ECOLOGÍA A PIE DE BARRIO

IES MARÍA GOYRI GOYRI SCHOOL

Date:

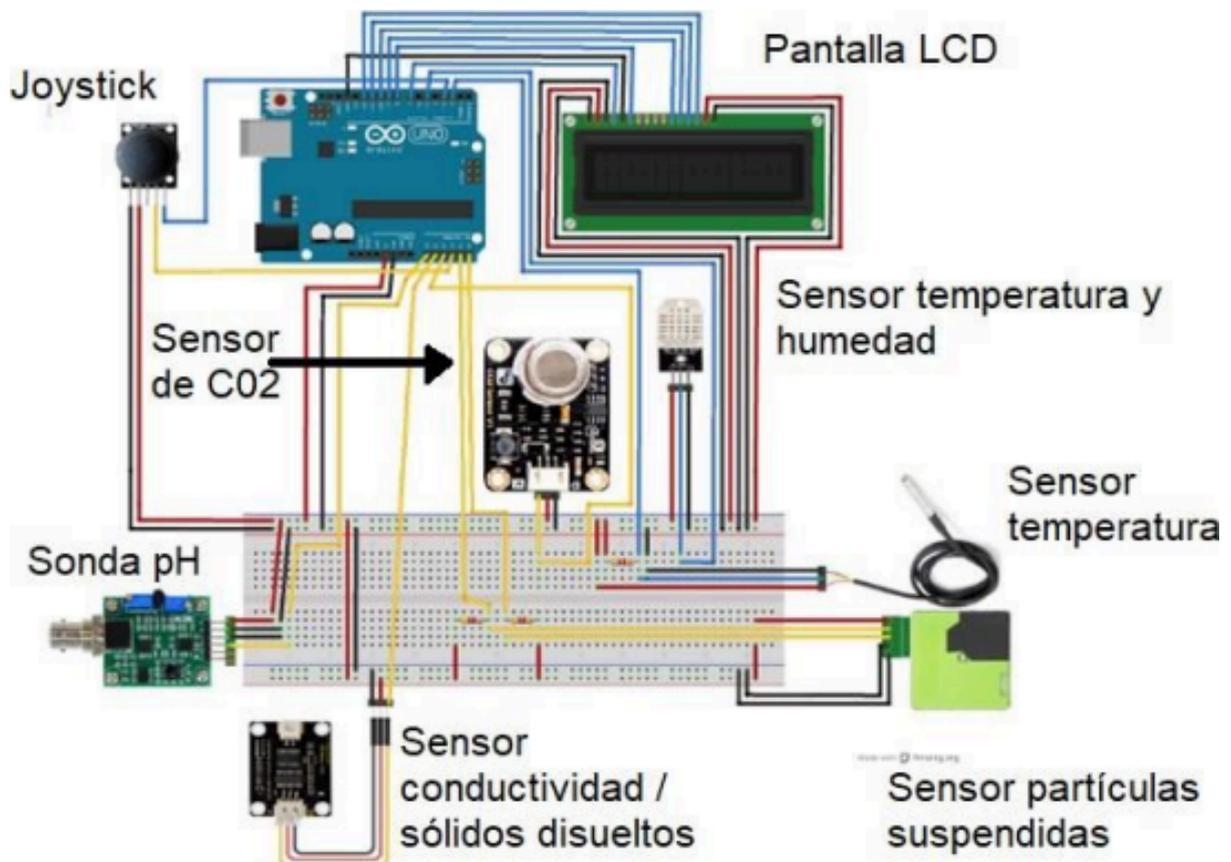Team name:

Motto:

Team members:

EXAMPLE OF HOW TO LABEL THE SAMPLE:

ID:_____

_____

Sampling location: _____

_____

Date: _____ Hour:: _____Tº:_____

Batch:_____

Sampled by:

_____

GENERAL DIAGRAM OF THE CONNECTION OF THE MEASUREMENT STATION

Joystick

Pantalla LCD

Sensor de C02

Sensor temperatura y humedad

Sonda pH

Sensor temperatura

Sensor conductividad / sólidos disueltos

Sensor partículas suspendidas

ENVIRONMENTAL RESEARCH AND CONSERVATION CENTER

'Welcome to the center for environmental conservation and the fight against climate change in Madrid. We are the scientists (insert our names). You have been hired by this research center to save many lives. You have to apply your knowledge and work hard as a team to become the winning research team among all those selected. To do this, you must put into practice what you previously studied about sensors and physical and chemical factors that influence pollution and the environment, and do it in the shortest time possible. Good luck!'

'THE MISSION'

"Vuestra misión es ser el primer equipo en completar la gymkhana de medición de agua y aire para conocer el estado medioambiental de esta zona y dar posteriores soluciones a pequeña escala para salvar el planeta. Tenéis que medir la calidad del agua y del aire en distintos puntos de la zona, poner esos datos en común, analizarlos y saber comunicar los resultados. El equipo que lo consiga en primer lugar y con la mayor puntuación, obtendrá el ansiado premio, que será sorpresa.'

CRITERIA FOR OBTAINING ENVIRONMENTAL POINTS!

To obtain extra points, the supervisory team of chief researchers will take into account the development of the practical day, not only the results.
The following parameters will be taken into account:
→Respect for the environment and the environment: **+25 PMA**
→Correct teamwork, putting cooperative learning into practice: **+25 AMP**
→Observation that the group is motivated by practice: **+25 PMA**
→Greater number of proposals or solutions to minimize the environmental impact in our territory on their cards: **+25 PMA**
→TAKING PHOTOS AND IDENTIFYING THE FLORA AND FAUNA ON THE TOUR THROUGH THE USE OF THE SHEETS: +25 PMA for each species
→Suitable water sampling time: **+25 PMA**
→Correct presentation of the analysis table of the data obtained: **+25 PMA**
→Interesting contributions: **+25 PMA**

At the end of the practical day, the team of chief researchers will count and add the points and the team that has obtained the most total points will win the final SURPRISE prize.

TOUR MAP

- **Point nº1:** Measurement of atmospheric pollution. Leaving IES Juan Ramón Jiménez
- **Point nº2:** Measurement of atmospheric pollution. On roundabout M-301
- **Point nº3:** Measuring atmospheric pollution on Paseo del Río Manzanares and taking river water samples.
- The water sample taken at point 3 will be compared with the water sample previously taken at the outlet of the China treatment plant.

WHAT SENSORS DOES THE STATION HAVE:

SENSORS NAME	SAMPLE TYPE (Water or air)	VARIABLE MEASUREMENT	UNITS AND RANK	WHAT IS THE INFO FOR?	OBSERVATIONS
EXAMPLE: Thermometer	**EXAMPLE:** Water	**EXAMPLE:** temperature	**EXAMPLE:** 0ºC - 100ºC	**EXAMPLE:** Fish live in a certain range of T, if it varies, they could die	**EXAMPLE:**

Sample type: Air or water?

Where have we taken the sample?	Draw the place where we have taken the sample

Presence Level (complete with an X)

Factor	High	Half	Low
Influx of people			
Traffic			
Vegetation			
Fauna			
Others			

-

Sample type: Air or water?

Where have we taken the sample?	Draw the place where we have taken the sample

Presence Level (complete with an X)

Factor	High	Half	Low
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Traffic			
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Fauna			
Others			

Water samples:

Measurement	Place 1	Place 2	Place 3
Temperature (ºC)			
Conductivity (mS/cm)			
Total dissolved solids (mg/L)			
pH (0 - 14)			

Air samples:

Measurement	Place 1	Place 2	Place 3
Temperature (ºC)			
Relative humidity (%)			
PM_{10}			
$PM_{2.5}$			

CO_2			