



Progress update – TRL/EC Test Programme

Presented by David Hynd
30 January, 2012



Agenda

- Introduction to the programme
 - Objective
 - Overview of the seat rig
- Progress so far
 - 5 repeats with each of 4 dummies (20 tests total)
 - Dummies 028, 068, 077 and 100
 - 3 repeats with outlying PDB dummies
 - Dummies 006 and 007
- Future plans

Introduction

Objectives

Primary

- Compare BioRID seat test responses with certification results
 - Determine correlation between certification and seat test results
 - Recommend updates to certification corridors to control seat test results

Secondary

- Evaluate kinematic measures with on-board and off-board cameras
 - No info in this presentation...

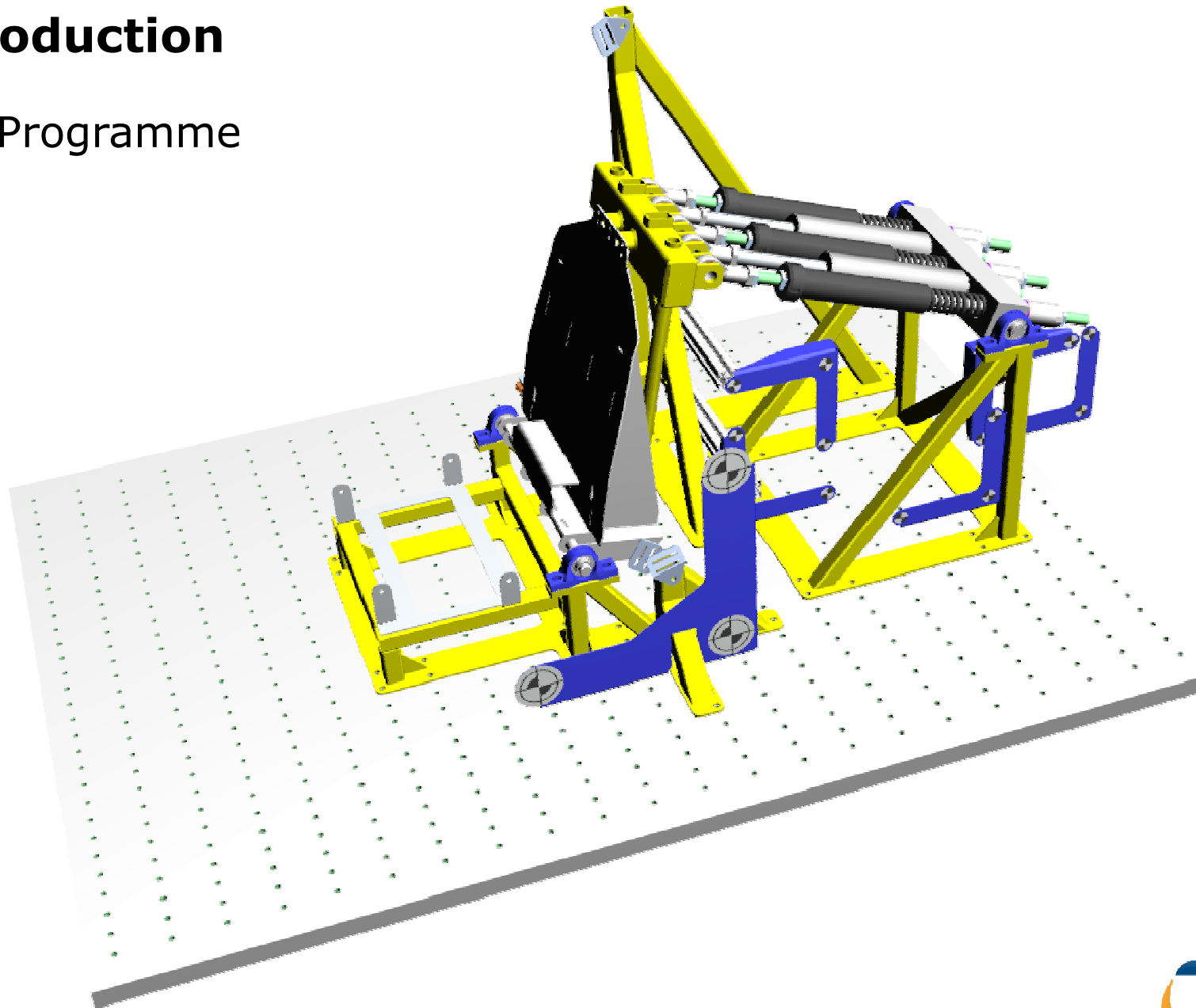
Introduction

Test Programme

- Developed a modified production car seat
 - Seat base
 - Mounted directly to sled
 - Otherwise unmodified
 - Seat back
 - Separated from seat base
 - Recliner mechanism replaced by a rigid pivot and external bearings
 - Seat back structure strengthened to allow repeated tests
 - Seat foam, cover, etc retained
 - Recline and rebound controlled by an external spring-damper mechanism
 - Head restraint
 - Can be mounted to give different backsets

