

**To:** F. Ruholl

**From:** E. Diekmann

**Cc:** D. Westendorf

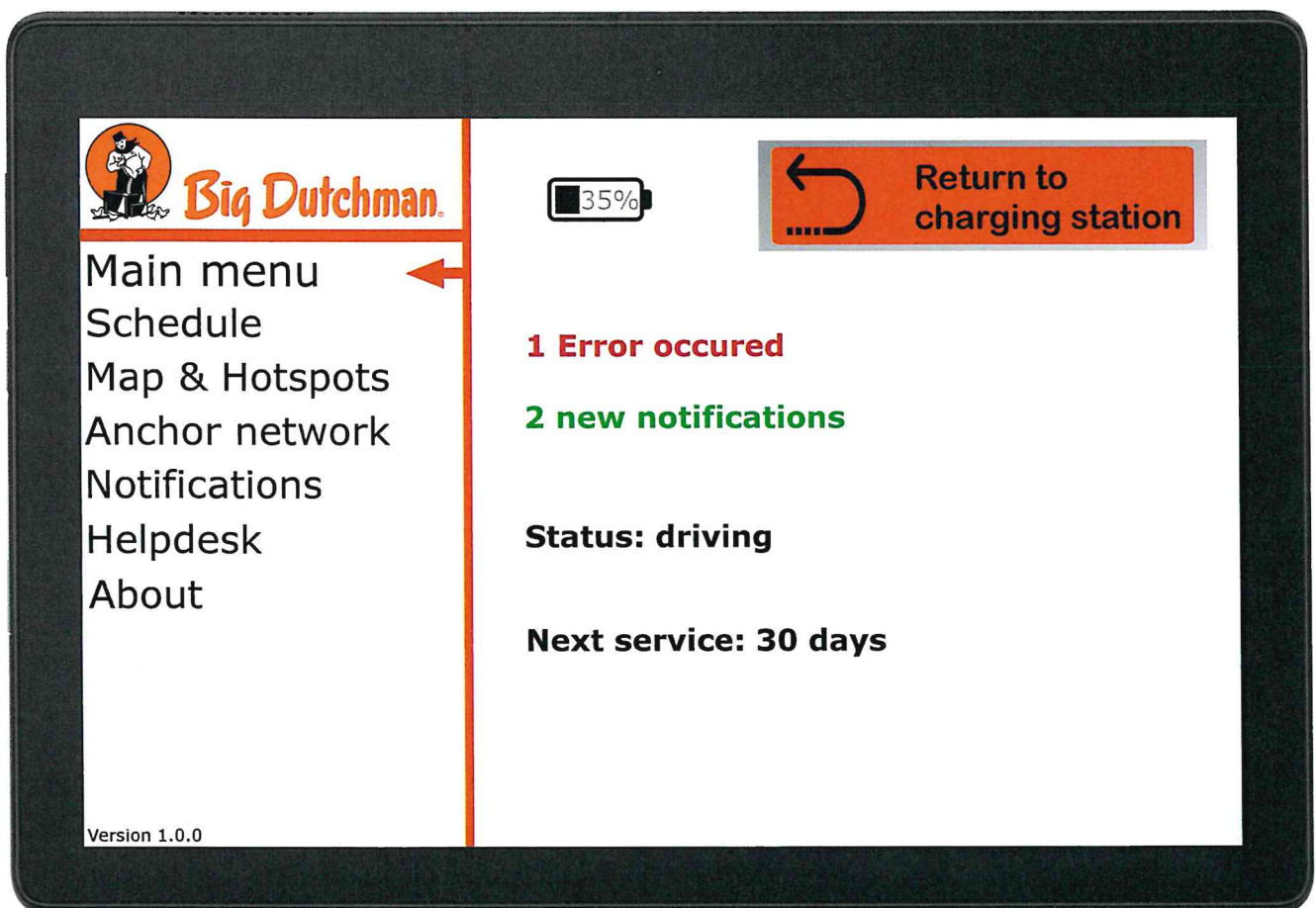
**Date:** 18.10.2019

**Subject:** Design of robot GUI

This document gives a rough overview of options, buttons and looks of the GUI for the app to install and set up the robot.

