

# **Deliverable 1**

**Team Name:**  
**The Collective**

**Project Name:**  
**OneHome**

## **Group Members:**

Name:	Student Number:
Pratheep Chandrakumar	N01376948
Sukhvir Singh Brar	N01395820
Utsav Sharma	N01392141
Dhruv Dave	N01401657

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# Team Contract

## CENG-322 TEAM PROJECT

Team Name: The Collective

Project Name: OneHome

*Please negotiate, sign, scan and include as the first section in your Deliverable 1.*

**Please note that if cheating is discovered in a group assignment each member will be charged with a cheating offense regardless of their involvement in the offense. Each member will receive the appropriate sanction based on their individual academic honesty history.**

**Please ensure that you understand the importance of academic honesty. Each member of the group is responsible to ensure the academic integrity of all of the submitted work, not just their own part. Placing your name on a submission indicates that you take responsibility for its content.**

Team Member Names (Please Print)	Signatures	Student ID
Project Leader:  Sukhvir Singh Brar	<i>Sukhvir Singh Brar</i>	N01395820
  Utsav Sharma	<i>Utsav Sharma</i>	N01392141
  Dhruv Dave	<i>Dhruv Dave</i>	N01401657

Pratheep Chandrakumar	Pratheep Chandrakumar	N01376948

For further information read Academic Honesty Policy on <https://humber.ca/legal-andriskmanagement/policies/search-by-students.html>.

By signing this contract, we acknowledge having read the Humber Academic Honesty Policy as per the link below.

<https://academic-regulations.humber.ca/2018-2019/17.0-ACADEMIC-MISCONDUCT>

### Responsibilities of the Project Leader include:

- Assigning tasks to other team members, including self, in a fair and equitable manner.
- Ensuring work is completed with accuracy, completeness and timeliness.
- Planning for task completion to ensure timelines are met
- Any other duties as deemed necessary for project completion

Scenario	Accepted initials	We agree to do the following
Team member does not deliver component on time due to severe illness or extreme personal problem	US SB	a) Team absorbs workload temporarily ✓ b) Team seeks advice from professor ____

	DD pc	c) Team shifts target date if possible ____  d) Other:
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What we will do if . . .

Scenario	Accepted initials	We agree to do the following
Team member cannot deliver component on time due to lack of ability	US SB DD pc	a) Team reassigns component ____  b) Team helps member __✓  c) Team member must ask professor for reference material ____  d) Other:

Team member does not deliver component on time due to lack of effort	<i>SB</i> <i>US</i> DD <i>PC</i>	a) Team absorbs workload <input checked="" type="checkbox"/> b) Team "fires" team member by not permitting his/her name on submission ____ c) Other:
Team member does not attend team meeting	<i>US</i> <i>SB</i> <i>PC</i> DD	a) Team proceeds without him/her and will assign work to the absent member <input checked="" type="checkbox"/> b) Team doesn't proceed and records team member's absence ____

Scenario	Accepted initials	We agree to do the following
		c) Team proceeds for that meeting but "fires" member after ____ occurrences ____
An unforeseen constraint occurs after the deliverable has been allocated and scheduled (a surprise test or assignment)	<i>US</i> <i>SB</i>	a) Team meets and reschedules deliverable <input checked="" type="checkbox"/> b) Team will cope with constraint ____

	DD PC	c) Other:
Team cannot achieve consensus leaving one member feeling "railroaded", "ignored", or "frustrated" with a decision which affects all parties	US SB DD PC	a) Team agrees to abide by majority vote ____ b) Team flips coin ____ c) Other: ✓ All teammates will try to figure out what leads to such a situation and how it can be prevented to ensure that it does not hamper team performance.
Team members do not share expectations for grade desired	US SB DD PC	a) Team will elect one person as "standardsbearer" who has the right to ask that work be redone ____ b) Team votes on each submission's quality ____ ✓ c) Team will ask for individual marking and will identify sections by author ____ d) Other:

Scenario	Accepted initials	We agree to do the following
Team member behaves in an unprofessional manner by being rude or uncooperative	US SB	a) Team attempts to resolve the issue by airing the problem at team meeting ____ ✓ b) Team requests meeting with professor to

	DD <i>pc</i>	problem-solve ____  c) Team ignores behaviour ____  d) Team agrees to avoid use of all vocabulary inappropriate to the business setting ____
Team member assumes or requests that his/her name be signed to a submission but has not participated in production of the deliverable	US  SB  DD <i>pc</i>	a) Team agrees that this is cheating and is unethical ____ ✓  b) Friends are friends and should help each other ____  c) Team will submit with signature but will advise professor who will take action ____
There is a dominant team member who is content to make all decisions on the team's behalf leaving some team members feeling like subordinates rather than equal members	US  SB  DD <i>pc</i>	a) Team will actively solicit consensus on all decisions which affect project direction by asking for each member's decision and vote ____  b) Team will express subordination feelings and attempt to resolve issue ____ ✓
<b>Scenario</b>	<b>Accepted initials</b>	<b>We agree to do the following</b>
		c) Other:

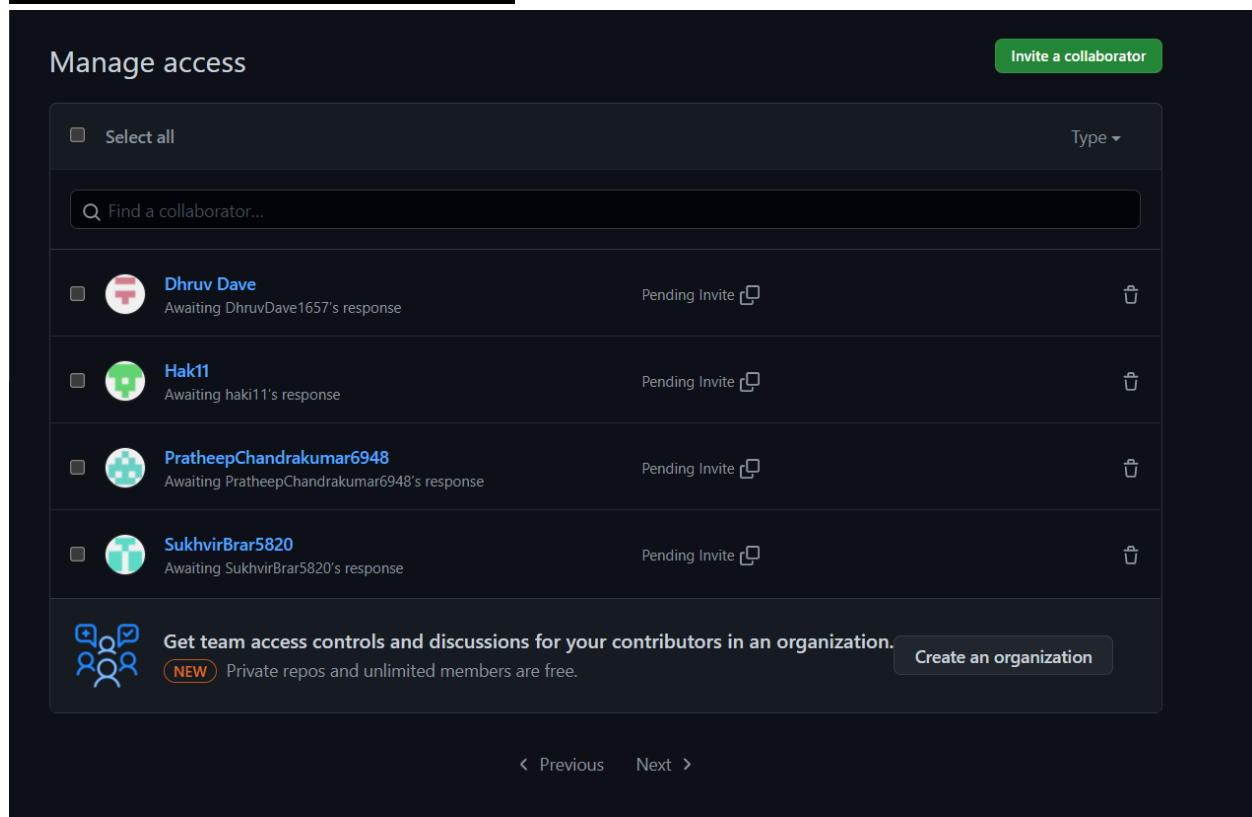


<p>Team has a member who refuses to participate in decision making but complains to others that s/he wasn't consulted</p>	<p>US SB DD PC</p>	<p>a) Team forces decision sharing by routinely voting on all issues <u>✓</u></p> <p>b) Team routinely checks with each other about perceived roles <u>  </u></p> <p>c) Team discusses the matter at team meeting <u>  </u></p>
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## Link to Github Repository:

<https://github.com/UtsavSharma2141/OneHome.git>

## ScreenShot of Invitation:



## **Project Description**

- 1) The project goal is to create an app that will receive and interact with our device that will be built in our hardware course. We want to build a user interface that will be easy to understand and to read/use, and we hope to finish this project by the end of the semester along with our hardware. Our final vision is to have a smart device that can read temperature, track motion inside the house and equipped with automated curtains for the house and an LCD display. These components interact with our app by sending data and having controllable settings and options for the app to configure for the device.
- 2) The device will consist of two sensors, one to read the temperature/humidity and another to detect motion. There would be automated curtains that are controllable by the application. There is also an LCD display which can display the current readings of the sensors and a custom text which can be set by the app. The app will send notifications of device sensor readings and to control different parts in one home.
- 3) The app will first have a main screen with all the current readings and settings displayed for the user to see, then using a navigation drawer will show 3 different settings pages. One for the temperature and motion sensors, one for the automated curtains and the last one will be the LCD display. These three pages will have settings that the user can change and set.
- 4) The feedback when provided will help get us another perspective on the project and help us solve any problems that we may not notice. When we receive feedback we will discuss amongst ourselves and come up with a solution that satisfies the problem and our team can agree. We will also ask for advice from the professor if we cannot reach a satisfactory conclusion and or are stuck in where we should proceed.

