

**University of California
EDC 4-H Youth Development**

Program Background and Update May 2012

Countywide 4-H Robotics Program background and update- May 2012

This Robotics project was initiated as a part of the STEM (Science Technology, Engineering and Math) education/awareness in El Dorado County when Carol Martin was heading the County Youth Commission and Nathan Somavarapu, one of the County youth commissioners wanted to advance Science and Technology and provide robotics opportunities for the youth as a part of his youth commission agenda.

As Carol and Nathan were working on the action plan to meet his goals almost a year ago, the 4-H robotics program/curriculum was unveiled in 2011, and Nathan recruited his team Robotics Nova to get the necessary training, so they could help and develop the 4-H robotics program for the county. So, Srini Alluri, coach of team Nova and Millun Atluri, Rohun Atluri and Nathan Somavarapu, all part of the team Nova, a First Tech Challenge (FTC) For Inspiration and Recognition of Science and Technology (FIRST) robotics team, were trained by the 4-H on the national 4-H Robotics curriculum in 2011 Summer. While the mission of this program is to get the youth of El Dorado County ready to meet the Science and Technology challenges of the 21st century, Carol suggested to Nathan to start it off as a 4-H robotics program to make it more manageable and also for utilizing the benefits of 4-H program.

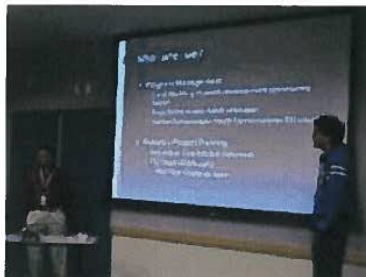
So, Nathan and his team Nova have set up an informational meeting at Intel in late November of 2011, and shared the project information goals and requested adult mentors help to support this program. This initial meeting was well attended by over 70 people both youth and interested parents from around the county. With overwhelming interest from the youth and the parents, there were several subsequent meetings organized by team Nova and were attended by the adult mentors who were trained in the 4-H robotics curriculum.

The program started as a train the trainer model and the adult mentors were trained by the team Nova to lead the county 4-H youth teams in the 4-H robotics curriculum developed by the national 4-H and Lockheed martin, utilizing junk drawer robotics with parts lying around in some one's garage. This junk drawer robotics is created to teach the youth about basics of Science behind the robotics creation and introduce them to elements of robotics such as planning, designing, building and programming a robot. The goal of this program in the county is to expose as many youth in the county to this program and provide them opportunities they may not have otherwise. Eventually, the goal is to help the youth to form competitive robotics such as FLL (FIRST Lego League) or FTC teams that will allow them further to sharpen their skills, learn and compete at a regional and national level and experience firsthand the excitement of involvement in robotics and STEM.

Currently the trained volunteer adult mentors are forming several teams in different locations of the county to go through the 4-H junk drawer robotics curriculum in June and July and after successful completion of that curriculum, they will be ready to form some competitive robotics leagues this Fall. We have received a grant from the California 4-H foundation to buy some 'junk drawer robotics' kits and would need more funding for the teams eventually to form the competitive robotics teams and buy the

parts and compete.

Hopefully, this will become an annual training program and spread throughout the county with the support from the county board of supervisors, public and the youth, and provide several opportunities for the County youth to be involved in Science, Technology, and Engineering and learn about robotics. The program will need funds through grants, fund raisers or other means to support this program and create a sustainable robotics program for the county.





Agriculture and Natural Resources, University of California

Webmaster Email: rkleveland@ucdavis.edu