



# Eat – Sleep – Code – Repeat –

**NXP**

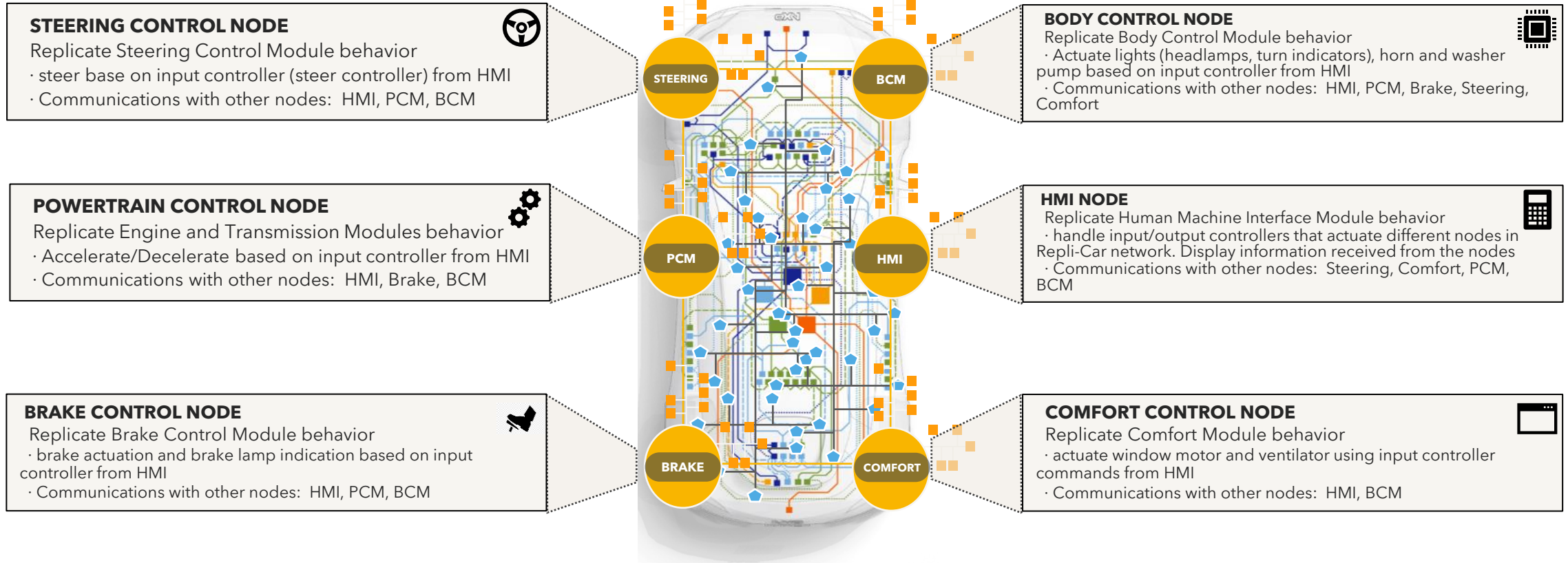
University Course

# Course Contents

## General topics, Courses & Labs

1. General Presentation of the Course
2. V-Model, Requirements Engineering, Process | Understand and Create Requirements
3. Architecture (UML) | Virtual Machine Environment Setup
4. Process | Git, IDE Setup, Compile and Flash the Hello World Project
5. How Hardware and Software are Linked | From Compiling to Electrical Signals and Debugging
6. Microcontroller Features (I/O, PWM, ADC, DAC, Timer, Interrupts) | Hands-on Lab (no module – just the dev board)
7. Node 1: Lights (BCM)
8. Node 2: Steering
9. Node 3: Transmission
10. Node 4: Brakes
11. Node 5: Door Control + HVAC
12. Node 6: HMI and CAN Communication

