CG1112 Workshop 2: Peer-Review, Worksheet 1, Clarity & Precision

Part 1: Is the language plain?

- Are adjectives or adverbial phrases used only where needed?
- Are there any unnecessary/redundant pieces of information?

1. Locate redundant or repetitive information.
2. Omit non-essential, repetitive words and phrases.
3. Add transitional phrases/words or pronoun referents for coherence.
4. Take care not to delete essential details during this process.

Text 1:

The Large Unmanned Ground Vehicle (LUGV) is a semi-autonomous robot that was designed and developed to provide the necessary aid to humans during severe and dangerous disaster situations.
The LUGV performs so efficiently during disaster situations. It's goliath-like strength is strong enough to lift up huge amounts of rubble of up to almost 250 kg in order to clear the pathways and also can excavate the fallen earth during earthquakes for survivors.

Part 1: Is the language plain?

- Are adjectives or adverbial phrases used only where needed?
- Are there any unnecessary/redundant pieces of information?
- **Why are the descriptive and emphatic words essential here?**

Text 2

Snake robots can now traverse non-flat fields, climb poles, swim underwater, and even rebuild themselves properly. They can access incredibly small spaces and transition between swimming to slithering to climbing without having to be reconfigured. Advancing far beyond slithering across flat ground, these amazing robots are nearly ready to begin tackling spaces in the field that no other robot can reach.

Part 2: Are the explanations and descriptions complete?

- Are there any *gaps* of information in the explanations?

Text 3

For military and search-and-rescue robots in particular, which are likely to be on unknown terrain, it is quite difficult to control all of their DOFs manually.

Hint:

- The 'gaps' of information in **Text 3** relate to specific technical details.

- Including essential information for understanding the PROBLEM in this context will help to make this description more complete.

Text 4

The robot moves and changes the configuration of the subtracks based on the surface information. Once the surface of the ground is deformed, the subtracks adapt quickly.

Hint:

- The 'gaps' of information relate to sequential steps/processes in the functions of the robot.
- Omitting steps in the sequence confuses or misinforms the reader of the robot's functionalities.
- Editing such gaps involves thinking about the process in sequence and then 'filling in the gaps' of information.

Text 5

Featuring 512 x 512 raster memory and 32-bit data points, major buss lines and interconnect stand out very clearly on the overall view of the entire chip.

Hint:

- The 'gap' here is the missing Subject of the sentence.
- The underlined clause is known as a dangling modifier because it is not attached to a Subject.

Part 3 *Precision*: Are the explanations and descriptions accurate?

Focus: Verb tense & prepositions.

Text 6

Bioinspired jumping robots had good environmental adaptability and overcame obstacles that were several or even ten times larger than themselves. They are becoming a hotspot in research on bionic robots [1–5]. Many researchers are beginning to design various jumping robots that achieved good jumping performance by using creatures with jumping ability, such as kangaroos [6, 7], spiders [8], locusts [9], and froghoppers [10, 11], as research objects [12, 13].

Text 7

Considering that lizards can control the swing on their tails for redirecting angular momentum at their bodies beyond their tails, thereby stabilizing the body posture of the sagittal plane, Libby et al. [30] designed a lizard-sized robot through an active tail, which can swing higher and lower on a plane. The tail on the robot swings up as the controller applies torque for stabilizing the body, thus keeping the body angle constant for proportion differential (PD) feedback control.