Team Meeting Minutes
22 September 2017
Time: 2:00 PM - 4:00 PM

Executive Summary

MWI Labs team met with our project sponsor, Mr. Jeff Peebles. This being the team's first time meeting Mr. Peebles, a brief introduction of each team member's background and responsibilities helped our sponsor better understand the team. Mr. Peebles showed the team the current device used to test material for stealth applications. He gave the team a general rundown of the current issues the device has and what he is looking for in this project.

Discussion:

- The team met with Jeff as well as viewed and became more familiar with the NRL arch technology for redesigning.
- Arduino will work for coding the stepper motors which we already have.
- Discussed Benchmarks are Navy Research Lab arch, direct benchmark. Secondary is focus beam arch. Tertiary is RCS range, ours is this but smaller.
- Differenced in them are that the actual arch design of the NRL is accurate but may have possible reflections from flat metal surfaces.
- Discussed more requirements. Arms need to be foldable into area of the table and the machine requires of setup time of 4-8 hours.
- Each arm has a load of 15 lbs.
- The baffle shield in the middle is still need and the horns must be rotatable.
- A possible equation for the tension on the table wire in terms of weight or pressure is wanted.
- The wire used is omnispectrum wire.
- For motor coding we will need size the shaft and number of steps/rotation.
- Measurements for the machine are as follows:

Measurement (in.)	TABLE
Length	64.25
Width	53
Height	41

Length from edge to cantilever: 51”
Length from Antenna to edge: 32.5”

Bottom of arm to cantilever: 2.25 - 2.5”

Boom:

Length: 51.5 - 52”

Cantilever length: 32” total and 28” to coupling

Minimum height of antenna to center point: 12”

- Designs must be submitted around Christmas to ensure time to build.
- Real budgets involve labor hours, risk analysis and risk factors.
- Everything has a risk.
- Budget: $42,000.