



NAJA 3D

NAJA 3D - HISTORY

1997

Introduction Electronic Measuring System



2004

2nd Generation




2011

TECHNOLOGY TRANSFERT
HEXAGON METROLOGY -> CELETTE

2014

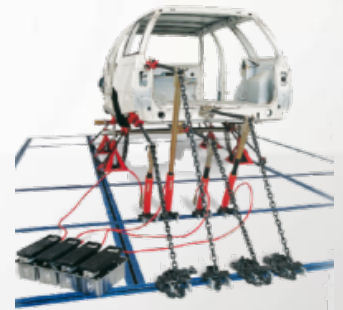
New Software =
(INNOVATION AWARD)

NAJA 

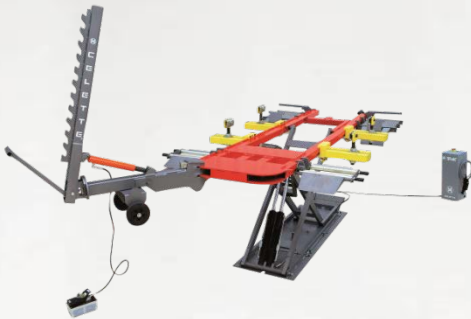
NAJA 3D – HOW TO USE



DIAGNOSTIC = 2 POST LIFT



BASIC REPAIR = FLOOR SYSTEM



SMALL REPAIR = PULLING PLATFORM

STRUCTURAL REPAIR = BENCH



NAJA 3D – KEY POINTS



+/- 0.7 mm (max) ACCURACY

MEASURING VOLUME = 5M x 2M x 1M

HEXAGON METROLOGY TECHNOLOGY

