Automobile applications for laser line projectors

A major automobile headliner supplier wanted to accurately align labels and holes in the product.
The company installed small (Z5T) lasers about 1 meter above the headliner in the position the holes needed to be made. They employed a small cross laser system with the centre of the cross being the central position of the holes.
The label positioning was a much more difficult task to solve. They could not position the lasers exactly above the position the label should be, so they used an adjustable “L” shaped laser where the angle of the “L” shape could be adjusted so that they could mount the laser at an angle to the work piece. By mounting two lasers, one on opposite corners of the label they were able to precisely locate them.

Another major supplier of car seats needed to accurately position the lasers so that they would be able to put the material on the car seat in the correct location and exact orientation. By using a series of cross and line lasers that they mounted 1 metre above the workpeice they were able to do this easily.

They have also been used on car test rigs where seat belts and airbags are tested under crash conditions using dummies. The lasers help accurately to position the dummy in exactly the same place where repetitive tests are needed. Markers on the dummies are lined up with the lasers which are in a fixed position. Therefore the user is aware that the dummy always goes back to the same location.

Cross, dot or line lasers can be used in car applications were wires or cables need to run across headliners. They can allow the operator to accurately position the cabling very precisely.

Lasers have now been used in a wide range of automobile applications, to accurately position piece parts of locate two piece parts so that they are accurately aligned. Line Lasers are also used to align tyres on test rigs.

If you have a new application for line lasers in the automobile industry please tell us about it so we can share it with others, assuming of course it is not company confidential.