

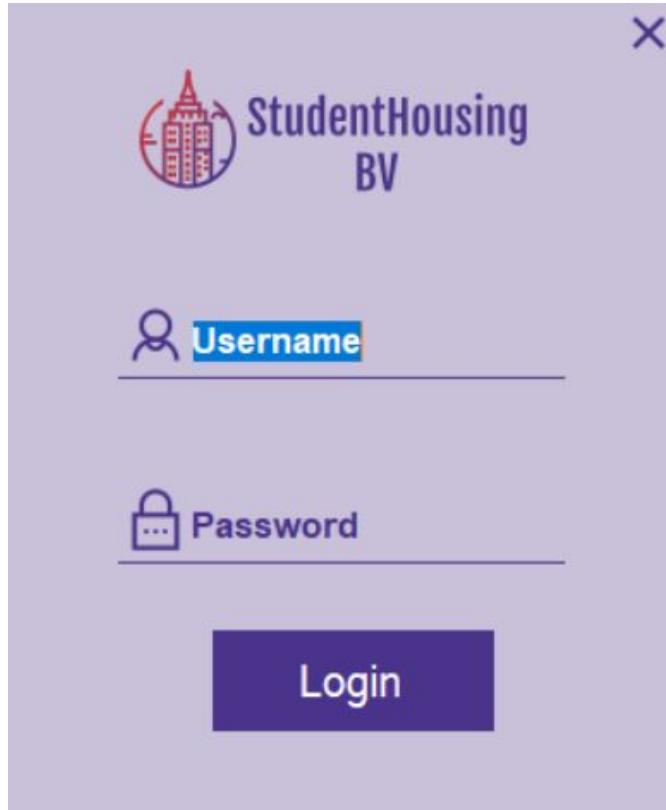
Software solution for student houses

Onur Ereren - 3449173

Omer Faruk Gokbak - 3782174

Hristo Pavlov - 3788733

Introduction



- A Windows forms Application divided in two parts
- Admin/Employee account
- Student accounts
- Supported by an SQL server database and an Arduino system

App functionalities

Student

- Student Time table
- Send Complaints
- Announcements (Gatherings/Parties)
- Rules
- Student Inbox (Messaging System)
- Student Penalty Points
- Student GUI

- Database (MySQL)
- Arduino (Throwing Garbage)

Admin/Employee

- Addition or Deletion of Students
- Check and Resolve Complaints
- Add, Modify or Delete Rules
- Check Tasks
- Update/Change All Time tables
- Admin Inbox (messaging system)
- Admin GUI

Student Timetable



Sunday, 19 January 2020 16:09



x

My Timetable

Floor: 1

Person	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Onur	Cleaning Toilet	Cleaning Kitchen	Buy Shared Items	Throw Garbage	Cleaning Toilet	Cleaning Kitchen	Buy Shared Items
Omer	Cleaning Kitchen	Buy Shared Items	Throw Garbage	Cleaning Toilet	Cleaning Kitchen	Buy Shared Items	Throw Garbage
John	Buy Shared Items	Throw Garbage	Cleaning Toilet	Cleaning Kitchen	Buy Shared Items	Throw Garbage	Cleaning Toilet
Max	Throw Garbage	Cleaning Toilet	Cleaning Kitchen	Buy Shared Items	Throw Garbage	Cleaning Toilet	Cleaning Kitchen

Onur
Penalty Points = 3

My Timetable

Complaints

Notifications

My Inbox

Settings

[Log out](#)

- Unique Time Table for each student
- Update function -> Changes entire timetable

Complaints

The screenshot shows a web-based application for managing student complaints. On the left is a sidebar with a purple header containing the logo 'StudentHousing BV'. Below the header are several menu items: 'My Timetable' (selected), 'Complains' (highlighted in blue), 'Notifications', 'My Inbox', and 'Settings'. At the bottom of the sidebar is a 'Log out' link. The main content area has a dark purple header bar with the text 'Complains'. Below this is a section titled 'Add Complain' with a small icon. A table lists two complaints:

Date	Topic	Content
01/17/2020 11:27 AM	Heating Problem!!	My radiator is not working !!
01/17/2020 12:36 PM	Heating!	No Heating!!

- Complaints can be added by students.
- Complaints are anonymous.

