Instructions for Creating Video

Note: Please ensure that the video uploaded is of good quality and conforms to the instructions given below.

1. Setup the arena before you start shooting the video.
2. The resolution of the video should be good enough for judging. You have to use an **8 Megapixel** or higher camera to shoot the video.
3. The video will consist of four parts: **Introduction part**, **Design part**, **Screencast part** and **Side view part**.

Introduction part

The video **should start with a brief introduction**. Please follow the instructions below:
- Opening screen of the video should be a shot of "Title_slide.doc" printed on A4 sheet with the team details. Hold the sheet still for 3-5 seconds along with all the team members in the frame.
- This should be followed by an introduction limited to a maximum of **TWO minutes**:
  - Short introduction by each team member: Each team member can say his/her name and their department in college. This should take a maximum of **60 seconds**.
  - A **60 second** introduction by the team leader highlighting any interesting aspect of the theme's implementation.

Design part

After the Introduction part mentioned above, team should showcase their Plant and their Bee stinger by following the instructions given below:
- First show the Plant Petals and how the team went about in making them. Describe the design in detail and specify why the team thinks the chosen design is the best design. Team can use any Plant regardless of the LED color.
- After describing the Plant Petals, team should showcase the Bee stinger attached below the drone. Describe the design in detail and specify why the team thinks the chosen design is the best design.
- Finally, team should manually complete the circuit using the Bee stinger and the Plant Petals. Team should do this in a clear manner. The process should be clearly visible in the video. There is no need of flying the drone when manually completing the circuit. There is no need of showing the image processing algorithm for detection. Team only needs to show how the Bee stinger will come in contact with the Plant Petals and complete the circuit.

Screencast part

Screencast part **MUST** be a **one-shot continuous video**. It should **not be edited** in any manner. Teams uploading an edited video will be **disqualified** from the competition. e-Yantra reserves the rights to disqualify any team if any foul play is suspected.

- Screencast must contain the following:
    - **WhyCon image output** from the overhead camera throughout the run.
    - **Frame** which shows the detected LED cluster. Simply drawing a rectangle over the detected LED cluster of the appropriate color for instance drawing a blue rectangle around the blue cluster LED once detected. Writing the color name is optional. Showing whycon detection in this window is optional.
    - **Terminal** in which the key is pressed to start the script.

For simplicity in grading, team needs to print **'START'** and **'STOP'** on the terminal. Timer will start when **START** is printed on the terminal. This should be done when team executes the script. Timer will stop, when **STOP** is printed on the terminal indicating end of run. If team successfully pollinates the Plants, the team needs to print the **OUTPUT** statement: **'Pollination Done! Pollinated 2 Red Daylily, 1 Green Carnation and 1 Blue Delphinium'** (This is an example). After which, if team decides they wish to end the run without having the drone land back at Beehive or while it is in the air, team needs to pint **'STOP'** on the terminal. This can be achieved by simply pressing a single key on the keyboard and printing the **'STOP'** on the terminal. The drone need not disarm.

To summarize:
1. When team executes the script, '**START**' should be the first thing printed on the terminal. Timer will then start.
2. Team then needs to print the **OUTPUT** statement if they are able to pollinate the plants.
3. Finally when team intends to end the run regardless of where the drone is, team needs to press a single key on the keyboard and print **'STOP'** on the terminal.

If either START or STOP is not printed, the timer will not start and will not stop respectively and will accordingly affect the score. Please note, if the drone flies before START is printed or if any other kind of foul play is detected, e-Yantra reserves the right to disqualify the team or deduct points accordingly.

- Please follow the instructions about the overhead camera while recording
    - Camera should be kept stable while recording.
    - Follow the instructions specified in rulebook in placing the overhead camera.
    - Light the arena such that there is no reflection into the camera.
    - Keep the background, lighting in background, etc. constant during the video shooting so that it doesn't show as a discontinuity in the video.
    - There should be no interference in terms of background noise or movement while shooting the video.

- Please follow the steps below:
    - o Place the drone at the **Beehive** as explained in Rulebook.
    - o **The timer starts when 'START' is printed on the terminal**.
- In a successful run, **the timer is stopped when 'STOP' is printed on the terminal.**
- In case you have any problem with the drone during the task (e.g. it goes out of the arena or loses track) and want to reposition the drone, you can do so subject to the rules given in the rulebook.
- You are allowed to capture only **ONE** run during the demonstration; this should be a continuous video recording. Any repositions (if made without the intention of calling end of run) should also be a part of the one shot video.
- It is mandatory that you upload the demo video even if your task is not completed. You may record the video of best run of the drone on the arena.
- The screencast part should end either
    - o When the task is completed successfully or
    - o If you exceed the number of repositions (2 repositions) or
    - o The maximum time (10 minutes) given to complete the task has elapsed - as mentioned in the rulebook.

