

FOLLOW ME

ROBOT

Cédric MEMBREZ, Kimmy COSTA



01 INTRODUCTION

Goal, idea

02 DEVELOPMENT ARTIFACT

How, workflow,
sequence, main algo
explanation

03 PROBLEM & SOLUTION

Implementation
problems, solutions,
end product

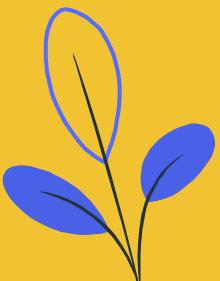
04 CONCLUSION

Wrap up, future work



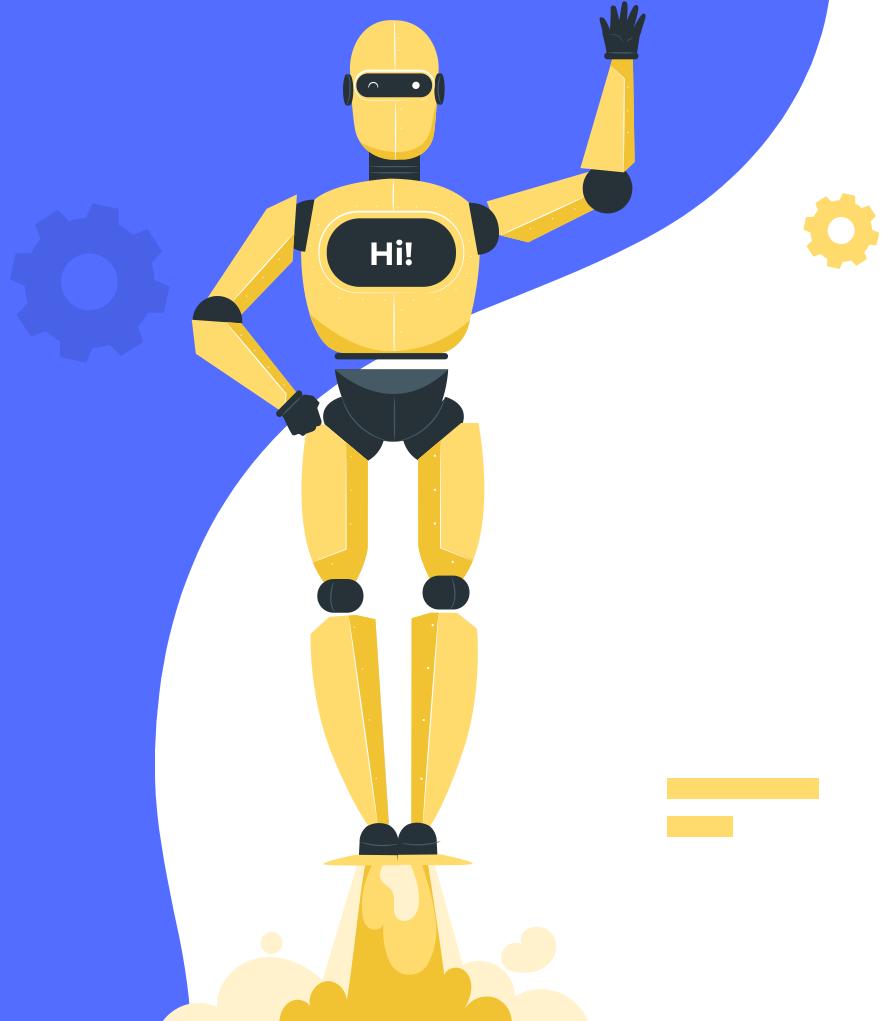
01 INTRODUCTION

Main goal of our project and in which prospect it
is aimed



GOAL OF THE PROJECT

Show introductory possibility of an automatisation of a service with the help of facial recognition. (Here themed coffee with robot waiter)

