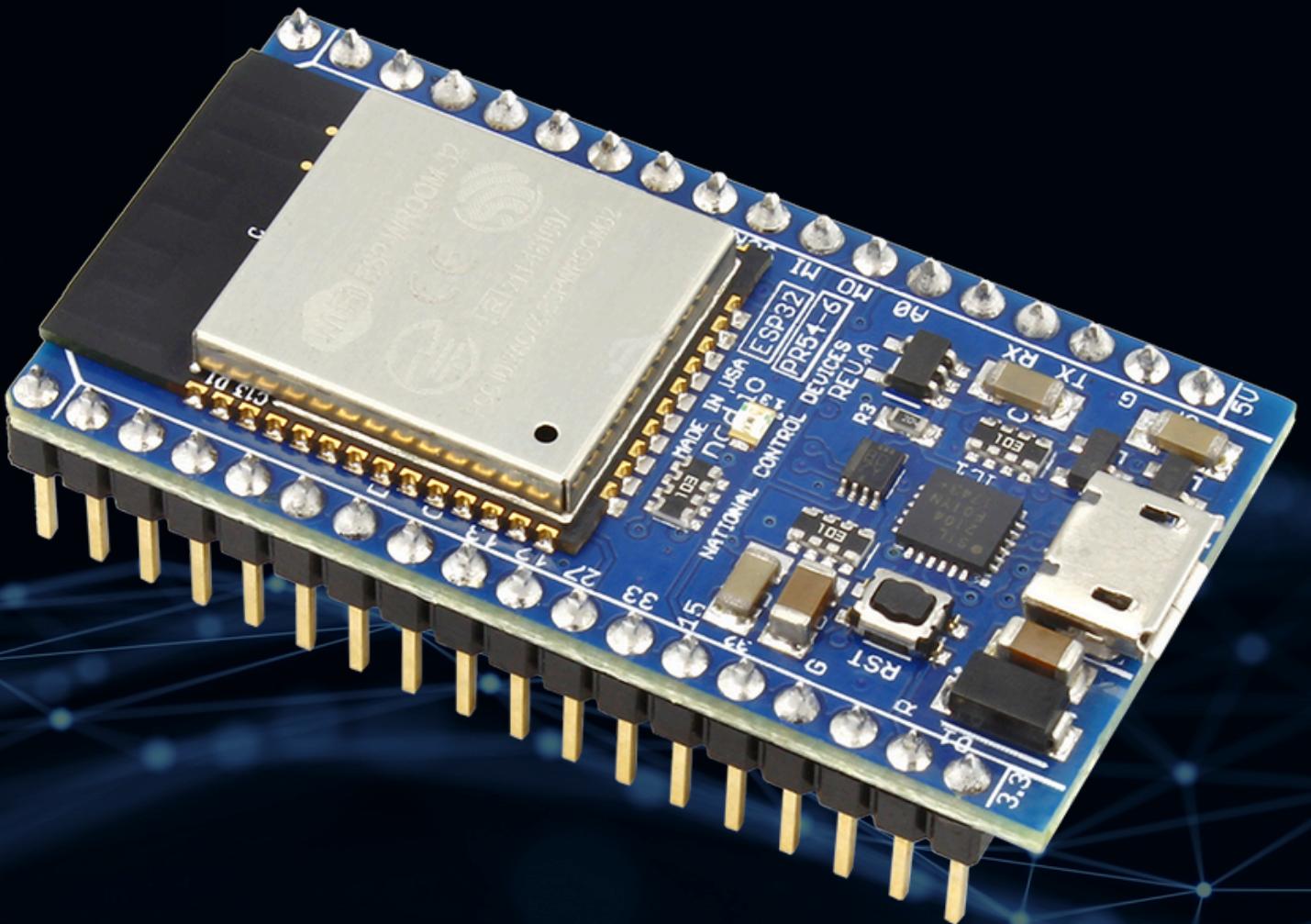


NICKEY & HARSHIL

INTERFACE TWO

THE CONNECTING INTERFACE



OVERVIEW

- RECAP OF SEMESTER
 - PRO/CON OF REVERSE TUNNELING
 - DIVISION OF WORK
 - FUTURE GOALS AND EXPECTATIONS

INTERFACE 2

RECAP

THE START

- DETERMINING COMPONENTS (ARDUINO MEGA VS ESP32)
- ESTABLISHING GOALS (LATENCY, HOSTING WEB SERVER, CLOUD?)

