Kevin Doyle, Shane Staret

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Future Plans

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In the future, the Roomba program could be built using declarative memory to remember what spots are often dirty. Declarative memory would help with this because the robot would remember long-term facts about the environment, greatly influencing its capabilities. If it could use declarative memory, it could be instructed to check those spots automatically. Similarly, a second capability that declarative memory could add is the ability for the Roomba to remember where certain obstacles are in the room or where the room has a spot that is tough to escape from. If it can remember where these obstacles or inescapable spots are then it can avoid them or visit them less often, making the system more efficient. Additionally, another detail that could be implemented would be to have automatic charging by returning to the charging station, and return to cleaning after charging for a certain period of time. Yet another feature could be to remember how much of a charge the robot needs to clean the whole room and only charging it enough to reach that point. This allows for maximum amounts of clean per day. All of these additional aspects would use declarative memory as they are seen more often.