

Translation via Google Translate (approximate)

Note to Judges: This translation is posted by Janice Miller, not by the team.

We did not specify entries had to be in the English language for this challenge, so this entry is allowed for this season.

The production of this robot, PERKIN, was carried out to teach and integrate the new members of Cienciabots in the field of Robotics, where the next team leaders, along with these new members, pose the arduous task of building the Robot proposed in this challenge. The leaders of this challenge wonder how to teach the making of a robot, so they have the following question to the new members, "What are the steps to follow when putting together a robot?", Where through a series of steps is taught the complete work before building a robot, we work with: First raising the idea (Design a robot that can provide company, in a home of the future), then look for broad solutions (A robot that worries about the food for a team's "butler"). After this it begins to devise how it works, what is, implementation of mechanisms (a clamp with a tray), but you have to comply with the requirements so you create mechanisms within the restrictions they give you. When these steps are ready, theoretical PERKIN calculations are made to see their operation (they were made by the old members by calculations already known by them), then spatially locate the pieces of this robot and arm itself. In either of these steps it is used in trial and error.

The design is based on a base with a platform, which fulfills the function of carrying objects, and a clamp which is an arm that collects objects and distributes them. The PERKIN functions as a "butler", which is responsible for offering products to different people and to bring what is needed. PERKIN is in charge of controlling that everything is in optimal conditions to better develop the work. This robot is built with VEX parts, and the calculations developed in order to meet these standards of the challenge.

By constructing this robot in conjunction with these new members and with the preparation that the team was already given, it was demonstrated the skills and areas of interest of these new people and also their weaknesses where they need to develop. For this reason the filming of this video focuses on the role of the robot in a team of robotics, community, etc. But it also shows the learning of the new pupils and the teaching of the old in the different disciplines of Mechanics, programming and planning. The construction of this robot showed us the leadership of the new members, their innovation and their keen interest in learning.