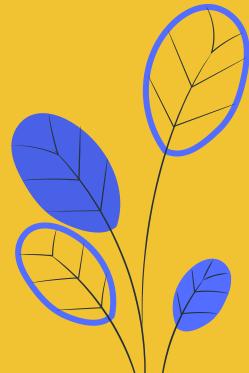




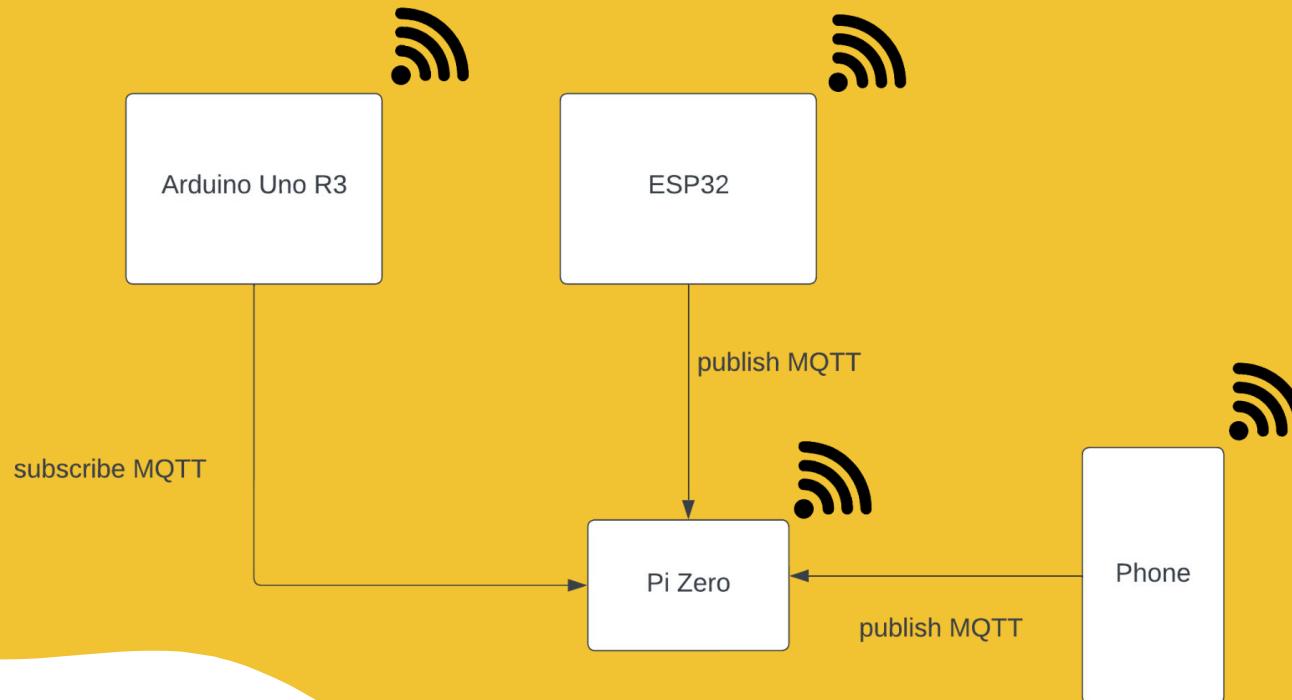
02

DEVELOPMENT ARTIFACT

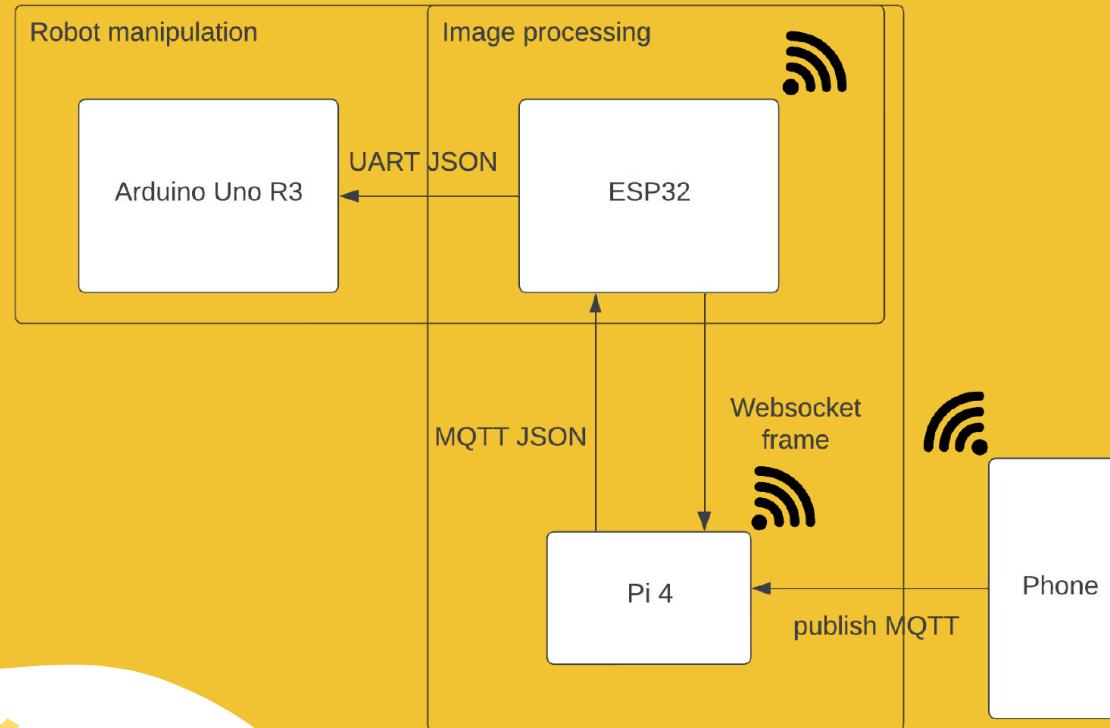
Layout, Schemes, workflow, main algo
explanation



