

FOCUS-5F

675-1000

FOCUS, which is an acronym for **F**acial and **O**cular **C**ountermeas**U**re for **S**afety, is a headform to provide a suitable test platform for eye and facial injury mitigation devices.

Background

Humanetics collaborated with the Virginia Tech - Wake Forest Center for Injury Biomechanics and the U.S. Army Aeromedical Research Laboratory to develop the original 50th percentile physical headform capable of measuring facial and eye impact loads. The headform is used to test and evaluate various protective devices and other equipment under impact events.

Design

The FOCUS-5F is a 5th percentile female sized version with the bone and skin biofidelity of a 5th percentile female head. The headform supplies data and results for all anterior and lateral orientations for the bone and skin testing. The FOCUS-5F is designed as a modular system with the ability to select the instrumentation applicable for a variety of test scenarios. The headform features 8 discrete facial bones, 2 synthetic eye modules, and up to 11 available load cells, and is compatible with the standard Hybrid-III neck.

Synthetic Eye Modules

The FOCUS-5F headform features two modular synthetic eyes for the prediction of eye injury from nonpenetrating impacts. PMHS eyes can be mounted for the prediction of eye injury from penetrating impacts.



Key Features

- Modular system
- Eight discrete facial bones
- Two synthetic eye modules
- Synthetic extraocular tissue
- Simulated orbit



Instrumentation

Sensor	Description	Axis
12930JLN2	Nasal Bone J-211	FX FY FZ
12935JLN2	Frontal Bone J-211 (R&L)	FX FY FZ
12940JLN2	Zygoma Bone J-211 (R)	FX FY FZ
12945JLN2	Zygoma Bone J-211 (L)	FX FY FZ
12950JLN2	Maxilla Bone J-211 (R&L)	FX FY FZ
12955JLN2	Mandible J-211	FX FY FZ
12960JLN2	Eye J-211 (R)	FX
12965JLN2	Eye J-211 (L)	FX
12970JLN2	Upper Neck J-211	FX FY FZ MX MY MZ
7264C	Accelerometer	AX, AY, AZ