

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots.

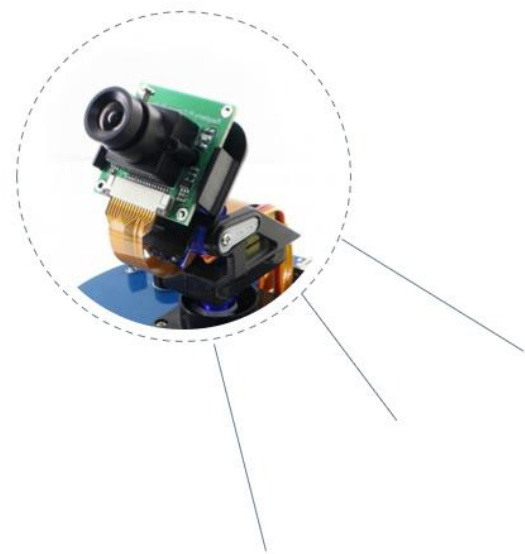
**Hey ! I'm Pitch !**

A decorative network diagram in the bottom-right corner, featuring a complex web of interconnected nodes and lines. Some nodes are highlighted with blue circles, and others with blue dots. A small blue number '1' is visible near the bottom right.

# Hello World!

## I am Pitch !

I was born to win games and  
entertain whoever wants to  
play with me!



Explore my brain here :





“

1997 was an unpleasant experience, but it helped me understand the future of human-machine collaboration. **We thought we were unbeatable**, at chess, Go, shogi. All these games, they have been gradually pushed to the side [by increasingly powerful AI programs]. But it doesn't mean that life is over. We have to find out **how we can turn it to our advantage**.

Garry Kasparov,

*after his chess defeat against AI*

Our goal: entertain people

3 games, only 1 winner !



**Rock  
Paper  
Scissors**

**Spin the  
Wheel**

**Simon  
says ...**

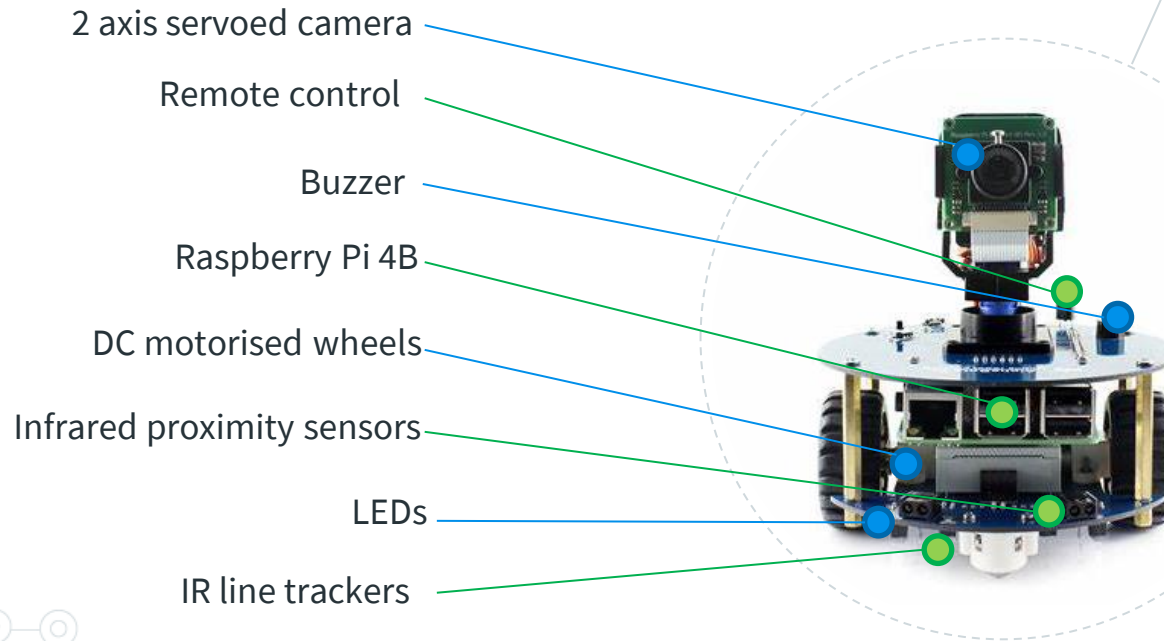
A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines, with some nodes highlighted in a darker shade.

