

Critical Analysis On Level 1 Group Project

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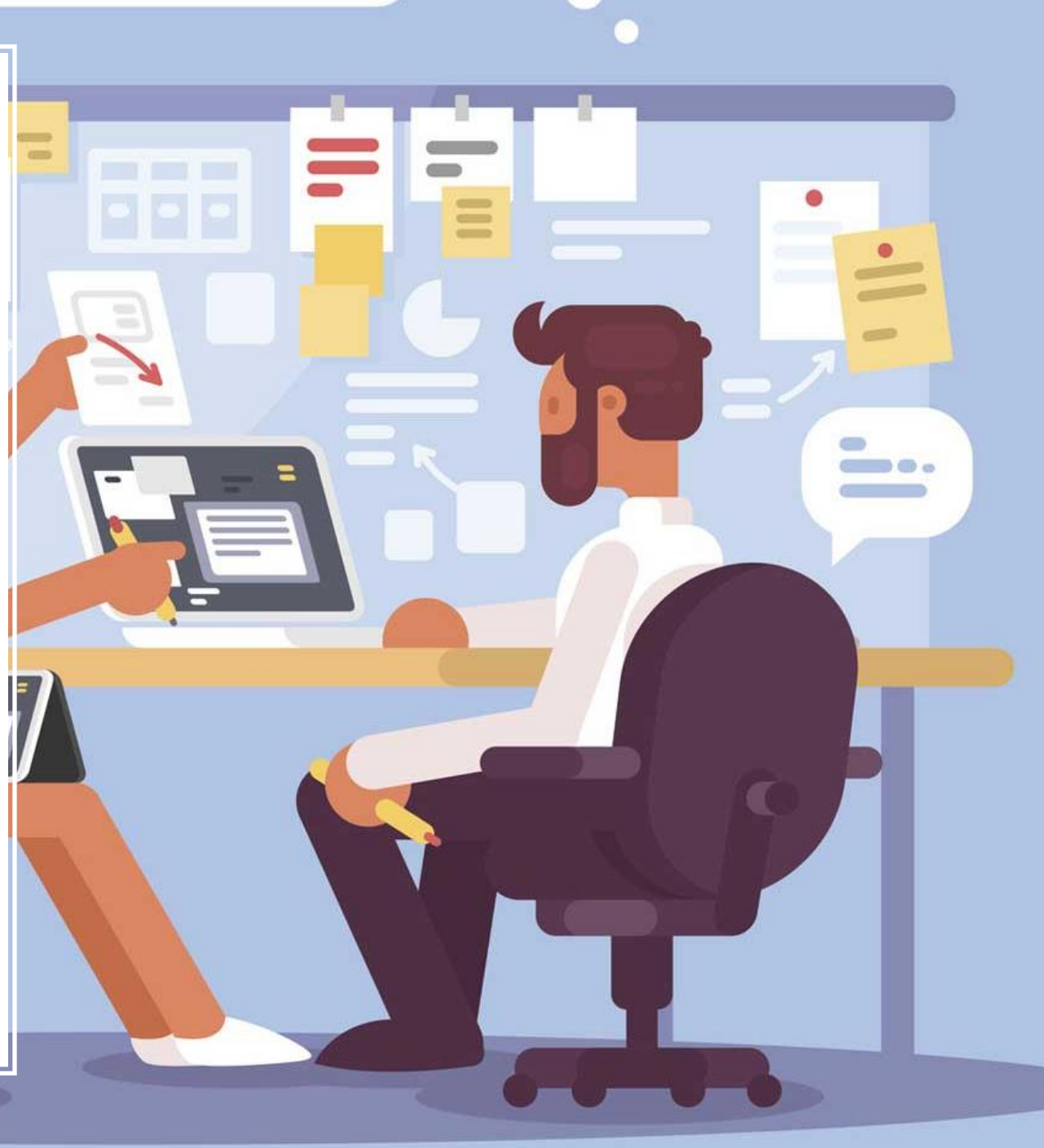