Add New Complaint

The screenshot shows a user interface for adding a new complaint. On the left is a sidebar with a purple header containing the StudentHousing BV logo and the date/time: Monday, 20 January 2020 16:53. The sidebar includes a user profile picture of a person named Omer, a penalty point count of 0, and links for My Timetable, Complains (which is highlighted in purple), Notifications, My Inbox, and Settings. At the bottom of the sidebar is a Log out link. The main content area has a dark blue header bar with the text "Add Complains". Below it is a back arrow icon. The form fields are labeled "Topic :" and "Content:". The "Topic :" field contains the placeholder text "Please enter your topic". The "Content:" field is a large text area with the placeholder text "Please enter your problem". A blue "ADD" button is located at the bottom right of the form.

StudentHousing BV

Monday, 20 January 2020 16:53

Omer
Penalty Points = 0

My Timetable

Complains

Notifications

My Inbox

Settings

Log out

Add Complains

Topic :

Please enter your topic

Content:

Please enter your problem

ADD

Announcements and Rules

The screenshot shows a mobile application interface for "StudentHousing BV". At the top, there is a header bar with the date "Monday, 20 January 2020 17:53" and a navigation menu icon. The main content area has a title "Announcements and Rules". On the left, a sidebar displays a user profile for "Omer" with a penalty of "0" and icons for "My Timetable", "Complains", "Notifications", "My Inbox", and "Settings". A "Log out" button is at the bottom of the sidebar. The main content area is divided into two sections: "Events" and "Rules". The "Events" section lists an event: "24.01.2020 19:00-21:00: Weekly movie marathon". The "Rules" section lists several house rules, with the first few visible:

- 01/17/2020 11:32 AM: When in your room, toile
- 01/17/2020 11:32 AM: Knock before you enter
- 01/17/2020 11:32 AM: Turn off lights, fans, air c
- 01/17/2020 11:32 AM: Do not cook, or keep fo
- 01/17/2020 11:32 AM: Your host won't mind yo
- 01/17/2020 11:33 AM: Please help us save wa

A blue "Edit Events" button is located at the bottom of the main content area.

- Showcases all “announced” events and house rules
- Students can update the announcements

Editing the events

The screenshot shows a web application for managing events. On the left is a sidebar with a user profile for 'Omer' (Penalty Points = 0), links for 'My Timetable', 'Complains', 'Notifications', 'My Inbox', 'Settings', and a 'Log out' button. The main area has a header showing the date 'Monday, 20 January 2020 17:56'. It features a toolbar with 'Save Changes', 'Delete Event', 'Add Event' (which is selected), and 'Select a date'. Below this is a list of events: '24.01.2020 19:00-21:00: Weekly movie marathon' and 'Susan's birthday surprise'. A calendar for January 2020 is displayed at the bottom right, with the 20th highlighted. At the bottom are buttons for 'Save and Return', 'Reset Changes', and 'Clear Text'.

Monday, 20 January 2020 17:56

Save Changes Delete Event Add Event Select a date

24.01.2020 19:00-21:00: Weekly movie marathon

Susan's birthday surprise

January 2020

Mon	Tue	Wed	Thu	Fri	Sat	Sun
30	31	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31	1	2
3	4	5	6	7	8	9

Today: 20.01.2020

Save and Return Reset Changes Clear Text

- Enables all basic CRUD operations
- Requires a date and a time
- Reserves the dates
- Built around storing “unannounced” events

Deleting an event

The screenshot shows a user interface for managing events. On the left, there's a sidebar with a profile picture of a person named Omer, a penalty point count of 0, and links for My Timetable, Complains, Notifications (which is highlighted in purple), My Inbox, and Settings. At the bottom of the sidebar is a Log out link. The main area has a header with the date Monday, 20 January 2020 17:54 and navigation buttons for Save Changes, Delete Event (which is highlighted in blue), Add Event, and Select a date. Below these buttons is a list of events: "24.01.2020 19:00-21:00: Weekly movie marathon". A confirmation dialog box is overlaid on the page, asking "Are you sure?" and cautioning that the announcement will be lost forever if deleted. The dialog has Yes and No buttons. At the bottom of the main area are three buttons: Save and Return, Reset Changes, and Clear Text.