1.

# Pitch's infrastructure

A bodybuilt robot!

# 1. Pitch's infrastructure



# 1. Pitch's infrastructure



**Ubuntu 20.04 LTS**

- *Heavier than Raspbian*

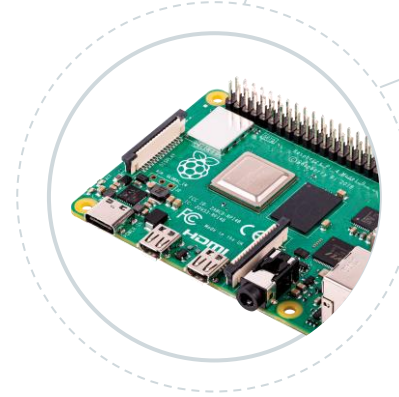
+ *More compatible with libraries*



**ROS Noetic**

+ *designed for ubuntu 20.04*

+ **Noetic means intellect.**

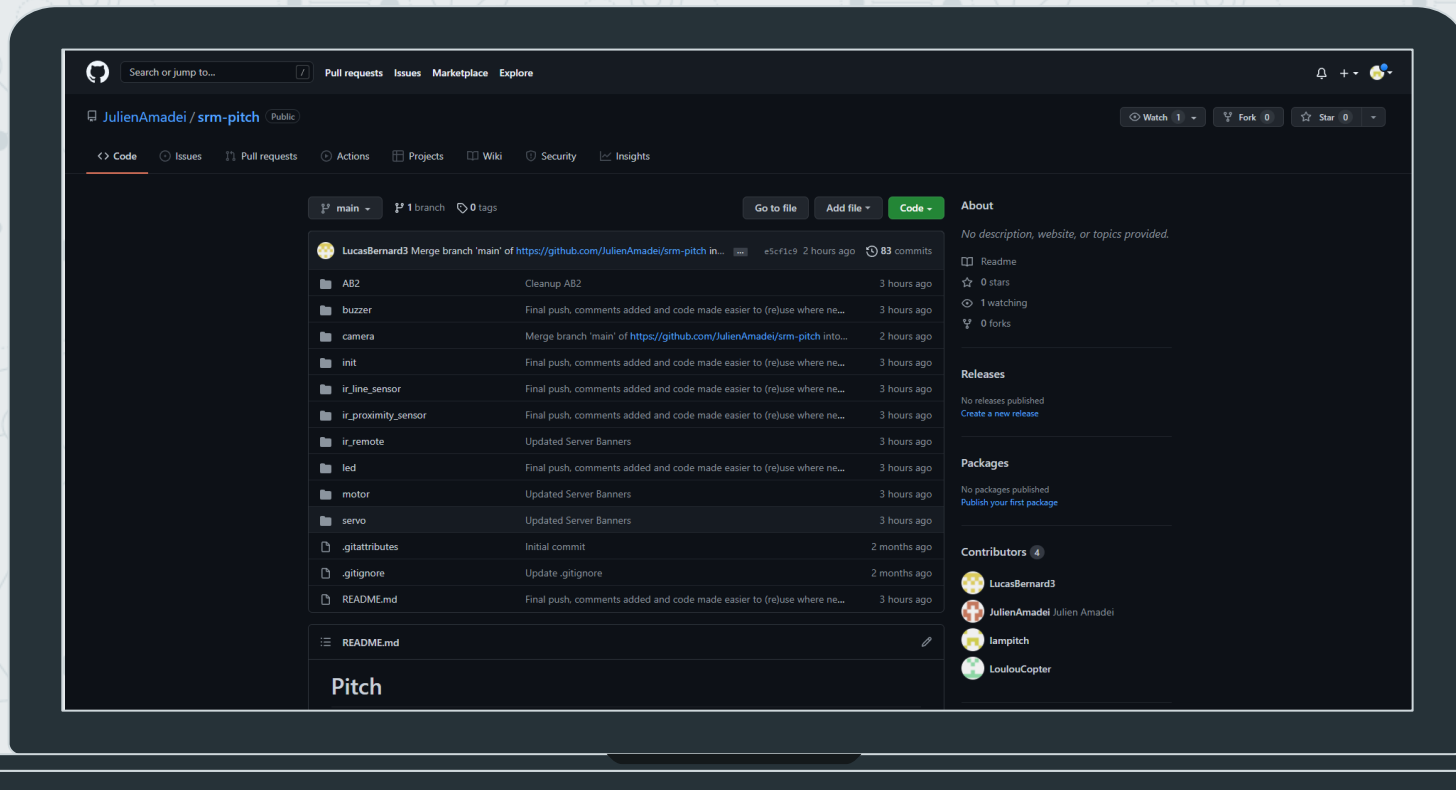


## Libraries sources

LEDs | [rpi\\_ws281x](#)

Camera | [PCA9685](#)  
[Mediapipe](#)  
[Cvzone](#)

Alphabot | [Alphabot2 standard libraries](#)



# Git project

For an optimized programming collaboration.



# ROS and GIT, a great collab !



## Time

Fast to transfer files using git instead of a USB key.

ROS locates errors with precision.