1 MEASURING HEAD = 5 SENSORS

4 METER ALUMINIUM BEAM

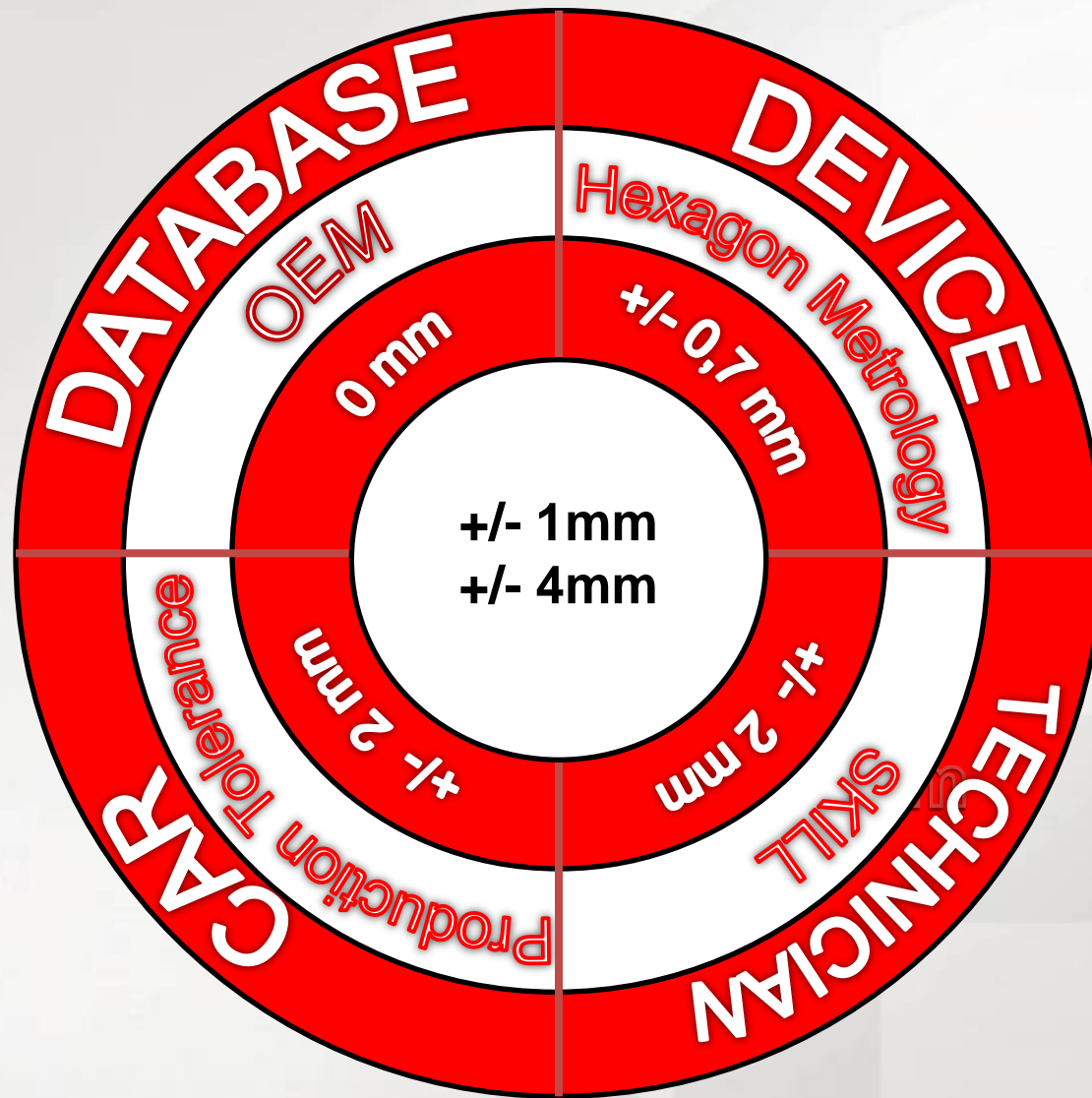
CARBON FIBER ARM

HEAD ASSOCIATED WITH THE BEAM

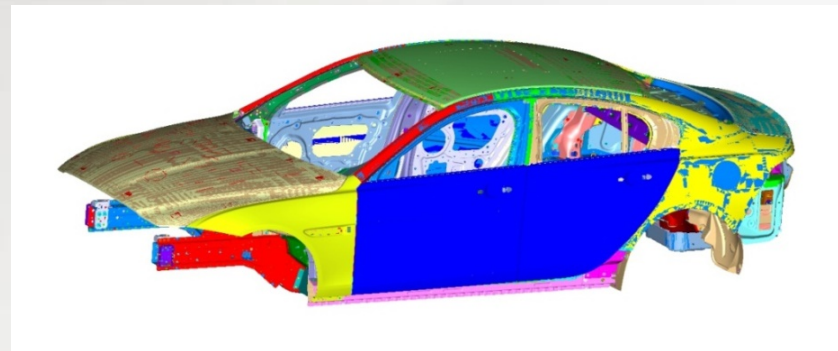
PROBES WITH DIFFERENT HEIGHT & DESIGN

RANGE OF SOCKETS

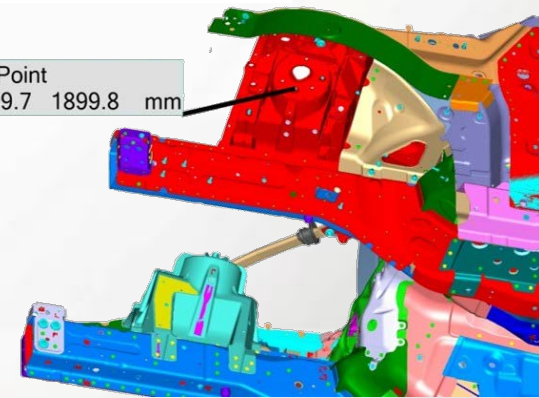
NAJA 3D - ACCURACY



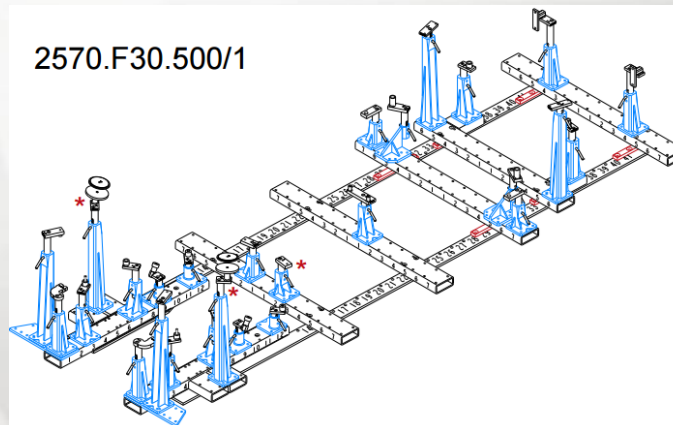
NAJA 3D - ACCURACY



Point
1440.7 -399.7 1899.8 mm



2570.F30.500/1



NAJA 3D - ACCURACY

5 internal sensors

4m Aluminium Rail

HEIDENHAIN Sensor = 144000 steps

Carbon fiber

Several Extensions