Introduction

Test Programme



Introduction



Introduction



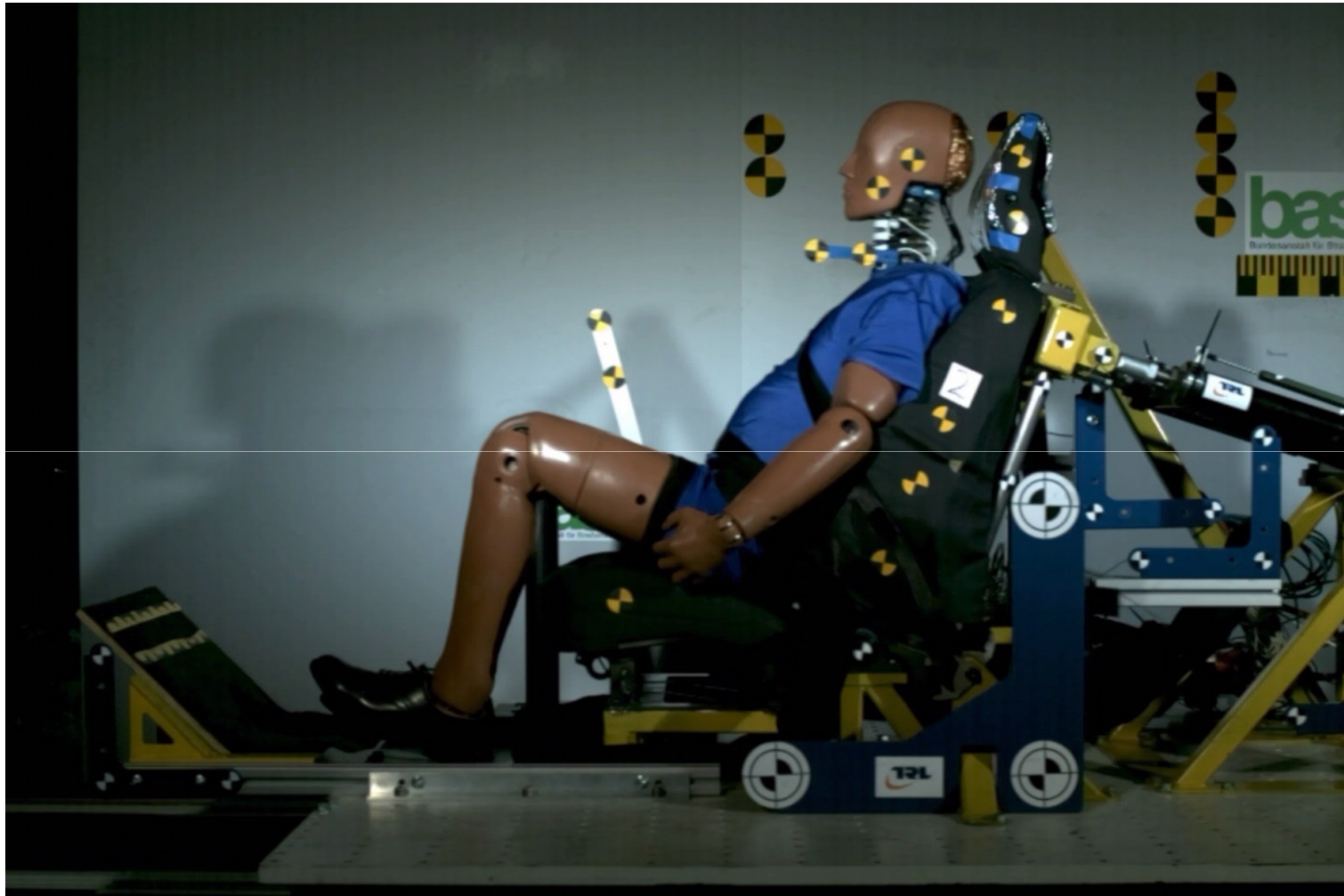
Introduction



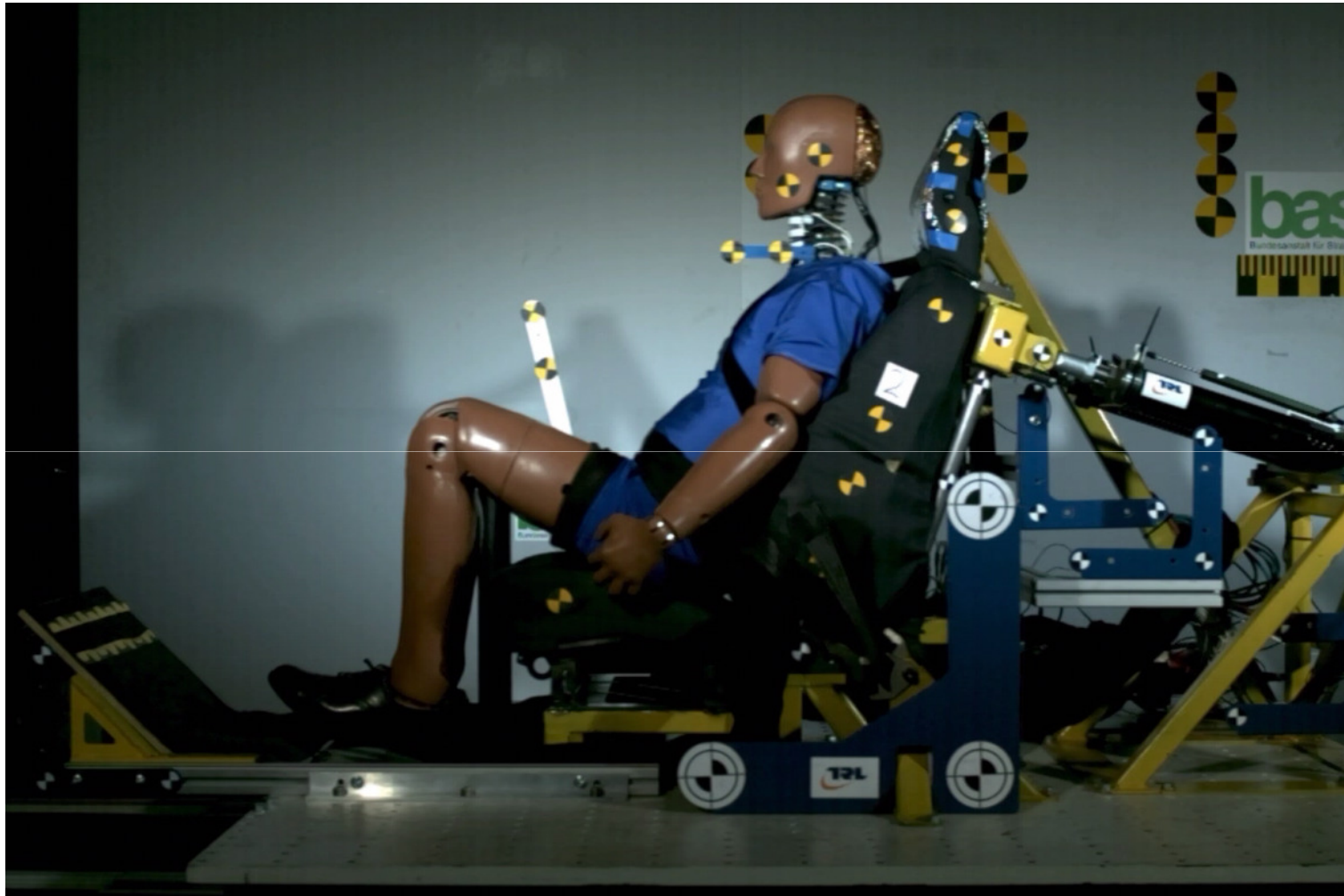