## Windows / Linux

Nodes can be edited on Windows and added to the ROS project on Linux.



## Collaboration

Nodes can be edited separately and connected with only a node name.



## Flexible coding

Three teammates, three coding habits, but it works, doesn't it ?



## Updates & Versioning

With git, data is updated with a log registry to follow its evolution.

Avoids overwriting.



## Easy to use

ROS is adapted to many languages, you don't have to learn a specific one !

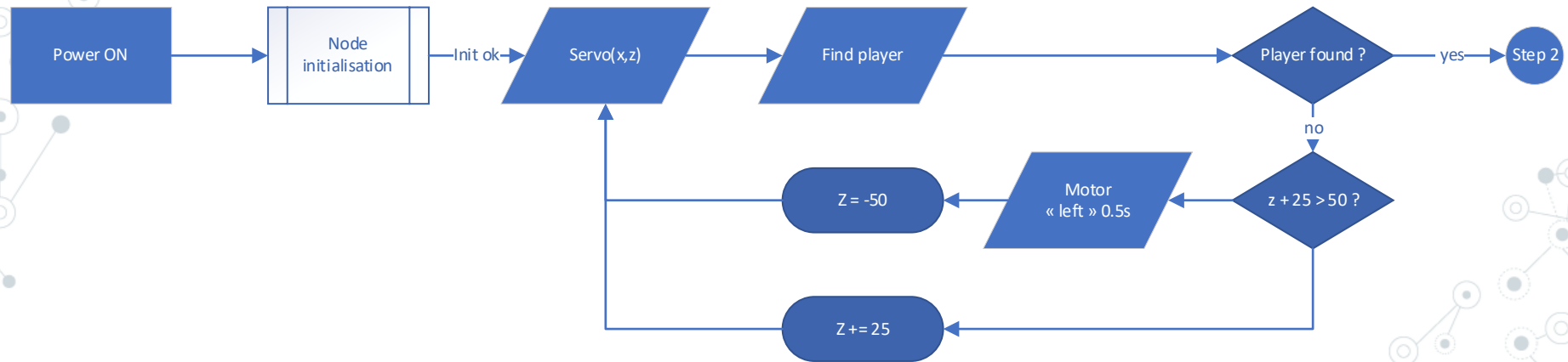
A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by small circles, some of which are highlighted with a double-circle outline. The lines are thin and gray, creating a mesh-like structure.

