

e-Yantra Robotics Competition (eYRC 2019-20)

Task 1 – Rapid Rescuer

Welcome to **Task 1** of **Rapid Rescuer**! This task is divided into two sections:

I. Task 1A and Task 1B

II. Task 1C

You will find the following files/folders in **Task 1** folder along with this **Read Me** file.

- [Task Submission Instructions.pdf](#): This file includes instructions for submission of Task 1.

➤ 1. Theory:

Please find the following files in this folder:

1. [Resources.pdf](#): This file includes links of video tutorials for basics of Python, Image Processing and Socket Programming.
2. [VS Code basics](#): This file includes guide to use Visual Studio Code software.

➤ 2. Practice:

Please find the following folders in this folder:

- ◆ Task 1A
- ◆ Task 1B
- ◆ Task 1C

Details are as follows:

◆ Task 1A

Please find the following files/folders in this folder:

a. codes:

- i. *task_1a.py*: This file includes the outline of code for Task 1A.
- ii. *test_task_1a.py*: This file includes code for checking the output of Task 1A.
- iii. *task_1a_cardinal.pyc*: This file is used as a back-end support for test_task_1a.py file.
- iv. *image_enhancer.pyc*: This file is used as a back-end support for task_1a.py file.

- b. **task_1a_images:** This folder includes test images for Task 1A.
- c. **output_1a.pdf:** This file is used to verify the output of Task 1A.
- d. **[Task1A Problem Statement.pdf](#):** This file includes description of problem statement for Task 1A.

♦ **Task 1B:**

Please find the following files/folders in this folder:

a. **codes:**

- i. **task_1b.py:** This file includes the outline of code for Task 1B.
- ii. **robot-server.c:** This file includes the outline of code for Task 1B.
- iii. **test_task_1b.py:** This file includes code for checking the output of Task 1B.
- iv. **task_1b_cardinal.pyc:** This file is used as a back-end support for test_task_1b.py file.
- v. **obstacle_pos.txt:** This file includes the co-ordinates of dynamic obstacle for maze images.
- vi. Rest files and folder that are not mentioned are supporting files. Kindly do not play with it.

- b. **task_1b_images:** This folder includes test images of Task 1B.
- c. **output_1b.pdf:** This file is used to verify the output of Task 1B.
- d. **[Task1B Problem Statement.pdf](#):** This file includes description of problem statement for Task 1B.

♦ **Task 1C:**

Please find the following files/folders in this folder:

a. **codes:**

- i. **task_1c.py:** This file includes the outline of code for Task 1C.
- ii. **test_task_1c.py:** This file includes code for checking the output of Task 1C.
- iii. **task_1c_cardinal.pyc:** This file is used as a back-end support for test_task_1c.py file.

- b. **task_1c_images:** This folder includes test images of Task 1C.
- c. **output_1c.pdf:** This file is used to verify the output of Task 1C.
- d. **[Task1C Problem Statement.pdf](#):** This file includes description of problem statement for Task 1C.

... *Best Wishes !* ...