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Autist mobile seat's frame strength simulation used in a car

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Going on a car with autistic children needs a special handling. Autistic children that tend to be hyperactive in the car may disturb driving. A tool is needed to keep them in a calm state when they are in the car. Autist Mobile Seat is an aid for the autistic children when going on a car. The aid is an additional seat paired with the main seat of the car. This aid consists of three main things: Main frame, body skin, and pneumatic system. Frame as the main component supporting the Autist Mobile Seat functions as a holder as well as a body skin retainer in order to be able to retain the body of the autistic children. The strength of the frame from this Autist Mobile Seat should be

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counted as an anticipation from the failure of the frame function when receiving load when used by the autistic children in the car. Consequently, a test on the frame of the Autist Mobile Seat towards the load received should be conducted by using a method of FEM (Finite Element Method) with the help of commercial software. The simulation produces the maximum strength, the frame towards the load received as well as the critical point on the frame when loading occurs. © 2016 Author(s).

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