

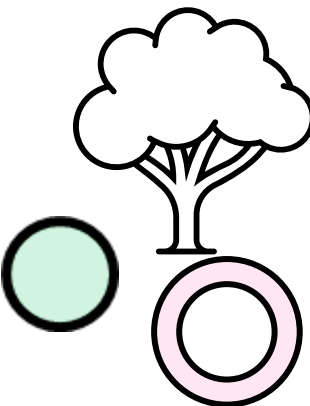
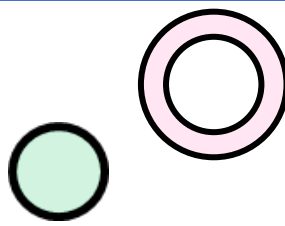
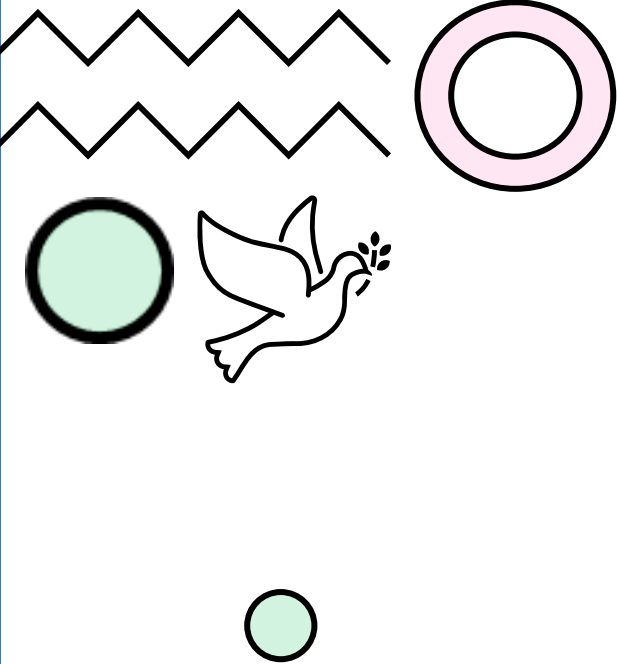
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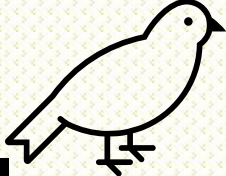
Fighting the Lack of Wildlife-Friendly Architecture: Implementation of Automatic Bird Fountains on Facultad Regional Parana 's Rooftops

Universidad Tecnológica Nacional
Facultad Regional Paraná
Electromechanical Engineering Departament,
Inglés I

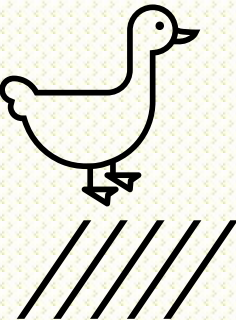
2023

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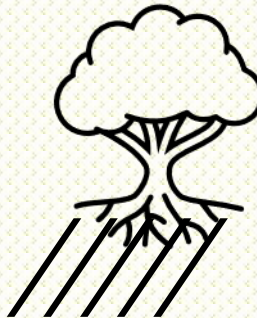
Introduction





General Contextualization

- ✈️ Paraná River, one of the most important rivers in South America
- ✈️ A great water source for the animals
- ✈️ City development that alters the ecosystem of birds





The Presentation Purpose

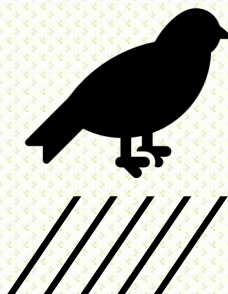
- ✦ To address the lack of access to water for indigenous bird species within the urban environment





Map of the Presentation

- ✈ Description of the Context
- ✈ Problem Statement
- ✈ Description of Scenes that Help Picture the Problematic Situation
- ✈ Identification and Analysis of the Causes that Give Rise to the Problem
- ✈ Identification and Description of the Consequences
- ✈ Problem Approach
- ✈ Strengths and Weaknesses of the Proposal





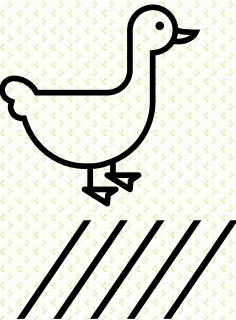
Work Impact

- ✎ Raising awareness about the importance of reducing bird abandonment in the city
- ✎ Decreasing bird extinction in the area
- ✎ Inspiring citizens to take care of birds
- ✎ Encouraging the application of sustainable measures in other areas of the city





