Intelligent Fog Machine Controller.

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Describing Subsystem.

- Arduino nano - Microcontroller, the main brain of the device.
- Aluminum case - Protect components from external influence.
- 3x MOSFET Transistor - IRF520N - for external outputs control.
- LM2596 DC to DC converter and voltage regulator - brings voltage down from 12v to 5v.
- 2x LEDs - indication.
- Solid state relay - Fog machine control
- 12v female connector
- Small 5v fan - to cycle air though the sensor.
- AV female input - music signal input.
- 12v power supply
- Dust Sensor - measure amount of fog in the air.

Dust sensor GP2Y1010AU0F was used to measure the fog amount in the air.
Red line represents the maximum safe fog amount.
The orange line represents the air quality, if fog machine is running continuously.
Green if Controller is working and music is playing.
Blue if no music is playing or music is slow (low fog amount is maintained).

We could've made green line steady like line blue, by keeping steady amount of fog. The green line impulseation associated with music and events.

Fog machines were invented a long time ago, however there are no useful and safe controller were ever made.
Our controller was designed to prevent over-fogging the room during events; and at the same time offers great performance and awesome functionality.

Our controller analyzing the fog amount in the air and producing the fog only when it required.
Simultaneously processing the music analysis and triggers the light show and produces the fog when beat is occured, however if the sensor detects dangerous amount of fog in the air, fog machine will be restricted from working, not to over fog. Moreover if no music detected or music is slow and relaxing controller will not trigger light shows and keep the small amount of fog in the air.

Using this device during events, perfect air quality and safe environment is guaranteed, simultaneously running amazing light show without any user input.
We strongly recommending you to watch video about our project on our website.

WebSite: megovatx.wixsite.com/icontroller