Side view part

- Place a camera in a tripod at the side as shown in Figure 1 to capture the video. Make sure that the height at which the camera is placed covers the arena and the maximum height which the drone will attain. Start the recording at the same time when you start the screencast. Stop the recording at the same time when you stop the screencast.
- Side view part **MUST** be a **one-shot continuous video**. It should **not be edited** in any manner. Teams uploading an edited video will be **disqualified** from the competition. e-Yantra reserves the rights to disqualify any team if any foul play is suspected.

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Figure 1: Shooting video from side

NOTE: The Screencast part and Side view part of the videos **MUST** be recordings of the same run. There should be NO WATERMARKS in any part of the video submitted. e-Yantra reserves the rights to disqualify any team if any foul play is suspected.

Uploading video/s on YouTube

- Merge the four parts, Introduction, Design, Screencast and Side view part end to end in the sequence: Introduction, Design, Screencast and Side view.
- Upload video using the given Configuration with the title **eYRC-PB#<Team ID>_Demonstration**

(For example: If your team ID is 6001 then, save it as eYRC-PB#6001_Demonstration)

- Please note that while uploading the video on YouTube select the privacy setting option as **Unlisted (Refer to Figure 2).**

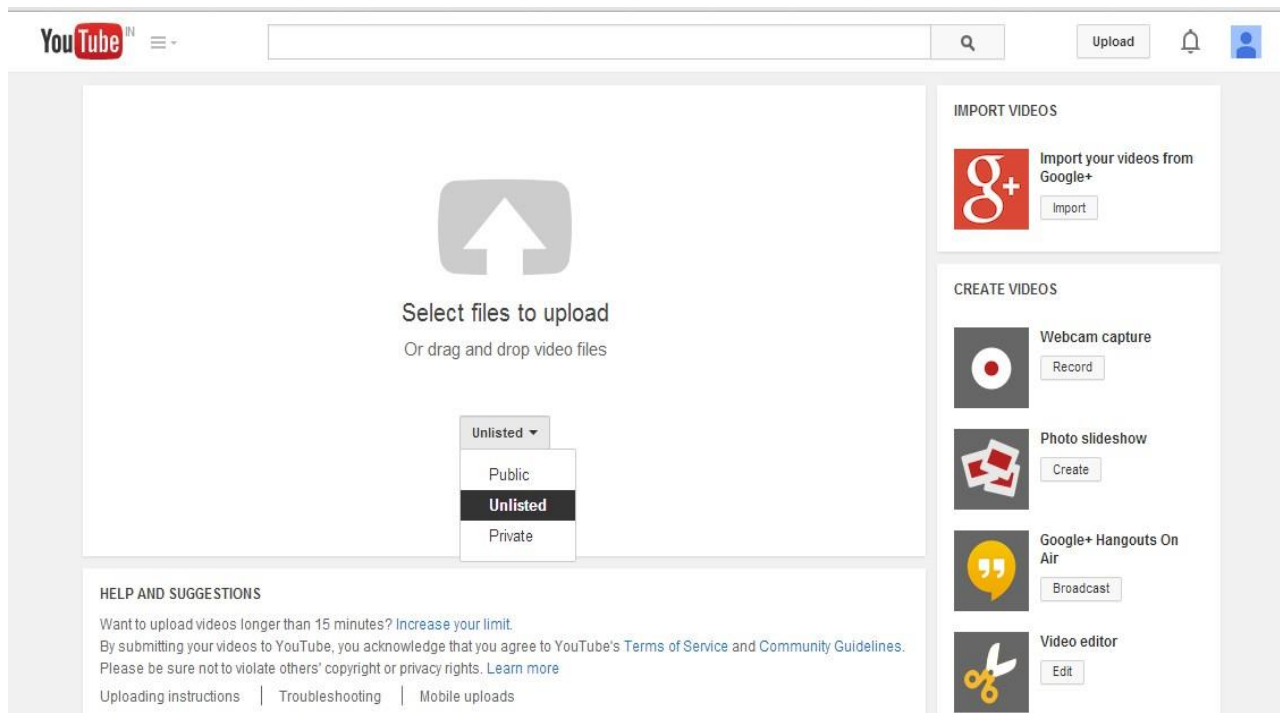You need to upload the video as instructed on the portal.

Figure 2: YouTube page – "Unlisted" Option Selected