01) Summary of the Project



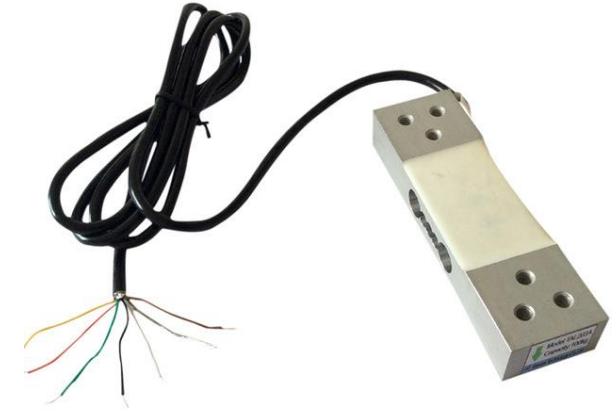
Multi Purpose Health Recorder

- With the busyness of our society, people have no time to thinking about their health. That's why we introduce our product as their home doctor who can immediately measure the height, weight and pulse rate of the user and giving him the most suitable diet plan. It will be an effective biomedical equipment to maintain a healthy lifestyle.
- Our product measuring Body Mass Index (BMI), pressure and Pulse rate, that are approximately needed to be a healthy person.
- Our aim was to develop an automated multi purpose health recorder and giving a diet plan according to the health position.

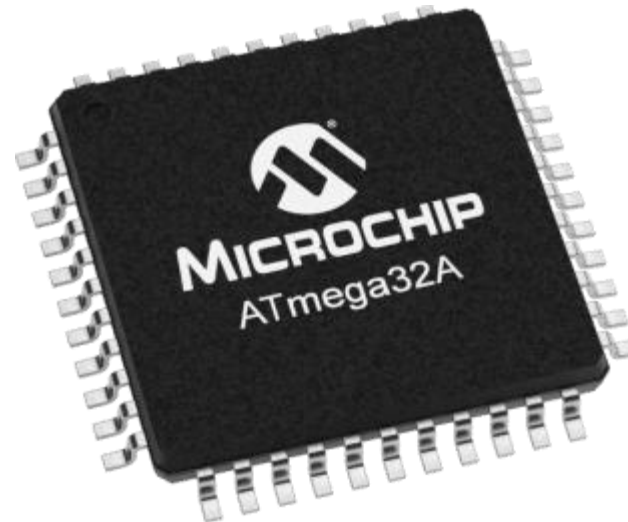


- We had use the following sensors to get measurements.

- Load cells to measure weight
- Ultrasonic sensor to measure height
- Pulse sensor to measure the pulse rate
- Pressure sensor to measure the pressure level



- We used ATMEGA32A microcontroller to code sensors.