Monday, 20 January 2020 17:54

Save Changes Delete Event Add Event Select a date

24.01.2020 19:00-21:00: Weekly movie marathon

Time:

Type your announcement here...

Are you sure?

Take caution: If you delete this announcement now, it will be lost forever.

Yes No

Save and Return Reset Changes Clear Text

Inbox

The screenshot shows the 'Inbox' section of the StudentHousing BV application. On the left is a sidebar with a user profile for 'Onur' (Penalty Points = 3), 'My Timetable', 'Complains', 'Notifications', 'My Inbox' (selected), and 'Settings'. At the bottom of the sidebar are 'Log out' and a refresh icon. The main area has a header 'My Inbox' with icons for envelope, exclamation, and close. Below is a table with two messages:

Date	From	Content
01/19/2020 04:12 PM	Omer	Hi Onur!
01/18/2020 06:04 PM	Admin	WARNING: You did not completed your task [Cleaning Kitchen on Saturday]. Your penalty point reached LIMIT!(3 pts.), you will be fined!

At the bottom are buttons for 'New Message', 'Delete Selected', 'Mark Read Selected', and a refresh icon.

- Students can send private messages
- Students can receive warning message.

Settings



Sunday, 19 January 2020 16:13



!

x

Onur
Penalty Points = 3

My Timetable
Complains
Notifications
My Inbox
Settings

Log out

First name: Onur Number: 069999999
Last name: Ereren Email: oereren@fontys.nl
Room: 101 Penalty: Penalty Point: 3

Change Password
Old Password
New Password
New Password

Change Email
New Email @
Password

Change Number
New Number
Password

Change Change Change

- Student Information
- Change password,email and number

Add or Delete Students

The screenshot shows the 'StudentHousing BV' application interface. On the left, there is a sidebar with the following menu items:

- Admin** (User icon)
- + Add or Delete** (Purple button)
- Complains** (Graduation cap icon)
- Manage Rules** (List icon)
- Check Tasks** (Checkmark icon)
- Inbox** (Email icon)

At the bottom of the sidebar is a [Log out](#) link.

The main area is titled "Add or Delete Students". It contains the following fields:

Field	Value
Username:	test
Password:	***
First name:	Test
Last name:	User
Email:	testuser@gmail.com
Phone number:	067334652
Room ID:	101

Below the form are two buttons: **Info** and **Delete**. At the bottom center is a large **Add** button.

- Add or delete students
- Check student information

Check or Resolve Complaints

The screenshot displays a user interface for managing complaints. On the left, a sidebar menu is visible with the following items:

- Admin** (User icon)
- + Add or Delete**
- Complains** (Selected item, highlighted in purple)
- Manage Rules**
- Check Tasks**
- Inbox**

Below the sidebar, there is a link for Log out.

The main content area is titled "Complains". It contains a table with the following data:

Date	From	Topic	Content
01/17/2020 11:27 AM	Onur	Heating Problem!!	My radiator is not working !!
01/20/2020 05:45 PM	Omer	Kitchen Light	Kitchen Light doesn't working.

A large "Delete Complain" button is located at the bottom right of the main content area.

- Check or Resolve complaints

Manage Rules

The screenshot shows a user interface for managing rules. On the left is a sidebar with a logo for 'StudentHousing BV' and a user profile icon. The sidebar contains the following menu items:

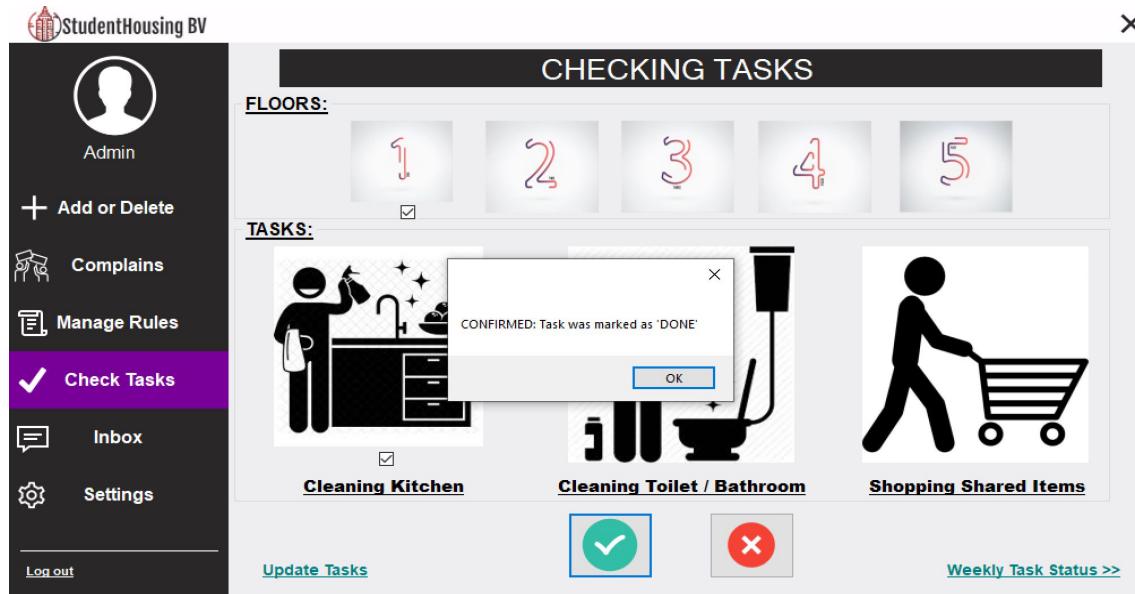
- Admin
- + Add or Delete
- Complains
- Manage Rules** (highlighted in purple)
- Check Tasks
- Inbox

At the bottom of the sidebar is a 'Log out' link. To the right of the sidebar is a main content area titled 'Manage Rules'. This area includes a 'Delete Rule' button at the bottom right. The main content area displays a table of rules:

Date	Rule Content
01/17/2020 11:32 AM	When in your room, toilet and bathroom remember to keep the door closed and if there is a lock please use it.
01/17/2020 11:32 AM	Knock before you enter a room, especially any private use areas (bedrooms and bathrooms).
01/17/2020 11:32 AM	Turn off lights, fans, air conditioning, heating, laptops, etc. at the wall or power board switch in your room.
01/17/2020 11:32 AM	Do not cook, or keep food in your room.
01/17/2020 11:32 AM	Your host won't mind you playing music or chatting with your friends via mobile or internet but please try to do this before 10:30pm at night.
01/17/2020 11:33	Please help us save water by keeping showers to a 5-10 minute limit and turning off the water whilst you brush your teeth.

- Add or Delete Rules

Check Tasks



- User can choose a floor and specified task ,then click the confirm or the other button.
- User can not check the same task for multiple times.
- If anyone is not assigned to specified task and floor, system warns user that it is not possible to check that task.
- User can update all tasks at the end of the week clicking to “Update Tasks” label. It updates all timetables for each student.
- User also can check status of tasks clicking to “Weekly Task Status”.

Check Tasks Status



Friday, 17 January 2020 09:32

X

Check Task Status

Floor: 1st

Tasks	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Cleaning Kitchen	N.C.*	N.C.*	N.C.*	N.C.*	DONE	N.C.*	N.C.*
Cleaning Toilet/Bathroom	N.C.*	N.C.*	N.C.*	N.C.*	UNDONE! by 'MAX', Room:104	N.C.*	N.C.*
Throwing Garbage	N.C.*	N.C.*	N.C.*	N.C.*	N.C.*	N.C.*	N.C.*
Shopping Shared Items	N.C.*	N.C.*	N.C.*	N.C.*	N.C.*	N.C.*	N.C.*

* Not Controlled yet



Friday, 17 January 2020 09:32

X

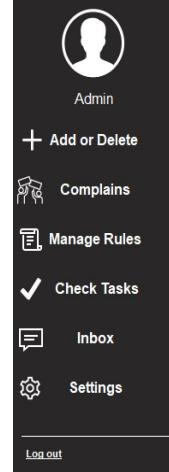
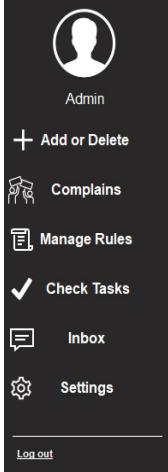
Check Task Status