## 5) Read/Write from Database

### Sensors (Temp/Motion):

Read - The device will send the current readings to the app to view.

Write - The app can set a range/limit in which the sensor can react to send a reading or to change the settings on another device.

### Servo Motor (curtains):

Read - The angle of the servo motor which will determine if the curtains are open or closed.

Write - The app can set the position of the curtains depending on the angle of motors.

### LCD (Display):

Read - The app can display the current output of the device and the status of the device.

Write: The app can choose what can be displayed on the device, which can range from the readings on the sensors, the fan status or custom text that the user can write on the app.

## **Project Scope**

The temperature and humidity module reads the data of temperature and humidity of the spot where it is placed. Users can set the minimum and maximum threshold value according to the requirement. Whenever either humidity or temperature is out of bounds, the user will get the notification through the app and set the temperature to control the environment of their places through the app.

The servo motor is used for automated curtains to perform open and close motion which would be controlled by the mobile application. There would be 3 stages : 2/3rd open, halfway open and completely open. The status of curtains will be visible on the mobile application.

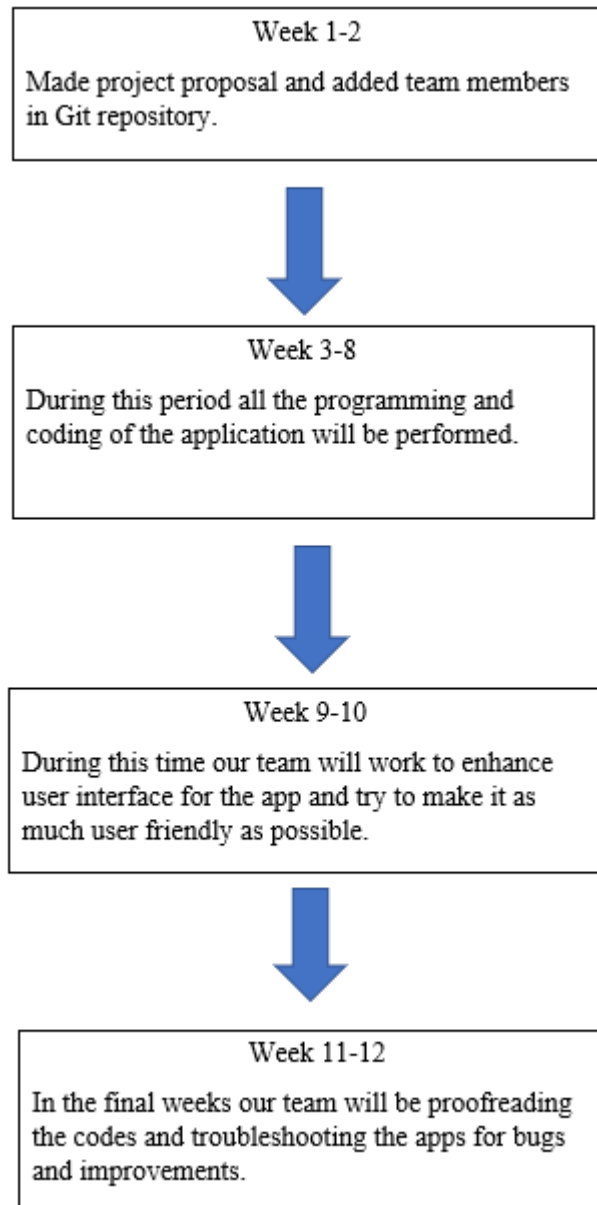
The motion sensor detects unusual activity on the premises within a certain timeframe and beeps an alarm while sending a mobile notification to the user at the same time. The app screen sends the user a notification. This ensures that there is no suspicious activity which can lead to thefts in residential as well as commercial areas .

We know the project is complete when we see the whole system combined to work fine.

When there is any motion detected on the motion module within a certain time period, an alarm module beeps which states that it is working fine without errors.

After the project is finished it has a lot of potential in the real world as people can benefit from this project and make their life comfortable and safe. Our vision is to provide the joy of luxury living accessible to common people by converting their home to a smart home. With OneHome any normal family can have access to home alarm systems which are found in high-end houses with a very affordable cost as well as all the important information about their home on their fingertips through OneHome mobile application.

## Weekly plan for app development.



## Theme

