Safe Cooker

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Stemming from the well known proverb "better safe than sorry” and realizing the danger of mishaps in the use of gas cookers and stoves; we have adopted this scientific project to save lives and properties to prevent worldwide house vulnerability. First and foremost, our project stems from the awareness that homes with children and adolescents can be susceptible to the risk of gas fire and leakage, our project aims to prevent and safeguard such deadly hazard. In addition, our scientific approach takes into consideration the efficient use of gas as the prices of this energy source is high-in-cost and scarce in some parts of the world. How can we operate and turn off the cooker safely while preventing gas leakage automatically? Accordingly, our thoughts engaged four directions to resolve this problem, namely: Firstly: Passing the gas through the feeder to the cooker (and after giving a signal to start safely) by using Micro Switch which is pressed on by the pot and thus giving a signal for the Solenoid Valve to open the electrical source of feeder and pass gas. Secondly: Close flame source automatically when you remove the pot and thus preventing gas leakage and that was done through sensing the Micros Switch that there is no pressure on it and giving a signal to the Solenoid Valve to close the source of gas. Thirdly: Monitoring the gas leakage from the same source of the cooker or any other source and therefore automatically put-out the flames. This was done by placing a gas sensor in the circuit to give a signal to the Solenoid Valve to close if there is gas leakage. Fourthly: Linking a timer to the electric circuit to control the period of time for using the cooker and when the period of time is ended, a signal is given to the Solenoid Valve to close.

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