Self-Adjusting Shelves

In the modern era, we all face a shortage of space. If we use cupboards or shelves they acquire all the space and even if they are not in use the space acquired by them can't be used for any other purpose.
Addressing this very problem, I have designed a shelf which will use servo motors and obstacle sensors for it's function.
Working principle :- If the obstacle sensor will detect any obstacle then it will stay in it's original form but if it detects no obstacle in that specific area, it will automatically command the servo motors to move and all the faces of the cupboard will fold and stack against each other. This will reduce the area covered by the shelf and that space can be used to store other objects such as trolley bags. We can also employ IoT in this as if we want to know whether a particular cupboard is storing something or not then we can code the sensor to uplaod everything on a cloud platform.
Future prospect :- We can add a feature which will recognise the object and inform regarding the same to the user.

This is something entirely new and will help in customizing rooms or workplaces according to personal preference.