## 1. Main menu

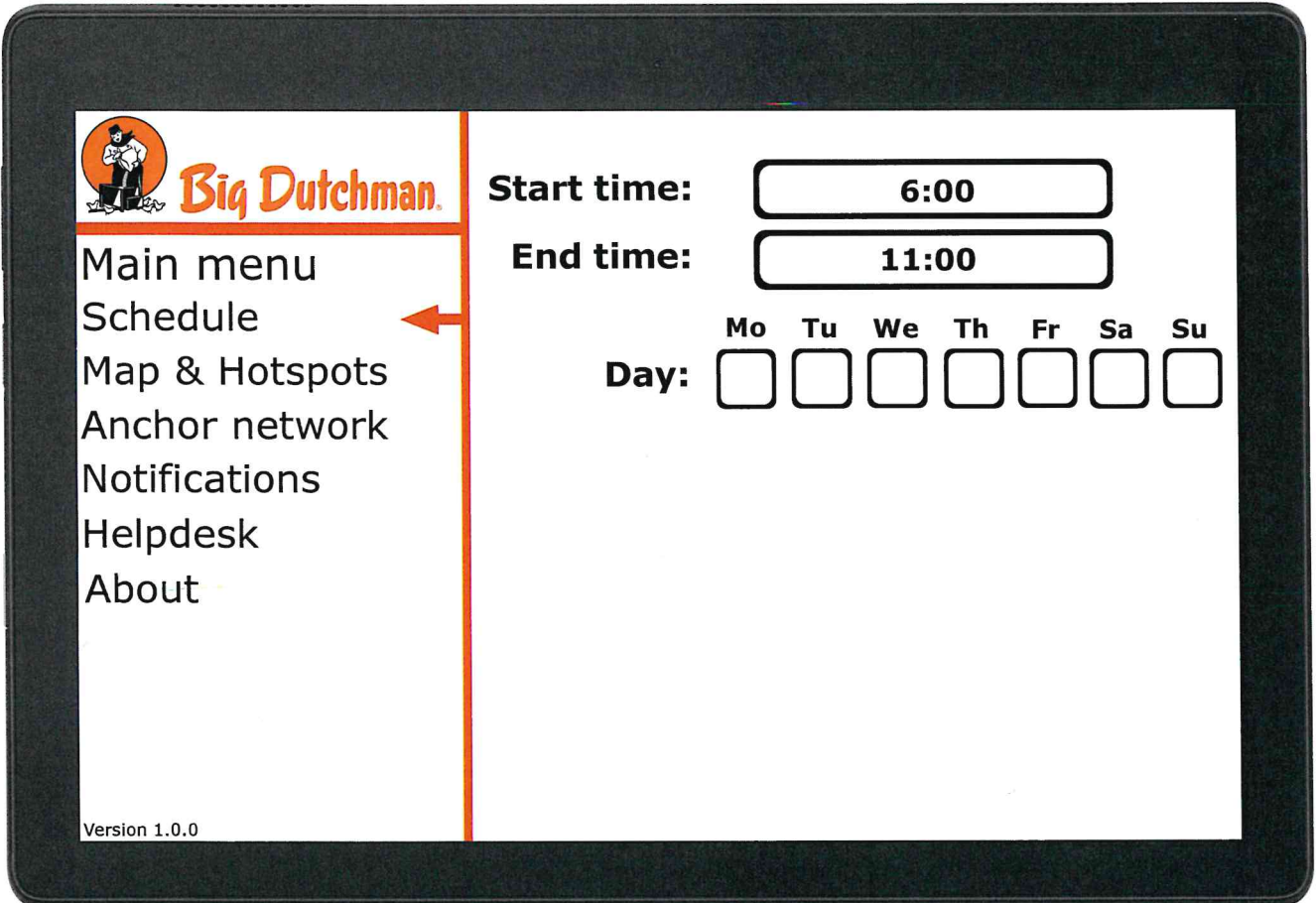
The main menu shows the status of the robot, if it is running or not. It would be great if the user could see important messages or errors with the first look. As well, he sees the next time of service.