PING IT

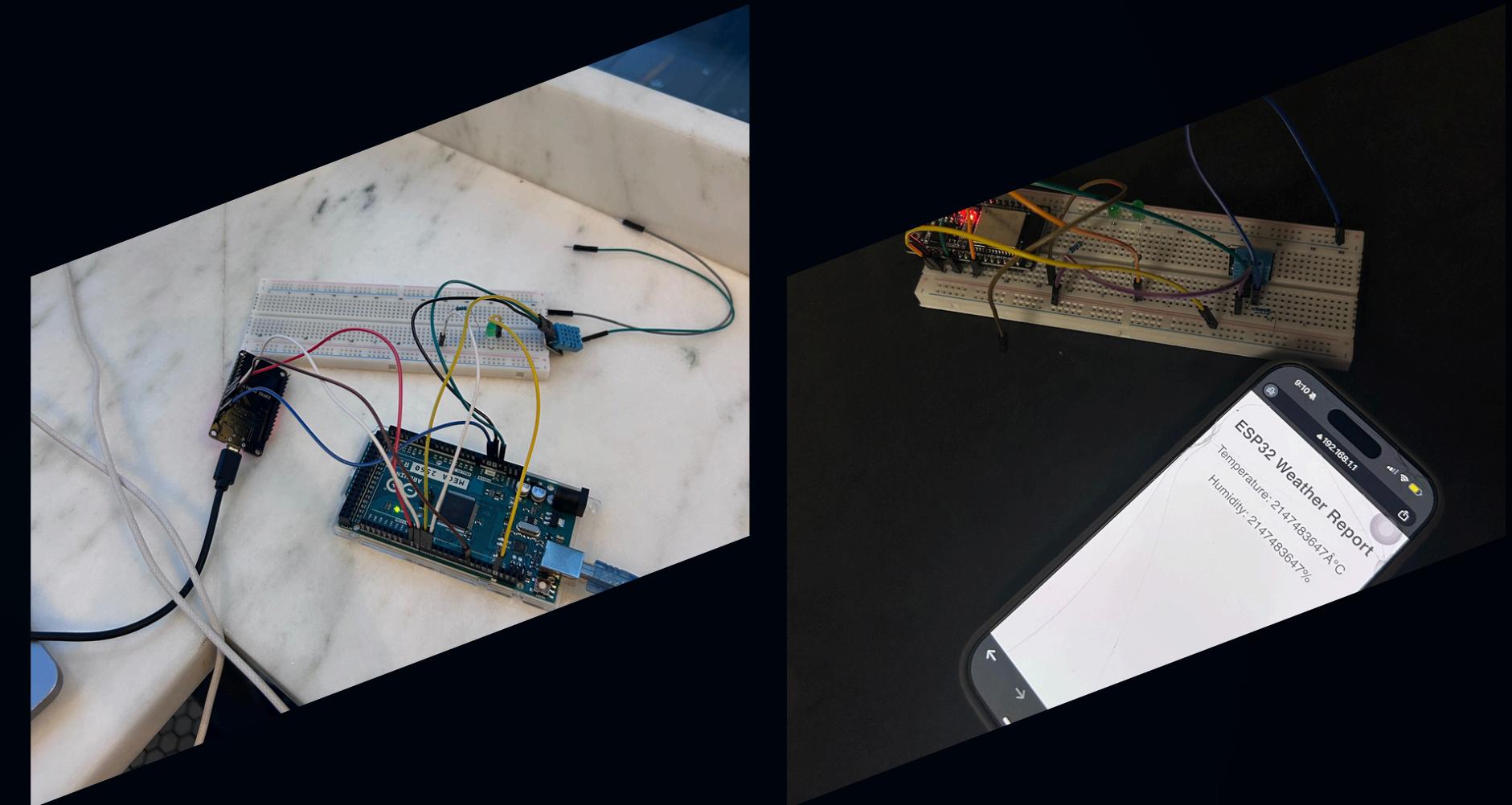
- CONTROLLING LED LIGHT WITH NICKEY'S PHONE
- VIDEO

FAR AWAY

- REMOTE IMPLEMENTATION
- REVERSE TUNNELING THROUGH NGROK
- DROIDCAM

CONNECTION!

