

Members:

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## WISR D PHONE BASED ALARM

Goal (short term): An app that can trigger an alarm (easy to use and fast)

Goal (long term): Interconnect many of WISRDS project in a way that would allow them to be more efficient

Plan 1:

An app that sends a message to a arduino/microprocessor that would activate an alarm. The app would need to be able to see and send a message to the arduino/phone attached to the alarm via wifi. The app would also need to be able to deactivate the the alarm when pressed again. The alarm would need to be able to send and receive signals consistently.

Plan 2:

Use a app that will connect to a server based website connected to the wifi. The app should use an ssl tunnel to connect to middleware which will need to have a ssl cipher or something similar to protect the website. The website will need to be able to send out information to an arduino also connected to wifi.

Local problems:

Bluetooth has almost no range, so that may not be a viable option

Wifi would also be difficult though a viable option

Sources/Ideas:

<https://www.arduino.cc/en/Tutorial/WebServer>

[https://create.arduino.cc/projecthub/willy/all-about-water-systems-ultrasonic-waterflow-rain-sensor-00f724?ref=part&ref\\_id=31780&offset=16](https://create.arduino.cc/projecthub/willy/all-about-water-systems-ultrasonic-waterflow-rain-sensor-00f724?ref=part&ref_id=31780&offset=16)

<http://www.kosmodrom.com.ua/pdf/HR911105A.pdf>

<https://hackaday.io/project/10347-smartalarm>

<https://conoroneill.net/connecting-an-arduino-to-raspberry-pi-for-the-best-of-both-worlds/>

<https://computer.howstuffworks.com/print-without-wires3.htm>

[https://create.arduino.cc/projecthub/Ricky/bluetooth-smart-phone-control-with-remote-arduino-71630e?ref=search&ref\\_id=phone&offset=3](https://create.arduino.cc/projecthub/Ricky/bluetooth-smart-phone-control-with-remote-arduino-71630e?ref=search&ref_id=phone&offset=3)

<https://hcgilje.wordpress.com/2010/02/15/iphone-serial-communication/>

<https://pdfs.semanticscholar.org/6b7b/92453252130e38daa59541357fa33bd43256.pdf>

<http://www.instructables.com/id/Long-Range-18km-Arduino-to-Arduino-Wireless-Commun/>

<https://docs.microsoft.com/en-us/sql/database-engine/configure-windows/configure-the-database-engine-to-listen-on-multiple-tcp-ports>

Shopping list:

Discontinued:

Bluetooth:

Alarm ??

Arduino UNO & Genuino UNO -\$22

Bluetooth Bee -\$18.55

Code Bluetooth: (UNFINISHED)/(UNNECESSARY)

■ = Needs to be tested. It stands for BlueTooth Term with serial number, I am not yet sure if this will work with iphone. A test needs to be done first.

```
#include <SoftwareSerial.h>
```

```
SoftwareSerial BTSerial(2,3);
```

```
byte a=0;
```

```
int ALM=8;
```

```
void setup(){
  Serial.begin(9600);
  Serial.println("Lockdown!");
  BTSerial.begin(9600);
  pinMode(ALM,OUTPUT);
}
```

```
void loop(){
  if(BTSerial.available()){
    a = BTSerial.read();
    BTSerial.write(a);
    if(a==2){
      BTSerial.write("lockdown on ");
      digitalWrite(ALM,HIGH);
    }
    if(a==1){
      BTSerial.write("lockdown off ");
      digitalWrite(ALM,LOW);
    }
  }
}
```