

Progress Report
Week of 22 July 2019
Automation of Pre compliance Radiated
Emissions Testing using Anechoic Chamber

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Completed Tasks

Tasks completed this week are listed below:

- finalised horn design
- constructed horns
- rudimentary testing of horns
- constructed mounting brackets
- worked on noise sources

Tasks Still In Progress

This section includes tasks started in Week 2 but will likely only finish in Week 3.

- construction of noise sources
- testing of horn antennas
- revival of the rotator software
- confirmation of design of horn antenna

Challenges

- Designing the noise sources and comb generators for the S-band frequency range
- designing a clock oscillator capable of producing a square wave at a frequency in the S-band (2 - 4 GHz) from a closed unit device (without the aid of a function generator)
- understanding the VNA
- standard mounts for the devices
- construction of the horn

Upcoming Tasks

- finish Noise sources and Comb generator
- build all devices
- automatic control of rotator
- remote readings using VNA
- Rudimentary testing of constructed devices