## 2. Menu entry: Schedule

As the robot is working by its own the user need to arrange a schedule. The easiest way is to give the robot the start time and the end time. When the total time is more than it is able to work, it will start again after charging at the charging station.

A more elegant way is to define different times for the whole week, but with the same notification when it needs to recharge.



The screenshot displays the Big Dutchman GUI interface. On the left, a vertical menu lists the following options: Main menu, Schedule, Map & Hotspots, Anchor network, Notifications, Helpdesk, and About. The 'Schedule' option is highlighted with a red arrow. The main area of the screen shows the 'Start time' set to 6:00 and the 'End time' set to 11:00. Below these, there is a 'Day' selection section with checkboxes for each day of the week: Mo, Tu, We, Th, Fr, Sa, and Su. The version number 'Version 1.0.0' is visible in the bottom left corner.

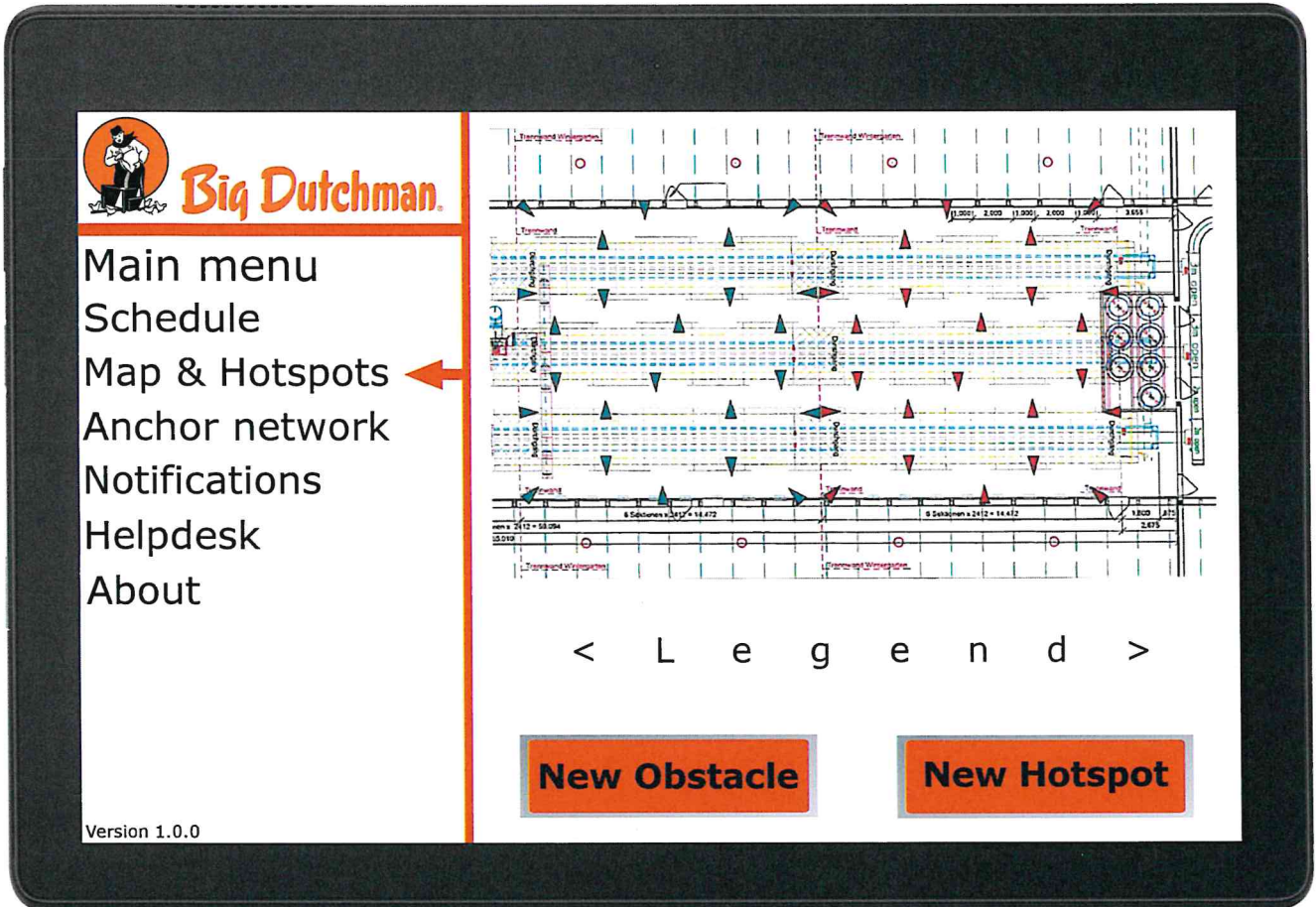
| Start time: | 6:00                     |                          |                          |                          |                          |                          |                          |
|-------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| End time:   | 11:00                    |                          |                          |                          |                          |                          |                          |
| Day:        | Mo                       | Tu                       | We                       | Th                       | Fr                       | Sa                       | Su                       |
|             | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Version 1.0.0