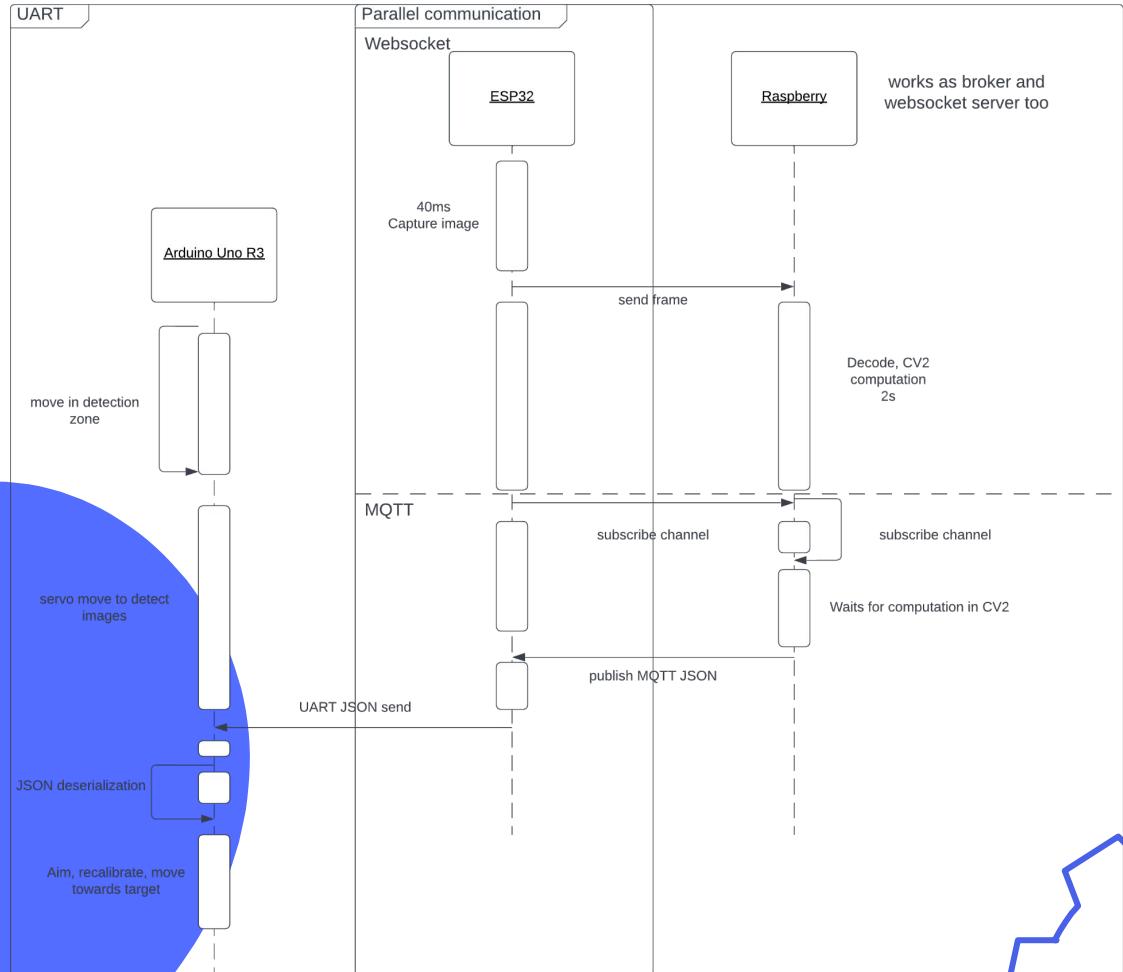
Layout design before

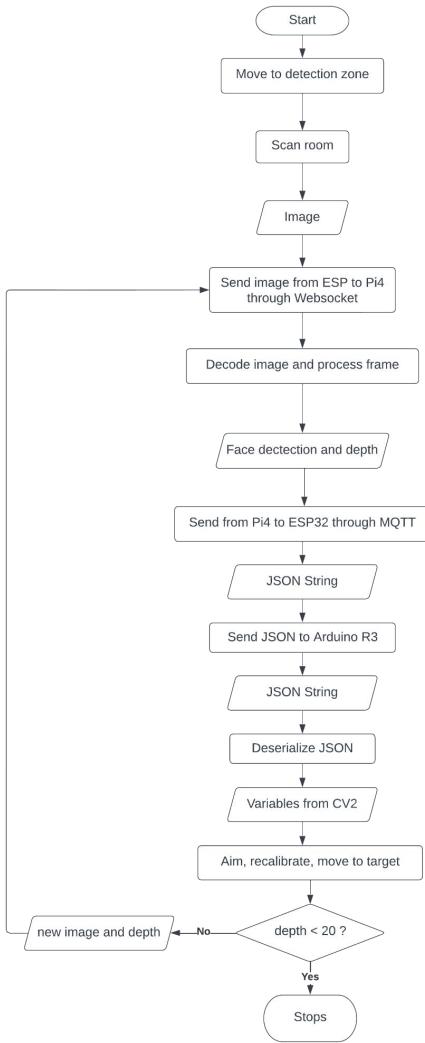


Actual layout design



Sequence UML





Flowchart UML

More digest, easier visualization of the process and workflow construction



Face Mesh face_recognition.api

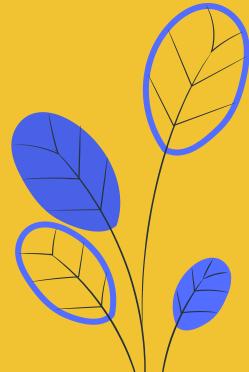


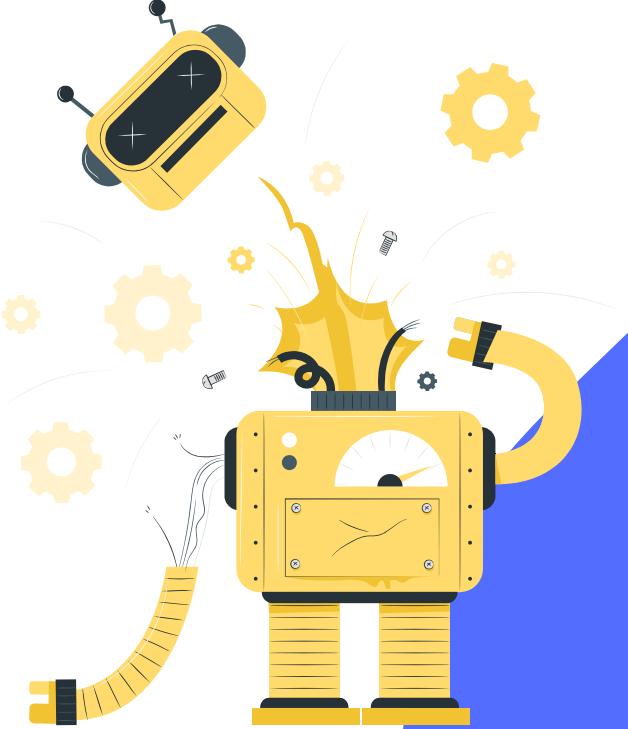


03

PROBLEM vs SOLUTION

Problems from development (others from midterm presentation), solutions to face them





MAIN PROBLEMS

No wifi on arduino

Image processing on ESP low resolution and fps

Pi Zero not strong to process + websocket + MQTT

ESP slow fps 800x600, 2x faster on 320x240 not enough to reduce fps problem



SOLUTION

UART communication Arduino - ESP

ESP frame to Pi by websocket, image processing by Pi, MQTT to ESP with JSON

Move to Pi4 for stronger CPU

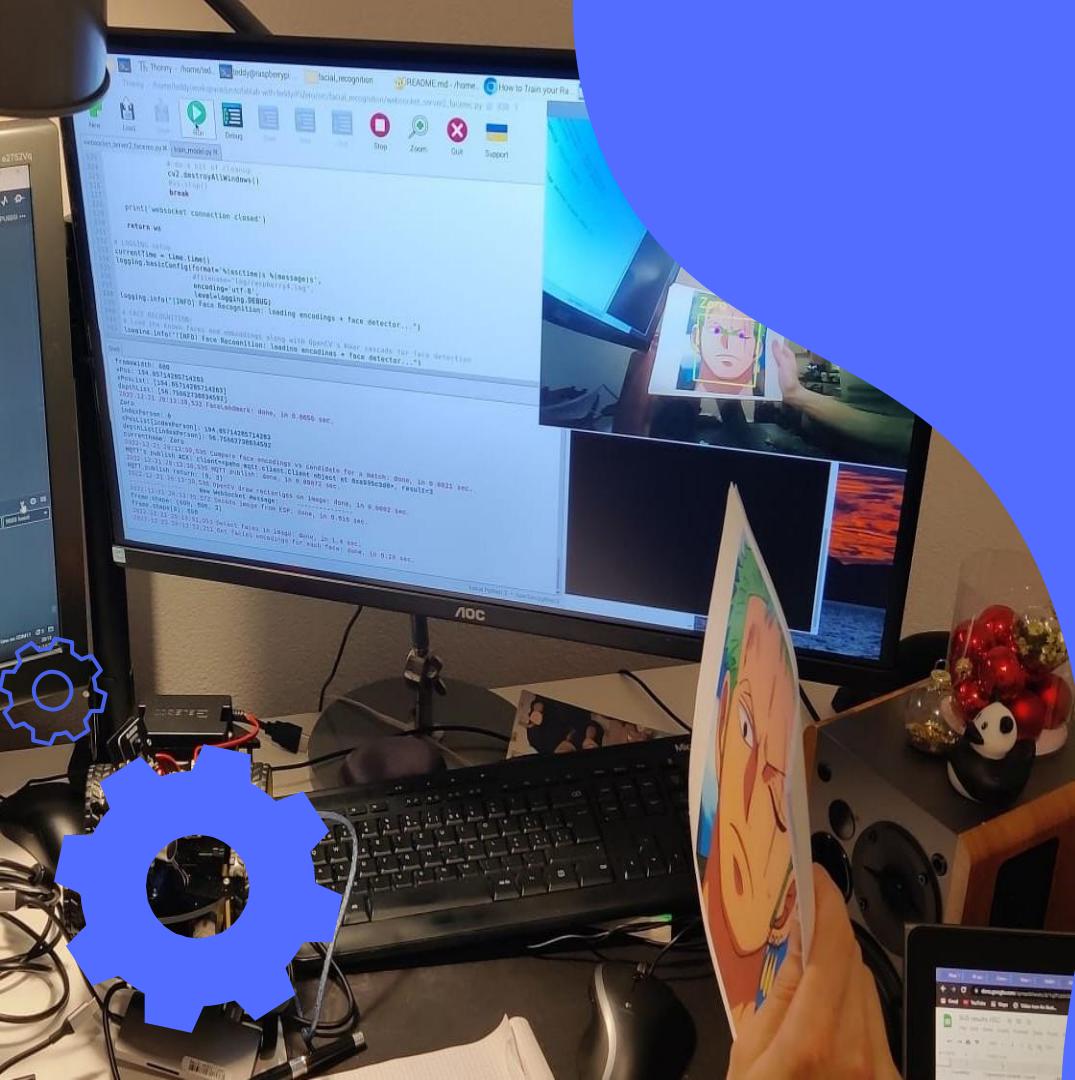
Lower resolution ESP-CAM increased fps a bit



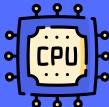
SHOWCASE OF THE END PRODUCT

Face recognition (ESP-Pi)
Person selection (Phone
MQTT)

Move towards to the target
(ESP-Arduino Uno R3)



CONCLUSION & FUTURE WORK



KIT BAD IDEA

Lots of problem from poor components



COMMUNICATION

Pi as cam + MQTT or splitted for more modularity



FROM SCRATCH

Longer building time,
easier computing
(customized)