Problem Definition and Analysis

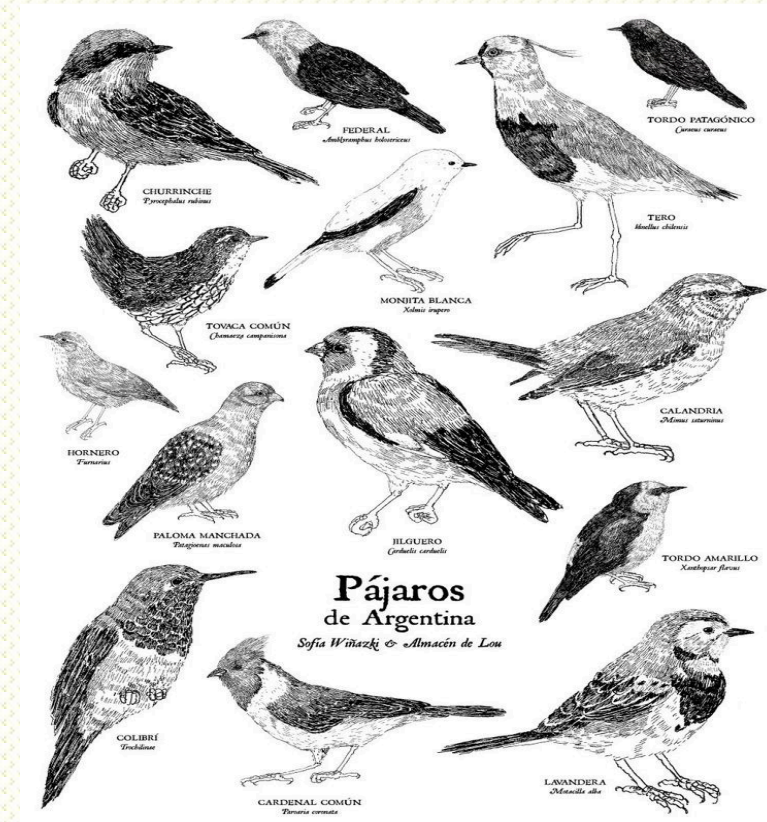




Description of the Context

More than 300 species of birds that inhabit the surroundings of the Paraná River

Bird habitat use

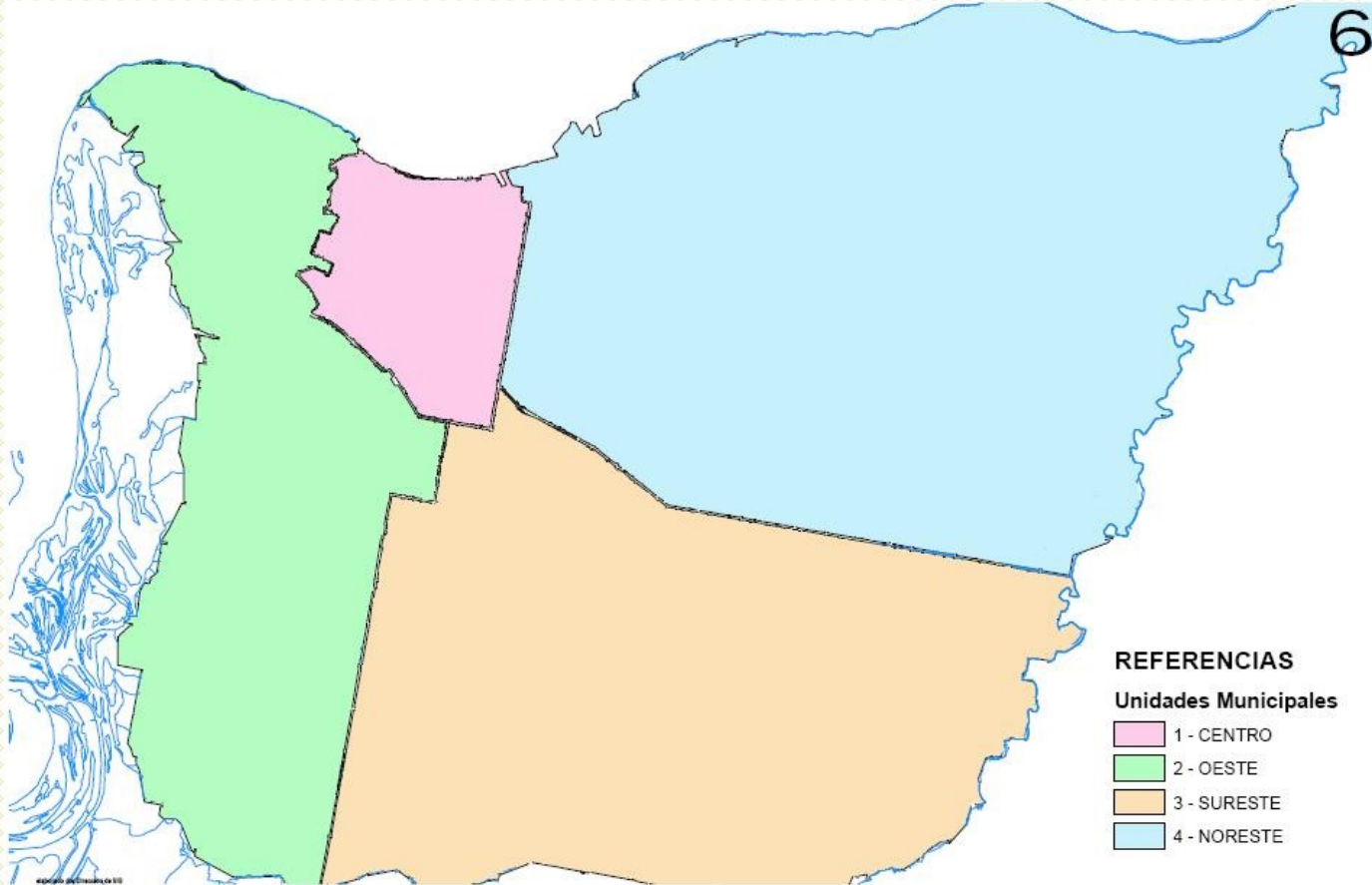


Some of the main birds in Paraná area





Description of the Context: Problem Location



Paraná city map

We will focus on the southeast area of Paraná city.



○ Description of the Context: Important Landmarks in the Southeast Area of Paraná



UTN Facultad Regional Paraná

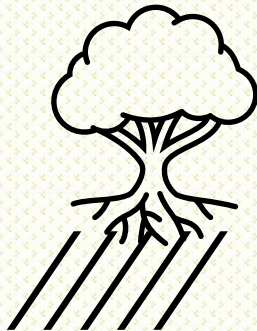


Uni-Shops nearby UTNs
Bridge over Aymará Avenue



Problem Statement

- The lack of water sources for birds in the city of Paraná, particularly within the UTN FRP campus and nearby areas



