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# Robotics

## Building conditions for a better world by learning and sharing knowledge with AI and Robotics

# Artificial Intelligence and Robotics for Children

Libre Robotics

 @air4children  @air4children

<http://air4children.github.io>



WHY? WHAT? HOW?

# WHY? ARTIFICIAL INTELLIGENCE AND ROBOTICS (AIR)

Why AIR is important for children and community of Xicohtzinco?

- \* Aware children and parents on the use and applications of AIR
- \* Create a community where children can freely take AIR
- \* Then such group will help their community proposing solutions with AIR

# WHAT?

- \* Build Mexican OpenSource Robots which are:
  - Affordable,
  - Educational, and
  - Fun!
- \* Create an inclusive community where children and persons of any age can learn and share knowledge of Artificial Intelligence and Robotics for free!
- \* Create a self-sustainable community where members will make their best to help children and others finding their potential through the use of AI and Robotics!

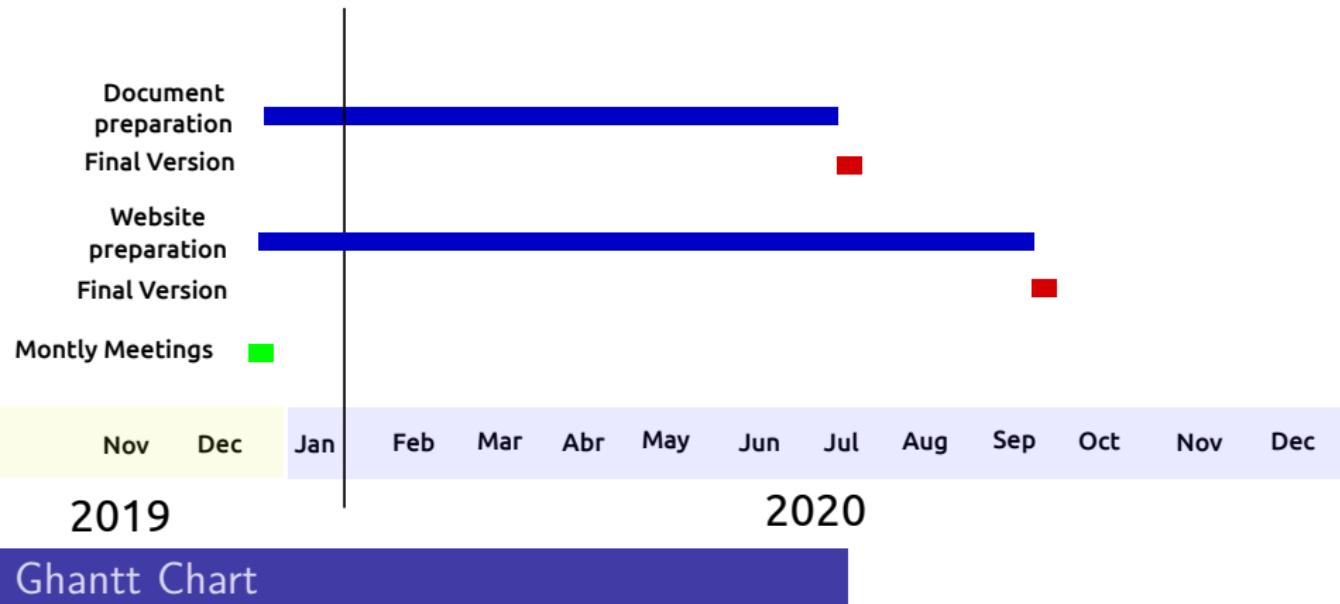
# WHO? AND HOW?

- \* People who want to change the future of Mexico
- \* Finding founders for AIR
- \* Create a solid and robust project
- \* Create the vision of AIR with short and long term plans

# AIM OF AIR4CHILDREN

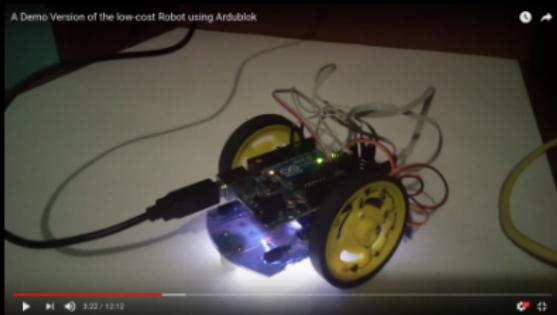
The aim of AIR4Children is to create a community for not only in the area of robotics but also in artificial intelligence where anyone can freely learn and share knowledge.

