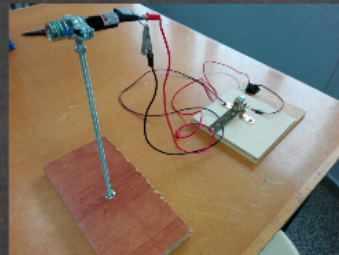
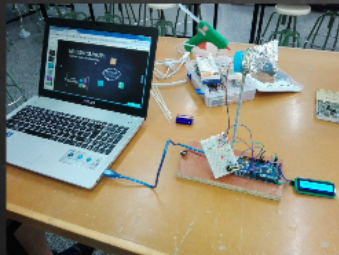


WIRELESS TELEGRAPH

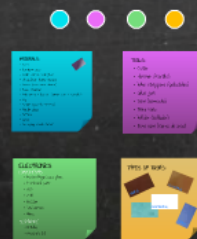
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WIRELESS TELEGRAPH

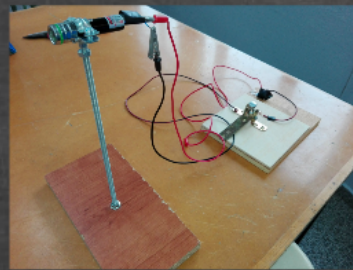
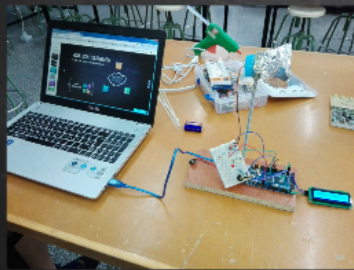
The Telegraph is a communication system which allows transmission of information through electrical pulses and using a pre-set code system. We have done a modification of the traditional telegraph and we've set up a wireless telegraph using as main elements one LED Light Emitter Diode, one LDR Light Dependent Resistor and an electronic system conformed by one Arduino plate and one Protoboard plate.

WORK DISTRIBUTION



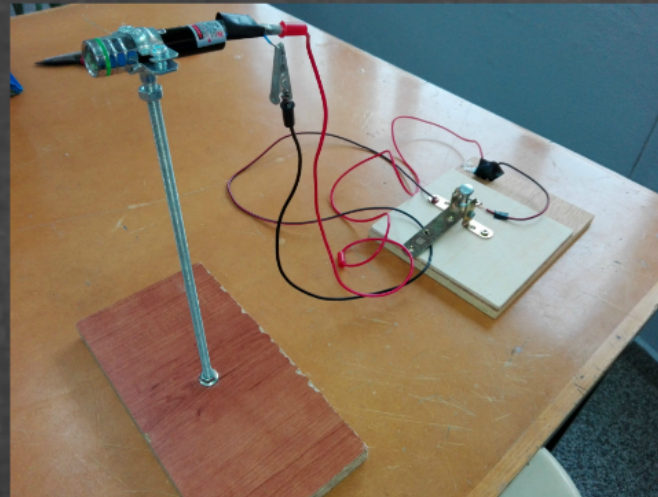
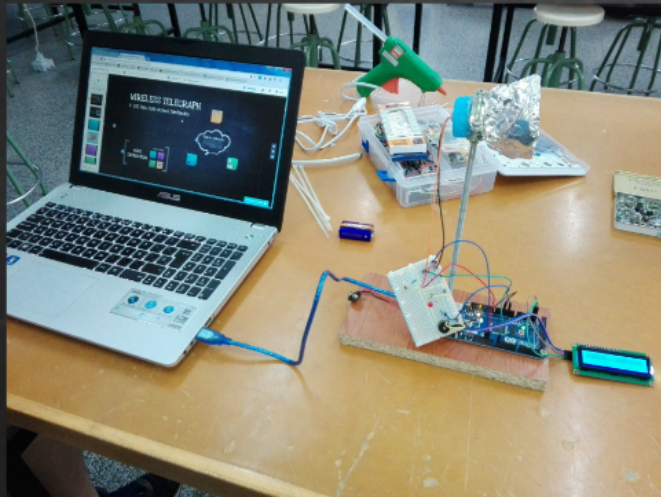
WIRELESS TELEGRAPH

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WIRELESS TELEGRAPH

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WORK DISTRIBUTION



MATERIALS:

- Laser
- Aluminum paper
- Cables with crimpable pins
- Threaded bar (tornillo rosado)
- Clamps (abrazadera chaveta)
- Nuts (tuerca)
- LED sensor + Buzzer (sensor LDR + zumbador)
- Clip
- Pinhole (pinhole receptor)
- Wooden piece
- Battery
- Glue
- Pin spring (muelle de sold)



TOOLS:

- Cutter
- Hammer (martillo)
- Wire strippers (pelacables)
- Glue gun
- Saw (serrucho)
- Third hand
- Welder (soldador)
- Bow saw (sierra de arco)

ELECTRONICS

COMPONENTS

- Arduino Mega 2560 plate
- Protoboard plate
- LED
- LDR
- Buzzer
- Resistances
- Wires

SOFTWARE

- Bitbloq
- Arduino's IDE

TYPES OF TASKS:



MATERIALS:

- Laser
- Aluminum paper
- Cables with crocodile pliers
- Threaded bar (barra roscada)
- Clamps (abrazadera circular)
- Nuts (tuercas)
- LDR sensor + Buzzer (sensor LDR + zumbador)
- Clip
- Parable (parábola receptora)
- Wooden pieces
- Battery
- Clema
- Pen spring (muelle de boli).



SOME MATERIALS AND TOOLS



TOOLS:

- Cutter
- Hammer (martillo)
- Wire strippers (pelacables)
- Glue gun
- Saw (serrucho)
- Third hand
- Welder (soldador)
- Bow saw (sierra de arco)

ELECTRONICS

COMPONENTS

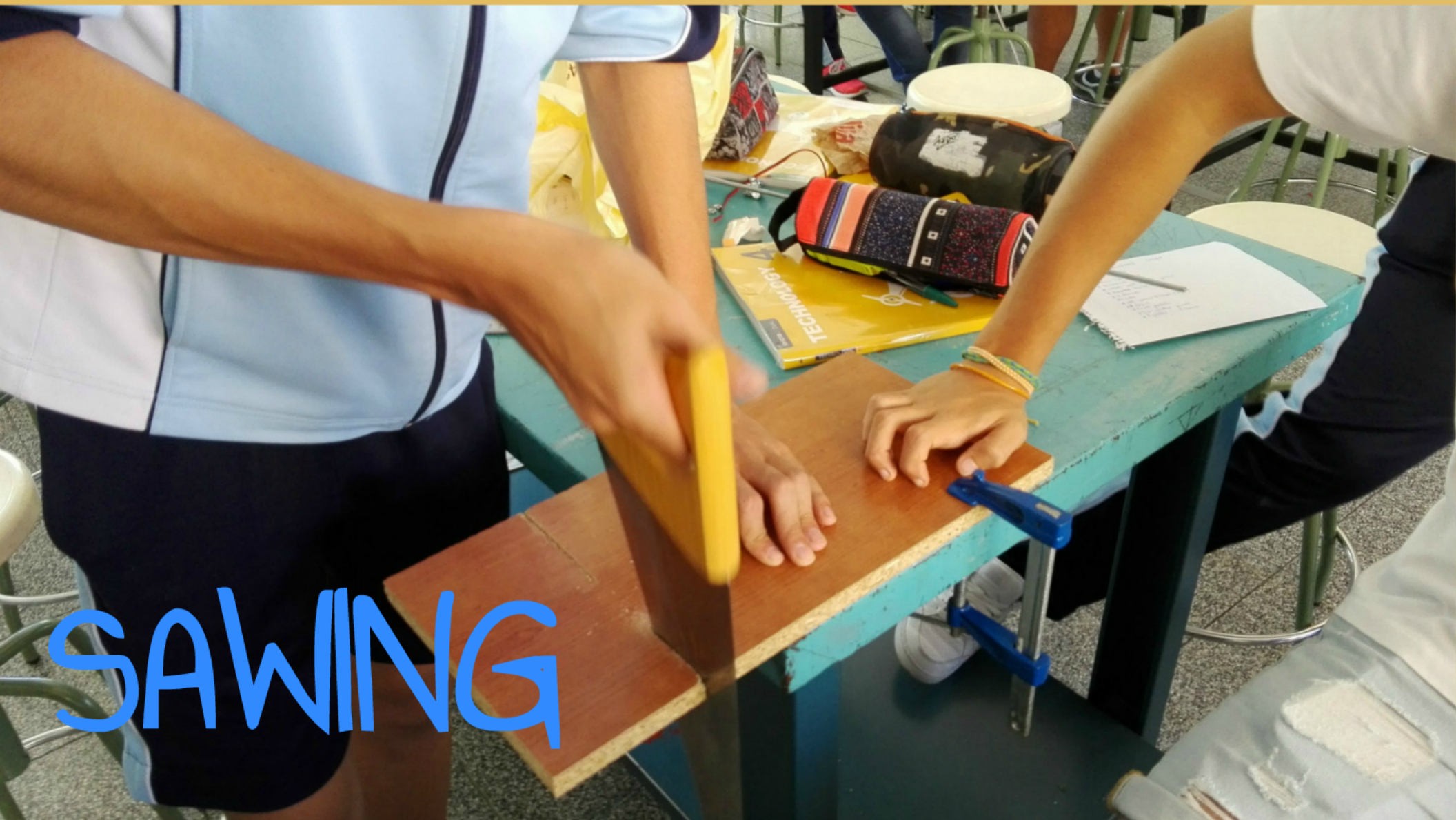
- Arduino Mega 2560 plate.
- Protoboard plate.
- LED
- LDR
- Buzzer
- Resistances
- Wires