○ Description of Scenes that Help Picture the Problematic Situation



Trees in the university parking lot

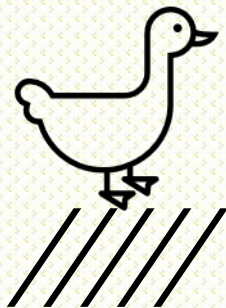


Bird drinking water from a dirty street puddle.



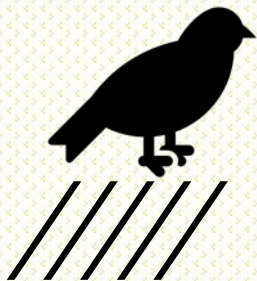
○ Identification and Analysis of Causes or Factors that Give Rise to the Problem

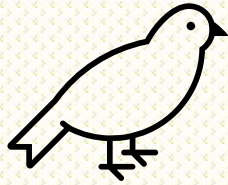
- 🐦 Urbanization
- 🐦 Lack of awareness
- 🐦 Lack of sustainable solutions
- 🐦 Pollution



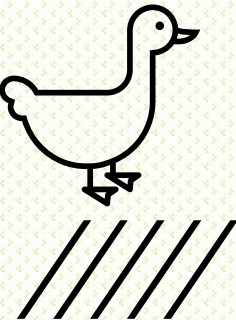
○ Identification and Description of the Consequences

- ✎ Bird illness or death
- ✎ Migration
- ✎ Too many species in danger of extinction