# 2.

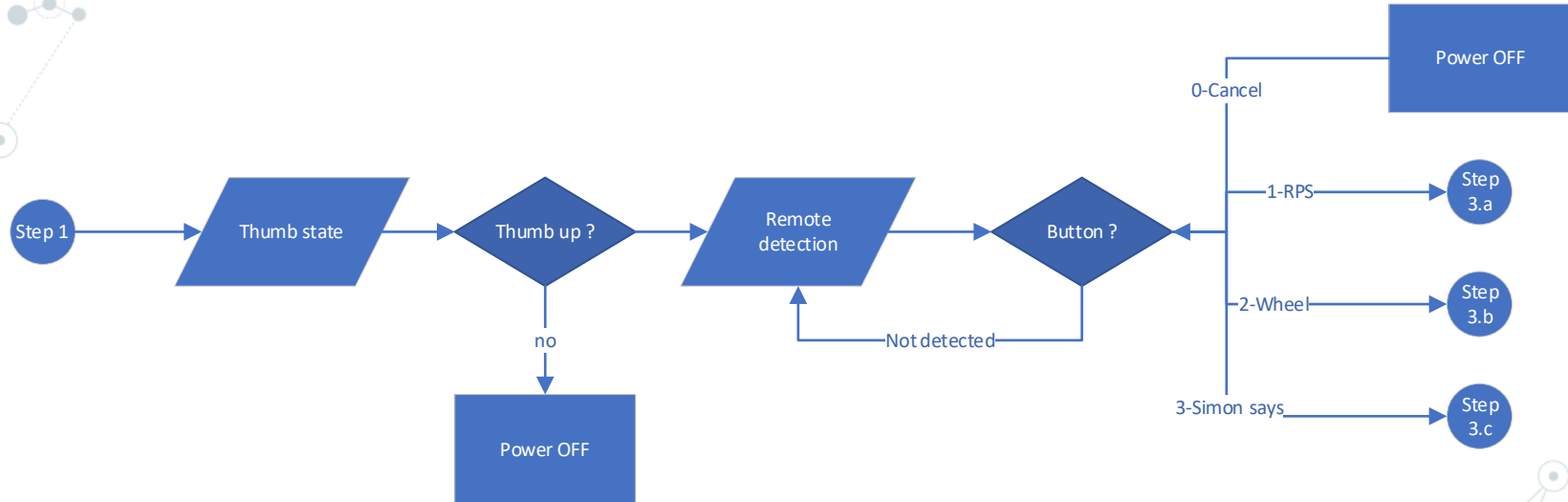
# The initialization

Pitch, wake up!

## 2. The initialization



## 2. The initialization



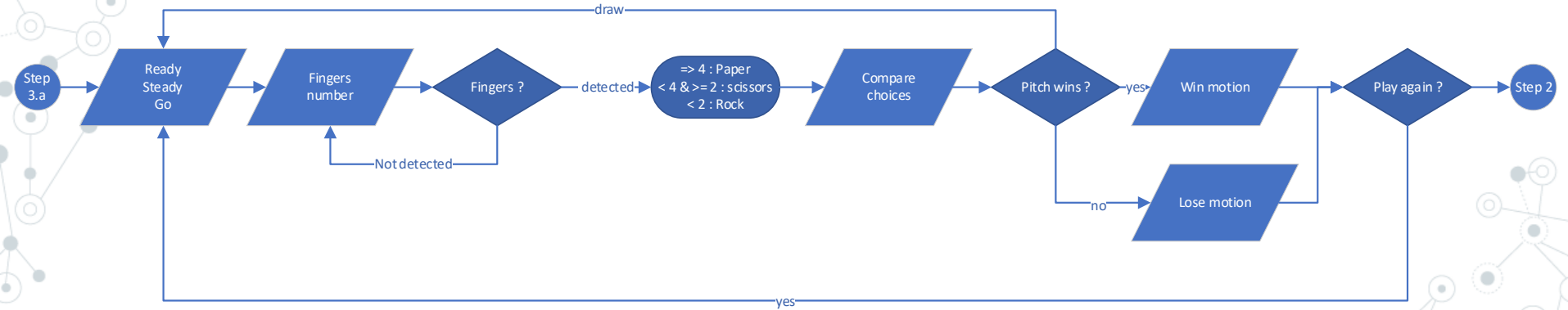
A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by small circles, some of which are solid grey and others are hollow with a grey outline. The lines are thin and grey, creating a mesh-like structure that extends from the top-left towards the center of the slide.