Floor: 2nd

Tasks	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Cleaning Kitchen	NULL	NULL	NULL	NULL	NULL	NULL	NULL
Cleaning Toilet/Bathroom	NULL	NULL	NULL	NULL	NULL	NULL	NULL
Throwing Garbage	NULL	NULL	NULL	NULL	NULL	NULL	NULL
Shopping Shared Items	NULL	NULL	NULL	NULL	NULL	NULL	NULL

* Not Controlled yet

OR



- User can chose a specific floor in combo box and check status for each task for a week.
- If task wasn't controlled yet , it is represented by N.C which means "Not Controlled".
- If task was controlled and was done by assigned student, it is represented by "DONE" in a green cell.
- If task was controlled but it wasn't done by assigned student, it is represented by "UNDONE" and user can also check the assigned student's name and room number.
- If task is not assigned to someone or floor is empty, it is represented by "NULL".

Admin Inbox

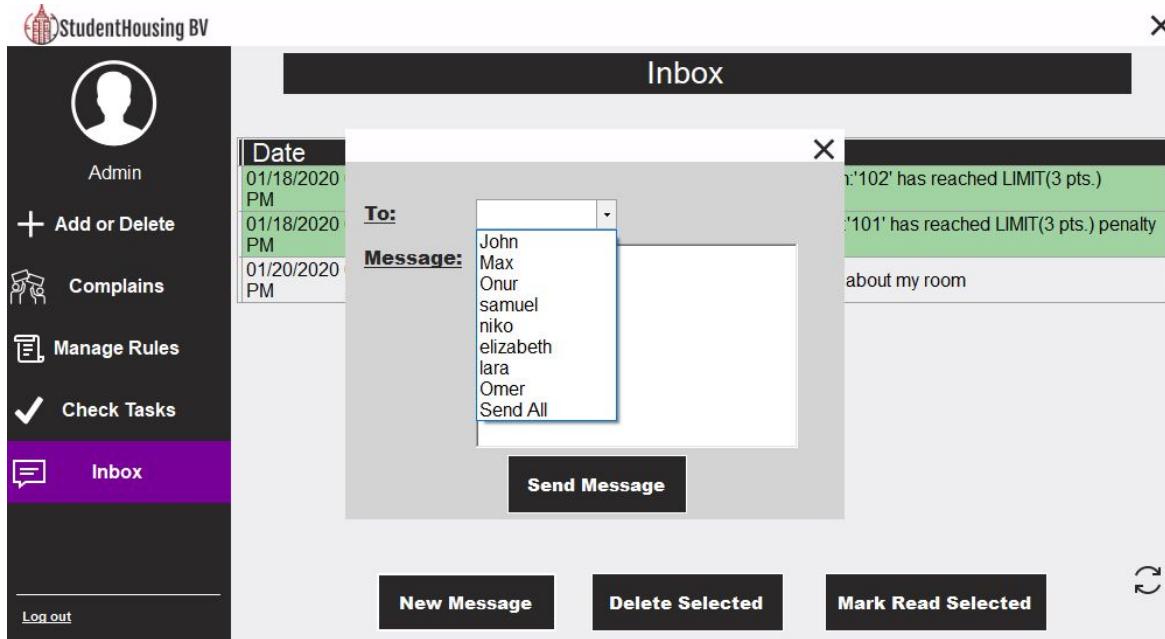
The screenshot shows the Admin Inbox interface. On the left is a sidebar with the StudentHousing BV logo, a user icon labeled 'Admin', and several menu items: '+ Add or Delete', 'Complains', 'Manage Rules', 'Check Tasks' (with a checked checkbox), and 'Inbox' (which is highlighted in purple). At the bottom of the sidebar are 'New Message' and 'Log out' buttons. The main area is titled 'Inbox' and contains a table with three messages. The table has columns for Date, From, and Content.

Date	From	Content
01/18/2020 06:01 PM	Admin	WARNING: Omer => room:'102' has reached LIMIT(3 pts.) penalty point.
01/18/2020 06:04 PM	Admin	WARNING: Onur => room:'101' has reached LIMIT(3 pts.) penalty point.
01/20/2020 05:47 PM	Onur	Hi, I have some problems about my room

At the bottom right of the main area are 'New Message', 'Delete Selected', 'Mark Read Selected', and a refresh icon.

- Can send and receive private messages.
- Can have option to send all.