Additional rotation

Z = 1 m

Accuracy = $\pm 0,7\text{mm}$

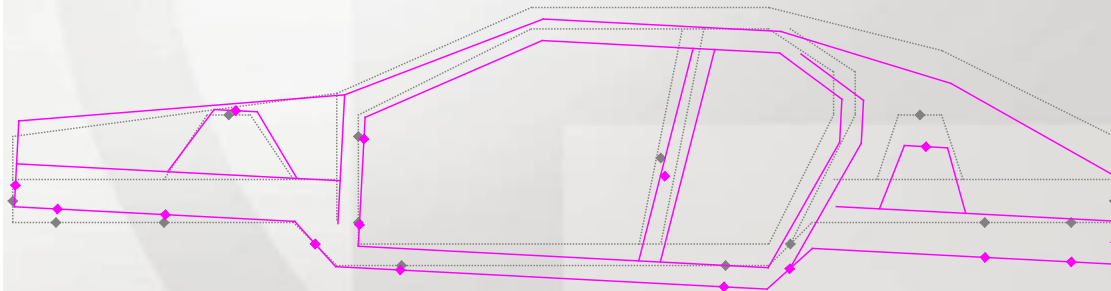
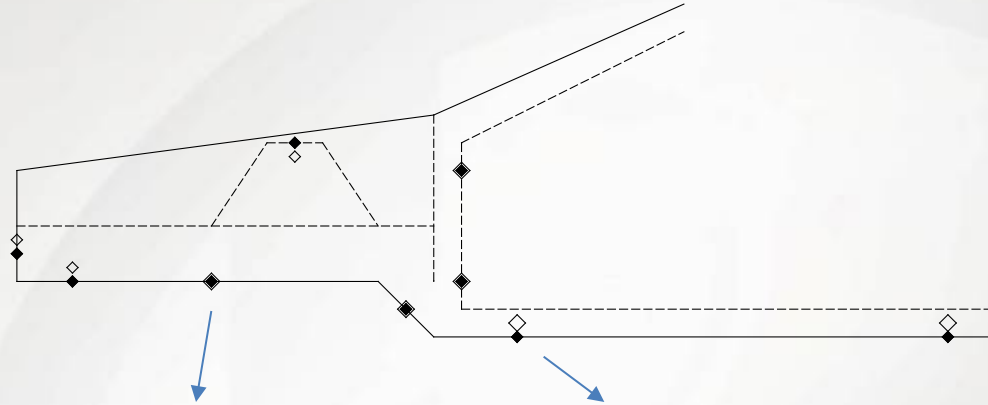
X = 5 m

Y = 2 m

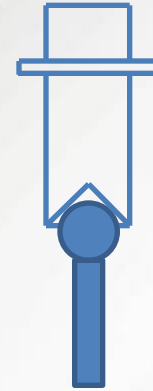
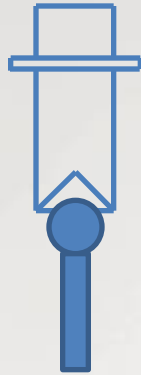


CAR PRODUCTION TOLERANCE

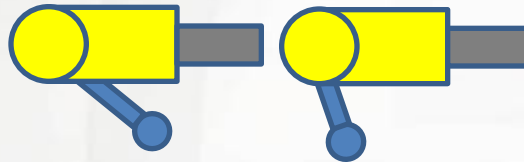
AFFECT THE QUALITY
OF THE LEVEL



NAJA 3D - ACCURACY



Wrong socket holding can affect the accuracy



Wrong Starting position will affect Naja accuracy

RAIL BENDING EFFECT is compensate by Calibration



Wrong rail setting may affect the accuracy