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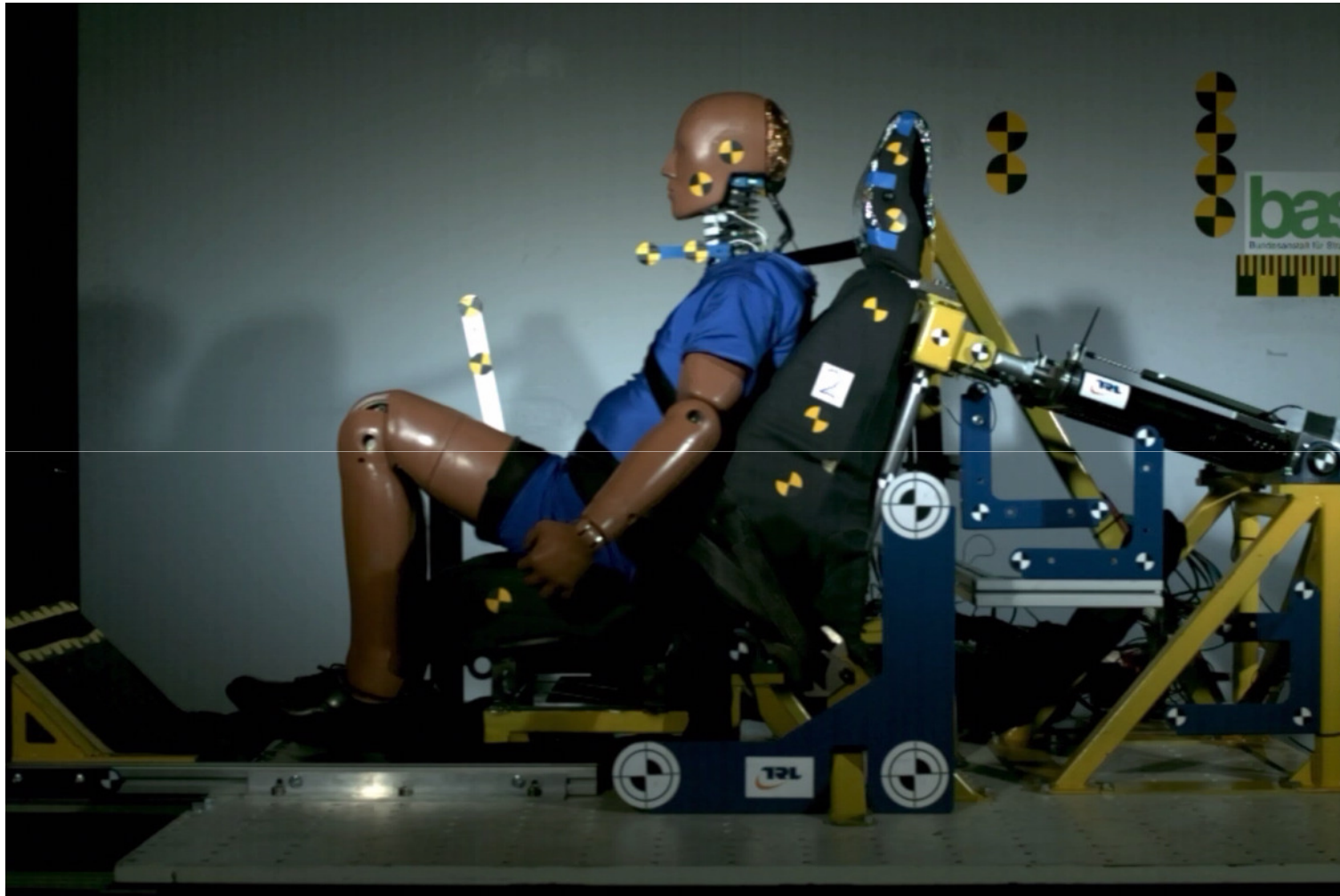
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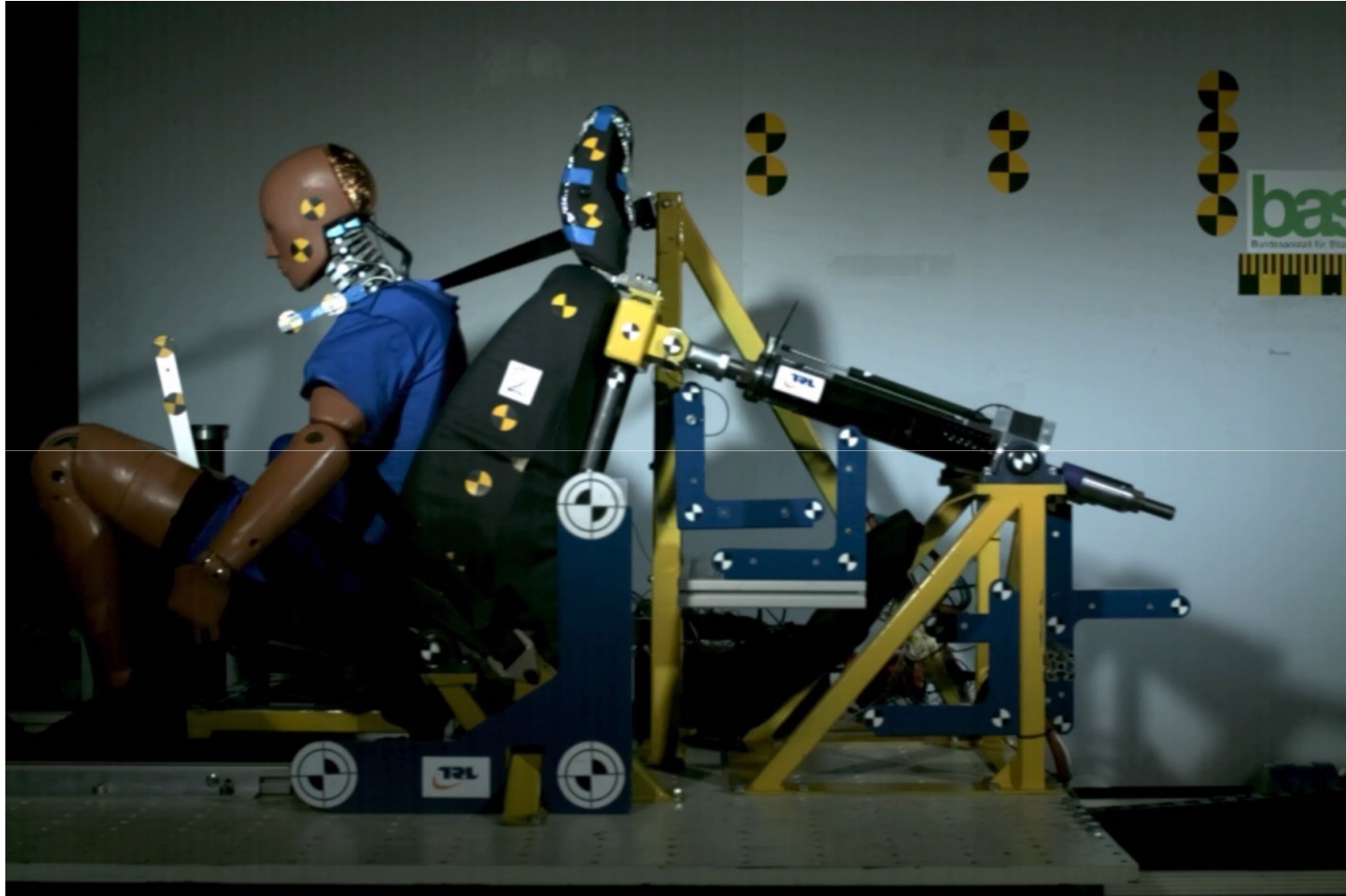
Introduction



