Robot Challenge. Design a robot that can perform any function or activity you choose from an automatic laundry robot to a customer service robot. The robot must contain a digital dashboard and enable decision support capabilities for its owners. Post a paragraph to the discussion board describing your robot, its functions, how the digital dashboard works and supports users, and why customers would purchase your robot. Feel free to include a picture or diagram of how your robot works.

AI Gardener

An automated greenhouse for lazy or neglectful gardeners, like myself. Software would receive temperature and humidity measurements from within the greenhouse and know to open windows to vent air or turn on fans, as well as watering plants according to the species under its care. Users have the option of allowing the software to identify new plants according to leaf shapes, size, and color, and allow the software to determine the appropriate care for the species to optimize growth.

The digital dashboard for the AI Gardener allows users to set up the system to text-message or e-mail them when supplies begin to run low. Users may review the growth of their plants with time-lapse videos of the greenhouse and charts outlining its productivity. Users are encouraged to tweak the system to their personal preferences, emphasizing growth or energy and resource savings using an interface that visualizes how this balancing act works.

The decision support system connects to online resources about the plants, offering best practices, trivia, and comments from other gardener's experiences with them. It suggests other species that will thrive in the same environment as the current species, using the USDA's 10 gardening zones and a database of other species that thrive in the area local to those already in the greenhouse.

The system will also allow for experimentation as well with a genetic algorithm option for growing plants that connects with other AI Gardeners around the world who are growing the same species. The AI will experiment with minor variations in temperature, nutrients, and watering to find new best practices for growing specific species. Such experiments will provide enough variation to slightly affect the growth of a user's plants; however, not enough variation for the user to notice such impacts.