- CONNECTING INTERFACE TWO WITH INTERFACE THREE
- ADDING COMPONENTS & BUTTONS (HUMIDITY & TEMP)



REVERSE TUNNELING

PRO/CON

PROS:

- LOW COST - LOW SETUP
- RAPID PROTOTYPING
- SECURE TUNNEL
- WELL-SUITED FOR DEVELOPMENT
- SIMPLIFIED SYSTEM
- INSTANT INTERACTION-LOW LATENCY

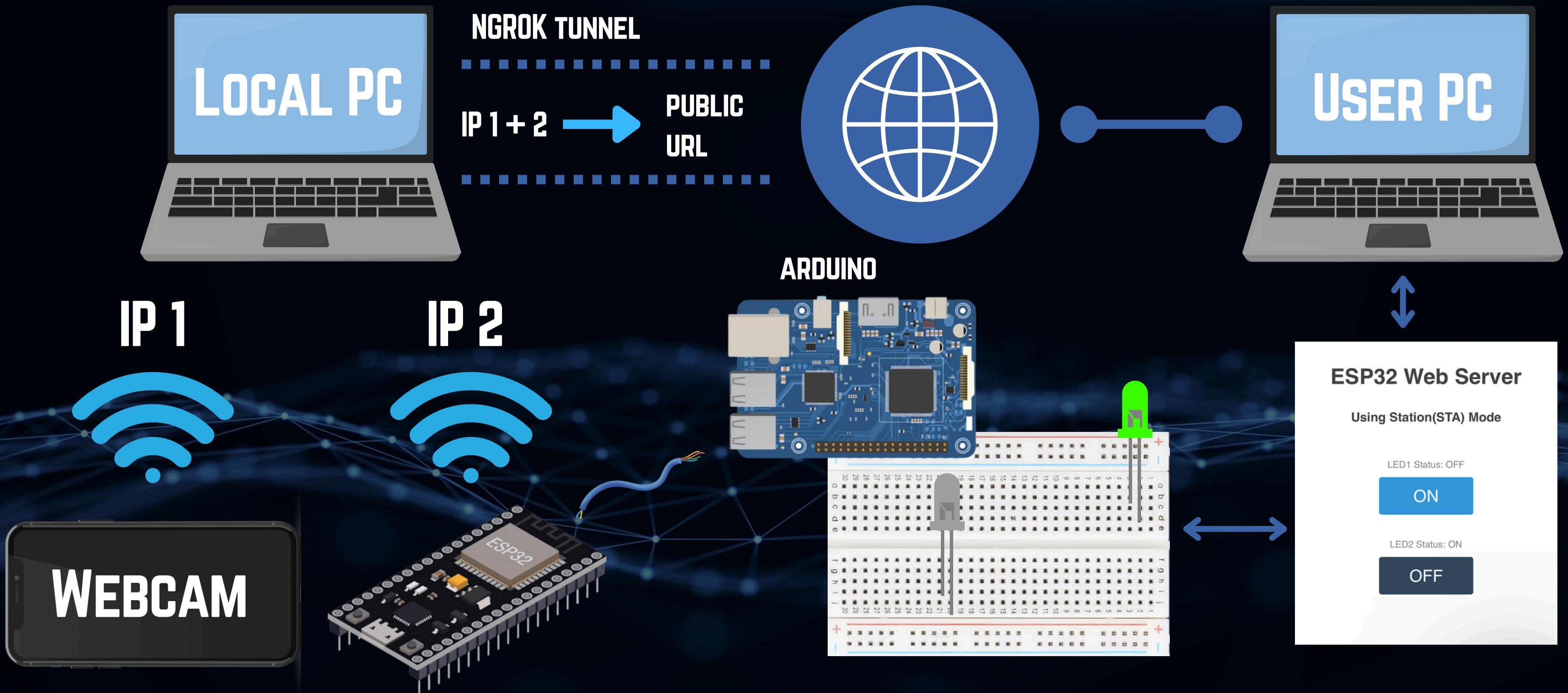
CONS:

- REQUIRES A LOCAL PC TO STAY ON
- SESSION-BASED ACCESS
- TEMPORARY URLs
- NOT A STAND-ALONE IoT SOLUTION



INTERFACE 2

EXPLANATION/DIAGRAM



INTERFACE 2



HARSHIL

- REVERSE TUNNELING
SOLUTION
- WIRELESS WEBCAM
CONNECTION



NICKEY

- DEVELOPMENT
RESEARCH
- BREADBOARD
PROTOTYPING
- INITIAL WEBCAM

DIV. OF WORK

FUTURE GOALS

& EXPECTATIONS



AUTHENTICATION & SECURITY

- PASSWORD PROTECTED
- ENCRYPTION

STATIC URL & DOMAINS

- PERMANENT URLs
- PERMANENT HOSTING

FPE & ELECTRICITY LAB

- TAILOR SOLUTION TO ACTUAL LABS

**THANK YOU
ANY QUESTIONS?**

