# IoT Course Assignment 2

- Deadline: November 28, 23:59PM, Vancouver time. Missing the deadline = 0 marks!!!
- Submit the answers of the questions online Brightspace in **ONE** PDF or Word file.
- No late or Email submission will be accepted.

1. Research on the following 8 kinds of IoT Sensors and Actuators.

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|---|---|---|---|
| Stepper Motors | DC Motors | Linear actuator | GPS receiver |
| Temperature Sensors | Proximity Sensors | Gas Sensors | Optical Sensors |

Design an IoT robot, who can move around to inspect a 1km x 1km area, and when fire is detected, report the location to a data center. In your design, you can use any technology, hardware and software you can find now on the market, but you have to use at least 4 out of the 8 items above and clearly describe their functions in your design. We assume there is no budge limit for this robot.

This is an open design question. Do not limit yourself, use any technology, hardware and software you can find now on the market, but of course you have to understand and use the technology, hardware and software correctly.

Submit a brief overall design proposal (7 page limit including cover and references – letter size paper) which includes:

- Cover page with your names, student IDs and university Emails, a Brief Project Background, Technology and Market analysis (on 1 cover page)
- System high level Design and Architecture (block diagram or flowchart)
- Function description of modules and parts
- A very brief testing plan
- Summary and References