**Communication Failure Management**

As we have two subsystems working in the system we will need to have two separate types of communication failure protocols for the subsystems to conduct.

The Dani robot features will be mostly autonomous and will not have any instructions being sent to it from the control base, but it will need to send information back. If the communication between the Dani and the control base fails the subsystem will have a protocol that will give it a command to save all the data being collected on an external memory source (i.e. USB memory device). This will then be detached from the Dani (after its return to control base) and uploaded onto the computer for the laser navigation subsystem to allow the TriTrack to complete the mission tasks.

The TriTrack is being navigated by the laser navigation subsystem, whilst also using its camera to identify items such as the black box. As the laser system is external to the water, it should not have any issues. The issue that may arise is the TriTrack may lose sight of the laser mark it is meant to follow; this is where we will need to have a protocol for the laser to relocate the TriTrack. Once the TriTrack loses the laser it will send an error to laser and allow it to calculate the last moment they were working; this will then prompt the laser to go back to the last position the system was fully functioning and this should solve the issue.