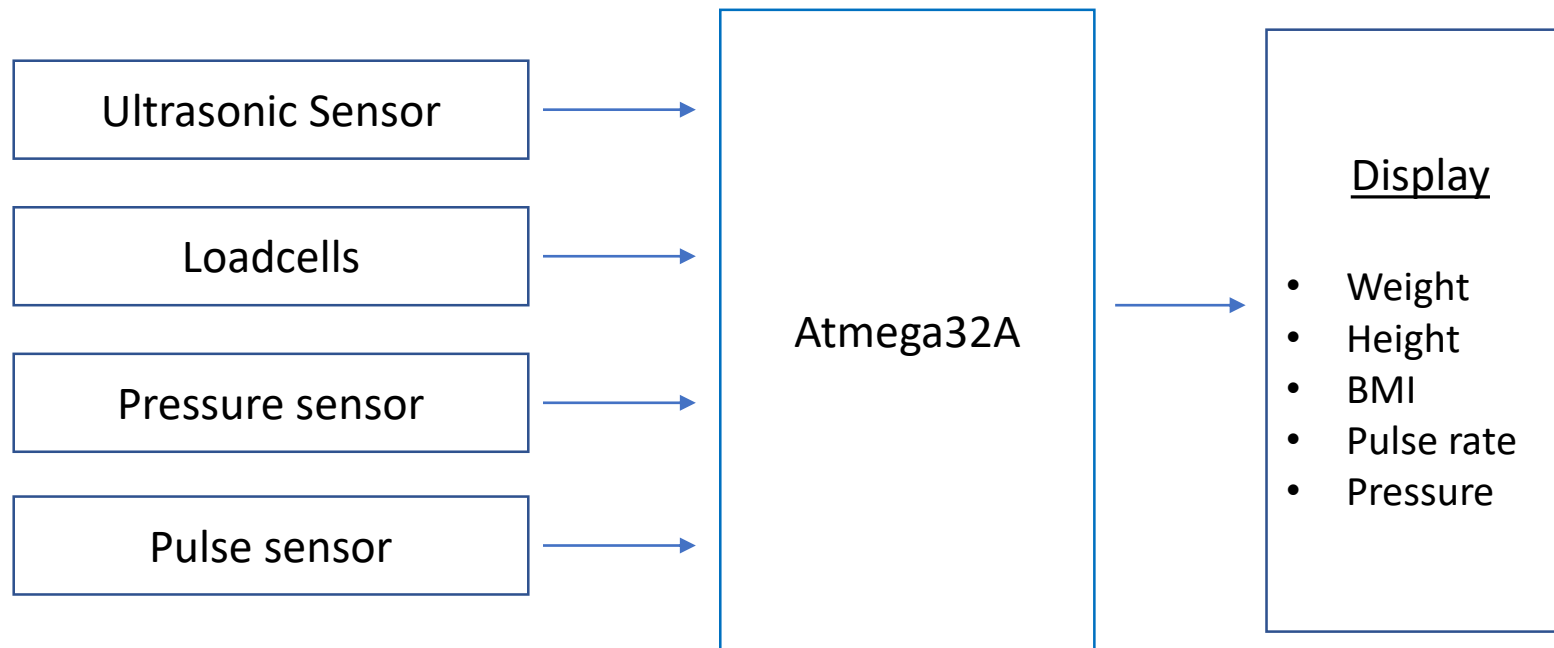


02)Final Outcome

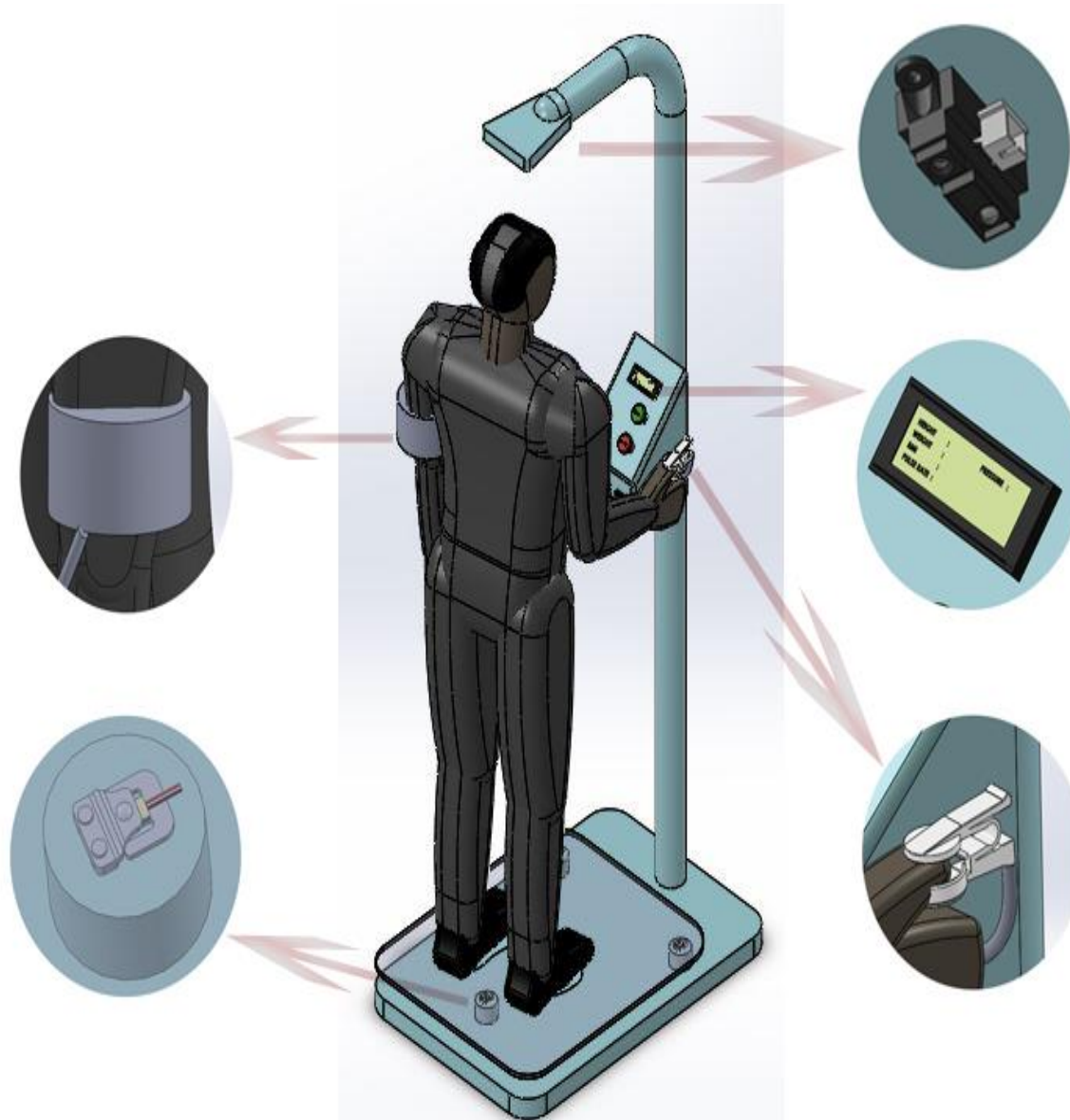


- We had use an Ultrasonic sensor, Load cells, Pressure sensor and pulse sensor as our inputs. The output is shown in a LCD display.
- We had planned to display the height, weight, BMI, pulse rate, pressure level and the diet plan according to the calculated measurements.

System Diagram of the final outcome



3D view of the Final Product





03) Things Went Wrong

- When we comparing our final product to the project proposal, we had some unexpected mistakes and losses.

1. we were not able to add the diet plan.

Since we didn't have enough time to complete our work, we were not able to add the diet plan to our final product. We had arranged every fact that we needed to be displayed. But we didn't have enough time to complete that work successfully.

2. We were not able to find the approximate load cell on time

We were plan to use a 100 kg load cell to measure the weight. But we were not able to find that load cell as the stock ends in every shop that we looked for. Finally we used a 60 kg.

3. At the final days members were some busy with exams. So we weren't able to complete our work as we wish.

4. Our cost was higher than we planned.

As we planned in beginning our cost was about Rs.15,000. But at the end of the project we have spent more than Rs.20,000 as our expense.