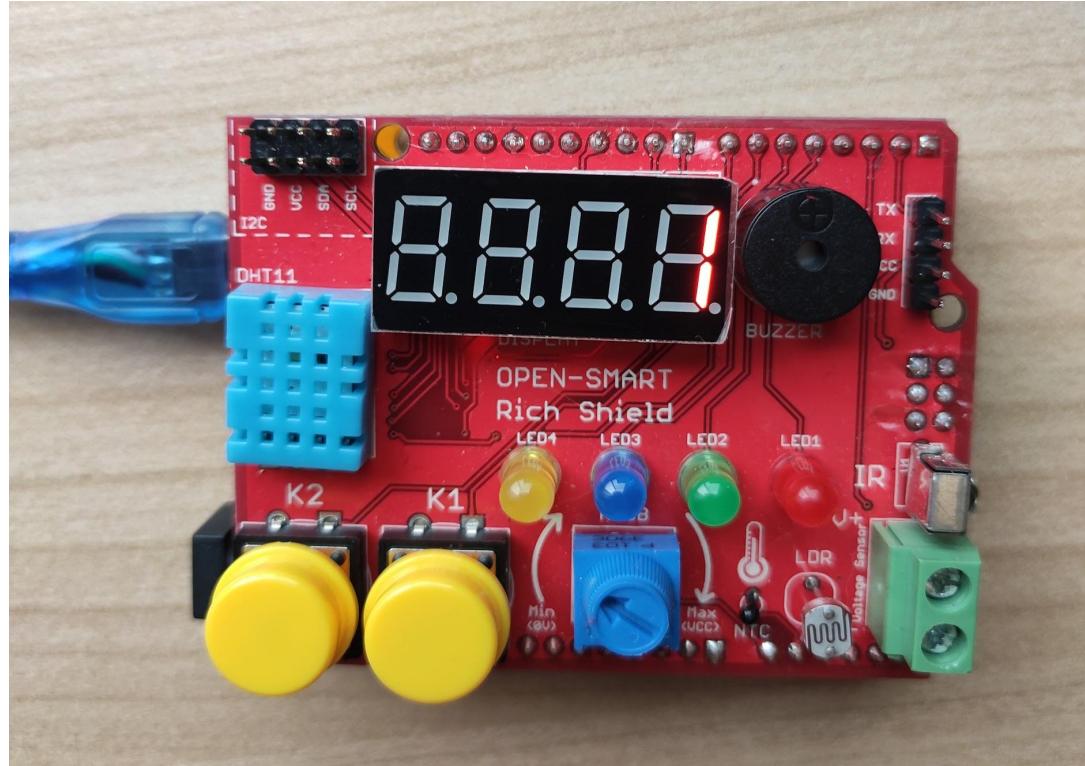
Admin Inbox



- Can send and receive private messages.
- Can send messages to all students at once.

