Grantmaking Using Actionable Metrics

GuamFIRST is the FIRST franchise organization responsible for daily execution of the FIRST family of programs on the island of Guam. Our organization has a clear mandate to be good stewards of our limited resources not only by operating our programs as sustainably as possible, but also by building long-term sustainability among our community of teams.

Background

GuamFIRST receives some limited grant funding from generous corporate and government funders, and these funders have the preference that our organization will "re-grant" these same funds to Guam teams. To this end, GuamFIRST has established internal processes and policies which determine how and when these grant funds are distributed.

Another resource discussed in this guide is similarly limited, although it is much less tangible. This resource is the official recognition that we afford to certain teams and individuals via the awards distributed at competitive events.

In the interest of transparency, the goal of this guide is to share the technical mechanisms of our award decision making with all stakeholders (teams, volunteers, event producers, and especially those generous grant providers who share our mission of sustainability). Additionally, we will explain the rationale which underlies those GuamFIRST processes.

Summary

GuamFIRST's most effective means of developing a strong community of participating teams is to recognize those teams which demonstrate measurable improvement in their competitive excellence. Our primary tools for delivering this recognition are grant awards (i.e. awards of funding) and competition awards (i.e. awards of trophies). Our **Grantmaking Using Actionable Metrics (GUAM) program** is designed to enable allocation of these limited resources among GuamFIRST FRC teams in an evidence-based manner that better meets our fundamental mission as well as the goals of the providers.

The GUAM program provides a structure to more effectively target support and resources to teams based on their unique issues. .

Computing your GUAM level is easy: simply **count how many years it's been since your team last fielded a robot in a playoff match at a regular-season event, or were an Alliance Captain at a regular-season event. If this number is more than 5, your team's GUAM level is 5**. Occurrences of a team being part of a playoff alliance in a position other than the Alliance Captain, and their robot not being fielded in a playoff match, doesn't count towards reducing the GUAM level for that team.

Examples

Team A has not been picked in 3 years and has never been an Alliance Captain. Team A is **GUAM-3**.

Team B has not been picked in 5 years but was an Alliance Captain last year. Team B is **GUAM-1**.

Team C has not been picked in 4 years but was picked at Championship as a backup bot. However, their robot was not fielded in a playoff match. Team C is **GUAM-4**.

Team D has not been picked in 4 years but was an Alliance Captain at Championship last year. They elect to sit out of the playoff matches and let their partners play. Team D is **GUAM-1**.

Team E is a new team that was just founded this year. Since they have not played an elimination match ever, Team E is **GUAM-5**.

Special Cases

For new teams with more than 5 students or adults who were on FRC teams the previous season, they will be considered at the average GUAM level among the students or adults rounded up to the nearest whole number.

For Grant Providers

The GUAM system was explicitly created to enable grant writers to target not just teams in a region or rookie teams but to more accurately target teams in need of grant assistance. Previously, it was beneficial for existing teams to fold and request a rookie number simply to qualify for grants.

In general, we recommend contacting GuamFIRST so we can assist you in targeting your grant based on your goals but we've included some guidelines below to help you get started. We also strongly suggest taking a look at the GuamFIRST document *Supporting Teams in my Region.*

Targeting Struggling Veteran Teams (GUAM-3 and GUAM-4)

If you want to assist struggling veteran teams, we suggest looking at GUAM-3 and GUAM-4. These are teams that have had more than a few off years. While their needs are likely all unique they likely need resources to purchase things like tools and materials. Some of these tools come from odd sources like ebay, craigslist, or even China. Ensuring your grant enables teams to use it this way or will cover similar tools available new or from local distributors.

Targeting New Teams (GUAM 5)

The GUAM system explicitly does not support the concept of a rookie team. However, teams that have no students that have ever played in eliminations are not all that different from rookies. Many of them struggle to make registration or field a robot at all. We recommend not simply covering registration fees but also helping them acquire tools they likely need to build the bot. The recommendation from GuamFIRST is that teams have all of the equipment referenced in this document from FRC3847.

Further we recommend that teams have walked through the *GuamFIRST Rookie Application* any help you can provide to assist teams in meeting those criteria would be welcome.

This is difficult as these teams tend to be fairly rare, their challenges are likely all very unique. If you want to support these teams it is suggested that you contact GuamFIRST and ask to be put in contact directly with these teams.

For Teams

No significant changes. The goal of this program is to enable resources to be directed to teams that need them. Teams should keep doing their best.

For Events

We have created a new award called the Stepping Up award which celebrates the team that has made the largest strides towards on field competitive success. It will be awarded to the highest seeded GUAM-4 or higher team. This takes the place of the former Highest Rookie Seed award.

Explanation of Concept

This measurement is a rough proxy for watching team sustainability, while competitive success is in no way the only measure of success for teams we believe it is a reasonable expectation that teams meeting the other criteria for sustainable teams to be playing in eliminations at least once every few years. This metric was chosen because it is simple to calculate for teams and GuamFIRST without placing an undue burden on either party.

Since there is no penalty associated with a higher GUAM level, if for some reason, teams elect to not value competitiveness they will not be negatively affected by this program.