

Leafilter

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Proyecto

Potenciar la eficacia de biofiltros basados en Humedales Flotantes Artificiales para el tratamiento de aguas contaminadas.

Como

- Sensado continuo a partir de variables generales.
- Comunicación entre FTW
- Interacción entre FTW

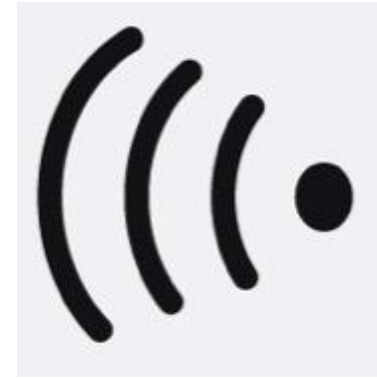
Desafíos



Sensado Continuo



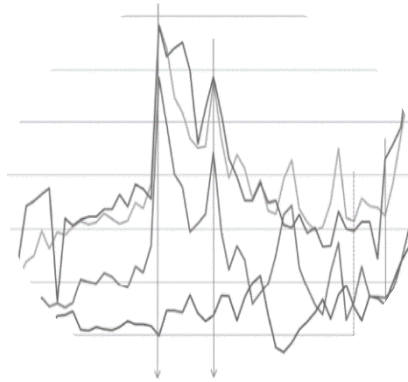
Bajo Costo



Interacción



Navegación y
Anclaje



Información Real



Energía Eficiente

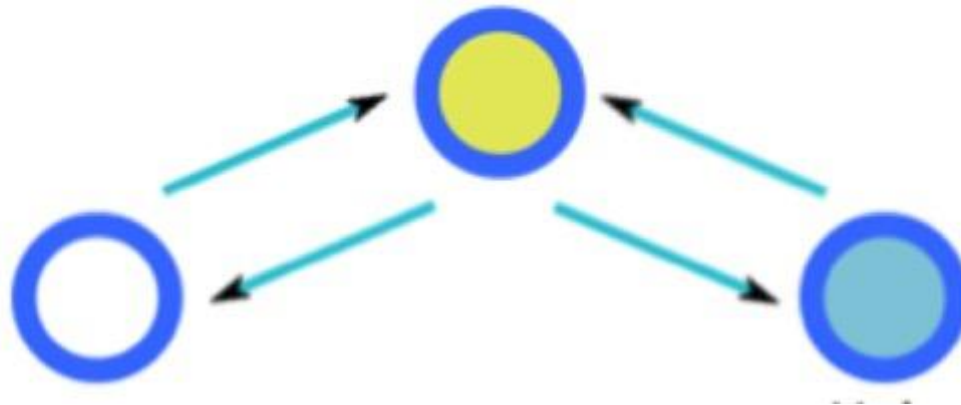
Desarrollo

Pasos de Comunicacion

Paso 1

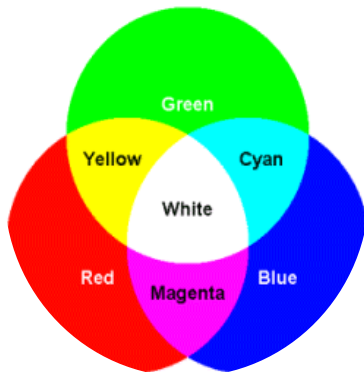


Paso 2



Sensores

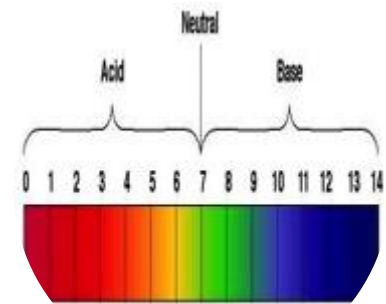
- Sensor en base a los siguientes parámetros:



Color



EC

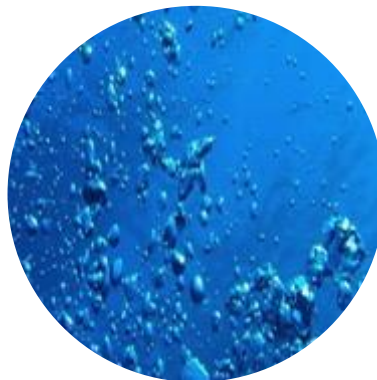


The pH Scale

Ph



Tº

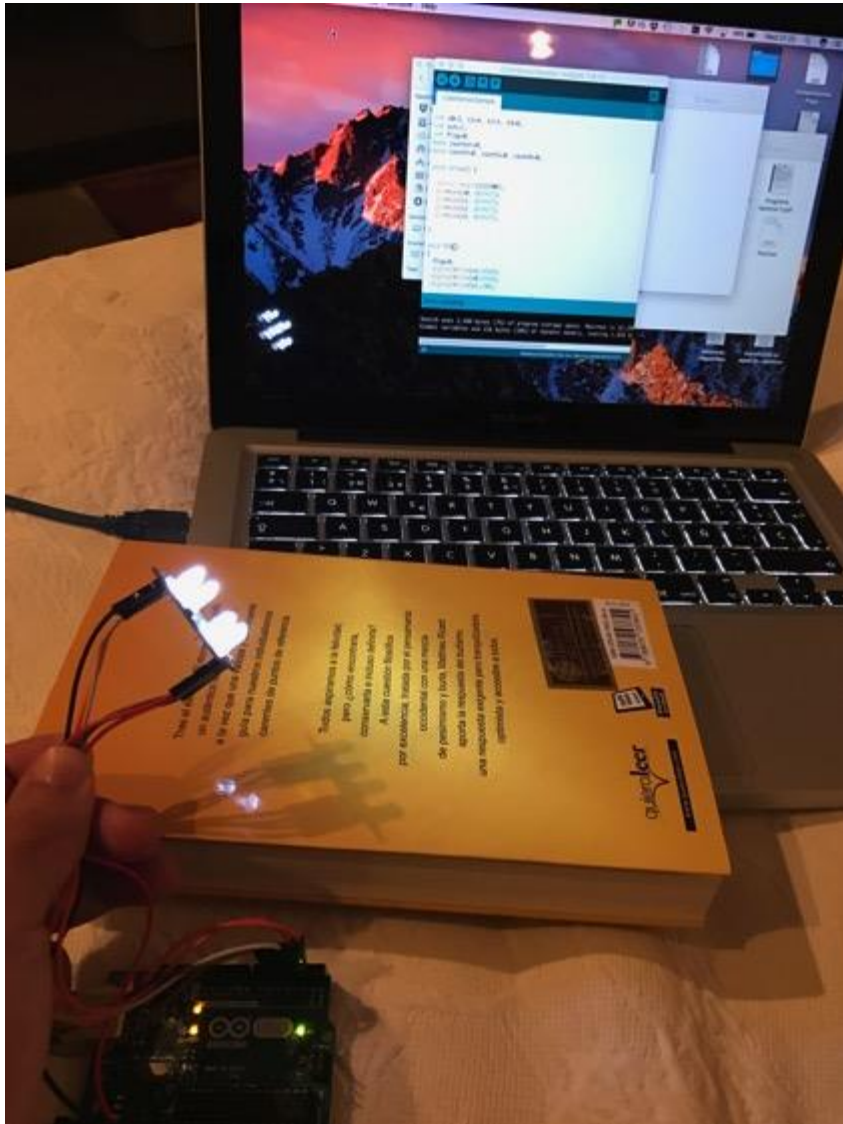


DO



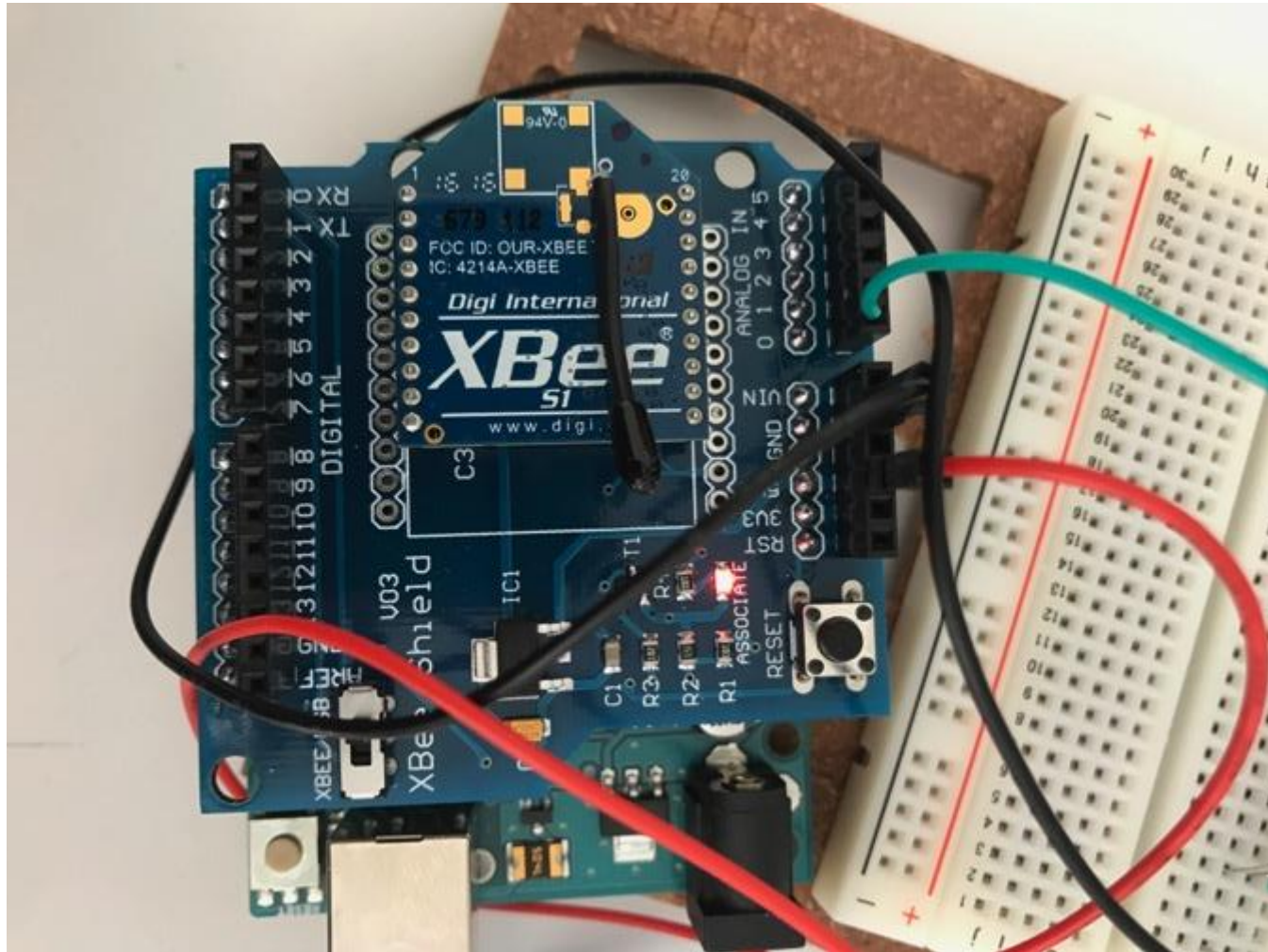
Luz

Sensor de Color



```
/dev/cu.usb  
  
blue=172  
/n  
red=3  
green=77  
blue=219  
/n  
red=67  
green=144  
blue=60  
/n  
red=225  
green=68  
blue=92  
/n  
red=176  
gr  
 Autoscroll
```


Comunicación e Interacción



Configurando Comunicación

The screenshot displays a software interface for configuring radio modules. The top navigation bar includes icons for home, search, settings, and help. The main content is divided into two panels.

