

**GTA-Group**

**WaterMe**  
**Use-Case Specification: Enable LED**

**Version 1.3**

## Revision History

| Date         | Version | Description  | Author                                    |
|--------------|---------|--|---|
| 01/Nov/2016  | 1.0     |  | Chris Todt<br>Olga Akymenko<br>Paul Giesa |
| 28/Nov/2016  | 1.1     | Added postcondition and .feature file<br>minor changes | Chris Todt                                |
| 01/Mai/2017  | 1.2     | Added FP-Calculation                                   | Olga Akymenko                             |
| 14/Juni/2017 | 1.3     | UC changed/Mockup added                                | Olga Akymenko                             |

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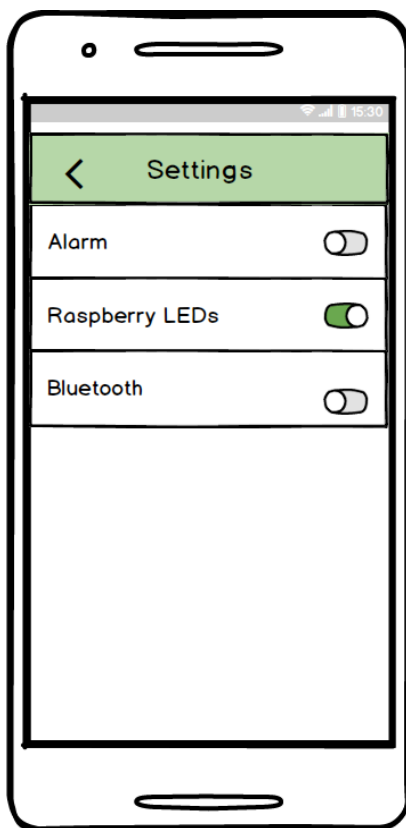
## Use-Case Specification: Enable LED

### 1. Enable LED

#### 1.1 Brief Description

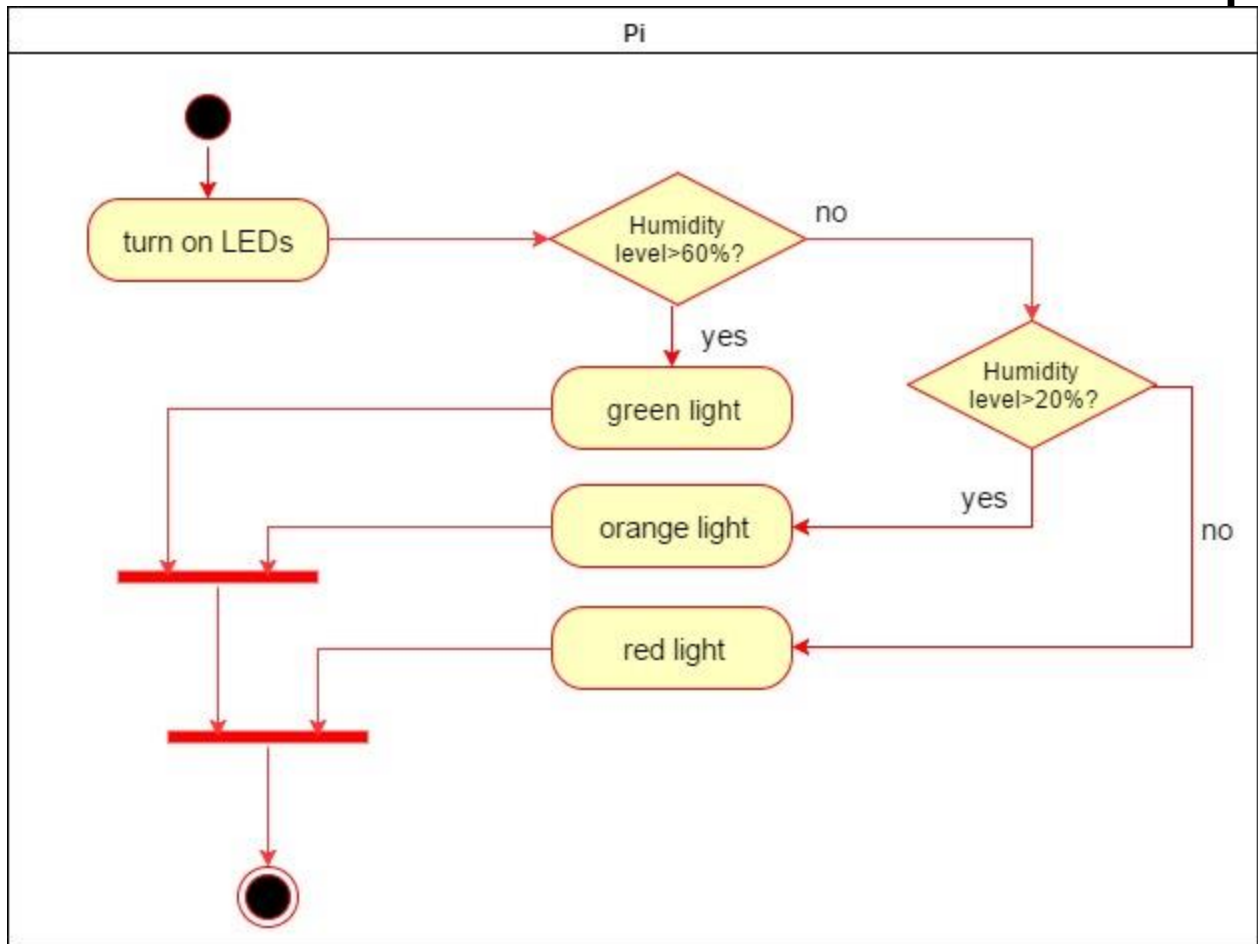
The LEDs controlled by the Raspberry Pi indicate the humidity level of the plant. That's why the user can gain information about the humidity level very quickly.

