**LAB 2 CHALLENGE REFLECTION**

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**SDR520**

**A reflection document answering the following questions:**

**a. What is mapping in autonomous robotics?**

Mapping in autonomous robotics is mapping a certain area, place, room, etc., it allows a robot to get around in an environment as humans do around the world. It gives perception of the environment and allows robots to have a conceptual navigation map.

**b. How important is the map’s accuracy for the robot’s autonomous navigation task?**

Depending on the task the maps accuracy could be extremely important if there are potential danger zones in areas. The accuracy of the map is essentially the description of that building and plays a role in how the robot may interact within that environment. Mapping either being created or using an existing map is relatively important.

**c. What are dynamic objects in autonomous robotics? Either explain or provide some examples.**

Dynamic objects in autonomous robotics could be an example in an airplane in the sky, dynamic objects could be things such as birds, or wind factors that shake the plane. These are factors that could affect autonomous robotics that are dynamic. Due to these reasons autonomous aircrafts needs to have these concepts when being created and developed.

**d. Should the dynamic objects be present when mapping an arena? Explain the reason for your answer.**

I believe dynamic objects should not be presented when mapping an arena but should create or develop something in which such factors that would occur from dynamic objects detectable. Mapping dynamic objects means trying to predict what the object will be doing which in most cases are not possible. Creating features to be able to detect potential threats for an example an aircraft in space would need to constantly scan the environment for potentials meteors, starts or obstacles that could come in the aircraft’s way.