Group Details:

Group ID	G0904	**LEGO ID**	154

Group Members:

Name	**Student ID**	**Signature**
Kenan Duan	1929926	Kenan Duan
Feiyun Wang	1929665	Feiyun Wang
Yuchen Gao	1927983	Yuchen Gao
Yongteng Fei	1930236	Yongteng Fei

Inactive or Non-contributing Group Members:

Use this section to tell us the inactive or non-contributing group member(s) in your group.

Name	**Student ID**	**Remarks**

Our submission *folder* includes the following (✓):

Group submission form	√	Pseudocode or Flowchart challenge A	√
Summary report	√	Pseudocode or Flowchart challenge B	√
Meeting minutes summary report	√	Group picture (with all members and robot)	√

ICE Submission (✓):

We have submitted a zip file on ICE with all the above documents (only **one** submission per group). Use your **Group ID** to name your **PDF** file, Submission Form, and **ZIP** file.	√

Group project ZIP folder on ICE is submitted by:

Name	**Student ID**	**Date**
Kenan Duan	1929926	2019.11.14

Group and Self-assessment Form – ICE Submission:

Use this section to confirm us that each group member has submitted the completed group and self-assessment form on ICE.

Name	**Student ID**	**Signature**
Kenan Duan	1929926	Kenan Duan
Feiyun Wang	1929665	Feiyun Wang
Yuchen Gao	1927983	Yuchen Gao
Yongteng Fei	1930236	Yongteng Fei

LEGO set includes inventory list (✓)	√

LEGO set is returned by:

Name	**Student ID**	**Date**
Kenan Duan	1929926	2019.12.14

Project Summary (max 200 words)

Challenge A

We wanted to use EV3MINDSTORM to complete the challenge at first. Then, we found that a few certain functions could not be completed by EV3 and we decided to use Scratch to program. The requirement said that we should draw the site on the scratch. By using the knowledge we learned before, this problem was solved quickly. After our first attempt in SC, we noticed that we had to change the power and the direction of the motors. We switched to different plans according to various situations of the site and we selected a plan which had the biggest success rate to be the final program.

Challenge B

After we received the task, we quickly found a solution. Then, the problem came because if we set the EV3 to a sensitive model, it was very slow to pass the other parts except the maze part. But if we made it less sensitive, it would not pass the maze part. Due to these reasons, we had to try lots of time to find a suitable power of motors. After several attempts, we found the suitable power of the motor.

Achievements (Max 3 achievements)

1	Completement of program
2	How to cooperate with teammates
3	

Challenges (Max 3 challenges)

1	The inaccuracy of different sites
2	How to find a suitable power of motors to finish the challenge with accurancy
3	

Learning outcomes:

1	Programming logic
2	How deal with emergency situation
3	

Team Meeting Minutes Summary (Record only up to 5 meetings)

Meeting Number #1 **Date: 2019.11.23** **Location: SC**

Attendees	Agenda	To Do
Kenan Duan Feiyun Wang Yuchen Gao Yongteng Fei	Making the plan	Assemble the robot

Meeting Number #2 **Date: 2019.11.24** **Location: SC**

Attendees	Agenda	To Do
Kenan Duan Feiyun Wang Yuchen Gao Yongteng Fei	Sharing initial ideas	Program and test

Meeting Number #3 **Date: 2019.11.25** **Location: SC**

Attendees	Agenda	To Do
Kenan Duan Yuchen Gao	Finding the solution of challenge B	Program and test

Meeting Number #4 **Date: 2019.12.7** **Location: SC**

Attendees	Agenda	To Do
Kenan Duan Feiyun Wang Yuchen Gao Yongteng Fei	Finding the solution of challenge A Doing some changes to the program	Program and test

Meeting Number #5 **Date: 2019.12.12** **Location: SC**

Attendees	Agenda	To Do
Kenan Duan Feiyun Wang Yuchen Gao Yongteng Fei	Doing the final adjustment	Program and test

Overall Meetings Experience (max 40 words)