Introduction



Introduction



Introduction

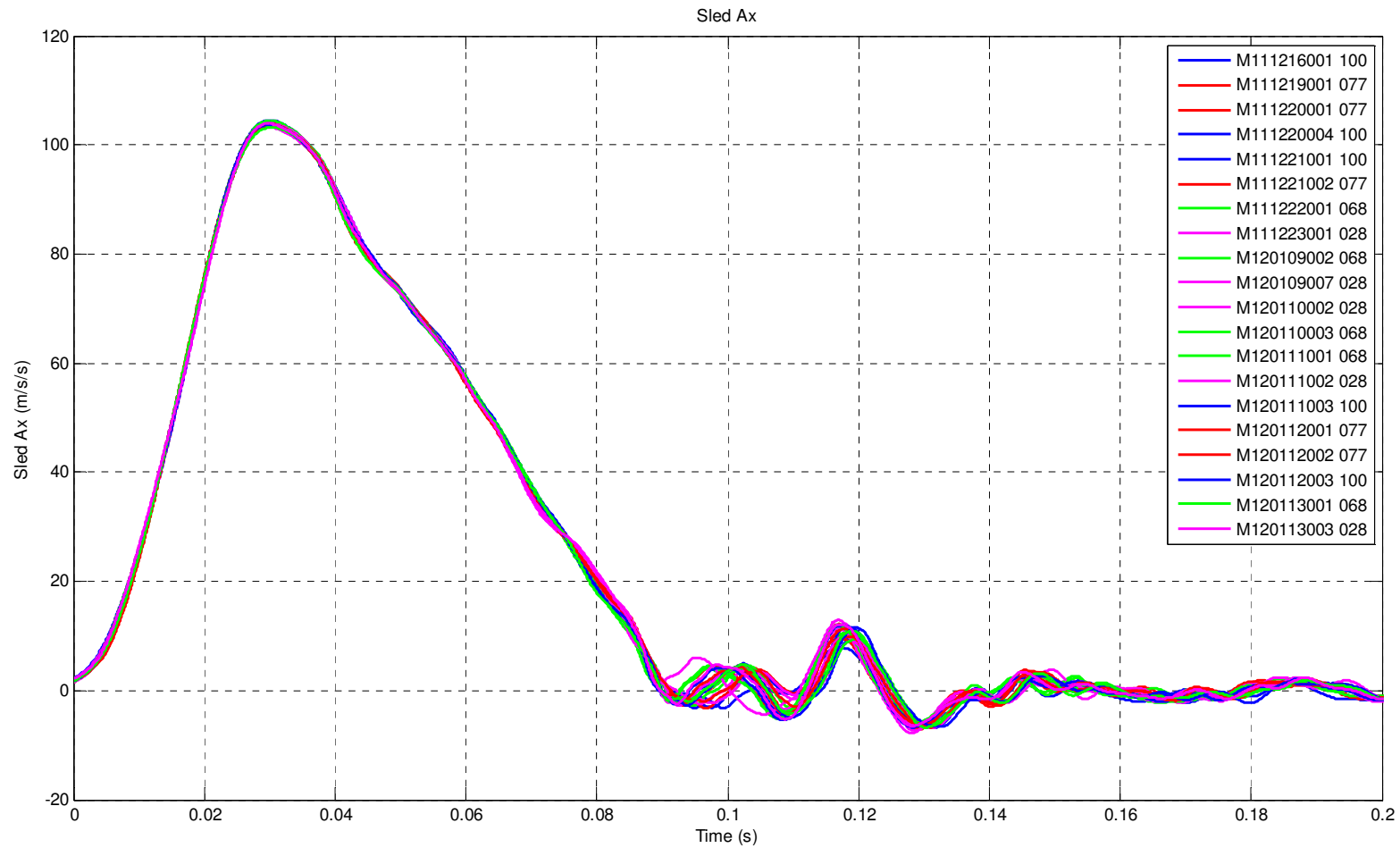
Test Programme

Original Plan

- 5 tests each with 4 dummies
 - Far head restraint
 - Medium head restraint
 - Close head restraint
 - 60 tests!
- Additional tests with selected dummies
 - E.g. 9 tests with on-board camera