SERVICE

Launch method to serve, 3D print dispensers + case



CAMERA

Move from ESP-CAM to Pi4 with cam directly



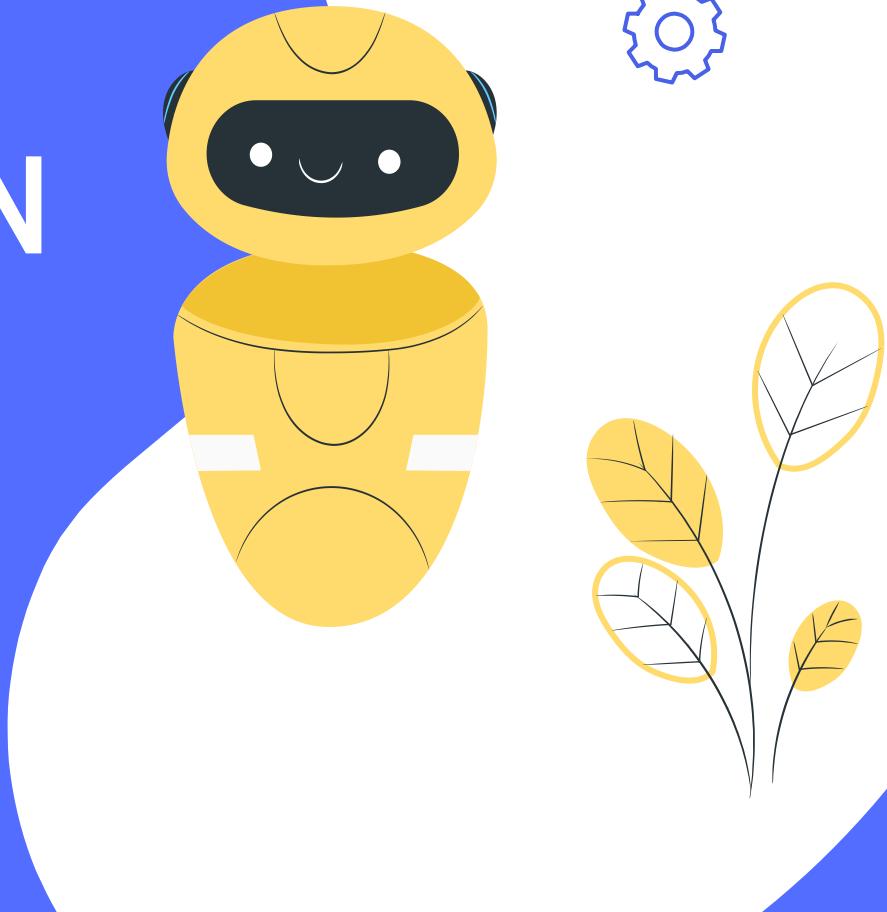
BEHAVIOR

Rollback, obstacle, idle position, take snack

THANK YOU FOR YOUR ATTENTION

Do you have any questions?

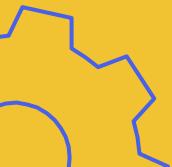
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“This is a quote, words full of wisdom
that someone important said and
can make the reader get inspired.”

—SOMEONE FAMOUS



OUR TEAM

JOHN JAMES



You can replace the
image on the screen
with your own

JENNA DOE



You can replace the
image on the screen
with your own

JANE PATTERSON



You can replace the
image on the screen
with your own

AWESOME WORDS

=

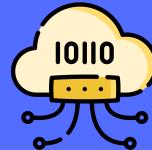


THEM vs US



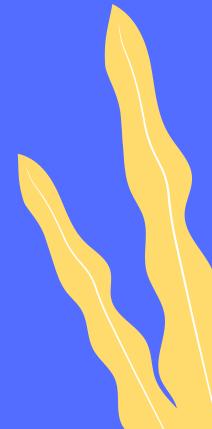
THEM

Mercury is the closest planet to the Sun and the smallest one in the Solar System—it's only a bit larger than the Moon



US

Venus has a beautiful name and is the second planet from the Sun. It's terribly hot—even hotter than Mercury



SWOT ANALYSIS

STRENGTHS

Despite being red, Mars is actually a cold place. It's full of iron oxide dust

WEAKNESSES

Mercury is the closest planet to the Sun and the smallest one in the Solar System

OPPORTUNITIES

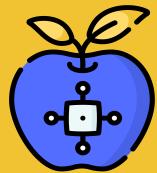
Jupiter is the biggest planet in our Solar System and the fourth-brightest object

THREATS

Saturn is the ringed one. It's composed mostly of hydrogen and helium



PRODUCT OVERVIEW



VENUS

Venus has a beautiful name and is the second planet from the Sun



SATURN

This is the ringed one. It's a gas giant, composed of hydrogen and helium



OUR PLANS

BASIC	PRO	PREMIUM
Despite being red, Mars is a cold place,	Saturn is a gas giant and has several rings	Jupiter is a gas giant and the biggest

\$30

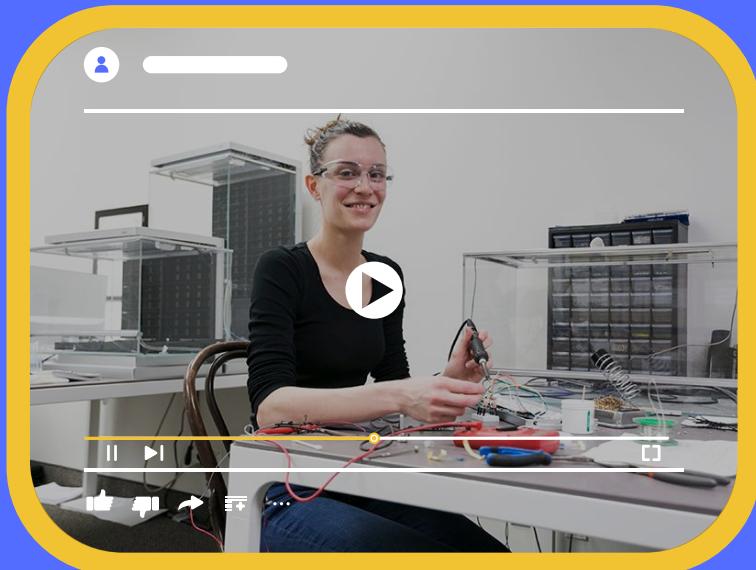
\$60

\$90

4,498,300,000

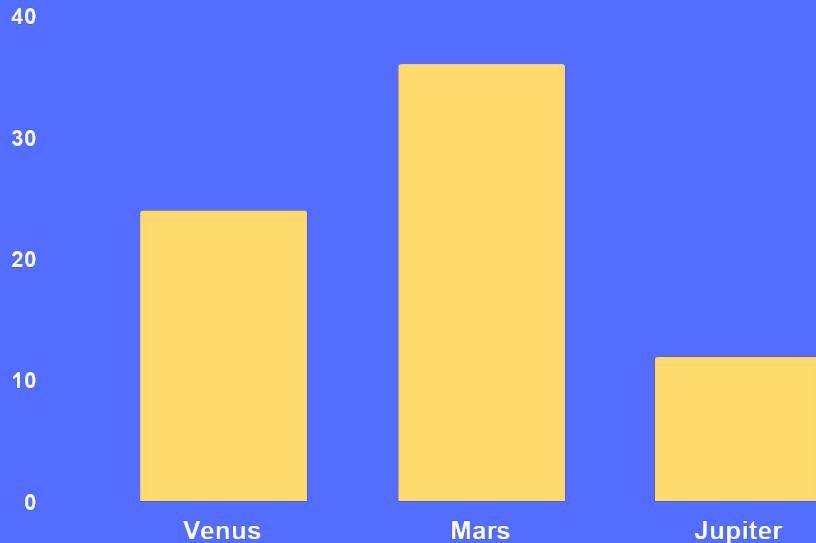
Big numbers catch your audience's attention

