



# SOCIETY OF PHYSICS STUDENTS

An organization of the American Institute of Physics

## Marsh White Award Report

Project Proposal Title	SPS- Escape the Physics Building
Name of School	University of Texas at Dallas
SPS Chapter Number	7258
Project Lead (name then email address)	Andrew Marder andrew.marder@utdallas.edu
Total Amount Received from SPS	\$250.00
Total Amount Expended from SPS	\$192.10

## Summary of Award Activities

The SPS chapter of The University of Texas at Dallas put on its second annual “Escape the Physics Building”, which was a physics themed escape room hosted in our very own Physics building. Participants in small groups would go through the trials of solving physics/science themed puzzles to gain access to the prestigious -yet fictional- Dr. Gamma’s laboratory. Upon entering they would continue their efforts to help Dr. Gamma’s lead lab technician “Denton” (played by one of our officers) prevent a catastrophic failure of a “Black hole generator” which threatened to consume the entire building.

## Statement of Activity

### Overview of Award Activity

Description: Participants would enter the lobby of our local physics building and in small groups enter a nearby classroom, while one of our officers begins a timer. Participants then work together to solve small puzzles as they work through three separate rooms. Puzzles included a Nobel Prize themed riddle, a hidden message within a circuit board (visible by use of a set up thermal camera), a magnetized message revealed with some clever maneuvering of some nearby iron shavings, among a few others. Upon completion a group's time was recorded and held on a leaderboard, and snack-based prizes were given to those who wanted such.

Outcomes: This project was set forth to peak interest in Physics, and to showcase what SPS could accomplish to members of SPS, non SPS Physics students, and non-Physics students on campus. We believe, based on the feedback we received, that this goal was accomplished among those who attended, and those who later heard of the event from the attendees.

Audience: Our audience was the local student population, and those who may be interested in SPS. These groups were impacted by the opportunity to participate in something that, while physics oriented, was entertainment based.

Context: "Escape the Physics Building" is one of the last SPS events we hold during the academic year, and a final opportunity to get students interested in SPS before they go home for the summer and put college-life on hold. We hope that this ends as a great 'final impression' for the year, and leads to students returning to SPS at the beginning of the next academic year. It also is placed a few weeks before our own SPS officer elections, and gives members an opportunity to work with the officers and determine if they wish to run for an officer position themselves.

Highlights:

- Despite being planned for groups of about 4 students, we had one brave soul attempt the escape room entirely on his own. Typically for a group it took 30-40 minutes to complete the escape room, but this individual persevered through an hour-long journey to save the Physics Building from destruction.
- Some freshmen of the university heard about the escape room and participated. They had the opportunity to interact with our Treasurer Ben, who at the time was playing the role of "Denton" and leading them through their perilous journey with plenty of theatrics. A few weeks after this event the same group ran into him at work, referring to him solely as "Denton" as he managed to leave that long of an impression on the bunch.

### Impact Assessment: How the Project/Activity/Event Promoted Interest in Physics

Our project goals were primarily to increase the interest in physics among students, primarily in hopes of expanding the network of students that SPS could reach in the future. As many of the current officers are graduating, and most others are graduating in the coming academic year, we hoped to pave the way for SPS to continue strongly at UTD in the coming years.

After each of the days that this event took place, we sat down with a handful of the participants who gave us their feedback and thoughts. The vast majority were surprised that it was a group of students that put on the event, without large participation by professors or staff. We as the officers were especially glad to hear this bit of feedback, as some students expanded on the concept by saying that the event made them feel like they too could help create something through SPS which “could actually come to fruition”. We believed the project as a whole both furthered interest in physics in current physics students, and piqued some new interest among students who were not affiliated with SPS/physics.

We also received feedback that confirmed our main fear upon putting on the event. A few participants had only heard of the event from friends the day of, if not slightly before. We felt that our advertising attempts fell a little short, and had we reached out to more classes, or begun advertising a week or two sooner. Participants had extremely positive things to say about the event itself, which was bittersweet knowing that the event could have reached more students during the time it was occurring.

### Key Metrics and Reflection

Who was the target audience of your project?	<b>Local Students</b>
How many attendees/participants were directly impacted by your project? Please describe them (for example “50 third grade students” or “25 families”).	<b>14 Physics undergraduate students 17 non-physics undergrads 1 non-physics graduate student 6 REU students</b>
How many students from your SPS chapter were involved in the activity, and in what capacity?	<b>7, planning, set-up, and running the event</b>
Was the amount of money you received from SPS sufficient to carry out the activities outlined in your proposal? Could you have used additional funding? If yes, how much would you have liked and how would the additional funding have augmented your activity?	<b>The amount we received was sufficient</b>
Do you anticipate repeating this project/activity/event in the future, or having a follow-up project/activity/event? If yes, please describe.	<b>Yes, likely in the next few years as feedback was very positive</b>
What new relationships did you build through this project?	<b>A handful of non-physics students who have now expressed interest in SPS</b>
If you were to do your project again, what would you do differently?	<b>Further advertising, and continue to polish the event as a whole</b>

## Press Coverage (if applicable)

N/A

## Expenditures

Our expenditures consisted of items to decorate the escape room, some materials for puzzles, and snacks/candy for participants. A large portion of previous years' escape room was still in working condition, and old puzzles were able to be revamped and reused to fit our needs this year. Over the summer we were able to sit down and create three new puzzle boxes for use with our visiting REU students, and for the next annual escape room. These boxes use individual WiFi modules, so that we can have them communicate and are only able to be "solved" when two or three of them are manipulated properly. We plan on using any remaining funds on marketing for the next annual escape room, as the puzzles and mechanics of the escape room has now become very polished. Future groups of SPS officers could in theory use what has been created over the past two years with little upkeep cost.

## Expenditure Table

Item	Please explain how this expense relates to your project as outlined in your proposal.	Cost
tape	for hanging decorations	7.92
candy	completion prizes	19.96
cookies	snacks for participants	8.91
memo notepads	for students to take notes	1.08
pens	for students to take notes	6.77
batteries	used to power circuit	23.94
folders	used for riddle puzzle	2.84
2 RGB LED matrix panels	new puzzle boxes	52.90
3 WiFi modules	new puzzle boxes	34.35
USB to serial cable	new puzzle boxes	10.45
set of potentiometers w/ knobs	new puzzle boxes	12.99
5 keypads	new puzzle boxes	9.99

Activity Photos





(Set up of main room, featuring "Denton the lab tech")



(other portion of room, sans "Denton")



(Group of students working out a magnetic chess puzzle)



(Duo finding various scientists to solve a riddle)



**Escape**  
the Physics Building

**April 19th - 20th**  
(Friday and Saturday)  
5-9 pm  
Groups will be entering every 30 minutes


**UT Dallas Physics Building**  
Groups of 4 - 6 people  
Walk-ins welcome

Want a challenge?

Come to the physics building for an escape room crafted by physics students for physics lovers and those who are just curious. Don't be intimidated! The puzzles are challenging, but meant to spark curiosity into the history and concepts of physics.

Think you can escape?

Want to lock in a time for you and your friends?  
Scan the QR Code to make a reservation!



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(Left: Group of students stay after to talk about their experience, and learn about SPS  
Right: Flyer used for advertising the Escape Room)



(Three newly created puzzle boxes, created over the summer of 2019)



If you have any questions, please contact the SPS National Office Staff  
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