

Team Name: sdmay24-Qubit

Team Members: Robert Laskey, Calvin Mitchell, Ezra Manus, Andrew Wilken

Report Period: Oct 15-Oct 22

Summary of Progress in this Period

We have met with our client to discuss the design aspect of this project since we have been doing a lot of research. He informed us that there will be plenty of design within choosing our host, and designing our simulator. In order for us to be successful on this project, we need to really do a deep-dive into the material that way we actually understand the math and physics behind our goal of designing a qubit with a coherence time of 1 second. Aside from that in our meeting, we discussed more about Excitation, Quantum Chromodynamics, noise reduction, and quantum transductance. At this point, we are very close to beginning the design of our simulator. We will most likely be testing different host materials after the simulator is coded, but either way it will have to be proved mathematically for certainty.

Pending Issues

Currently, our biggest issue is deciding how we want to design our qubit simulator. There are a lot of different methods that have been used for something like this project, but we are trying to approach this in a unique way that differs from current methods.

Plans for Upcoming Reporting Period

Our plans for the next week will include continuing research, simulator design, and material properties to consider when choosing a host material.
