Nuts and Bolts of Managing Educational Robotics Programs Coleton McElhannon Preston Robotics

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1. Introduction

There are many components to managing an educational robotics programs. The group definitely needs to be organized and have good management. The organization is also going to need funds to support competitions and robots. We will need to recruit younger students to have sustainability. The group will also want the support of the school administration. The success of our team is very similar to the running of the nuts, bolts, Lego pieces, motors and servos on our bots.

2. Program Management

Our group has two team coaches. This makes it very convenient for one person to watch over the Botball group and the other person to manage the Junior Botball group. Two coaches also work great for us, for instance, if one has an appointment the other will be there to help us. Within the Botball team, we have a team leader that is available to reconcile any disputes. Our team coaches basically manage our group but they are always there to bounce new ideas around, allowing us to basically take control of our design and programing.

3. Fundraising

Money makes the world go round! There are very few exceptions to the rule and robotics is not an exception. This is a wonderful program and anything worthwhile is probably going to cost. We have been lucky so far by having some grants to take care of our fees and expenses. We have also done some fundraisers in the past. We have great success with having pizza days. We are also wanting to have candy bar sales, car washes and bake sales. Our school administration has to approve our fundraisers; however, they are always open to listening to our ideas. The group definitely needs funds to continue to be operational.

4. Recruitment and Sustainability

Our group believes that recruitment and sustainability go hand in hand. Our school has been promoting our robotics curriculum and advertising during Botball tournaments. This has peaked an interest in the program with parents and kids alike. We were given the opportunity to lead one of the meetings with our local 4-H group. We gave a demonstration on our Botball table and ran some of our challenges. We showed the little kids how Ozobots work and allowed them to play with them. Needless to say, those younger kids are now hooked on robotics. We would probably have a waiting list of students wanting to participate. This is how recruitment is tied into sustainability. We will always have younger kids wanting to join in on the fun. We are also going to implement a younger junior team for the fall season. We will mentor the juniors and even get to attend some JB Challenge Days. Now we have even more people to help with fundraising.

5. Administrative Support

Having administrative support means having the principal, superintendent and the school board on your side. Luckily, we have a great staff that is very supportive of our program. As previously stated, our school board needs to approve all fundraisers in advance. They have always been there to support our ideas and offer suggestions. Since robotics and programing is becoming a necessity in school curriculum, they are all ears and eyes about what we do and how we do it. We are hoping that our overall school budget will increase so that we can expand our program. We have a great board of education so I don't think they would mind.

6. Conclusion

There are so many different elements involved with a successful program. We have to work as a well oiled machine in order to achieve this goal. We have to have newcomers to the program to bring in fresh ideas. We need people that can build, that can run social media, that can program and those that can raise money. We need good communication skills. We have to be confident but also humble. We need to be teachable and be a teacher. When all these pieces come together, we have success.