Team: Make It Rain

**Microprocessor**
Atmega 32
- Store data and prepare for transmission use internal EEPROM

**Weather Station**
Rain Gauge – Count ticks of the reed switch through hardware interrupt, multiply by scaling factor
Anemometer – Count ticks of the reed switch through hardware interrupt, use scaling factor to determine the period
Wind Vane – Use DAC to get digital value and compare against a table of values

**Xbee**
- Initialize system
- Transmit stored data through serial UART transmission

**GSM Cell Module**
- Initialize module
- Open up transmission through serial UART
- Send text message to predetermined phone number with pressure, temperature, rain, wind speed and direction, and Storm Shutter status

**Storm Shutter Control**
(Activates motor to lower storm shutter)

**User Interface**
(LCD and push button)

Automatic Storm Shutters

SCP1000
(Barometer & Temperature)
- Initialize module
- Enable SPI interface
- Write hex values to enable low power mode
- Write blank data to push out 17 bit pressure data
- Write blank data to push out 14 bit temperature data
- Print to LCD

**XPee**
- Receive data through serial UART

**Microprocessor**
Atmega 32
- Open up transmission through serial UART
- Send text message to predetermined phone number with pressure, temperature, rain, wind speed and direction, and Storm Shutter status