### 3. Menu entry: Map of barn and Hotspots

When the user is taking a walk through the barn and sees, some floor eggs at one point he need to adapt the current route. The user marks the point where the robot should work at in an interactive map.

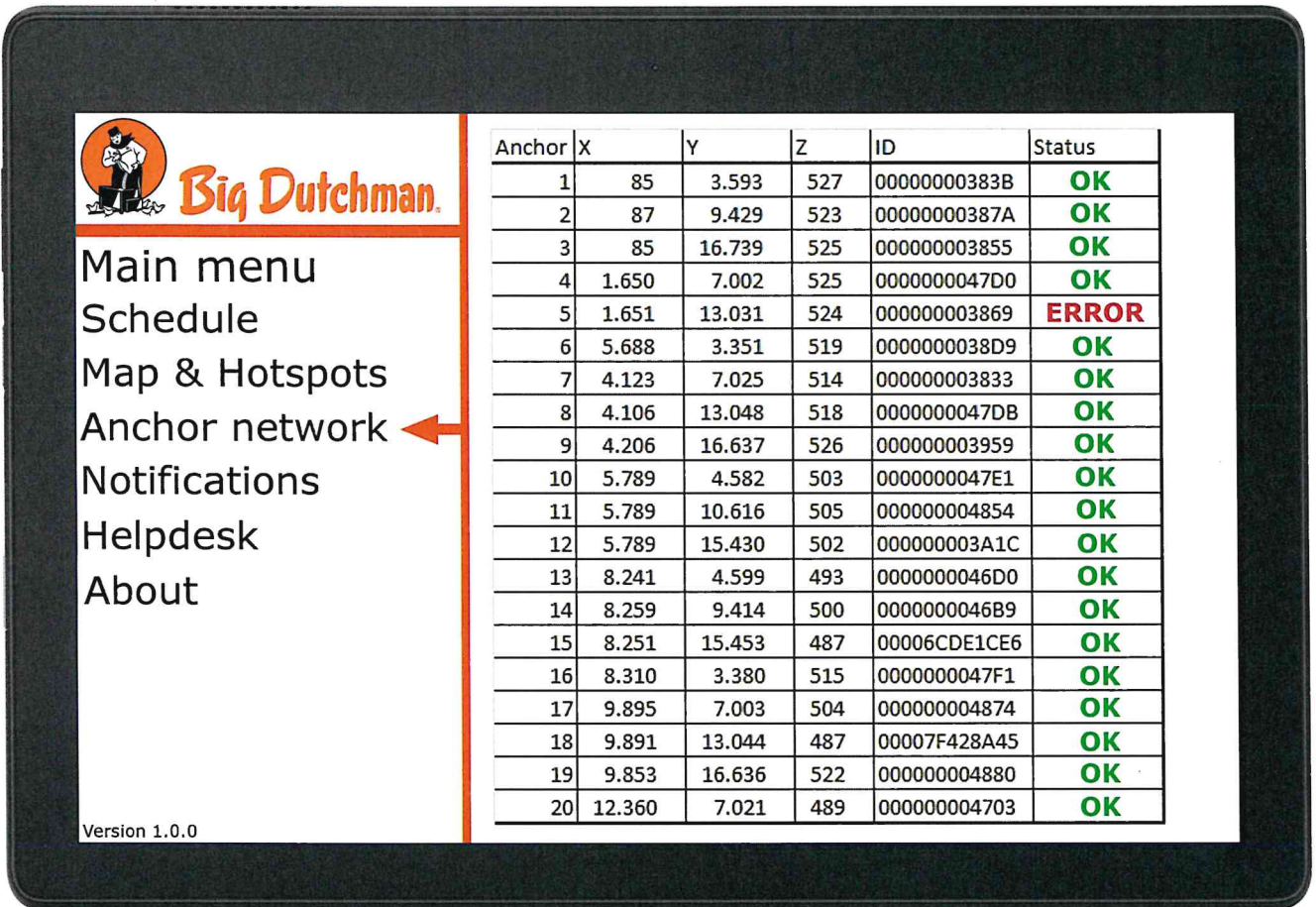
A nice to have solution could be that the system defines the point where the user is in that moment and saves it as a new hotspot.