SOFTWARE

- Bitbloq
- Arduino's IDE

TYPES OF TASKS:





SAWING



SOLDERING

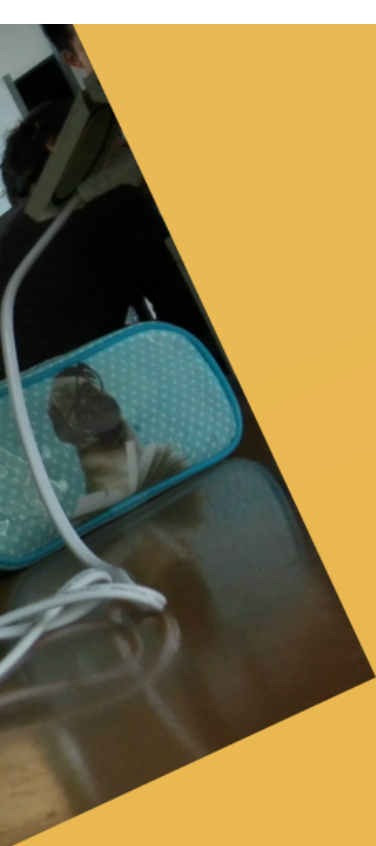


ASSEMBLING



Prezi



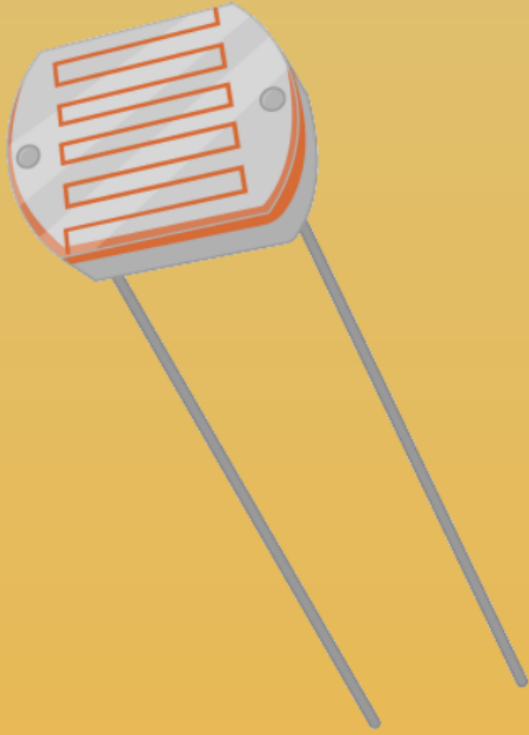


WIRING

WIRELESS TELEGRAPH

The Telegraph is a communication system which allows transmission of information through electrical pulses and using a preset code signs.

We have done a modification of the traditional telegraph, and we've set up a wireless telegraph using as main elements, one LED (Light Emitter Diode), one LDR (Light Dependent Resistance) and an electronic system conformed by one Arduino plate and one ProtoBoard plate.