PRODUCT DEMO



Insert your
multimedia
content here

TRACTION



Venus has a beautiful name and is the second planet from the Sun. It's terribly hot—even hotter than Mercury

To modify this graph, click on it, follow the link, change the data and paste the new graph here

CASE STUDY

	CHALLENGE	RESULTS	SOLUTION
PROJECT 1	Mercury is the smallest planet	Venus has a beautiful name	Mars is actually a cold place
PROJECT 2	Jupiter is the biggest planet	Saturn is the ringed one	Neptune is the farthest planet
PROJECT 3	Earth is where we all live on	Pluto is a dwarf planet	The Moon is a satellite

REVIEWS



HELENA JAMES

Despite being red, Mars is actually a very cold place. It's full of iron oxide dust

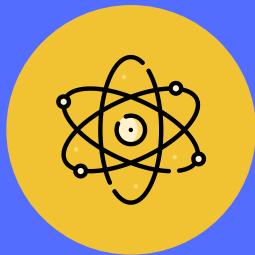


TIMMY JIMMY

Mercury is the closest planet to the Sun and the smallest one in the Solar System

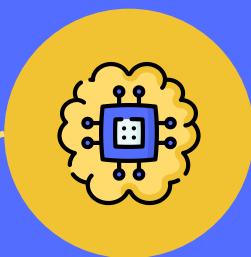


AWARDS



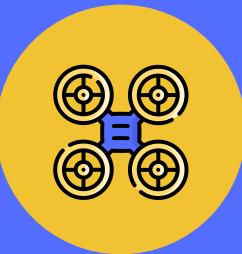
MERCURY

Mercury is the closest planet to the Sun



VENUS

Venus is the second planet from the Sun



MARS

Despite being red, Mars is a cold place

MARKET SIZE

60%

Despite being red, Mars is actually cold

25%

Saturn is a gas giant and has several rings

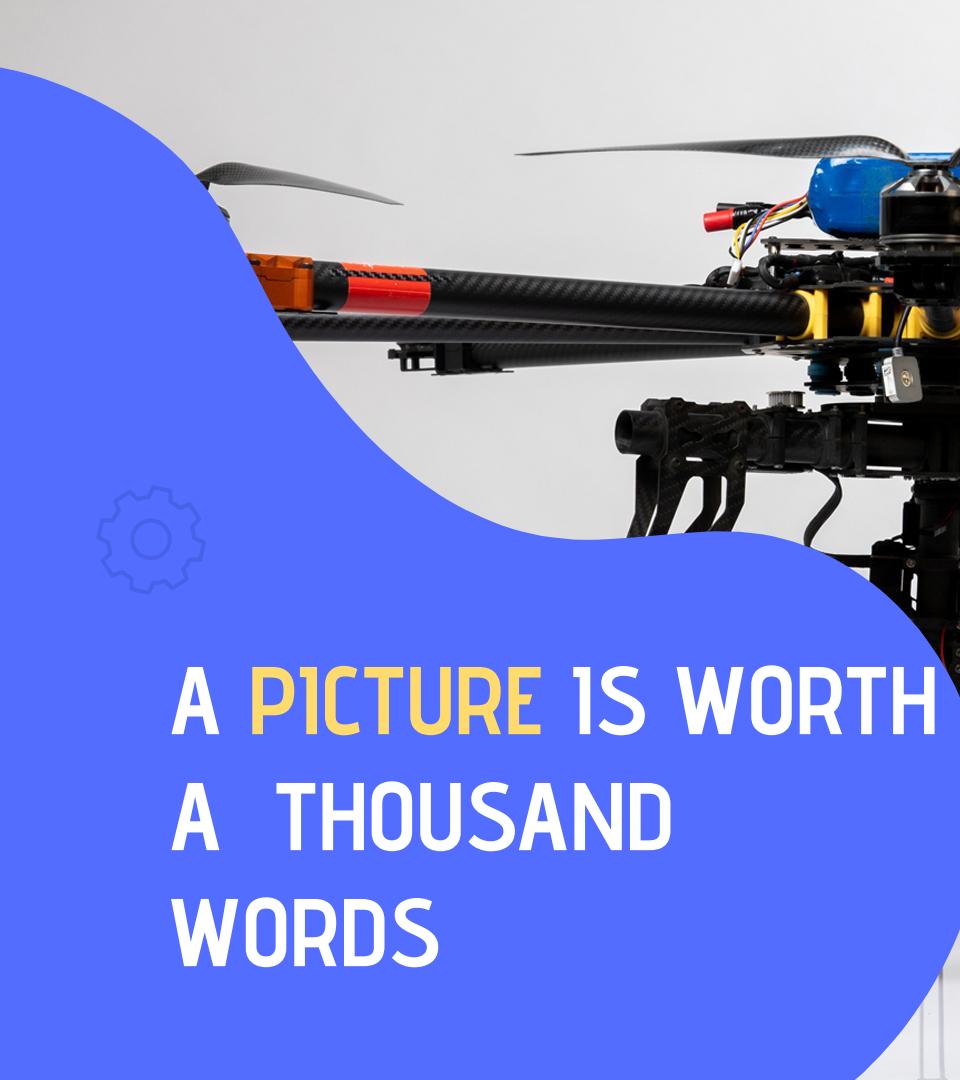
80%

Jupiter is the biggest planet in the Solar System

60%

Mercury is the smallest planet in the Solar System





A PICTURE IS WORTH
A THOUSAND
WORDS



TARGET

GENDER



34% 66%



AGE

30-40



Average spend
per customer

HOBBIES



MARS



VENUS



JUPITER





333,000.00

earths is the Sun's mass

