



**CALIFORNIA STATE SCIENCE FAIR
2015 PROJECT SUMMARY**

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| Name(s) Ignacio A. Morales | Project Number J1413 |
| Project Title Can a Lego Robot Guard Your Treasure? | |
| Abstract Objectives/Goals My objectives during this experiment were to learn to program a Lego robot and program it to patrol around an area and defend it against intruders by executing a series of actions. Methods/Materials First, you must build a Lego robot from a Lego EV3 Mindstorms set. Second, you must learn to program your robot using a computer. Then, you must program your robot to protect an area by using different command "blocks". After that, test your robot to confirm that it can detect intruders that remain still and execute the programmed commands. Lastly, start robot to patrol the protected area and execute 16 tests. Results From my research and testing, I discovered that a Lego robot cannot successfully guard your treasure. Conclusions/Discussion I learned that Lego robots would not be effective guarding treasure from intruders that move inside the protected area at higher speeds. Although I could not prove my hypothesis, I did learn many things while performing this project. | |
| Summary Statement My project is about programming a Lego robot to patrol an area and execute a series of actions to defend the area. | |
| Help Received None | |