

ANTI-THEFT SYSTEM FOR CATALYTIC CONVERTER

Team: Theft-Away

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MECHANICAL ANALYSIS

Spatial Analysis of most targeted cars:

Complete:

- Complete for a 2004 Toyota Camry LE which should also fit Toyota Camry models ranging from 2002-2006.
- Found mounting hole locations to redesign mechanical housing to properly mount to the frame of a 2002-2006 Toyota Camry LE

In Progress:

- Still need to complete this analysis for a Toyota Prius and possibly one other car in the most targeted list.

Thermal Analysis with new Mechanical Housing Design and material:

Completed:

- Original risk reduction tests are completed where we were able to say with fairly high confidence that adding a mechanical housing under the catalytic converter would not affect its performance or harm the undercarriage of the vehicle.

In Progress:

- New analyses or physical tests will take place with the new 5052-H32 by .09" Aluminum that we will be using for the housing.

Heat Dissipation:

- May need to be done once designs are finalized, however, implementation of louvers will help and this should be able to be accomplished.

Fitment:

- These analyses and tests will occur once the prototype is completed and the test fitment process can begin to ensure proper fitment and make any necessary revisions to the design.