# **CG1112** Engineering Principle and Practice II

Semester 2 2018/2019

## **Project Demonstration Procedure**

## **Submission Notice**

To facilitate the group oral presentation, please submit the presentation slides into IVLE folder latest **1 hour before your studio** (i.e. Wednesday 8am / 1pm, Thursday 8am / 1pm respectively).

## **Schedule**

Please note the timeslot allocated to your team as follows:

<b>Group 3</b> Wed, 17 <sup>th</sup> April, Morning		
8:50 Submit Alex		
9:00-9:30	3-03-2	
9:15-9:45	3-03-1	
9:30-10:00	3-01-2	
9:45-10:15	3-05-1	
Buffer [15 Min]		
10:00-10:30	3-04-2	
10:15-10:45	3-02-1	
10:30-11:00	3-01-1	
10:45-11:15	3-05-2	
Buffer [15 Min]		
11:00-11:30	3-02-2	
11:15-11:45	3-04-1	

<b>Group 1</b> Wed, 17 <sup>th</sup> April, Afternoon		
1:50	Su	ıbmit Alex
14:00-14:3	30	1-01-2
14:15-14:4	45	1-03-2
14:30-15:0	00	1-05-2
14:45-15:	15	1-05-1
Buffer [15 Min]		
15:00-15:3	30	1-02-1
15:15-15:4	45	1-02-2
15:30-16:0	00	1-04-2
15:45-16:3	15	1-04-1
Buffer [15 Min]		
16:00-16:3	30	1-03-1
16:15-16:4	45	1-01-1

<b>Group 4</b> Thu, 18 <sup>th</sup> April, Morning		
8:50 Submit Alex		
9:00-9:30	4-04-2	
9:15-9:45	4-03-1	
9:30-10:00	4-02-2	
9:45-10:15	4-02-1	
Buffer [15 Min]		
10:00-10:30	4-05-1	
10:15-10:45	4-05-2	
10:30-11:00	4-01-1	
10:45-11:15	4-04-1	
Buffer [15 Min]		
11:00-11:30	4-03-2	
11:15-11:45	4-01-2	

Group 2		
Thu, 18 <sup>th</sup> April, Afternoon		
1:50	<b>Submit Alex</b>	
14:00-14:30	2-05-2	
14:15-14:45	5 2-04-2	
14:30-15:00	2-03-1	
14:45-15:1	5 2-02-2	
Buffer [15 Min]		
15:00-15:30	2-05-1	
15:15-15:45	5 2-04-1	
15:30-16:00	2-01-1	
15:45-16:1	5 2-03-2	
Buffer [15 Min]		
16:00-16:30	2-01-2	
16:15-16:45	5 2-02-1	

Note that **all teams** are supposed to submit Alex to the teaching team at the beginning of the test session regardless of the allocated testing timeslot. Alex should be powered down properly to conserve battery before submission.

Each of the 30 minutes timeslot is structured as follows:

- a. [0 min 15 min] **Alex Demo**
- b. [15min 30 min] **Group Oral Presentation**

#### A. Alex Demo

You are given **exactly 5 minutes** to demo Alex. You can have up to 3 retries within the time limit, note that we take the last trial as the final result. The simulated environment will be set up in Section 1 (i.e. back of the lab). The team members will be seated in Section 2. Both sections are "off limit zone" for all other students. One TA / instructor will be with the team at all time to serve as the "observer".

#### General flow:

• [5 minutes] Connect your tele-operator's laptop to Alex, start program etc. Ensure the power meter dongle is attached. Note that you will start this preparation while the previous team is doing their test to save time. Instructor / TA will let you know when you can start the preparation phase. Note that we have to start the actual test strictly on time, so please ensure you put in some thoughts on how to streamline the startup / connection etc.

- [5 minutes] Actual test. Refer to project spec for the requirements.
  - You can have a group member to drive Alex (tele-operator) and another to draw the Map (cartographer).
  - Alex will be placed at a corner (facing away from the wall) of the first room at the start. This allows you to see part of the first room for navigation purpose (i.e. you should not reverse Alex as the first movement).
  - Alex's power meter dongle will be reset before the test starts.
  - The **hand drawn** map should show the general shape, dimension and exits of the rooms. Dimension refers to the wall length in the rooms (in centimeter).
  - The colour objects' general position should be indicated on the map with the colour (red/green) clearly labelled. Also, the cartographer should alert the TA / instructor observer and show clearly that the colour detection result is relayed directly from Alex, i.e. no "human processing" is involved.
  - [End of test] Drive Alex into the deadend of the last room. The test timer will
     only be stopped when Alex reached this position. Note that collisions with
     objects/wall are still counted during this part.
- [1 minute] Submit your hand drawn environment map within 1 minute.
- [2 minutes] Debrief (quick summary of your Alex's performance, not the final score).

### **B. Group Oral Presentation**

Please proceed to the small room near section 2 for group oral presentation immediately after the Alex Demo. As mentioned at the start of this document, make sure your group upload the slides to IVLE folder early so that we can prepare the presentation slides for you to reduce delay.

#### General flow:

- [1 minute] Setup time, opening the powerpoint etc.
- [10 minutes] Group presentation. Each member should present for 2 minutes. We will adhere to the time limit strictly. So, please rehearse and ensure all members have enough to present and can finish in the allotted time.