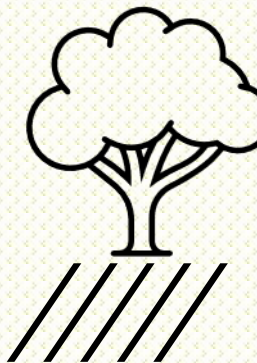
Problem Approach





Problem Approach

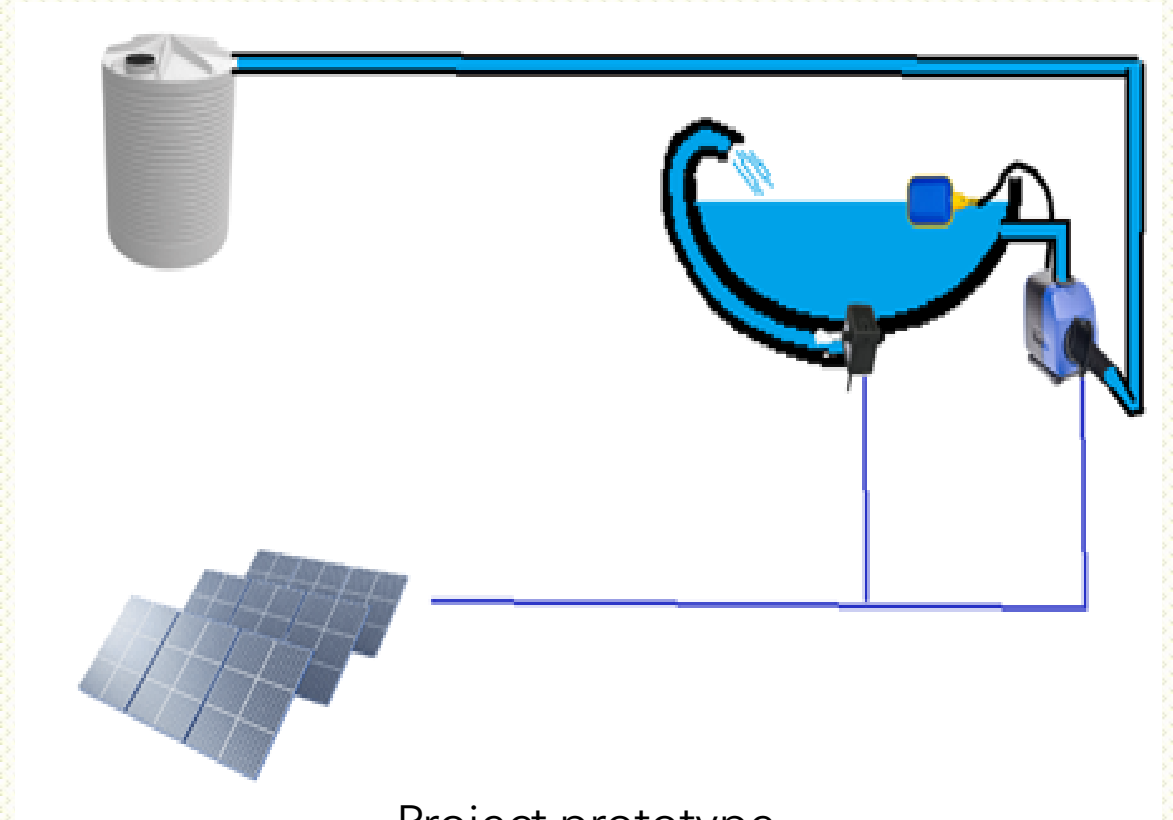
- ✿ A sustainable solution is to install an automatic water fountain for birds at UTN FRP.
- ✿ This can contribute to the well-being of a large number of birds in the area.





Elements for the Automatic Bird Fountain Installation

- 🌴 Fountain
- 🌴 Two water pumps
- 🌴 One electrolevel
- 🌴 Hose
- 🌴 Solar panels



Project prototype





Strengths of the Proposal

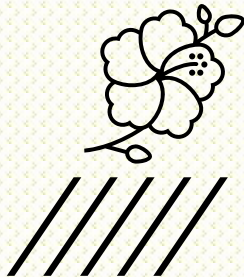
- ✿ Self-sufficiency of the project
- ✿ University financial benefits through personnel expense elimination and solar panel green energy reliance
- ✿ Renewable energy solution





Weaknesses of the Proposal

- High cost associated with acquiring devices and materials
- The need for monthly maintenance



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