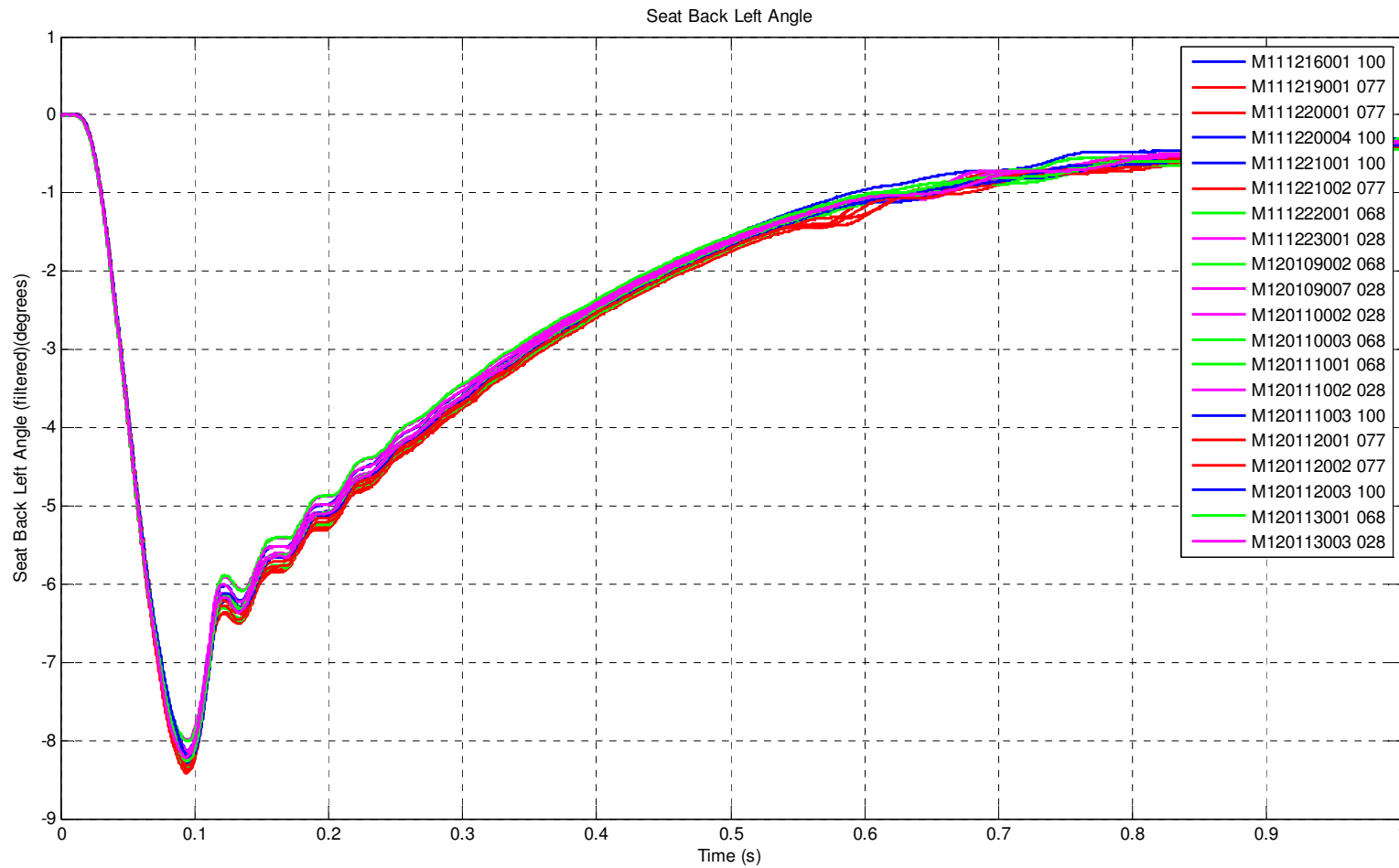
Progress

20 tests with 028, 068, 077 and 100



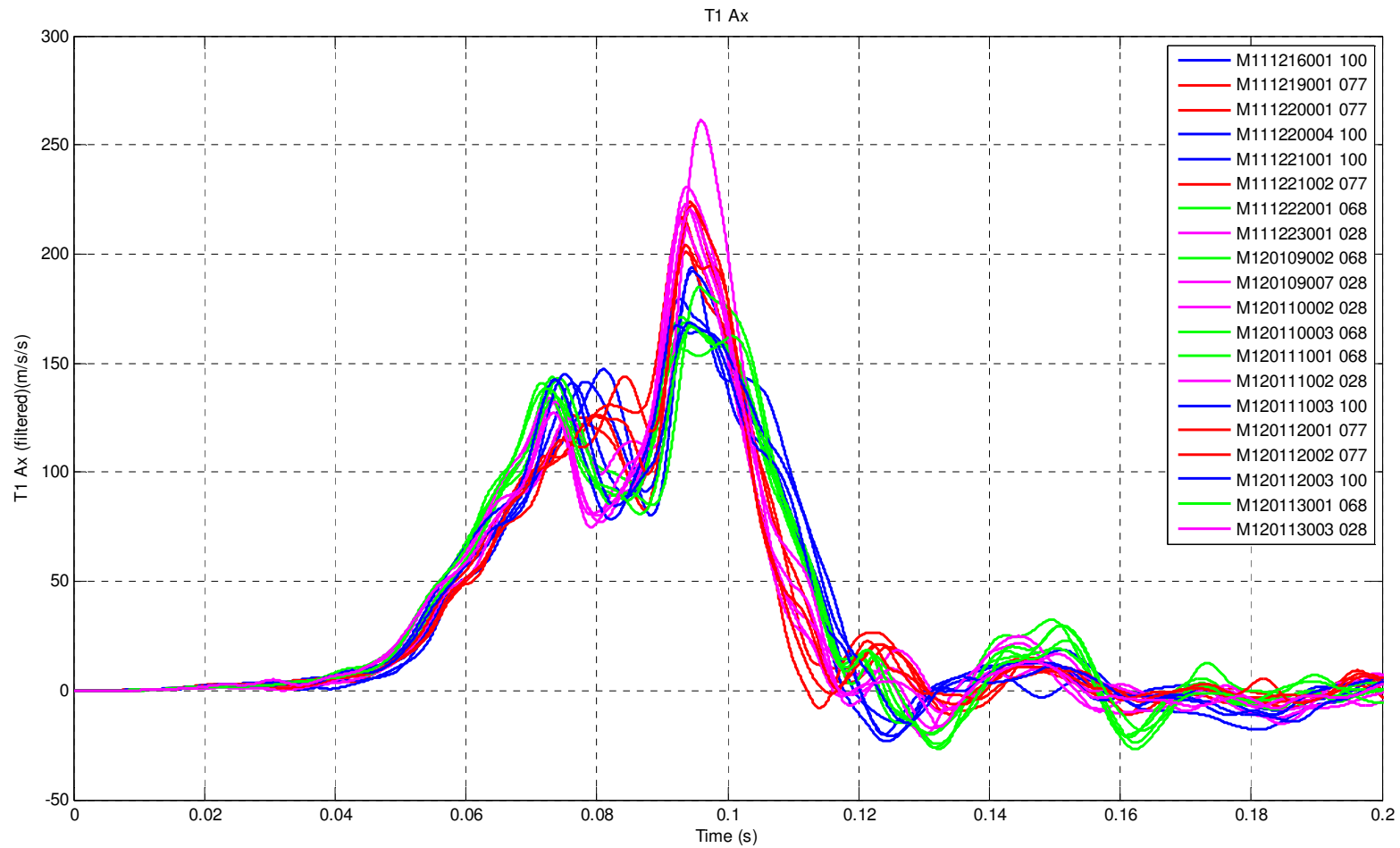
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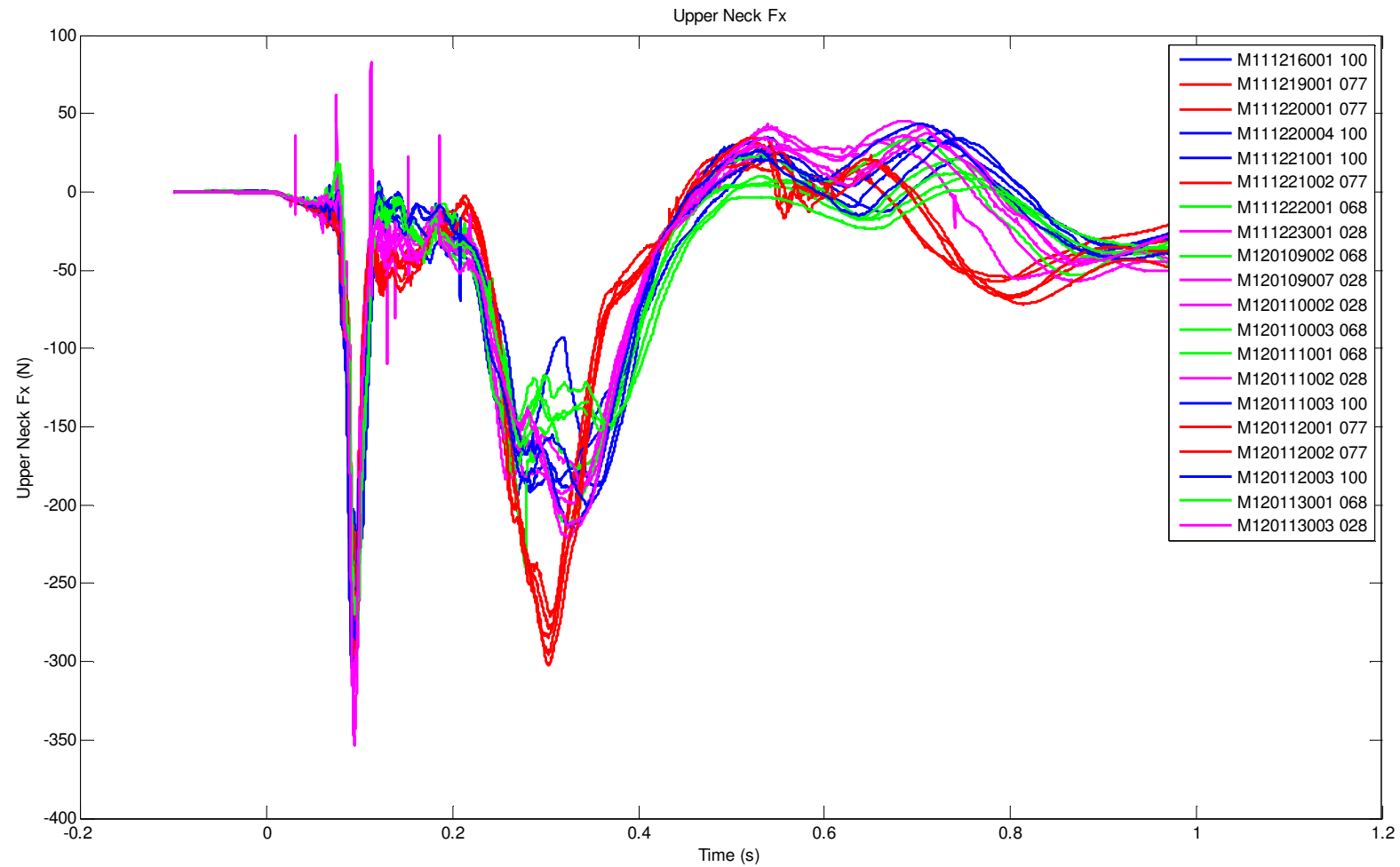
