DANCING FLOOR

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**Main aim of this project is:-**Building an autonomous dance floor which can entertain the end user while dancing on it.

**Main task completed in this project:-**We had used a rectangle size wooden plate and divided it into 6 parts. Each part is pasted by alluminium foil(as capacitive plate) over it and a 220v 10w bulb is fixed over every plate. So here main task is to build a gameplay whose task is that : all the 6 bulbs are ready glow randomly and it will end by glowing 36 bulbs in one game. So as the bulb gone to glow over any part of the floor, u have to touch the corresponding capacitive plate i.e. alluminium foil over it to glow off the bulb there. Now this will transferred randomly to other part of the plate and the same way u have play up to 36 times over the dance floor. We are also counting the time of your game play which will be displayed over the screen by using the software LABVIEW.

**Material used:-**Atmega128(controller),ULN2003 IC ,12v activated Relay switch, six 220v 10w bulb, Alluminium foil ,5v supply circuit(buck converter),220v AC supply.

**Circuit Used:-** controller circuit-each plate is supplied with 5v dc supply to get charged and discharged to a low level pin of the atmega128.

Buck converter circuit-5v constant dc supply and 12v constant dc supply to the other circuit

Relay driver circuit-There are 6 relay switch corresponding to every 6 bulb on the dance floor. Each relay have 5 pins whose functioning I will be included soon. So one side of each relay is supplied

with dc supply in between controller interfaced and other side of the relay is supplied with 220v for glowing the bulb.

**Concept used:-**This is the embedded system based project which require the knowledge AVR Timer. U need to understand the functioning of the relay driver ULN2003 IC and relay switch. For more advance in the project ,try to involve the real-time processing of the data through LABVIEW.