# The LED

## Overview

The USB Rubber Ducky includes an LED which may be helpful when deploying certain payloads where feedback is important.

Keep in mind that without modification, the LED is not visible when the USB Rubber Ducky is enclosed in its Flash Drive case.

The default behavior of the LED, which may be overridden, is as follows:

## Default Behaviors

The `LED` command allows you to control the red and green LEDs on the USB Rubber Ducky. Using the `LED` command will override the default behavior.

## LED_OFF

The LED_OFF command will disable all LED modes.

### Example

```
ATTACKMODE HID STORAGE
LED_OFF
```

**Result**

The LED will turn off.

## LED_R

The `LED_R` command will enable the red LED.

### Example

```
ATTACKMODE HID STORAGE
WHILE TRUE
  IF ($_CAPSLOCK_ON == TRUE) THEN
    LED_R
  ELSE IF ($_CAPSLOCK_ON == FALSE) THEN
    LED_OFF
  END_IF
END_WHILE
```

**Result**

The LED will turn solid red while caps lock is on.

# LED_G

The `LED_G` command will enable the green LED.

**Example**

```
ATTACKMODE HID STORAGE

BUTTON_DEF
  LED_OFF
  STOP_PAYLOAD
END_BUTTON

WHILE TRUE
  LED_G
  DELAY 1000
  LED_R
  DELAY 1000
END_WHILE
```

- The LED will alternate between solid red and solid green at one second intervals.

- Pressing the button will turn the LED off and stop the payload.

**#Example**

```
ATTACKMODE HID STORAGE

WHILE TRUE
  LED_R
  WAIT_FOR_BUTTON_PRESS
  LED_G
  WAIT_FOR_BUTTON_PRESS
END_WHILE
```

**Result**

The LED will alternate between red and green after each button press.

## Internal Variables

The following internal variables relate to the LED and may be used in your payload for advanced functions.

## $_SYSTEM_LEDS_ENABLED

Default set `TRUE` . May be retrieved or set.

LED behaviors for boot, `ATTACKMODE` change, and idle (payload complete).

## $_STORAGE_LEDS_ENABLED

Default set `TRUE` . May be retrieved or set.

When `TRUE` blinks the LED red/green on storage read/write in `ATTACKMODE STORAGE` .

## $_LED_CONTINUOUS_SHOW_STORAGE_ACTIVITY

Default set `FALSE` . May be retrieved or set.

When set `TRUE` and in `ATTACKMODE` that includes `STORAGE` the LED will light solid green when the storage has been inactive for longer than $ `_STORAGE_ACTIVITY_TIMEOUT` (default 1000 ms). Otherwise, the LED will light red when active.

# $_INJECTING_LEDS_ENABLED

Default set `TRUE` . May be retrieved or set.

When `TRUE` the LED will blink green on payload execution.

# $_EXFIL_LEDS_ENABLED

Default set `TRUE` . May be retrieved or set.

When `TRUE` the LED will blink green during <u>Keystroke Reflection</u>.

# $_LED_SHOW_CAPS

Default set `FALSE` . May be retrieved or set.

When set `TRUE` will bind the GREEN LED state to the `CAPSLOCK` state.

# $_LED_SHOW_NUM

Default set `FALSE` . May be retrieved or set.

When set `TRUE` will bind the RED LED state to the `NUMLOCK` state.

# $_LED_SHOW_SCROLL

Default set `FALSE` . May be retrieved or set.

When set `TRUE` will bind the GREEN LED state to the `SCROLLLOCK` state.