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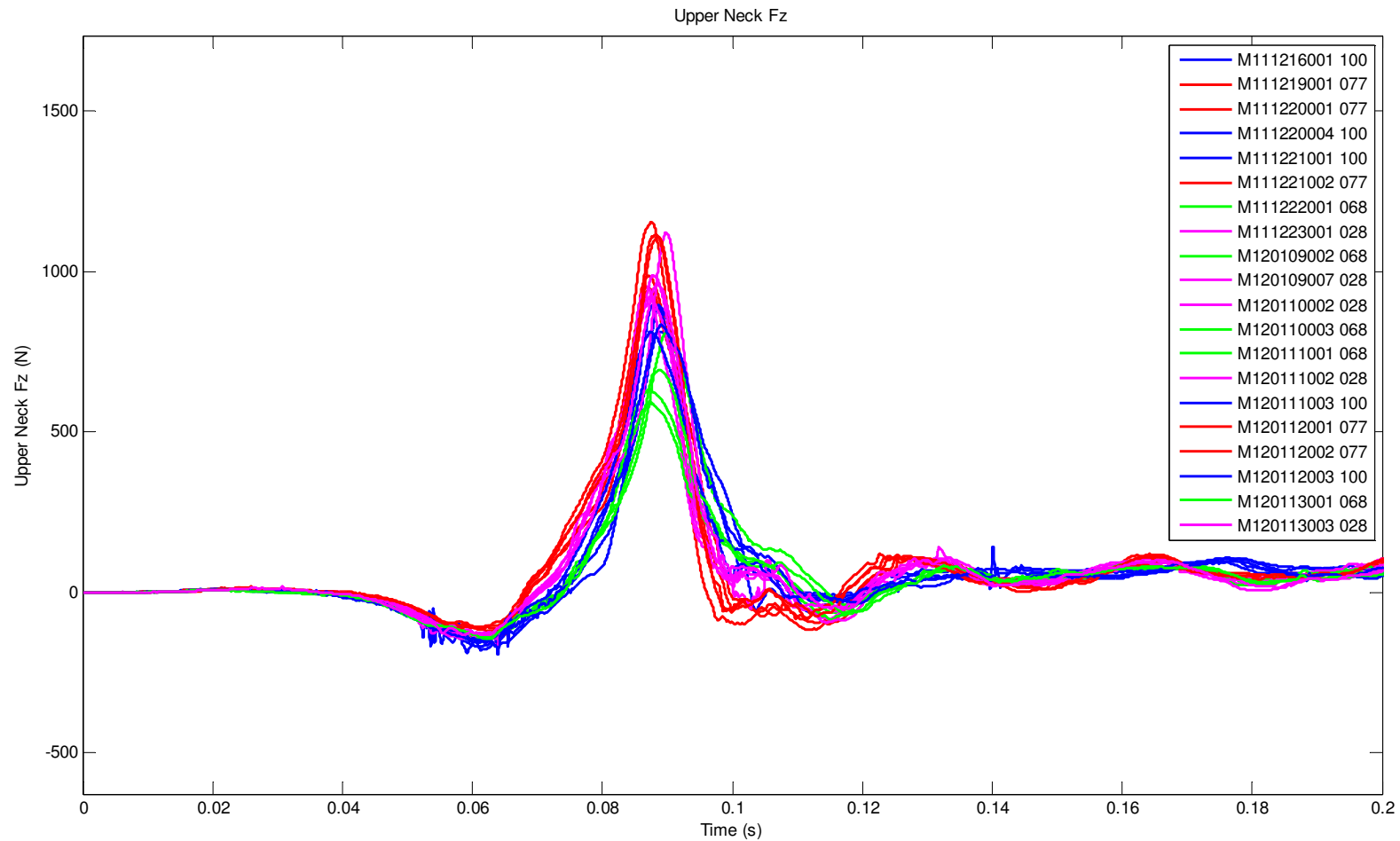
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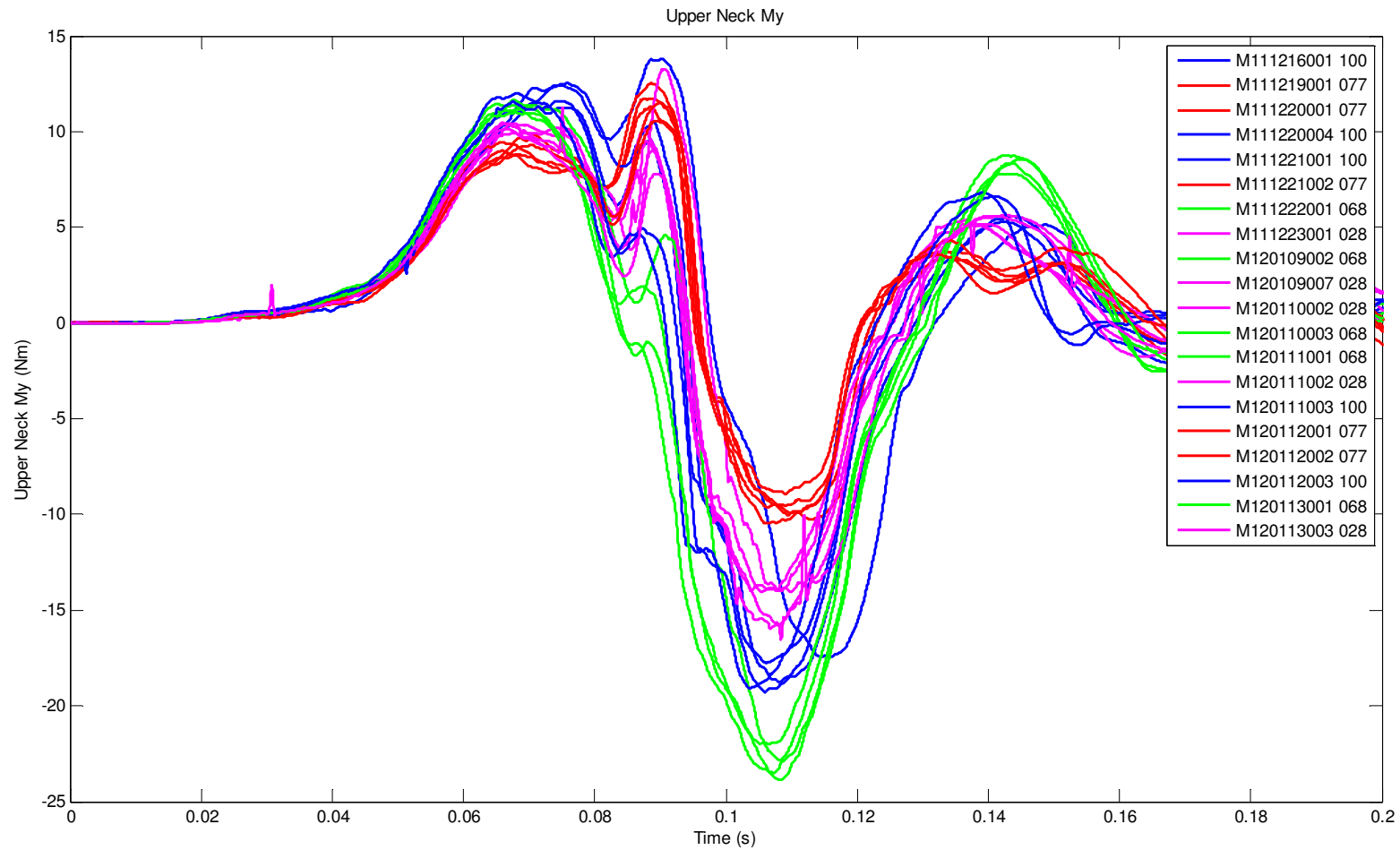
