



Citrus Circuits
Fall Workshop Series

RoboCamps: Starting Your Own Program

by Alison Lin and David Solomon (1678)

What is a RoboCamp?

Any camp that inspires the youth to further explore robotics and STEM



There is no “Cookie-Cutter”
RoboCamp



Why do we Have RoboCamps?

- Education (be an *inspiration!*)
 - Students, counselors, organizers
- Team outreach
 - Community service
 - Awareness of high school team
 - Early recruitment pipeline
- Team funding



Creating a Balanced Project



What Goes Into Planning RoboCamps?

- Collaborators
 - The who in the project
- Logistics
 - The whens and wheres
- Budgeting
 - The money
- Communication
 - Advertising, emailing, and registration
- Camp Content
 - What the campers are doing in camp



Collaborators

"Alone we can do so little; together we can do so much."

– Helen Keller



Are There Enough People Interested?

- Needs to be addressed first
- Project cannot run if not enough are interested
- Take a gauge in the team



Who's in Charge?

- Who will be in charge of what part of camp?
 - Could split up by job or time frame
- Find candidates who are willing to be coordinators
- Adult collaborators
 - Handle money, permits, school districts, etc.
 - A reference for students when needing advice



Who'll Run the Camp?

- Where will you find camp counselors?
- How many counselors? (Recommended number)
 - More trained counselors = better camp experience
 - Counselor assignments during camp
- Training technical and soft skills
- At least 1 trained adult supervisor per camp



Logistics

“Planning is a skill and an art which takes a lifetime to master.”

- Paddick Van Zyl



When?

- Which week(s)?
- How many days per week?
- How many hours per day?
 - Any more than ~7 hours will be extensive
- Things to take in account:
 - What dates work for your reserved location
 - What dates have highest availability



Where?

- Secure a location well in advance
- Size of the space
 - Can it accommodate all campers + equipment?
 - Have a separate space for working and eating
- Is the location available for the dates wanted?



Who?

- What age group?
 - Younger kids may have more behavior issues
 - Older kids may get bored easily
 - Suggested between 4-8 grade
- How many campers?
- Any specific target demographics?



Budgeting

“Budgeting isn’t about limiting yourself – it’s about making the things that excite you possible.”

- Unknown



What's the Cost?

- Calculate the estimated cost to run the camp
 - Equipment cost
 - Renting a venue
 - Possible wages
 - Scholarships
- Account for more expensive than planned



How Much to Charge?

- Base off of how much it costs to run
 - Plan for positive net worth to put back into expanding outreach
- Calculate for how many campers you expect
- Offer scholarships
- Average camp costs in area



What Equipment is Needed?

- Make a list of equipment needed
 - Hardware, computers, chargers, fields, power cords, possible camp shirts, etc.
- Inventory what you already have
- What materials are given with the venue
- Order equipment in advance



Communication

"Communication – the human connection – is the key to personal and career success."

- Paul J. Meyer



How will you Advertise?

- Start early and make registration clear
- How can you best reach your audience?
 - Email - Team email account for camp questions
 - Website - More information and registration
 - Social media, flyers, teachers and schools
 - Teammates advertise to friends and family!



How will Campers Register?

Google Form

- Simple to set up
- Harder to manage
- Not as official

VS.

Event Platforms

- Might cost money
- More complicated
- More features



Camp Content

“I never teach my pupils; I only attempt to provide the conditions in which they can learn.”

– Albert Einstein



What will the Campers be Doing?

- List of camper learning goals
 - Design, programming, teamwork, etc.
- Base activities on the age group of campers
- Familiarize yourself with robot hardware and software
- What should the camp build towards?
 - End of the week competition or final challenge
 - Show and tell



How will the Campers Learn?

- Organized lessons
 - Follow along activities to learn code, design, etc.
 - Counselor to camper walk through
- Will campers work in teams or individually?
 - More campers = more arguing + less contribution
 - How will you split up teams?



What's the Schedule?

- Day to day schedule
 - Monday, Tuesday, etc.
 - How will you keep campers focused?
- Minute to minute schedule
 - During the morning, afternoon, break times, etc.
 - Icebreakers 1-2 times a day



Last Words of Advice

“I have not failed. I’ve just found 10,000 ways that won’t work.”

- Thomas A. Edison



How to Keep the Program Running

- Document everything
 - Write down your entire planning process
 - Include what worked and what needs to be changed for next year
- Collect feedback from campers and counselors
- Train others to take over in the future



Organization is Key

- Put yourself in the shoes of your audience
 - If I was a parent, what would be more convenient?
 - If I was a camper, what would be the most fun?
- Base camp can expand to many others
- Stay organized!
 - Start planning well in advance (now!!)
- “Steal from the best, invent the rest.”



Resources

- RoboCamps Guidebook
 - <https://bit.ly/3D91nGF>
- RoboCamps Website
 - <https://www.citruscircuits.org/robocamps.html>
- RoboCamps Resources Page
 - <https://www.citruscircuits.org/robocamp-resources.html>





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Thank You! Any Questions?