FCC, IMA228 Functional Description of the Block Diagram

PC connection
• U1 Pin67 and Pin68 are used to connect to PC via R31 and R32. All communication between PC and the system is done in this connection

Power management
•The system is working from USB 5V supply provided by PC. L1, L2 treated as EMI filter and take power from PC
• U2 will convert USB 5V to 3.3V. This 3.3V will provide all digital power used in U1

Oscillator
• U1 has burn-in oscillator circuit which will use Y1 as the reference frequency.

Customize data
• All customized data are stored in U4. U1 will read corresponding data from U4.

Motion / LEDs
• When there are events taken place in PC that required corresponding action, PC will send the requests through USB connection. U1 will receive the request from PC and control corresponding action.
• U1 Pin10, 88, 100, 125 will control the Solenoid via resistors R13, R14, R15 and R16
• U1 Pin7, 87, 103, 126 will control the LEDs via resistors R27, R28, R29, R30