Advance industrial safety system.

Project Finalize:

We are trying to make a project that will helps the industry to being avoid unexpected accidents. First of all, we will make a smart door lock system in the main gate of that particular industry. Every worker's of that industry will have a unique RFID card and they can punch that card and pass that gate. We are also going to make a safety system for that industry. By using different type of sensors, we can make better safety system. We will use fire, smoke and gas detector that can give us a warning and we avoid an unwanted situation. We will also add a vibrate sensor and if the sensor detects a certain level of HZ vibration it can give a warning.

We will add another feature for security purpose that circuit can give us a warning if any person will come and stay more than 90 seconds Infront of that door.

Objective:

The main purpose of our project is given bellow:

- To make a smart door lock system for registered staffs using RFID card so they can punch their card in door and pass that gate.
- To make a safety system using smoke, fire, gas and vibration sensor and this system will give us notification for any warning situation in that industry.

Equipment & Cost:

NUMBER	EQUPMENT	quantity	PRICE
1	ARIDUINO UNO	2	800
2	RFID RC522 Module	1	170
3	Really Module	1	129
4	12V solenoid lock	1	750
5	Hall effect sensor	1	70
6	10K resistance	2	5
7	Buzzer	3	15
8	RFID card	3	105
9	smoke sensor	1	155
10	gas sensor	1	190
11	fire detector	1	130
12	vibration detector	1	85
13	sonic sensor	4	360
14	display	1	273
15	PCB board	2	30
16	cork sheet		200
17	jumper wire		100
		total	3567

Timeline:

	Day 1	Day 2	Day 3
Week 1	Team meeting & Collect information from google.	Team meeting & Idea finalize	Making Final proposal
Week 2	Making list of all equipment.	Discuss about cost and equipment.	Collect all equipment.
Week 3	Collecting information about RFID door lock	Circuit set up.	Circuit set up (continue).
Week 4	Making ARDUINO code for door lock system.	Making ARDUINO code for door lock system (continue).	Compiling code and testing.
Week 5	Smoke & gas detector circuit set up	Making ARDUINO code for gas and smoke detector system.	Compiling code and testing.
Week 6	vibration & fire detector circuit set up	Making ARDUINO code for vibration & fire detector system	Compiling code and testing.
Week 7	All safety sensor set in one circuit	Making ARDUINO code for all safety sensor.	Compiling code and testing for all safety sensor.
Week 8	Object detector circuit set up.	Making code for object detecting circuit.	Compiling code and testing for object detector.
Week 9	Body implementation.	Body implementation (continue).	Body implementation (continue).
Week 10	Circuit set up with body structure.	Final implementation.	Final implementation & testing.
Week 11	Presenting Final project	Final editing (if needed).	Submission.