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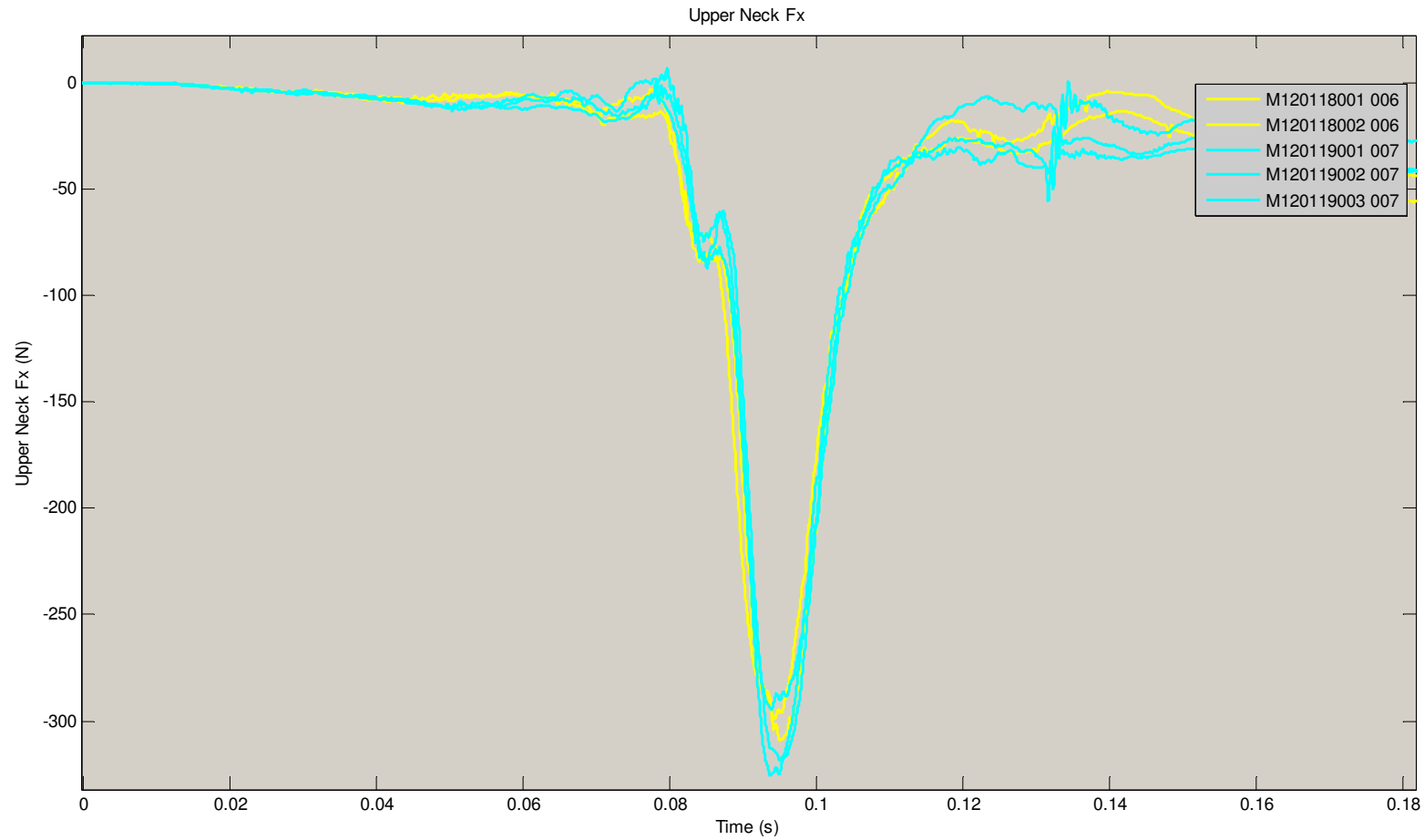
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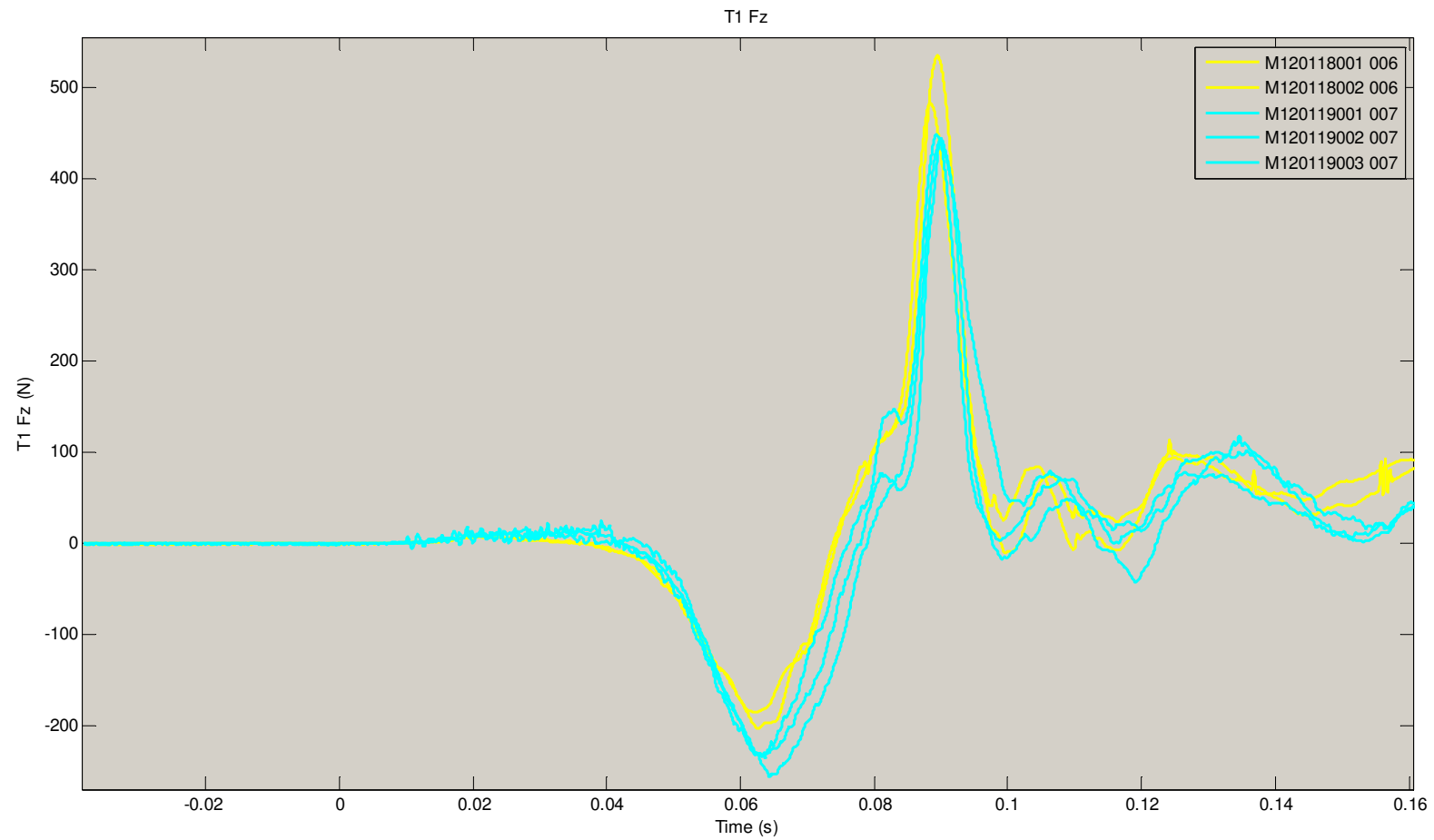
Progress

