range(4):

        LEDdot.move(1)

        basic.pause(Diff)

        if LEDdot.is\_touching(Bucket):

            game.add\_score(1)

            LEDdot.delete()

            Bucket.set(LedSpriteProperty.BRIGHTNESS, 0)

            music.\_play\_default\_background(music.built\_in\_playable\_melody(Melodies.JUMP\_UP),

                music.PlaybackMode.IN\_BACKGROUND)

            basic.pause(Diff)

            Bucket.set(LedSpriteProperty.BRIGHTNESS, 1000)

    if LEDdot.is\_touching\_edge():

        LEDdot.delete()

        life -= 1

        Bucket.set(LedSpriteProperty.BRIGHTNESS, 0)

        Bomb()

        music.\_play\_default\_background(music.built\_in\_playable\_melody(Melodies.JUMP\_DOWN),

            music.PlaybackMode.IN\_BACKGROUND)

        basic.show\_icon(IconNames.HEART)

        basic.pause(100)

        basic.show\_number(life)

        basic.pause(500)

        Bucket.set(LedSpriteProperty.BRIGHTNESS, 1000)

        Diff = 500

    if life == 0:

        game.game\_over()

        basic.show\_number(game.score())

        basic.pause(100)

        basic.show\_number(game.score())

basic.forever(on\_forever)

def on\_in\_background():

    global Diff

    while Diff > 100:

        control.wait\_micros(30000000)

        Diff -= 100

control.in\_background(on\_in\_background)