#### 4. Menu entry: Anchor network

The user, especially the mechanic, should be able to detect if anchors are working correctly or not. Therefore, it would be nice if he gets a notification which anchor has an error and where this anchor is installed.





**Big Dutchman**

- Main menu
- Schedule
- Map & Hotspots
- Anchor network** ←
- Notifications
- Helpdesk
- About

Version 1.0.0

| Anchor | X      | Y      | Z   | ID           | Status |
|--------|--------|--------|-----|--------------|--------|
| 1      | 85     | 3.593  | 527 | 00000000383B | OK     |
| 2      | 87     | 9.429  | 523 | 00000000387A | OK     |
| 3      | 85     | 16.739 | 525 | 000000003855 | OK     |
| 4      | 1.650  | 7.002  | 525 | 0000000047D0 | OK     |
| 5      | 1.651  | 13.031 | 524 | 000000003869 | ERROR  |
| 6      | 5.688  | 3.351  | 519 | 0000000038D9 | OK     |
| 7      | 4.123  | 7.025  | 514 | 000000003833 | OK     |
| 8      | 4.106  | 13.048 | 518 | 0000000047DB | OK     |
| 9      | 4.206  | 16.637 | 526 | 000000003959 | OK     |
| 10     | 5.789  | 4.582  | 503 | 0000000047E1 | OK     |
| 11     | 5.789  | 10.616 | 505 | 000000004854 | OK     |
| 12     | 5.789  | 15.430 | 502 | 000000003A1C | OK     |
| 13     | 8.241  | 4.599  | 493 | 0000000046D0 | OK     |
| 14     | 8.259  | 9.414  | 500 | 0000000046B9 | OK     |
| 15     | 8.251  | 15.453 | 487 | 00006CDE1CE6 | OK     |
| 16     | 8.310  | 3.380  | 515 | 0000000047F1 | OK     |
| 17     | 9.895  | 7.003  | 504 | 000000004874 | OK     |
| 18     | 9.891  | 13.044 | 487 | 00007F428A45 | OK     |
| 19     | 9.853  | 16.636 | 522 | 000000004880 | OK     |
| 20     | 12.360 | 7.021  | 489 | 000000004703 | OK     |

## 5. Menu entry: Information and helpdesk

In cases of trouble, the farmer needs to know whom he can contact or what he can do by its own. This menu entry should give access to FAQs, contacts or user manuals.



## 6. Menu entry: Messages, notifications, errors

The user gets an overview of the last notifications, errors and reports of the robot. Things like serial number and software version can be identified too.

