**Introduction:**

A point of failure assessment is a systematic evaluation of a system or component to identify potential points of failure. This assessment is essential for identifying and mitigating risks, improving reliability, and ensuring overall functionality of the system.

**Identifying Potential Points of Failure:**

The first step in a points of failure assessment is to identify potential points of failure. We have found in our parts that the points of failure that could arise from our part are due to the friction between the cleaning material and the filament causing the part to continually increase until the filament actually becomes stuck. This causes the filament to rip inside the tube. And thus cause a failure. The next point of failure that could arise from this part is when the filament tears away strands from the cleaning material, causing the filament to act as a carrier for the strands which then starts to mess up the wheels.

**Assessing Risk:**

Once potential points of failure have been identified, the next step is to assess the risk associated with each failure mode. The risks that are associated with these materials are that they can either cause the filament to break inside the tube or they can cause the gear to get stuck. So far, no point of failure has been identified as a result of clogging.

**Mitigating Risks:**

After identifying potential points of failure and assessing the associated risks, the next step is to develop strategies for mitigating these risks. In order to get the result that we want, we will have to choose the appropriate cloth and conduct the appropriate method of applying the cloth to the part.

**Conclusion:**

A point of failure assessment is a critical process for identifying potential risks and mitigating those risks to improve system reliability and functionality. This points of failure assessment has shown us that by using the