SENSORS: LDR PHOTORESISTOR

LDR (Light Dependent Resistor) is a resistance that varies depending on the intensity of light which impinges on its surface. The higher is the intensity, the lower is the resistance, and backwards. They only reduce their resistance with light radiation located within a certain band of wavelengths. So we used a laser to illuminate the LDR and we made an antenna with the nose of a bottle covered with aluminum paper to take the light better.

ACTUATORS:

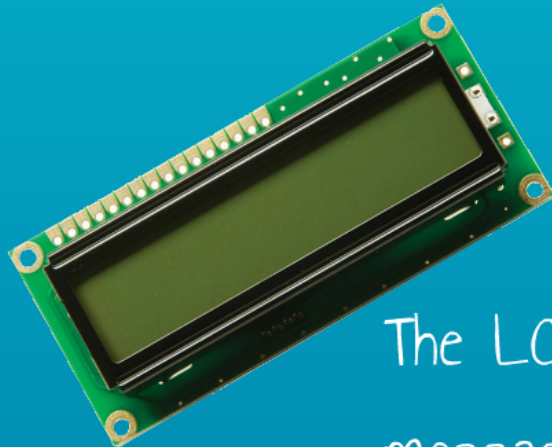
BUZZER, LED, LCD SCREEN...



The buzzer sounds when the LDR measures a certain level of light

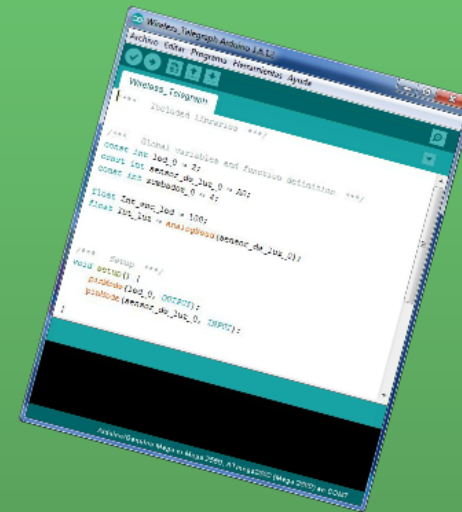
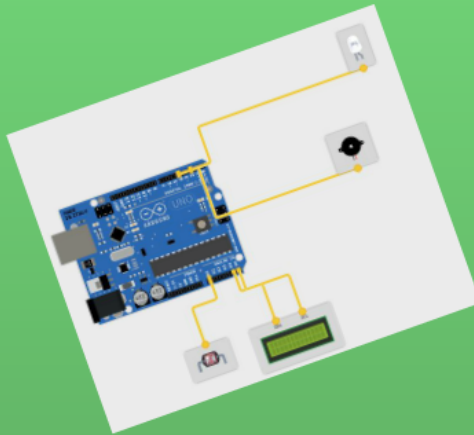