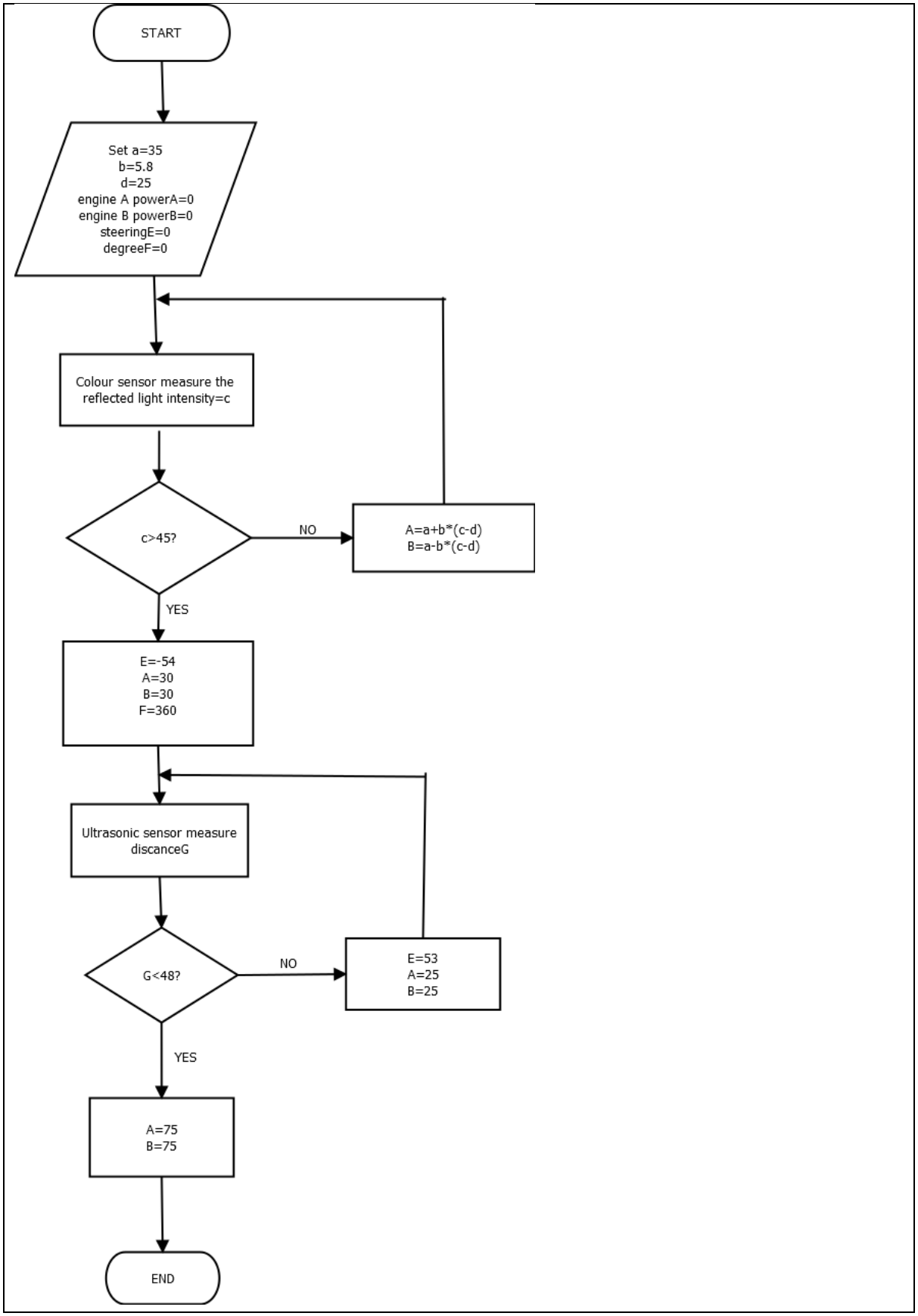
Everyone was cooperative and arrived at the gathering place in time under most circumstances

Challenge A (Pseudocode or Flowchart)

```
start procedure complete challenge A
    for (go forward) loop three times
        test the ground
        if the brightness is smaller than 15
            show the black area
        end if
    end for
    turn left
    for (go forward) loop three times
        test the ground
        if the brightness is smaller than 15
            show the black area
        end if
    end for
    turn left
    for (go forward) loop three times
        test the ground
        if the brightness is smaller than 15
            show the black area
        end if
    end for
    turn left
    for (go forward) loop two times
        test the ground
        if the brightness is smaller than 15
            show the black area
        end if
    end for
    turn left
    for (go forward) loop two times
        test the ground
        if the brightness is smaller than 15
            show the black area
        end if
    end for
    turn left
    go forward
    test the ground
    if the brightness is smaller than 15
        show the black area
    end if
    turn left
    go forward
    test the ground
    if the brightness is smaller than 15
        show the black area
    end if
end procedure
```

Challenge B (Pseudocode or Flowchart)

Write your pseudocode or draw your flowchart for Challenge B (in the box below)



Group Photo (including your robot)

Insert any one of your group photos in the box below (including your robot)