24h 37m 23s

is Jupiter's rotation period

COMPETITORS



COMPANY 1

Mercury is the closest planet to the Sun

COMPANY 2

Venus is the second planet from the Sun



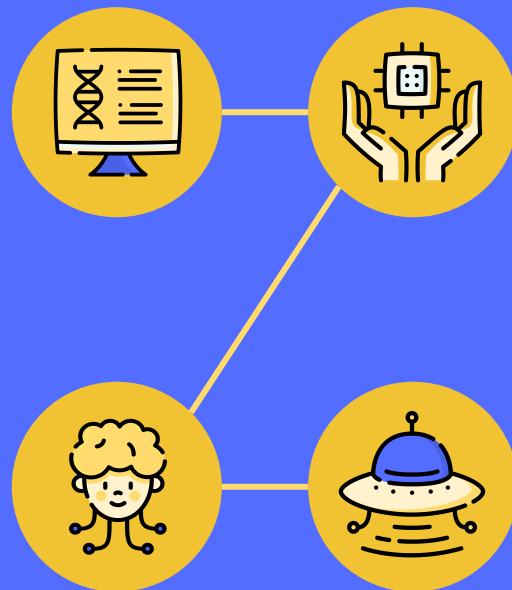
BUSINESS MODEL

MARKETING

Despite being red,
Mars is a cold place

TRAINING

Venus is the second
planet from the Sun



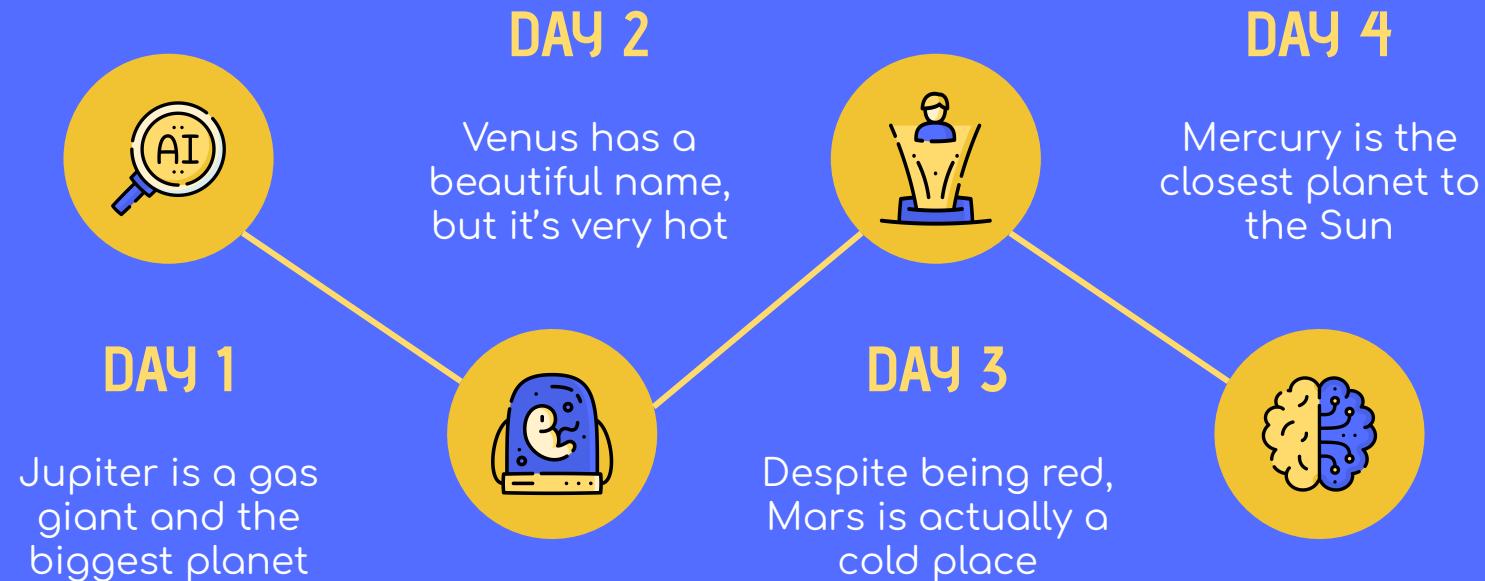
TECHNOLOGY

Mercury is the closest
planet to the Sun

ASSESSMENT

Jupiter is a gas giant
and the biggest

TIMING



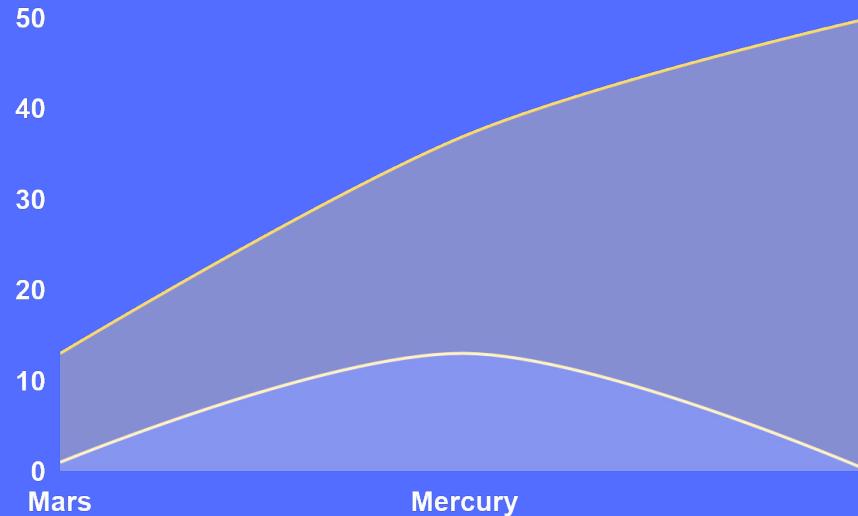
PREDICTED GROWTH

20,000

Expected income
for 2020

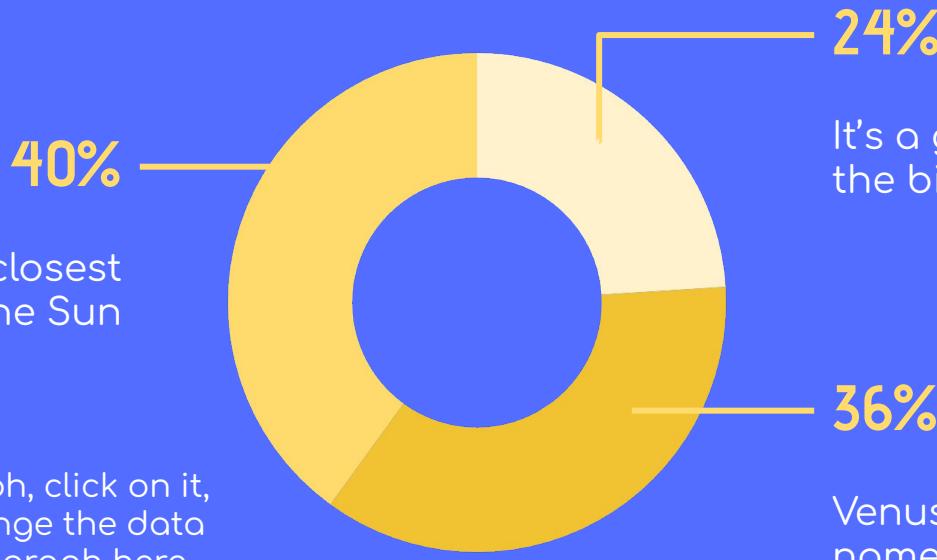
100

New employees
next year



To modify this graph, click on it, follow the link,
change the data and paste the new graph here

INVESTMENT



Mercury is the closest planet to the Sun

To modify this graph, click on it, follow the link, change the data and paste the new graph here

It's a gas giant and the biggest planet

36%

Venus has a beautiful name, but it's hot

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5. **Instructions for use**.
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 1. The **fonts and colors** used in the template.
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- Flying drone with silver joystick.
- Young business woman looking at camera in office.
- Group of people working on a business plan in an office.
- Woman with arms crossed.

STORIES

- Artificial intelligence.
- Oops! 404 Error with a broken robot.
- Android.
- Drone Delivery.

ICON

- Technology of the Icon Pack.