3.

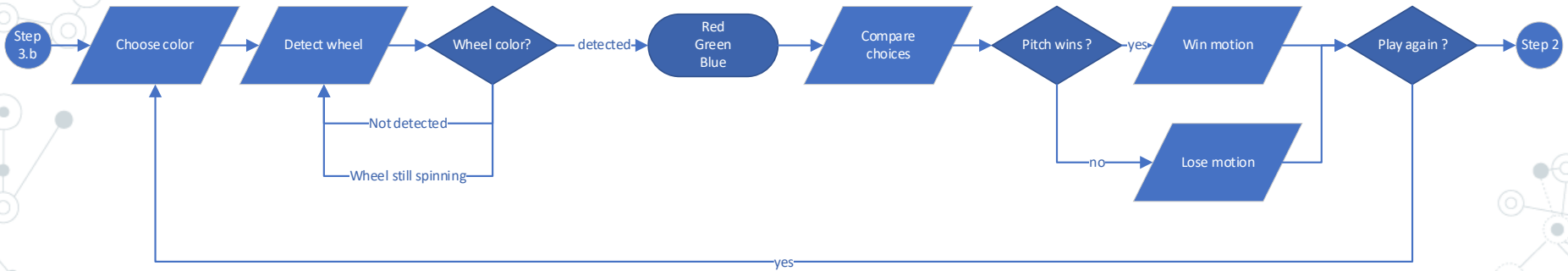
# The Games

Let's win.