Radio Modules Panel:

- Module 1:**
 - Name: (blank)
 - Function: XBEE 802.15.4
 - Port: COM2 - 9600/8/N/1/N - AT
 - MAC: 0013A20040765383
- Module 2:**
 - Name: (blank)
 - Function: XBEE 802.15.4
 - Port: COM4 - 9600/8/N/1/N - AT
 - MAC: 0013A20040640B61

Radio Configuration Panel [- 0013A20040640B61]:

Tools: Refresh, Edit, Factory Reset, Download, User Profile

Search: Parameter

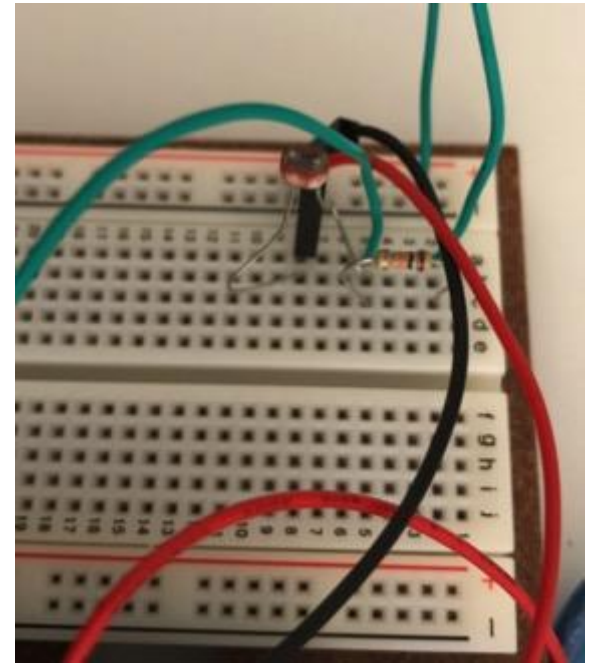
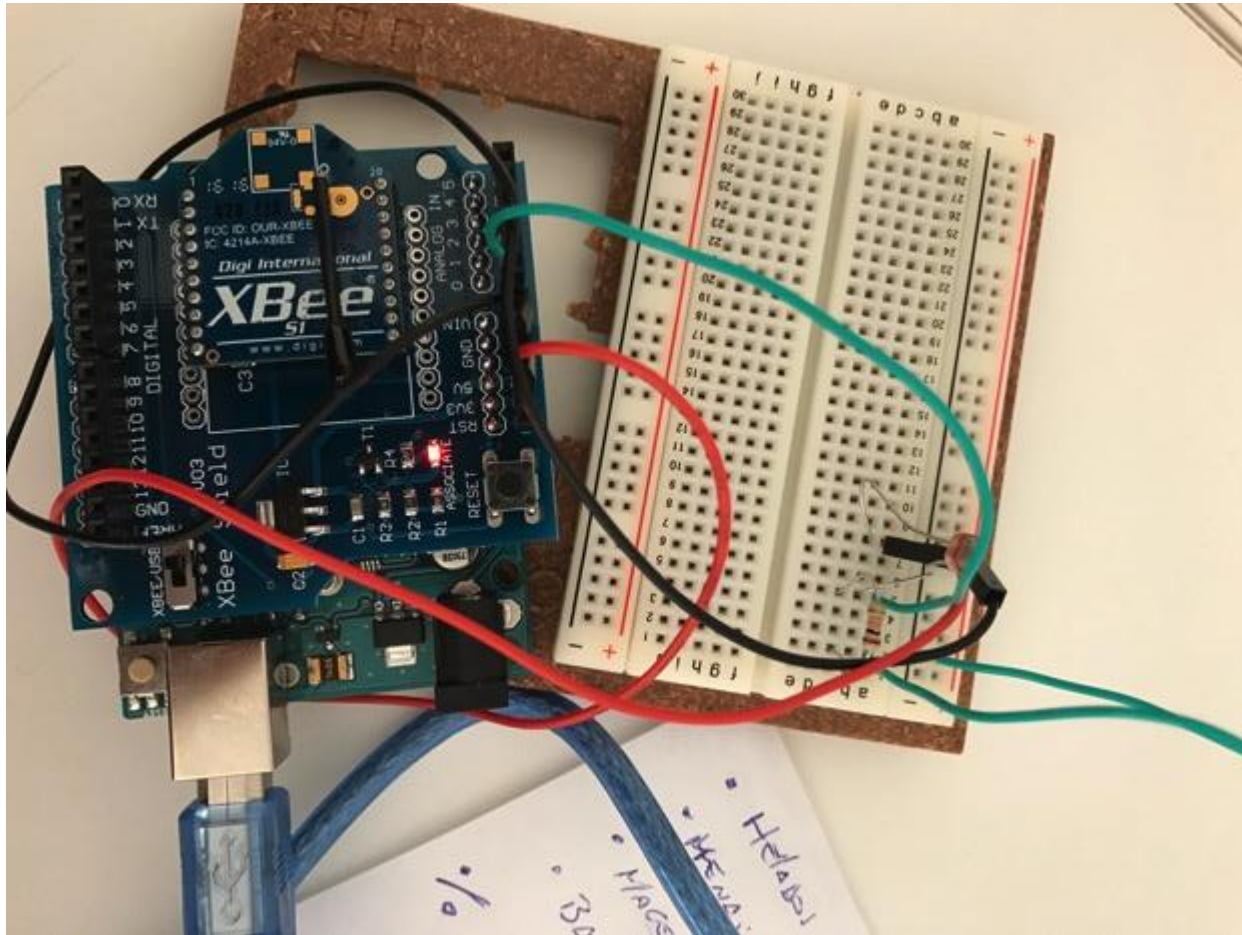
Firmware information

