

Engineering Team
Project 3



**Excellent
Award**
SEFMD 2009-10

Title: The Mechanical Pharmacist

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Grade Level 11th Grade

Design Team Membership: Engineering Team Design

IT/STEM Tools Used: **SCORBOT** ROBOTS and ACL robotics programming language

Project Overview: The purpose of this experiment was to determine if transporting a prescription can be done automatically so that a pharmacist could work on other things. This was accomplished by using the SCORBOT ER-V Plus robotic arm and other parts such as a conveyor belt, pill containers, a computer for programming, wires, photo resistors, LEDs, wooden trays, and other essentials. The project used plastic bottles that the pharmacist would pre-fill and place on a wooden shelf ready for delivery. When a certain drug is requested by a customer, the robot would then select the correct container and deliver it via the conveyor belt. If the prescription drug was running low, the robotic system would notify the pharmacist right away. After initial testing, the process took no longer than a minute to deliver the prescription. If the robotic arm could be used with a vehicle, then it would have access to many more prescriptions. The project itself was successful and could provide the layout for a more automated pharmacy near you.