**Requirements**

**Introduction:**

**Activity1**:

It is a Seat heating controller so for cars which is there in the European segments what happens is there is a possibility that the temperatures are very low. so instead of apart from in addition to air conditioning system there will be seat heater the seat heater means that will heat the seat that means whatever seat you will setting that is the driver seat or the co-driver seat that well get heated up so first activity is button sensor will check the passenger seated or not that means if we turn on the heater for a driver seater and there is no person sitting in the driver seat then it should not work .Then this is the value will be getting in temperature sensor.

**2nd activity:**

we having the knob in the car that knob similar to AC if we turn it towards the left side it will come to 16 or 17 degrees if you turn it to the other side it might go to 40 degrees of 50 degrees so 16 degrees .so starting is 20 to 33 degrees so 20 degrees means the ADC values somewhere between zero to 200 if the ADC values between 210-500 it is 25 degrees centigrade if it is getting 510-700 means it is 29 degrees centigrade and if it is between 710-1024 then it is 33 degrees centigrade so based on the temperature which we set here the heater will heat it to that particular temperature it will heat it based on two parameters first parameter the button sensor second parameter is temperature should get heat to what temperature it should get heated will be decided by the temperature sensor on how it will get decided is based on the ADC value because usually all the sensors are basically analogue in nature's and that will be providing values like this that will get mapped to particular temperatures like this this.

**3rd activity:**

It will display the heater is turned on for driver seat or it is turn off and also display if that particular the driver seat on the passenger seat is turned on or turned off so that will be decided, and it will be displayed in the display.

zTimeline

Description automatically generated