So it's time for our first summer vacation at IITG and like any other freshie, we were also in search of a good opportunity to utilize our summer with full positivity. And here comes the electronics club with its bunch of summer projects exclusively for the freshers.

In due course of time, the club offered a total of 6 projects and we had to submit our preferences for the projects. After a week we were allotted our projects and what came in our bag was **PEOPLE COUNTER.** The project was based on the working of the **PIR SENSORS** (passive infrared sensor). So the main motto of the project was to build a system that counts the number of people entering as well as leaving a room and display that count on a screen.
So as the project proceeded we got our mentors and we started our project with full enthusiasm. Although this was not a very big project still for our ease, we divided the whole project into several tasks. Since most of us were new to these concepts, it was better to start from the very basics. We started learning about Arduino and its functionalities and then we directly jumped to the circuits part. As the whole project was going to be performed online it was bit of a difficult task for us freshers.

But as we know modern problems require modern solutions, we chose tinkercad as our platform to execute the whole project. As usual, the meeting started with quite a big number joining in and understanding the further process. It started with a brief introductory session and we were good to go on our way to learn Arduino. Within a week we were allotted our first and the most basic task of lighting the LEDs but believe us it was not too easy for the beginners. After a tiring process of making it, we fancied it and showed it to our parents with full confidence, after all, we made the LEDs light in a timely fashion and that too for the first time ever. It was our first time ever with Arduino and initially many of us didn't even know what it actually meant, quite funny now huh. After this, we stepped a bit forward and moved on to find the uses of PIR sensors, again a totally new term.

We were worried regarding the coding part and the circuit analysis and even thought of leaving the project but wait we already suffered a huge dropout from our team. The team was reduced to less than 50%. Somehow we managed to be in our team, all thanks to our seniors who were always ready to help us during the entire project and even this blog is possible because of their motivation and efforts only. Now as we were in possession of a little but useful knowledge of Arduino, we were good to go with the actual circuit and the counting part. We devised different ways and techniques to make it possible.

Some went for double door systems and the others went for single-door systems. It totally depends on what we wish to choose. Again we were quite happy with what we made and moved on to display it using an LCD display instead of a serial monitor. After its completion, bhaiya suggested us to expand the scope of the project and include buzzers and temperature sensors as well. The buzzer will buzz every time a person with temperature enters the room and will thus display corona suspect. This up-gradation will help us cope with the current pandemic situation besides serving a multipurpose task. After everything was included in our project and the final people counter was ready to be showcased, we took on the job of writing a blog and here we are writing our first ever blog as a total naive.

The blog that you are reading right now also required a lot of effort and sleepless nights and of course our experiences which we chose to share with our friends and future juniors. I hope we were successful in delivering all our experiences through this short and

crisp piece of information. The biggest earning for us while we did the project was what we learned in the process. Most of us did not know how to make these kinds of circuits or the technology behind them. However, with the help of our seniors and project mentors, we were able to learn about the Arduino microcontroller, how to use it, its various parts, the coding which is involved, the several types of sensors, and how to choose the correct sensor for a particular project. And at the end, we learned to assimilate all these bits of information in a meaningful manner to complete our project. Overall, it was a great learning experience for us freshers. Not only did we learn new things, but we also implemented them in our project. This hands-on experience helped us learn quickly and effectively. And thus, we spent our summer doing something new, beneficial as well as extremely enjoyable.

We are really thankful to you for being with us till the very end of it and living our experiences with us. We would like to thank Pavan bhaiya and G Bala Ratna Swamy bhaiya for the constant support and efforts they put in to keep us going even in the hardest of times. In the end, it was all about the experiences we had working together, the fun and the memories we made and of course the new things we have become good at.

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