

# AA421

## Waterfall Characterization Test Plan

SPACE Lab

Part Name: \_\_\_\_\_

Part Number: \_\_\_\_\_

Date: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_  
yyyy mm dd

Test Team:

Name	Initials
Kai Laslett-Vigil	KLV

## Introduction

This experiment is designed to experimentally determine the spring constant of the waterfall system. The determined waterfall spring constant will be used to understand the relationship between the waterfall dynamics compared to the system as a whole, for use in evaluating the accuracy of the test stands collected thrust data.

## Test Constraints

Constraint	Description	Value
$I_{EC}$	Electrostatic comb applied impulse	TBC

## Test Variables

Variable	Description	Values / Range
$x$	Maximum horizontal displacement of pendulum from calibration impulse	

## Measurements

Measure ment	Description	Range
$x$	Maximum horizontal displacement of pendulum from calibration impulse	
$I_{EC}$	Electrostatic comb applied impulse	

## Test Matrix

Run	Pendulum Max Deflection (m)	Applied Impulse (N*s)
FX1: _____		

FX2: _____		
FX3: _____		

FX4: _____		