

Task 1.2 – Construct-O-Bot

Welcome to **Task 1.2** of **Construct-O-Bot**!!

The aim of this task is to make a line following robot in V-REP simulator.

Please find the following folders within the folder that contains this *Task1.2_ReadMe.pdf* file.

- ❖ First folder is **Task**
 - Please find the following files in this folder:
 - [*Problem Statement.pdf*](#): Follow the instructions in this file to perform the task.
 - *Task_1.2.ttt*: Use this file as instructed in *Problem Statement.pdf*
- ❖ Second folder is **Tutorial**
 - [*Path Planning Algorithms.pdf*](#): Go through this file to learn the various path planning algorithms.
 - [*Predef.pdf*](#): Go through this file *to learn about predefined functions to be used in this task.*

Programming Instructions:

- ❖ Open Visual Studio and click on **Open the project or solution**.
- ❖ Browse to the folder **CB Project** located in Task 1 folder.
- ❖ Select *CB_Task_1_Project.sln* and Open it.
- ❖ You can start coding for Task 1.2 under the particular function.
- ❖ For this task, you will make changes and further additions to your *CB_Task_1_Sandbox.cpp* file and *CB_Task_1_Sandbox.h*
- ❖ You may declare new functions and global variables as per your requirement.
- ❖ You are not permitted to modify files apart from *CB_Task_1_Sandbox.cpp* and *CB_Task_1_Sandbox.h* file.
- ❖ The only exception to this is the *CB_Task_1.cpp* file which contains the main function.
- ❖ In the main function, you are supposed to call only one function eg. *Task_1_2* that will be called in main function. your entire problem statement Logic should be inside this *Task_1_2* function. You can call your defined function in *Task_1_2* only.

- ❖ During evaluation, any other modifications to your main function will NOT be considered.

Build and execute the code:

- ❖ Follow the steps as mentioned above in Programming Instructions.
- ❖ Click on Save before building the solution.
- ❖ Click on *Build* -> *Build Solution* or (*Ctrl+Shift+B*): This will compile your code and report if there is any error.
- ❖ If no errors are found, your code is ready to link with V-REP (Make sure the correct V-REP scene is opened to simulate).
- ❖ Click on **Local Windows Debugger**, a pop-up window of Command Prompt will open and Press **Enter**.

Submission Instructions for Task 1.2:

On successful completion of this task, create a folder named **CB#****_Task_1.2** where **** is your Team ID. For example, if the Team ID is 143, save it as, **CB#0143_Task_1.2.zip** and submit on the portal.

CB#****_Task_1.2.zip file should contain following files:

- ❖ *CB_Task_1_Sandbox.cpp*
- ❖ *CB_Task_1_Sandbox.h*
- ❖ *CB_Task_1.cpp*

NOTE: Deadline for Task 1.2 Submission is November 26th, 2019

All the Best!