Future

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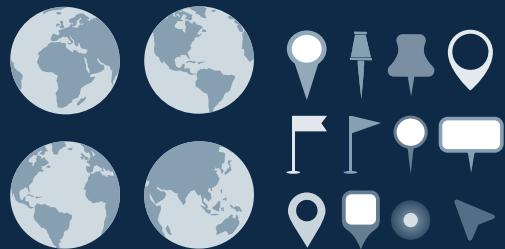
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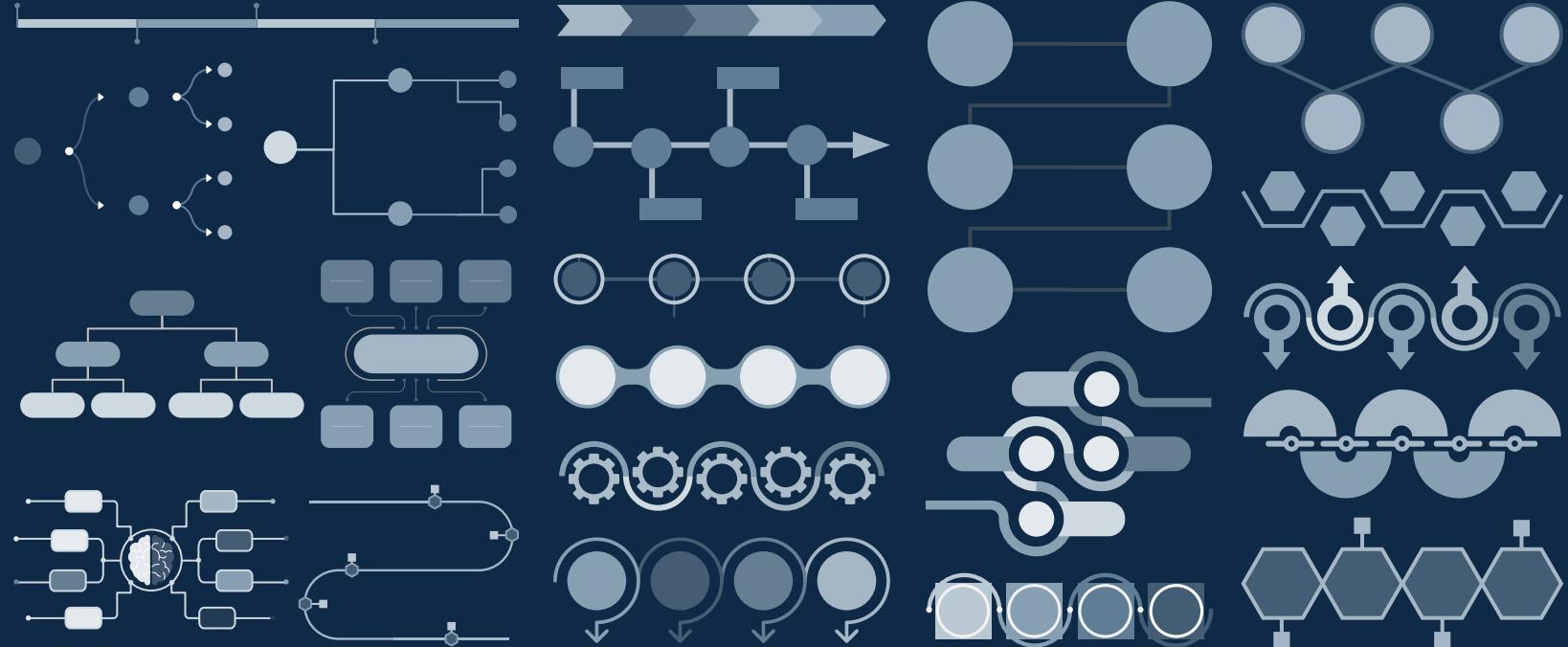
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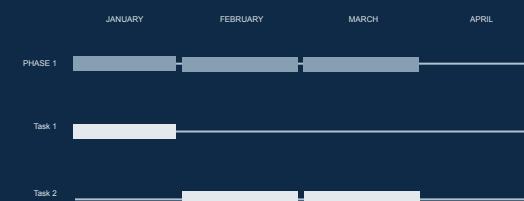
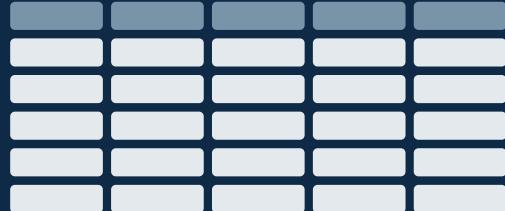
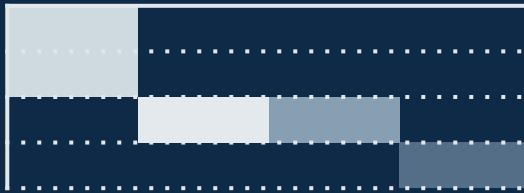
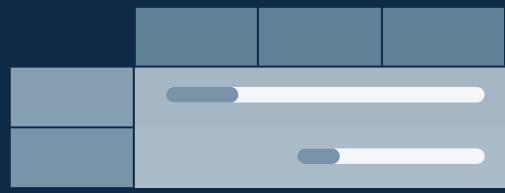
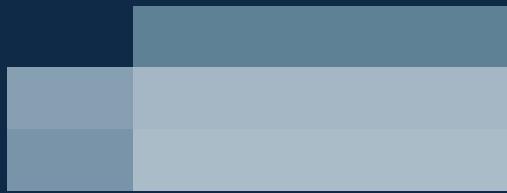
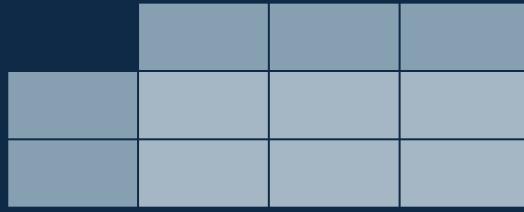
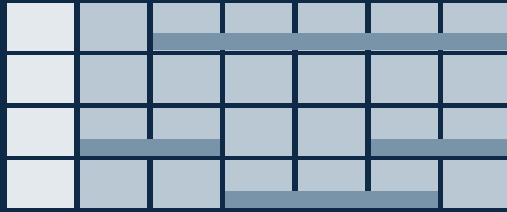
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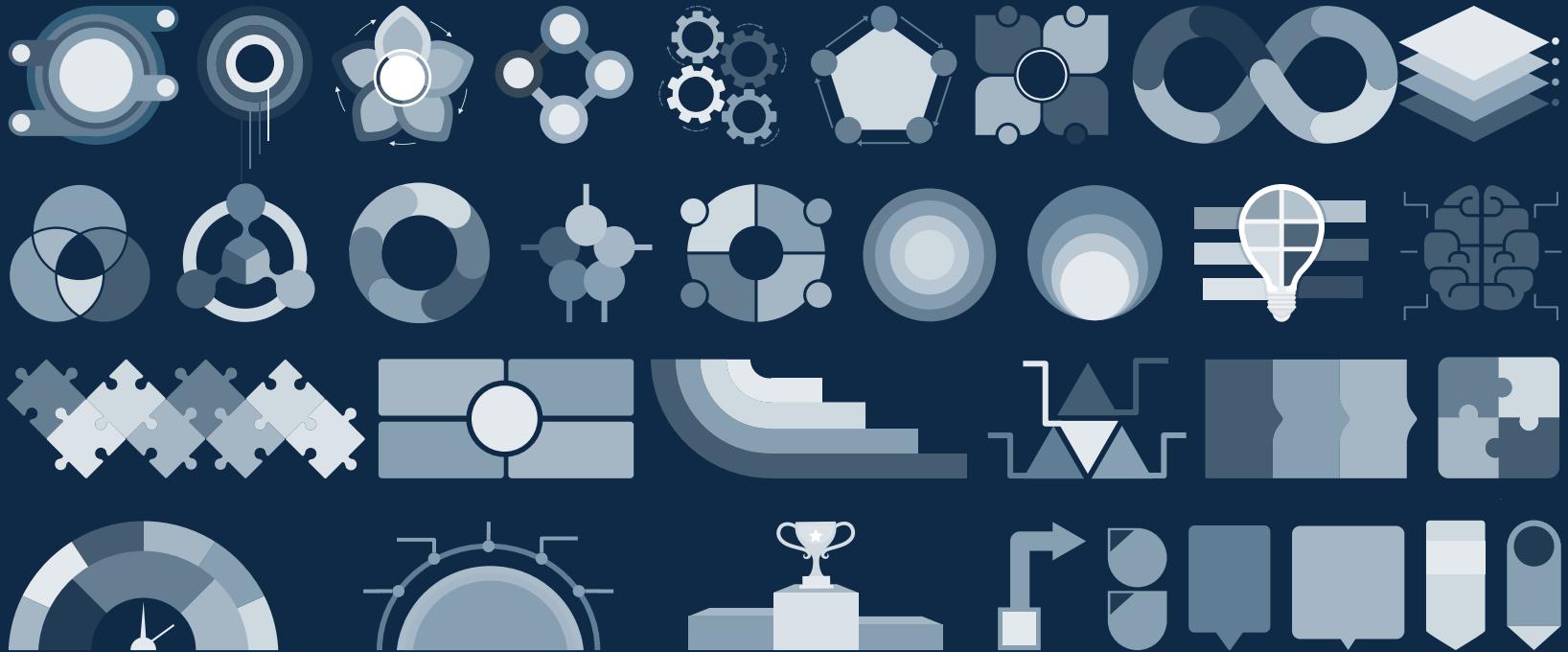
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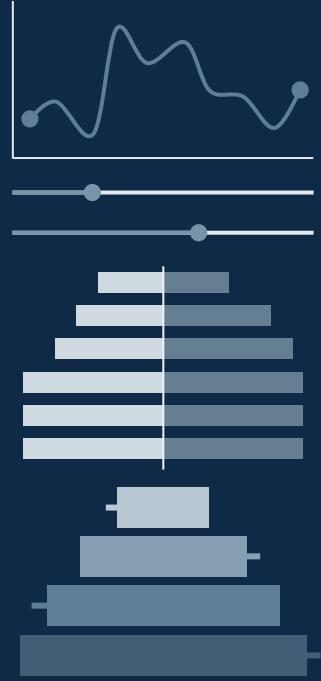
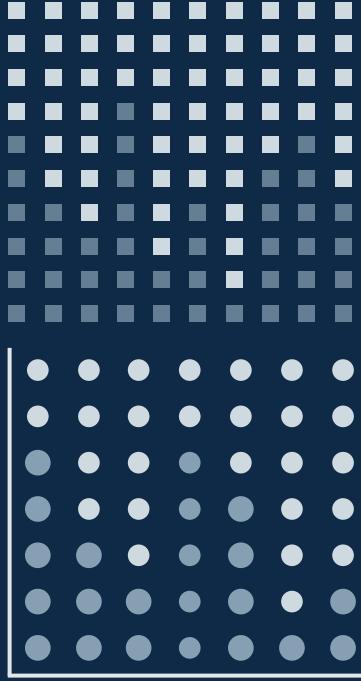