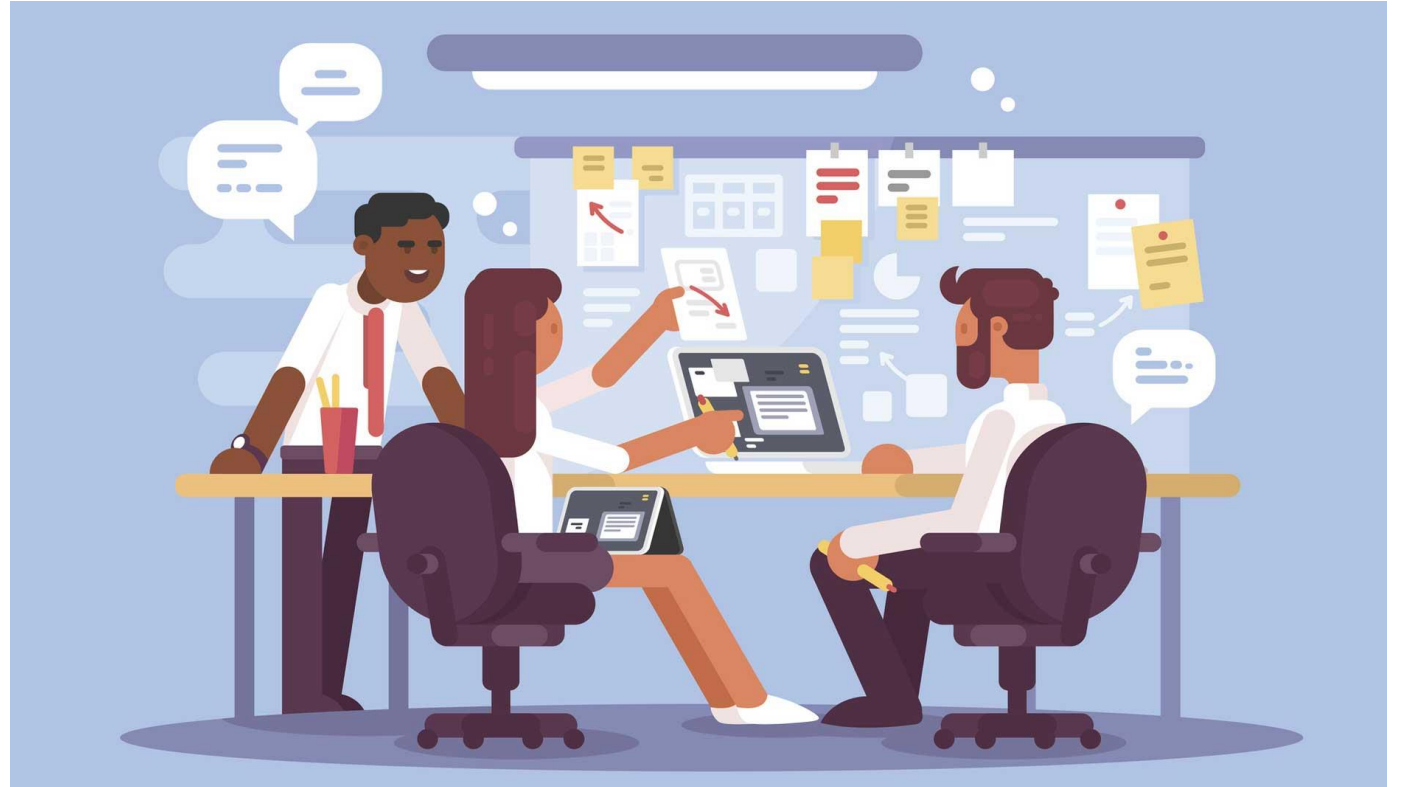
5. Final outcome was not user friendly as we thought

We had a plan to develop our product with a user friendly manner. But we were not able to finish our project as it is. Since our cost was so high and we couldn't able to manage our time as we wished.

6. We had members from every nationality in our group. So we faced some communicating problems.



04) Suggestions to Avoid those Problems



- We need to have a good plan before doing every process. That is the main thing I've learnt from the level 1 project.
- As we faced many problems according to the time, In next time we should be prepared with a good time management.
- We should collect ingredients before the time. Otherwise it will cause so many problems; As we were not able to find the correct load cell. It will reduce the cost as well. (Transportation costs, cost for unnecessary goods, etc.)
- Financial management is necessary. With the increment of unnecessary cost, at the end you should not be able to finish your work in proper manner.
- Maintaining good communication with a language that everyone can be understood.
- Leading of a good leader.
- Apply the management process that includes planning, organizing, leading, controlling.





Thank you!