# Plan for 2020



HISTORY

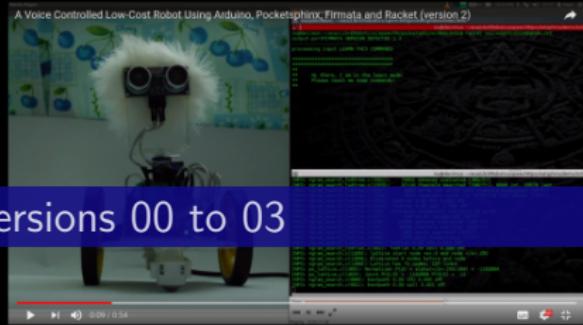
# V00-MAY2014



# V01-JUNE2014

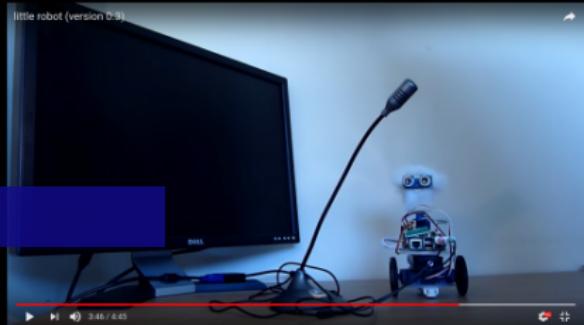


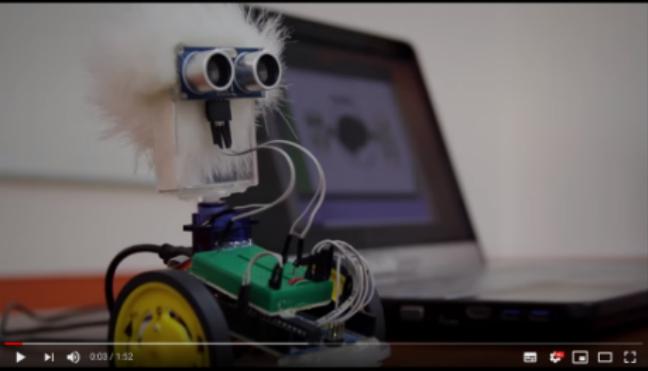
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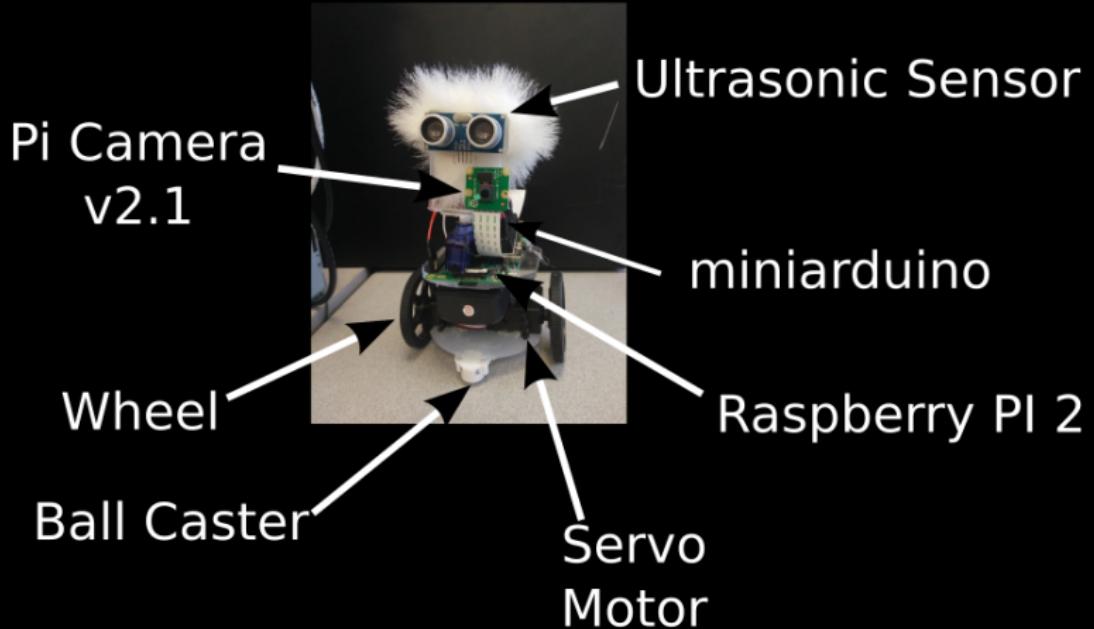