The red LED lights with the same value of light captured by LDR

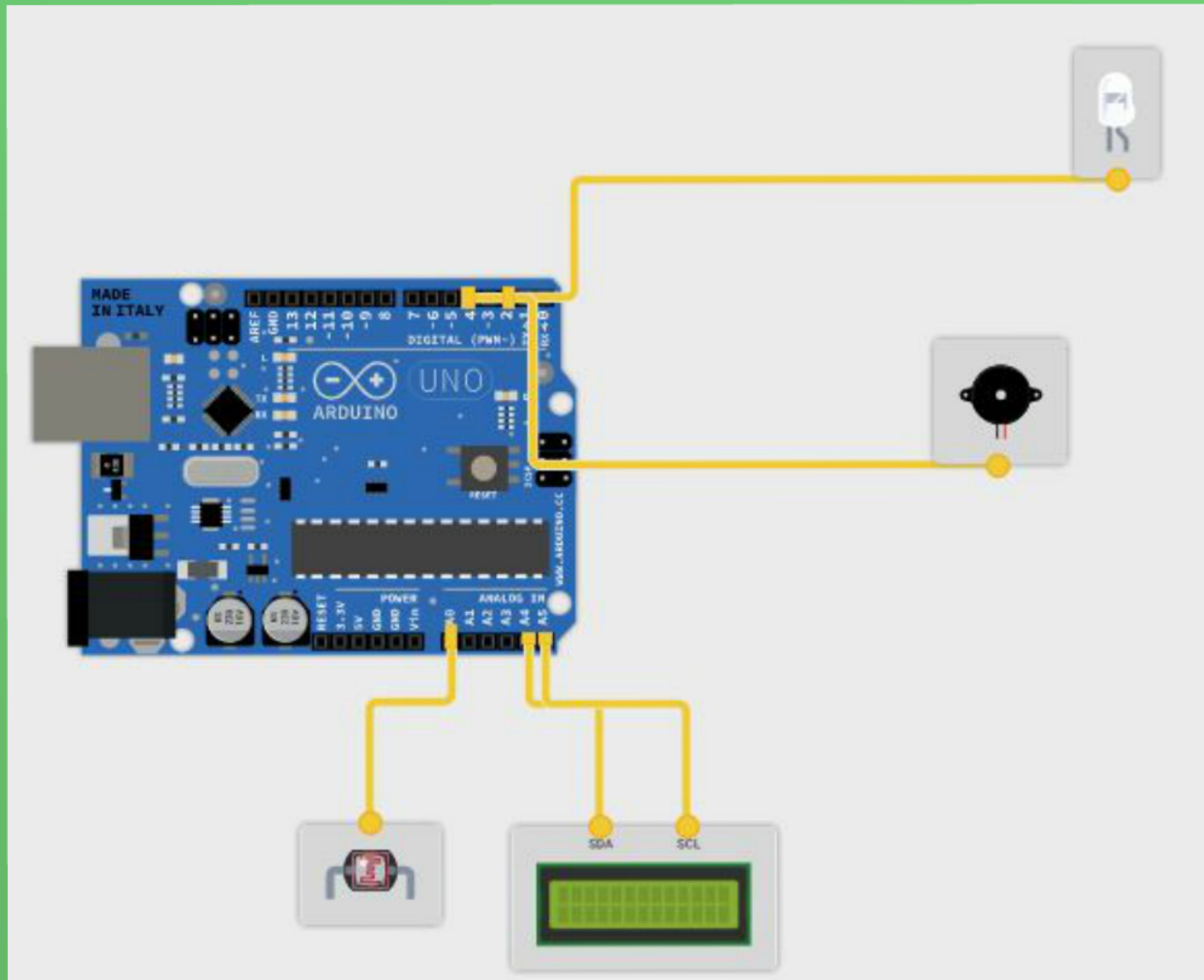


The LCD Screen should show an SOS message that we are improving

CENTRAL UNIT:



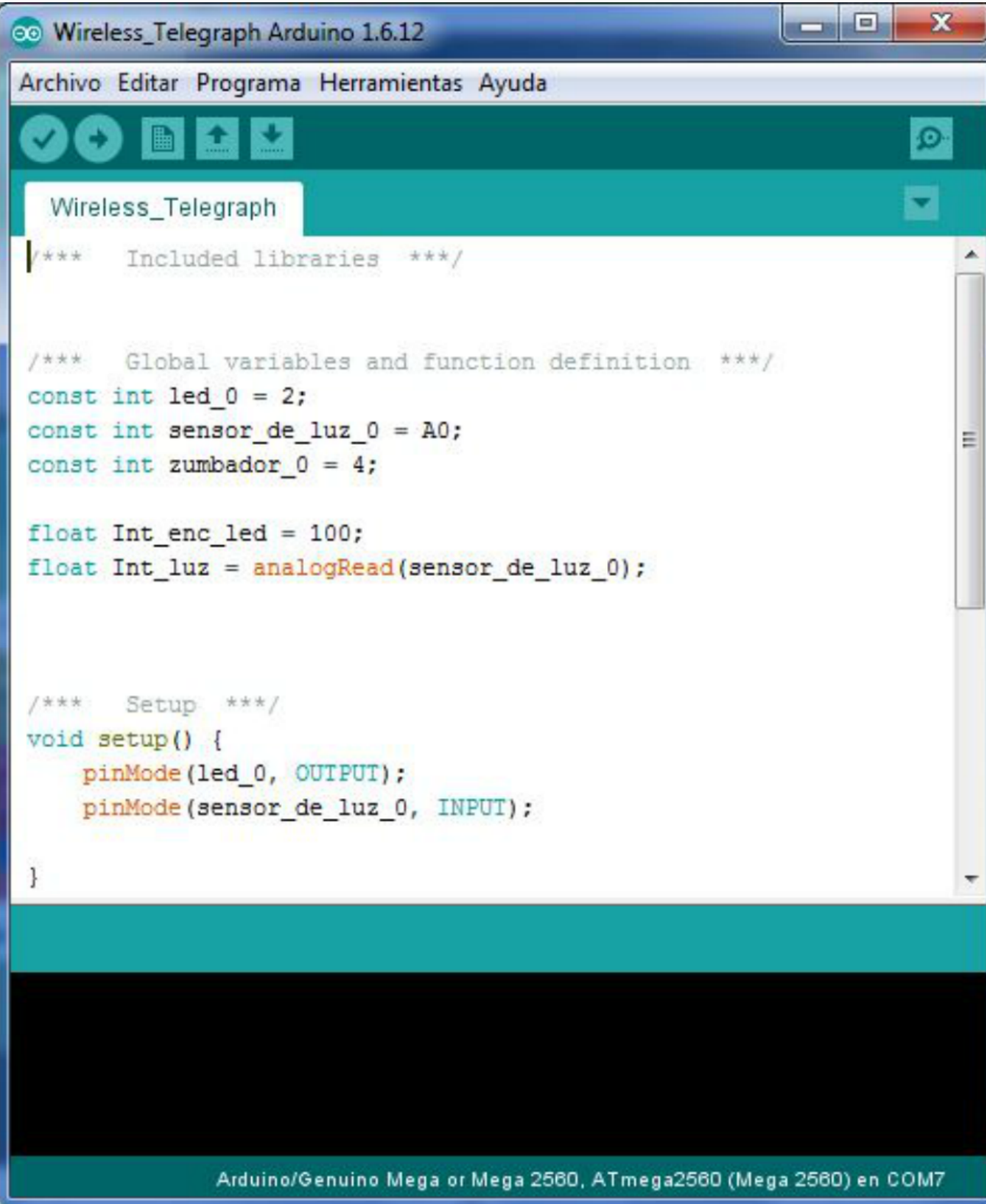
Bitbloq programming



— Bucle principal (Loop)



Bitbloq programming



The screenshot shows the Arduino IDE interface with the following components:

- Title Bar:** Wireless_Telegraph Arduino 1.6.12
- Menu Bar:** Archivo, Editor, Programa, Herramientas, Ayuda
- Toolbar:** Includes icons for saving, running, uploading, and a search icon.
- Tab Bar:** A single tab labeled 'Wireless_Telegraph' is active.
- Code Editor:** Contains the following C++ code:

```
/** Included libraries ***/

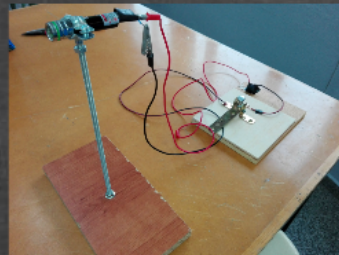
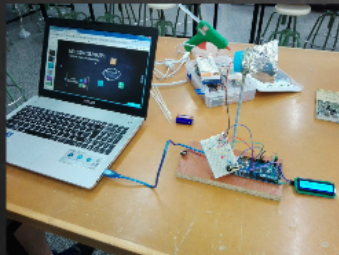
/** Global variables and function definition **/
const int led_0 = 2;
const int sensor_de_luz_0 = A0;
const int zumbador_0 = 4;

float Int_enc_led = 100;
float Int_luz = analogRead(sensor_de_luz_0);

/** Setup **/
void setup() {
  pinMode(led_0, OUTPUT);
  pinMode(sensor_de_luz_0, INPUT);
}
```
- Status Bar:** Displays 'Arduino/Genuino Mega or Mega 2560, ATmega2560 (Mega 2560) en COM7'.

WIRELESS TELEGRAPH

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WIRELESS TELEGRAPH

The Telegraph is a communication system which allows transmission of information through electrical pulses and using a pre-set code system. We have done a modification of the traditional telegraph and we've set up a wireless telegraph using as main elements one LED (Light Emitter Diode) one LDR (Light Dependent Resistor) and an electronic system conforming by one Arduino plate and one Protoboard plate.

WORK DISTRIBUTION