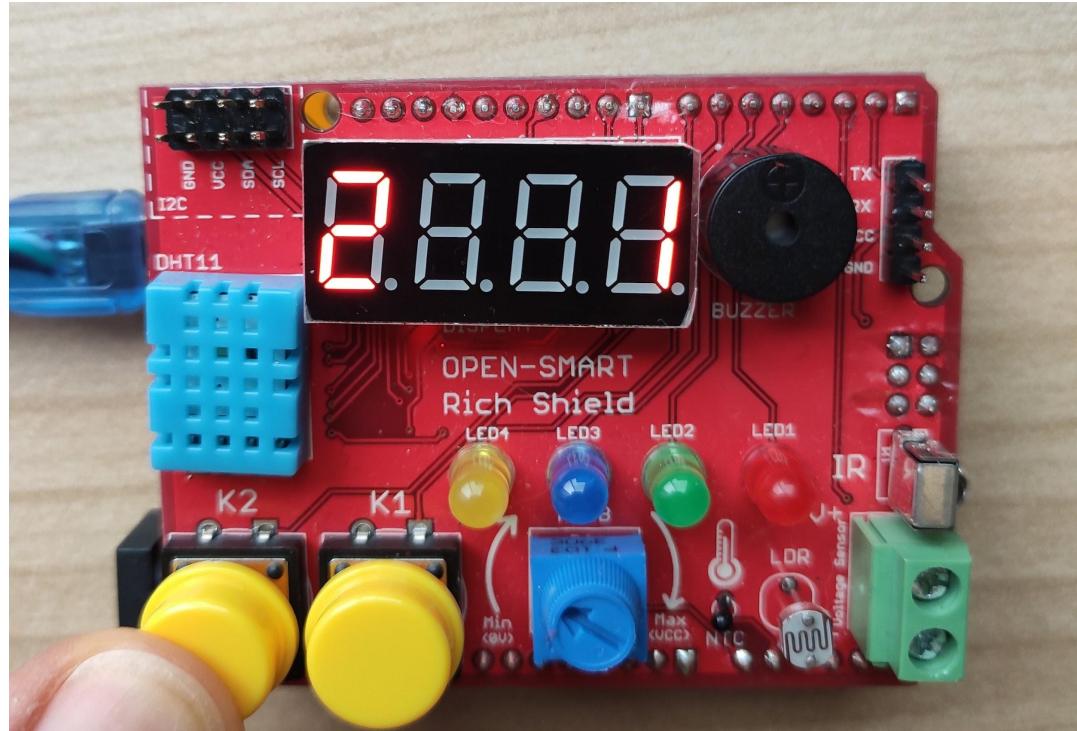
The Arduino's functionalities

- Keeps track of the disposed garbage via the LDR
- Displays the currently selected floor for garbage disposal
- On trigger - sends the information to the C# application
- Can be set to register the task as completed for one of the other floors



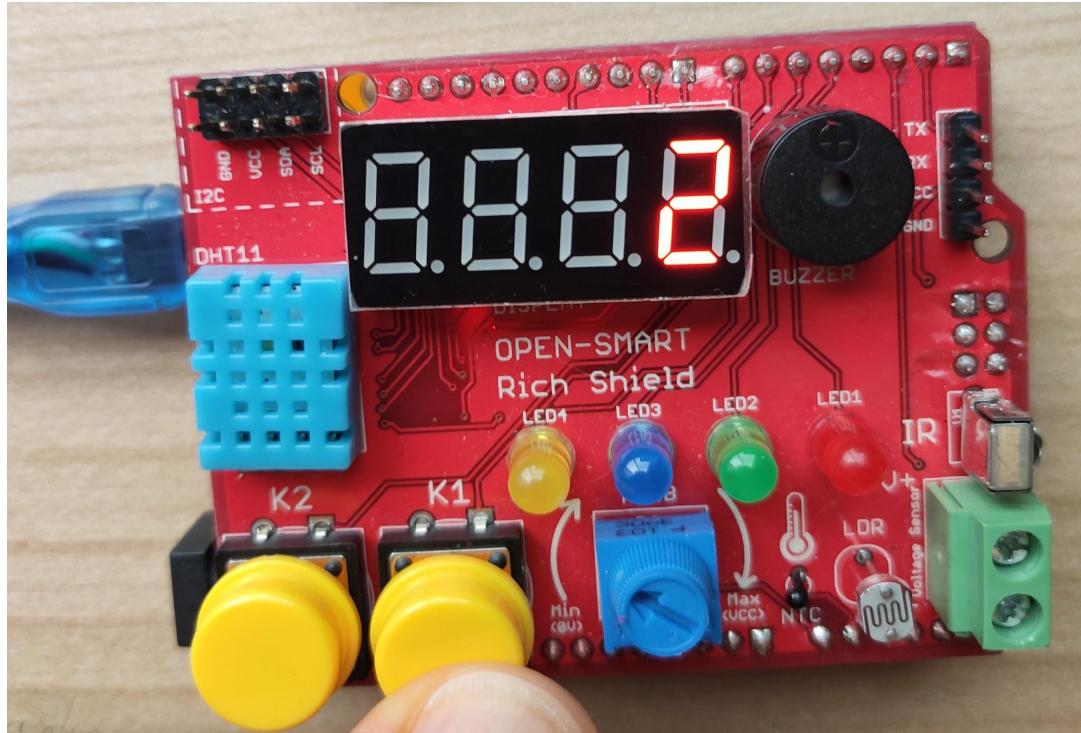
Floor navigation (via the button K2)

- A new number on the display
- Represents one of the other four unselected floors
- Nullifies on trigger



Save changes (via the K1 button)

- Registers our newly selected floor for garbage disposal
- Updates the display
- Sends a different string on trigger



Try it!

<http://ofgokbak.com/advanceproject.html>