- Product family: XB24
- Function set: XBEE 802.15.4
- Firmware version: 10e6

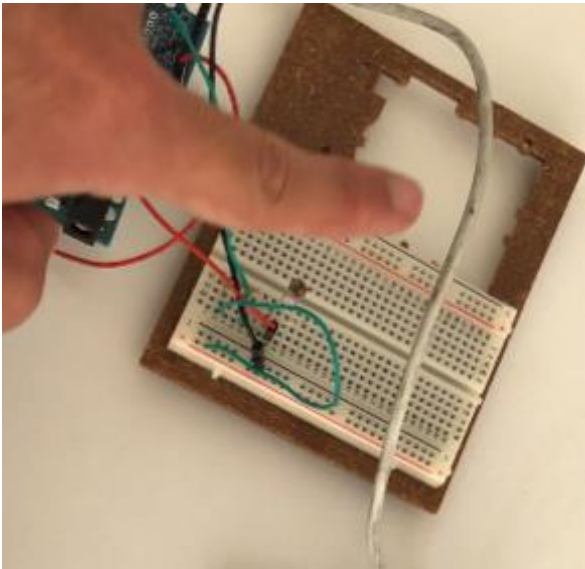
Networking & Security
Modify networking settings

CH Channel	C	Written and default	Edit
ID PAN ID	3332	Written and not default	Edit
DH Destination Address High	0	Changed but not written	Edit
DL Destination Address Low	0	Changed but not written	Edit
MY 16-bit Source Address	0	Changed but not written	Edit
SH Serial Number High	13A200	Written and default	Edit
SL Serial Number Low	40640B61	Written and default	Edit

