Update: November 10, 2018

2019 WERC Design Contest FAQ

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Track 2: Internet of Things (IOT) for Environmental Applications

- **Task 2: Industrial Stack Exhaust Emissions Testing Using Drone Technology**

Q1: The task mentions about monitoring of specific pollutants like VOC's and particulate matter. We wanted to know if there is a further specifications of pollutants when it comes to VOC's. (e.g., benzene, toluene, CFC's)?

A: No further specifications when it comes to VOCs, just total VOCs.

Q2: Will there be a sampling point and if yes then at what height?

A: For proof of concept with monitoring, the drone will be placed in a box filled with a known concentration of VOC. The "sampling point" will simply be the inside of the box, which is filled with a homogenous mixture of known VOC concentration.

Q3: Do we have a provision of power source for device to function or can we extract power from camera source?

A: The monitoring device should be self-powered (e.g., rechargeable battery/battery pack, etc.)

Q4: Should the data be monitored minute to minute when the device is on flight or the data has to be collected post monitoring and then analyzed?

A: Data should be monitored minute by minute when the device is in flight.