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Heuristic Deduction of the Newton's Second Law GREGORIO RUIZ-CHAVARRIA, JONAS TORRES-MONTEALBAN, Universidad Autonoma Chapingo — In this work we present a heuristic justification about the form of the second law of Newton. We start with a basic definition of force as the interaction between the body of study and everything that surrounds it. We define the mechanical state of a body through the momentum, because this gives us a measure of the ability to carry out an interaction. Now with this definition, the variation of the state of the body over time gives a measure of the intensity of this interaction. From this variation in time, we can establish Newton's second law. The approach described above can be used with students in pre-university and university.

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