6 tests with PDB dummies 006 and 007



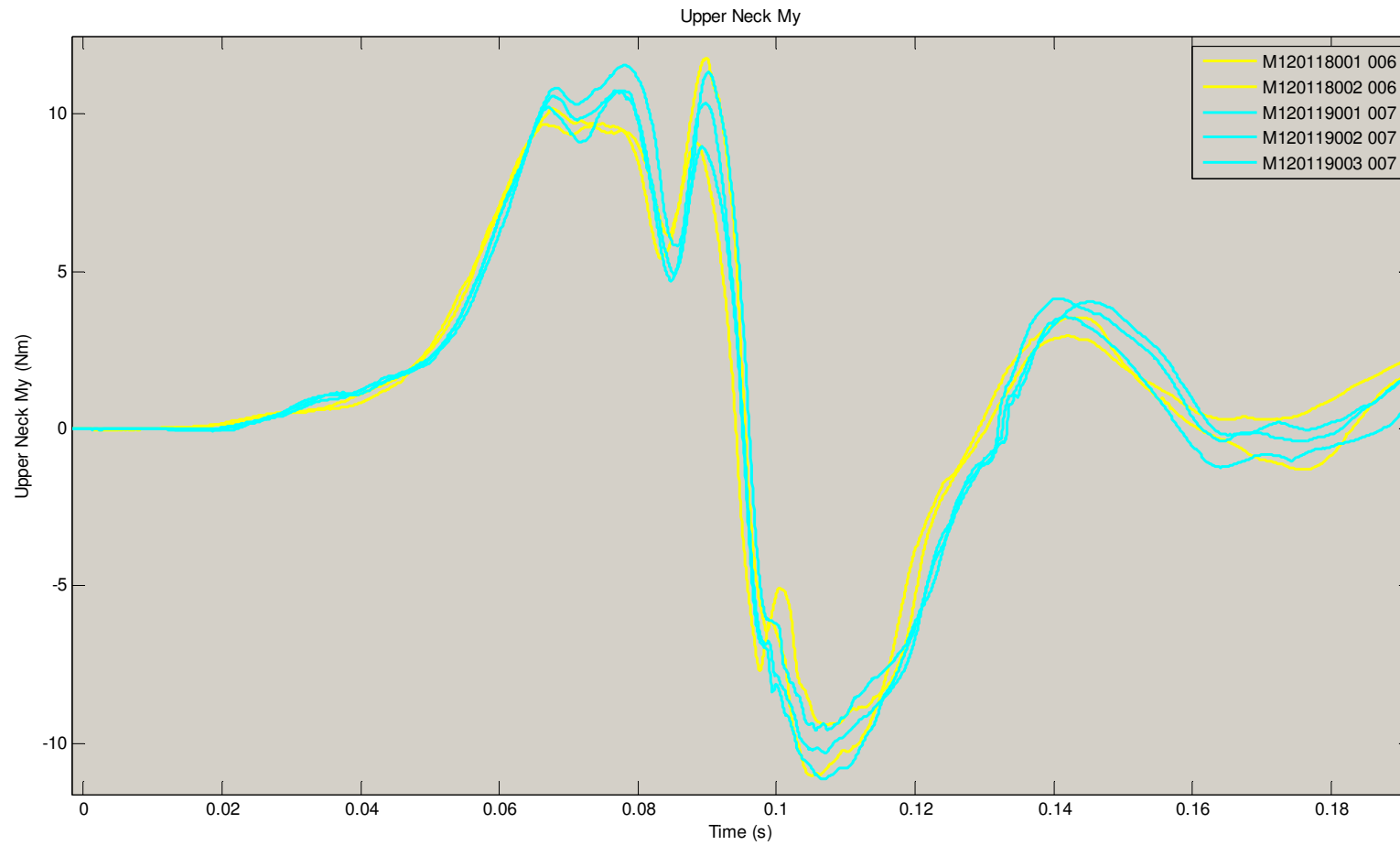
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Progress

6 tests with PDB dummies 006 and 007





Do You Have Any Questions?