#### 1.2 Mockup



### 2. Flow of Events

#### 2.1 Basic Flow



## 2.2 Alternative Flows

(n/a)

## 3. Espresso Test

```
package com.project.gta.demo;

import android.support.test.espresso.ViewInteraction;
import android.support.test.rule.ActivityTestRule;
import android.support.test.runner.AndroidJUnit4;
import android.test.suitebuilder.annotation.LargeTest;

import org.junit.Rule;
import org.junit.Test;
import org.junit.runner.RunWith;

import static android.support.test.espresso.Espresso.onView;
import static android.support.test.espresso.action.ViewActions.click;
import static android.support.test.espresso.matcher.ViewMatchers.isDisplayed;
import static android.support.test.espresso.matcher.ViewMatchers.withId;
import static android.support.test.espresso.matcher.ViewMatchers.withParent;
import static android.support.test.espresso.matcher.ViewMatchers.withText;
import static org.hamcrest.Matchers.allOf;

@LargeTest
@RunWith(AndroidJUnit4.class)
public class UCEnableLED {

    @Rule
    public ActivityTestRule<MainMenu> mActivityTestRule = new
ActivityTestRule<>(MainMenu.class);

    @Test
    public void uCEnableLED() {
        ViewInteraction appCompatButton = onView(
            allOf(withId(R.id.BTNsettings), withText("Settings"),
                withParent(allOf(withId(R.id.mainmenu),
                    withParent(withId(R.id.activity_main_menu)))),
                isDisplayed()));
        appCompatButton.perform(click());

        ViewInteraction switch_ = onView(
            allOf(withId(R.id.SWled), isDisplayed()));
        switch_.perform(click());
    }
}
```

## 4. Preconditions

### 4.1 Enable LEDs in App

The user has to enable the LEDs in the settings menu of the app (see UC Change Settings). Otherwise the LEDs are not activated.

## 5. Postconditions

### 5.1 See humidity level

The user can see the humidity level of the plant by looking at the LEDs.

## 6. FP-Calculation

Calculation of DET/RET/FTR: [DET/RET/FTR Table](#)

**Domain Characteristic Table**

| MEASUREMENT PARAMETER         | COUNT<br>(value >= 0) | WEIGHTING FACTOR                 |                                  |                       |
|-------------------------------|-----------------------|----------------------------------|----------------------------------|-----------------------|
|                               |                       | Simple                           | Average                          | Complex               |
| Number of User Input          | 0                     | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| Number of User Outputs        | 0                     | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| Number of User Inquiries      | 2                     | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| Number of Files               | 0                     | <input checked="" type="radio"/> | <input type="radio"/>            | <input type="radio"/> |
| Number of External Interfaces | 1                     | <input type="radio"/>            | <input checked="" type="radio"/> | <input type="radio"/> |

[Complexity Adjustment Table](#) | [FP Calculation](#)

## 7. Extension Points

(n/a)