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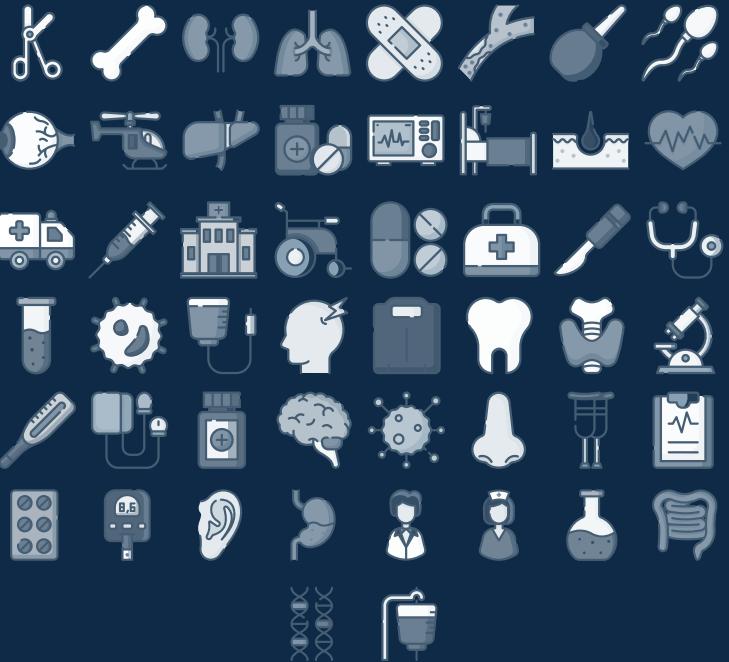
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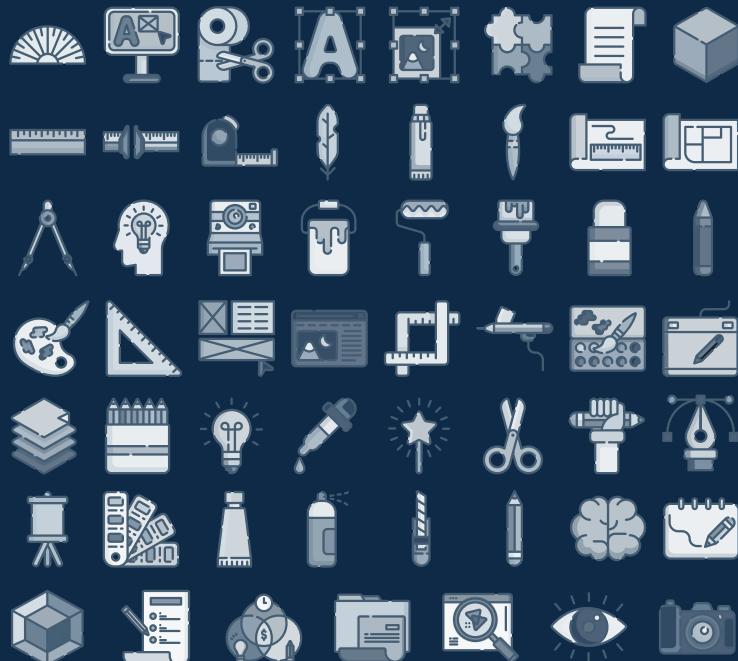
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