Crowdsourcing is the practice of attaining needed ideas, services, or content by requesting contributions from a large group of people. Amazon Mechanical Turk (MTurk) is a web marketplace for crowdsourcing microtasks, such as answering surveys, image tagging and audio transcription. However we used MTurk for a more complicated task: Virtual Wind Tunnel Analytics.

Virtual Wind Tunnel Simulations
- OpenFOAM – computational fluid dynamics software which runs 2D wind tunnel simulations
- The simulations show with a westerly wind running over the structures

The Human Intelligence Tasks
- 13 Human Intelligence Tasks (HITs)
- 4.5 Tutorial pages
- 117 Questions per participant
- 19 Students
- 49 Turkers

Experiment
Motivation
Specifically: To test if MTurk can be a source of fast accurate Virtual Wind Tunnel data analysis
Generally: 1. To test means of crowdsourcing complex tasks which relies on workers learning rather splitting the work into simple tasks
2. To begin testing the feasibility of citizen engineering

Results
Percent agreement in each group with the expert and with the majority consensus

Analysis
Discussion
Why are Master Turkers comparable to Engineering Graduate students?
1. Different standard for quality data.
2. Familiar virtual environment.
3. Masters at following instructions.

Future Work
- Crowdsourcing simulation creation
- Crowdsourcing structure design
- Larger datasets with differing turkers qualifications to find the best qualification set.
- Demographics collection

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