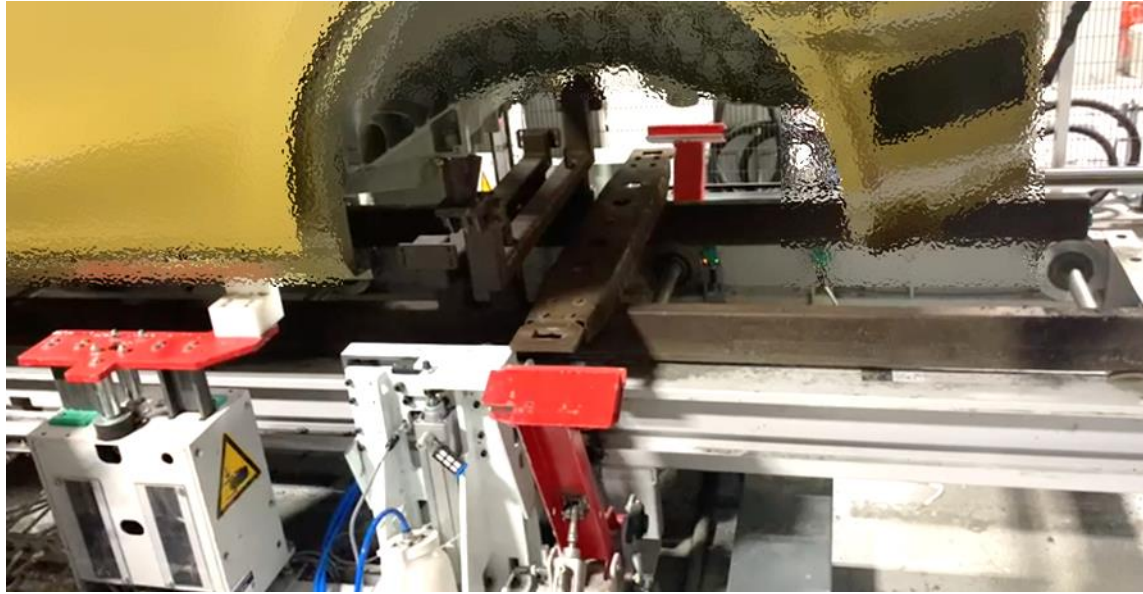




Automated Unlocking Station Assembly - Case study



Automated Unlocking Station Assembly



Nut-runner installed in assembly line

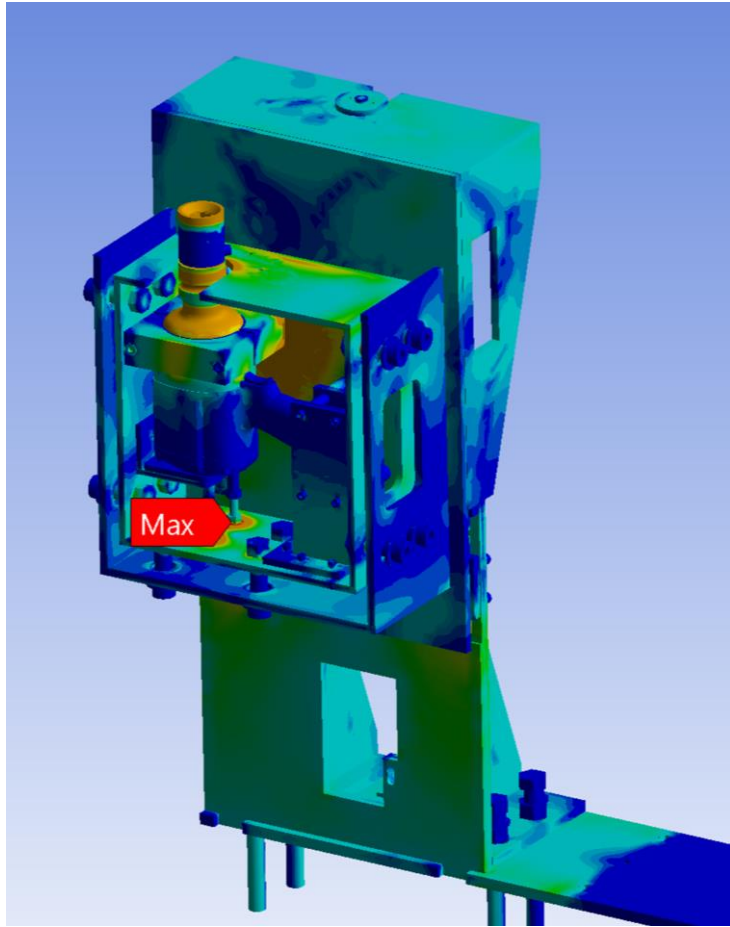


Fabricated Assembly

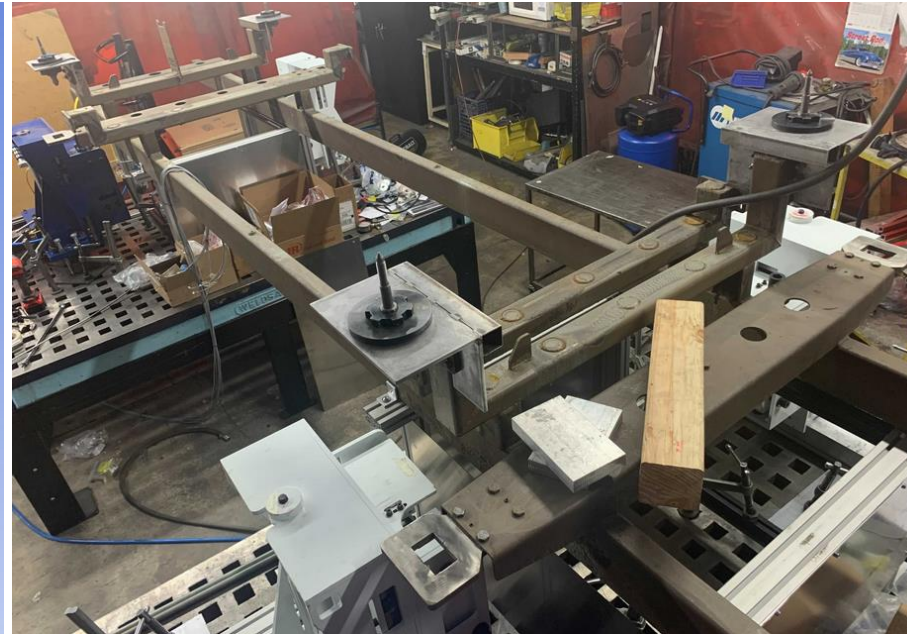
Project Summary

- AES team developed an automated unlocking system which unbolts car body from a skid at 4 places.
- Car body is transferred to this station on a conveyor with a skid which is secured by 4 bolts. Then conveyor stops in this station for these bolts to be unlocked.
- Lift mechanism lifts the pneumatic wrench and unlocks bolt in skid from car body at all 4 corners same time.
- Proximity sensors are used for cylinder up and down feedback and one for socket rotation sensing.
- Pressure and flow sensors are used for measuring the pressure and flow rate of pneumatic wrench at each station.
- LOTO (Lock Out Tag Out) safety feature designed for maintenance purpose.
- AES involved in Design (Mechanical, Electrical & Pneumatics), Manufacturing, Assembly Integration, Testing, Installation, Machine Manuals, Spares and provided Training Operators.
- Throughput time - 60 seconds
- Execution Period - 6 Months

Automated Unlocking Station Assembly



FEA of Nut-Runner



Test Setup



Pneumatic Cabinet

CONTACT US

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<https://aesgs.com>



THANK YOU