Versions 00 to 03

# V03-APRIL2016

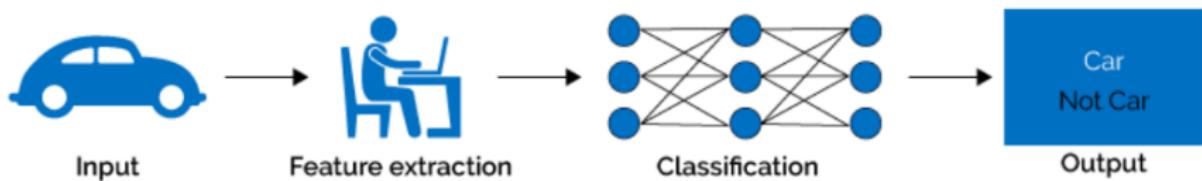




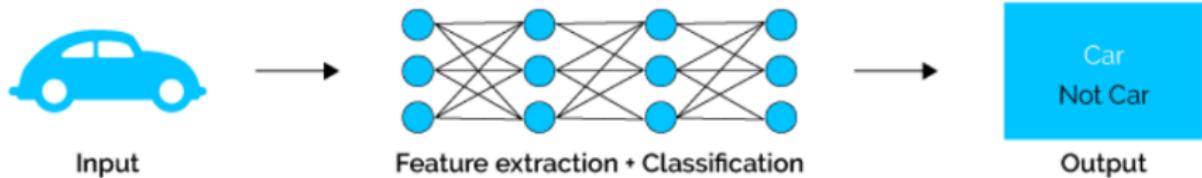


# ARTIFICIAL INTELLIGENCE AND ROBOTICS

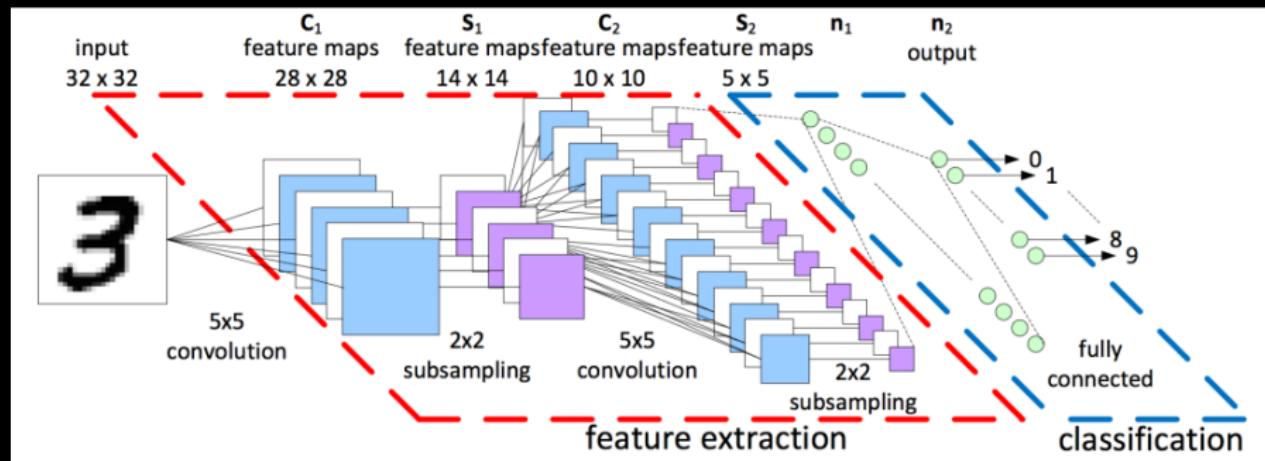
## Machine Learning



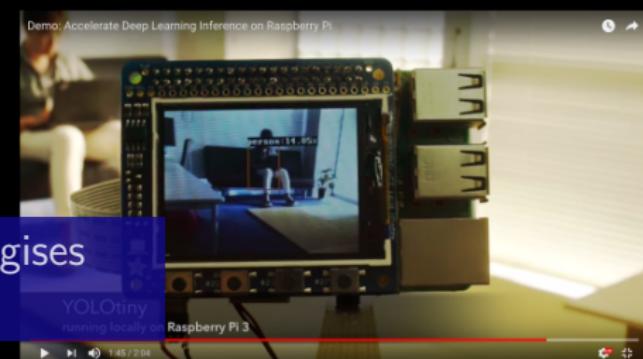
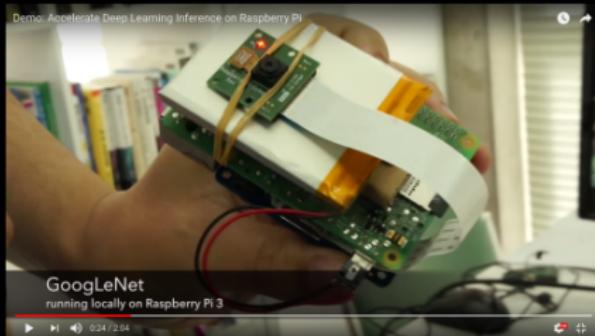
## Deep Learning



Introduction to Deep Learning



## Convolutional Neural Network



idein:raspberrypi3/pizero that recognises  
images



BerryNet:raspberrypi3 that recognises multiple objects

Raspbian



## JetBot

~\$280 (~£220)

August 2019



## Kaya

Open-Source Robots from NVIDIA

TEACHING AIR4CHILDREN



Children in Some Public Mexican Schools



Teaching AIR4children

## FINAL REMARKS

# LET'S MAKE IT HAPPEN!

- \* Build Mexican Open-Source Robots which are:
  - o Affordable,
  - o Educational, and
  - o Fun!
- \* Create an inclusive community where children and persons of any age can learn and share knowledge of Artificial Intelligence and Robotics for free!
- \* Create a self-sustainable community where members will make their best to help children finding their potential through the use of AI and Robotics!

## REFERENCES

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Deep learning gateway on Raspberry Pi  
GitHub Repository (2017),  
<https://github.com/DT42/BerryNet> [Q]



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