**Detailed Block System Diagram**

**Wiimote:**
Determines player’s position through IR sensing

**Laptop Computer:**
Program takes Wiimote input and changes position into a serial 8-bit number

**PIC Processor (18F1320):**
- Serial input into built-in UART.
- Servomotor output. The position is determined from serial input
- LCD output for User interface
- Pushbuttons input for User interface
- Slave PIC outputs to control on/off
- Main program control

**Servomotor:**
Turns launcher

**LCD screen:**
Outputs messages and menus

**Pushbuttons:**
Input for LCD menus

**Slave PIC for launcher:**
- Launcher on/off input from Main PIC
- Launcher speed by pushbuttons
- Motor PWM speed control
- Launcher ‘hit’ control by controlling solenoid

**Pushbuttons:**
Input for launcher speed

**Solenoid / Servo:**
Pushes ball through motors

18V supply

Motors