

Colored shadows Notes to the Future

Colored shadows is a very easy exploratorio exhibit the materials were easy to come by, however, we decided to make it harder for ourselves. This exhibit only has 3 parts lights, some way to mount the lights, and white paper. The lights were easy to find, we used 25 watt party bulbs from Emighs hardware, in the colors of red, blue, and green. However, these bulbs are found at most hardware store for cheap. When purchasing the bulbs make sure to buy an extra of each color in case something breaks, it's always good to be over prepared. We set up the bulbs in a way that was much harder than it needed to be, we set up a circuit and mounted it to a piece of ply-wood using light sockets that we bought at emeighs as well. This made constructing the exhibit harder but set up at exploratorio was very easy, because it was all in one piece. No matter how you mount the lights it works best when you mount the lights in a triangle with green being the apex. Once you have your light bulbs set up, test your shadows with a pencil to make sure you have 3 distinct shadows (red, blue, yellow). When you buy a white poster board get one that will stand up on its own because you will only have a table in the dark room. It is also important to bring an extension cord because you might be far away from an outlet and without power you don't have a project. To make the exhibit more intriguing cut out shapes to demonstrate with, we had a variety of shapes but batman and a rubber duck were the most popular among the kids. Another cut out that is important is a circle cut out of thick paper or card board, the hole allows you to show all the colors at once. When talking to kids don't try to explain the complicated physics! Stick to the basics. You can go into a little more detail with adults but they are just as entertained by the cool cut outs as the kids were, but they can understand a little bit more. Make the explanation quick and easy to understand but let them experience it for themselves. Kids can be shy but become interested very quickly once they get to play with all the things, parents are shy as well but a well-timed smile and not looking as tired as you feel makes them feel much more comfortable. Speaking of comfort you are going to be in a small closed off area with a lot of bodies so naturally it gets quite hot, so wear comfortable clothes that you won't overheat in, bring a bottle of water and snacks as well for yourself because it's easy to let yourself get dehydrated. Often times physics professors show up to observe so know what's going on. But most important, have fun.