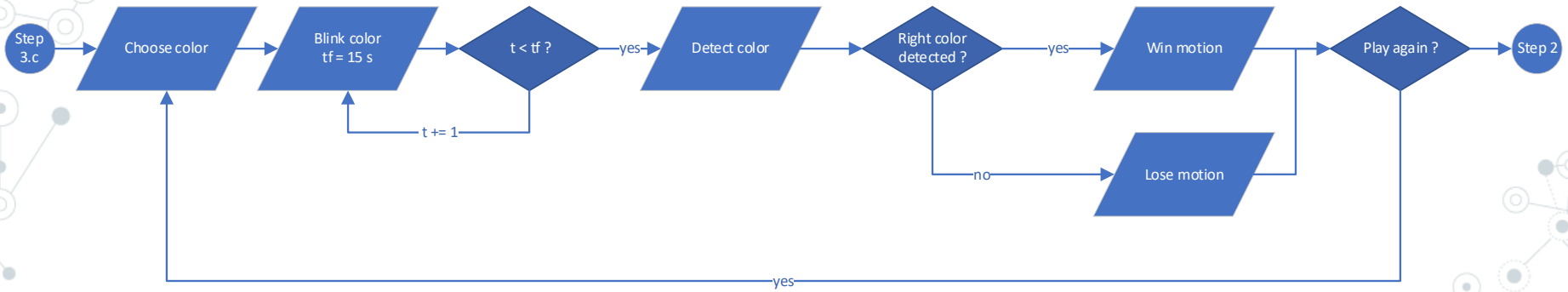
### 3. Game 1 : Rock, Paper, Scissors



### 3. Game 2 : Spin the Wheel



### 3. Game 3 : Simon Says





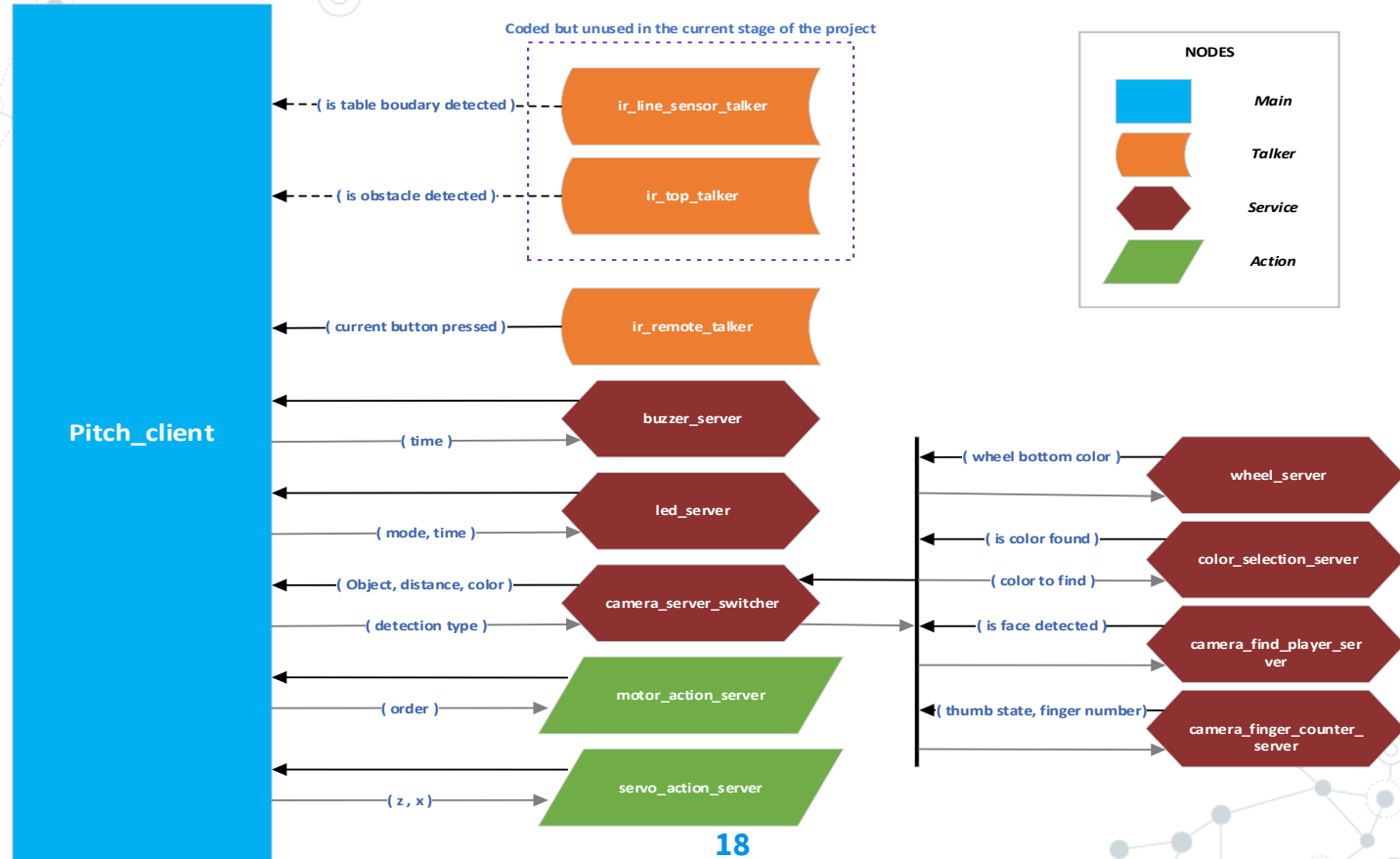


4.