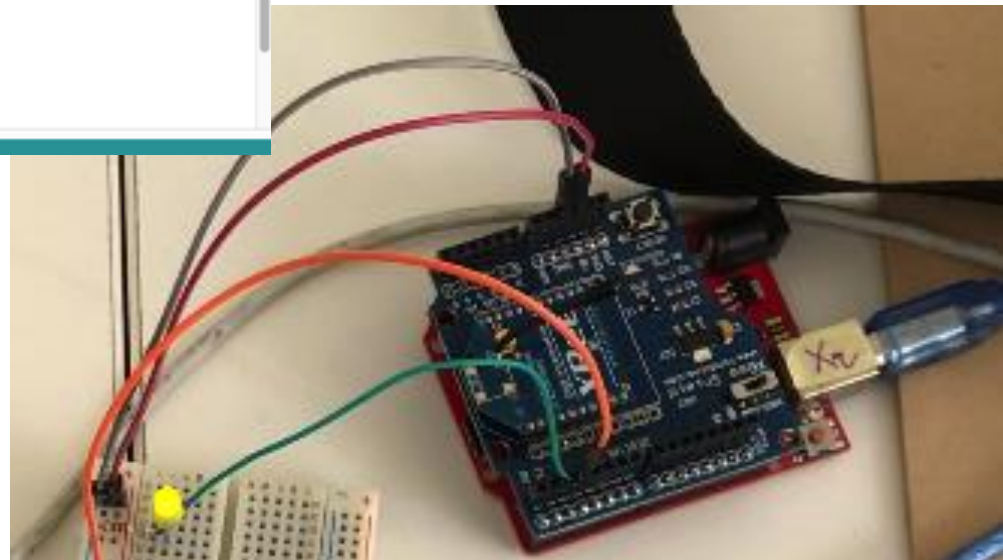
Fotoresistencia



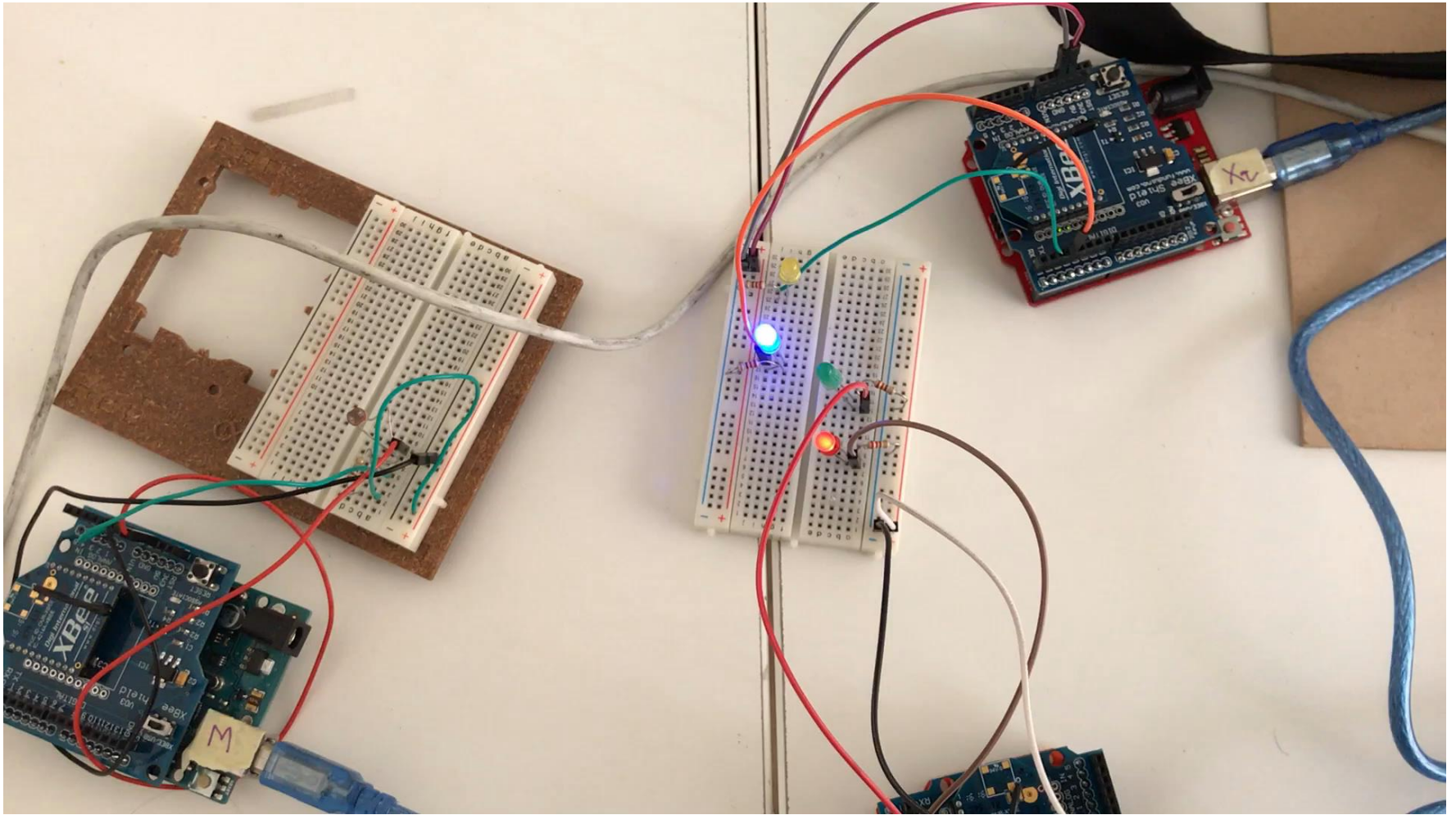
Comunicación 1 a 1



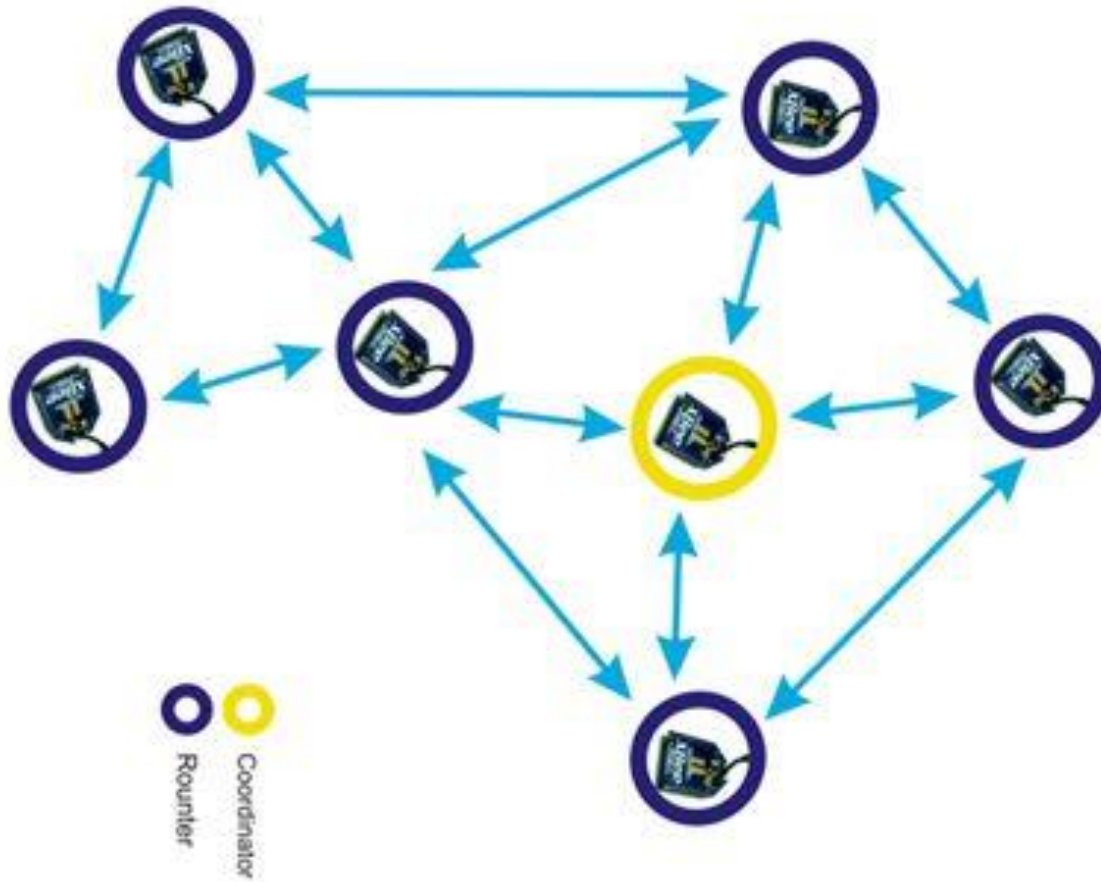
```
PruebaSensorReceptor | Arduino 1.6.12  
PruebaSensorReceptor  
  
int received;  
  
void setup() {  
  pinMode (2, OUTPUT);  
  pinMode (3, OUTPUT);  
  Serial.begin(9600);  
}  
  
void loop() {  
  if (Serial.available()){  
    received=Serial.read();  
  
    if (received==10){  
      Serial.println(received);  
      digitalWrite(2,LOW);  
      digitalWrite(3,HIGH);  
    } else {  
      digitalWrite(2,HIGH);  
      digitalWrite(3,LOW);  
    }  
  }  
}
```



Interacción



Mesh



Alcances

- Desarrollar Comunicación Mesh
- Sensores DIY
- Navegación y anclaje
- Sirve para mantención
- Energía eficiente

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