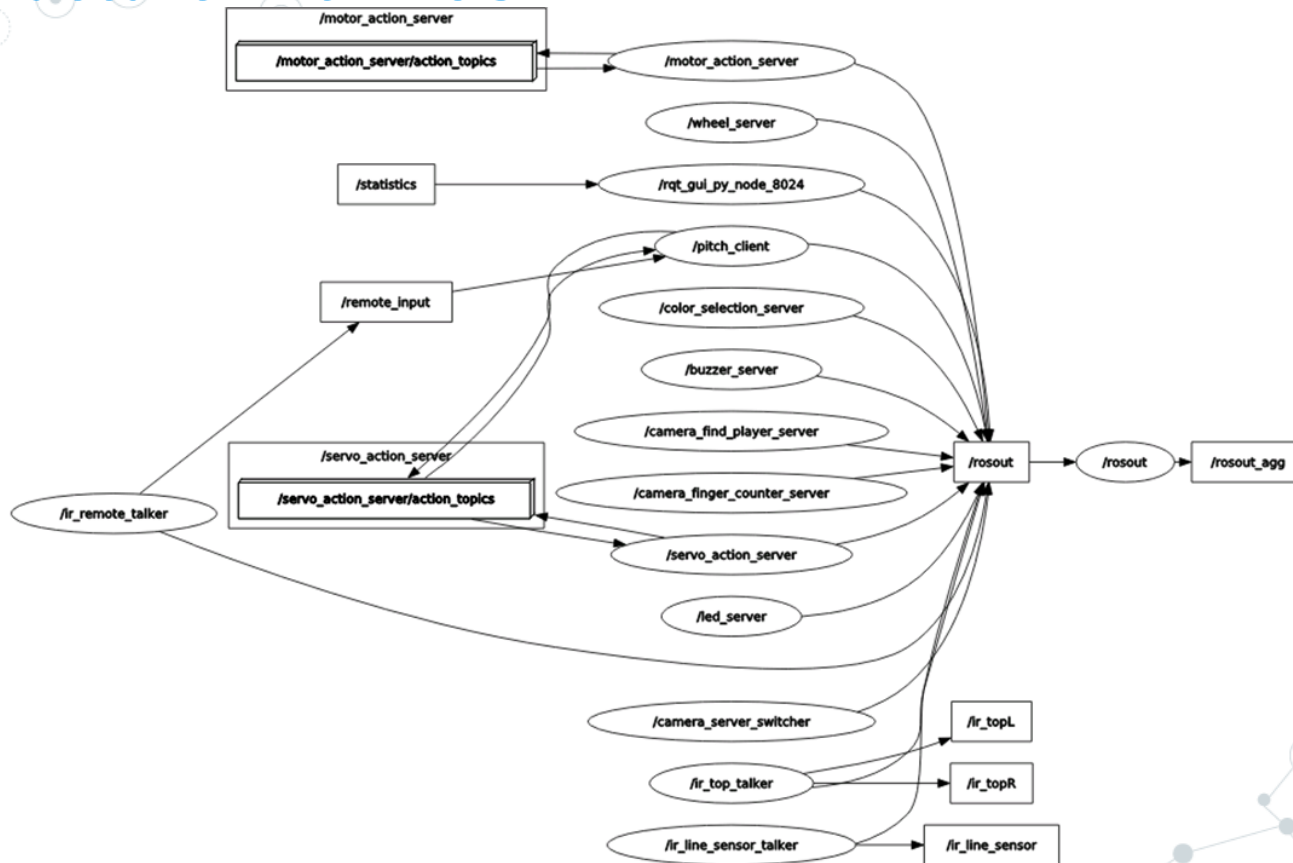
# Structure with ROS

Is it that efficient ?

# 4. Structure with ROS



## 4. Structure with ROS



A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. Some nodes are solid grey circles, while others are hollow circles with a grey outline. The lines are thin and grey, creating a mesh-like structure.

5.

**Let's play!**

Will you defeat it ?

A decorative network diagram in the top-left corner, featuring a complex web of interconnected nodes and lines. The nodes are represented by circles of varying sizes, some with concentric rings, and the lines are thin and grey. The overall structure is organic and branching, resembling a molecular or biological network.

# 6. **Conclusion.**

Worth it ?