# REPLI-CAR NETWORK



01

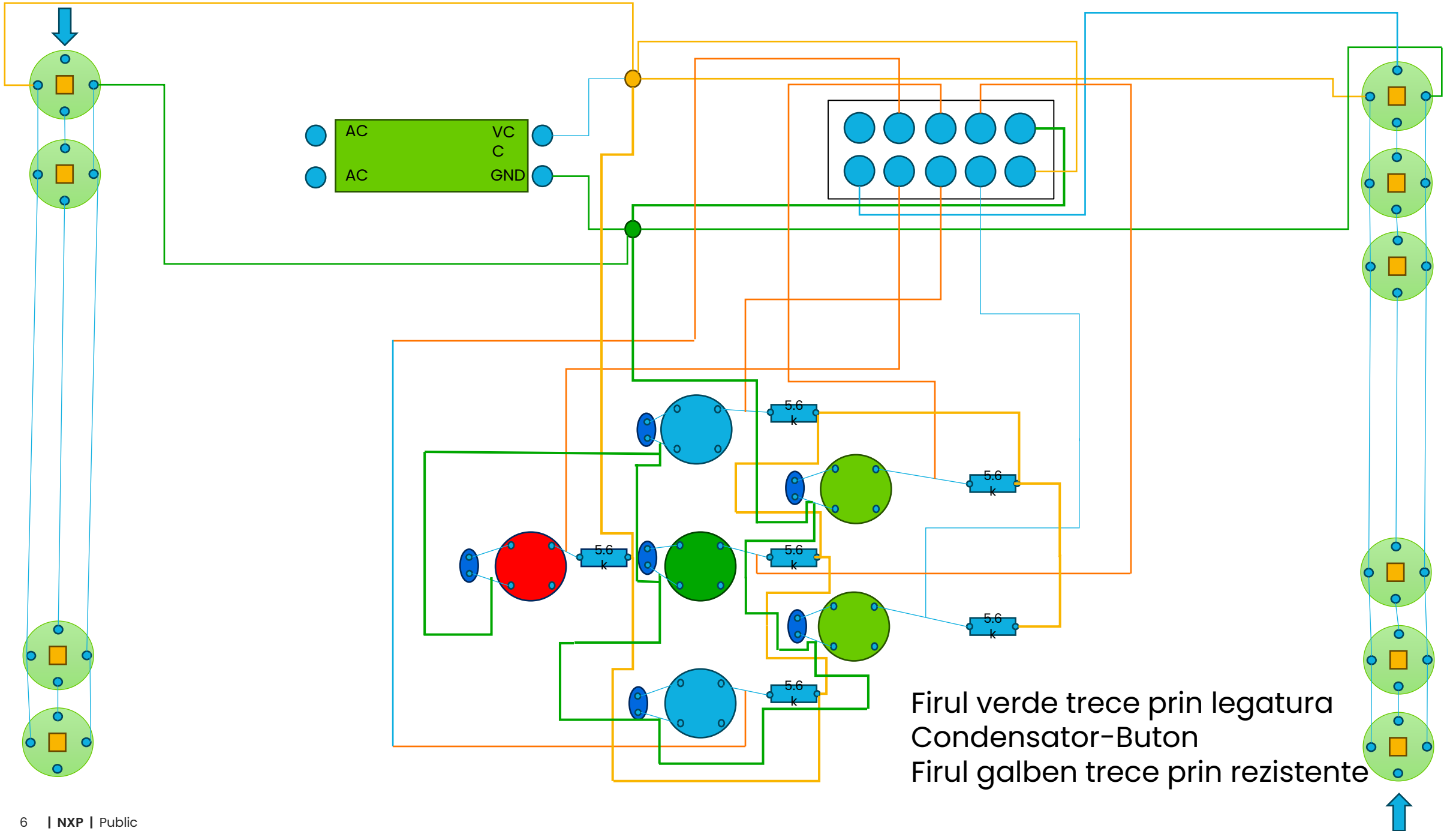
# Lights (BCM)

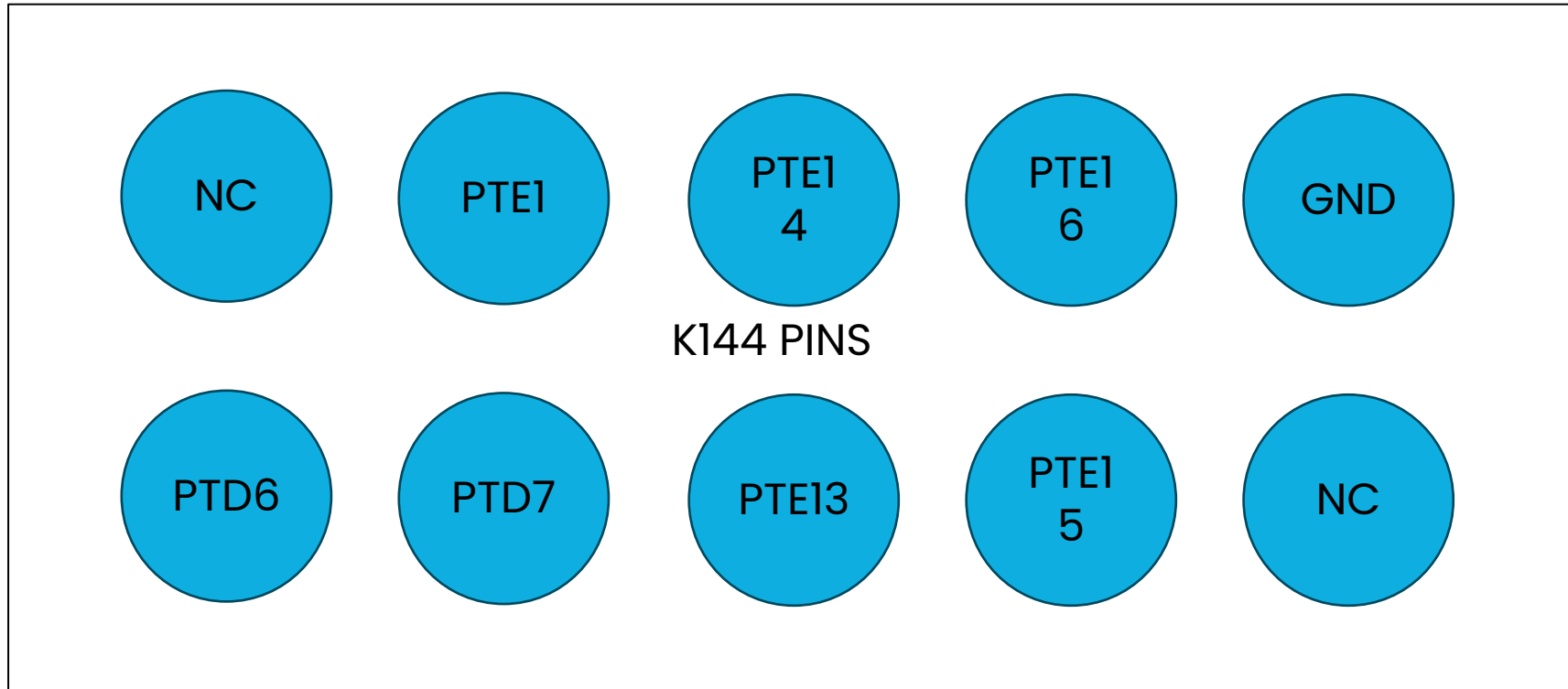




# LIGHTS







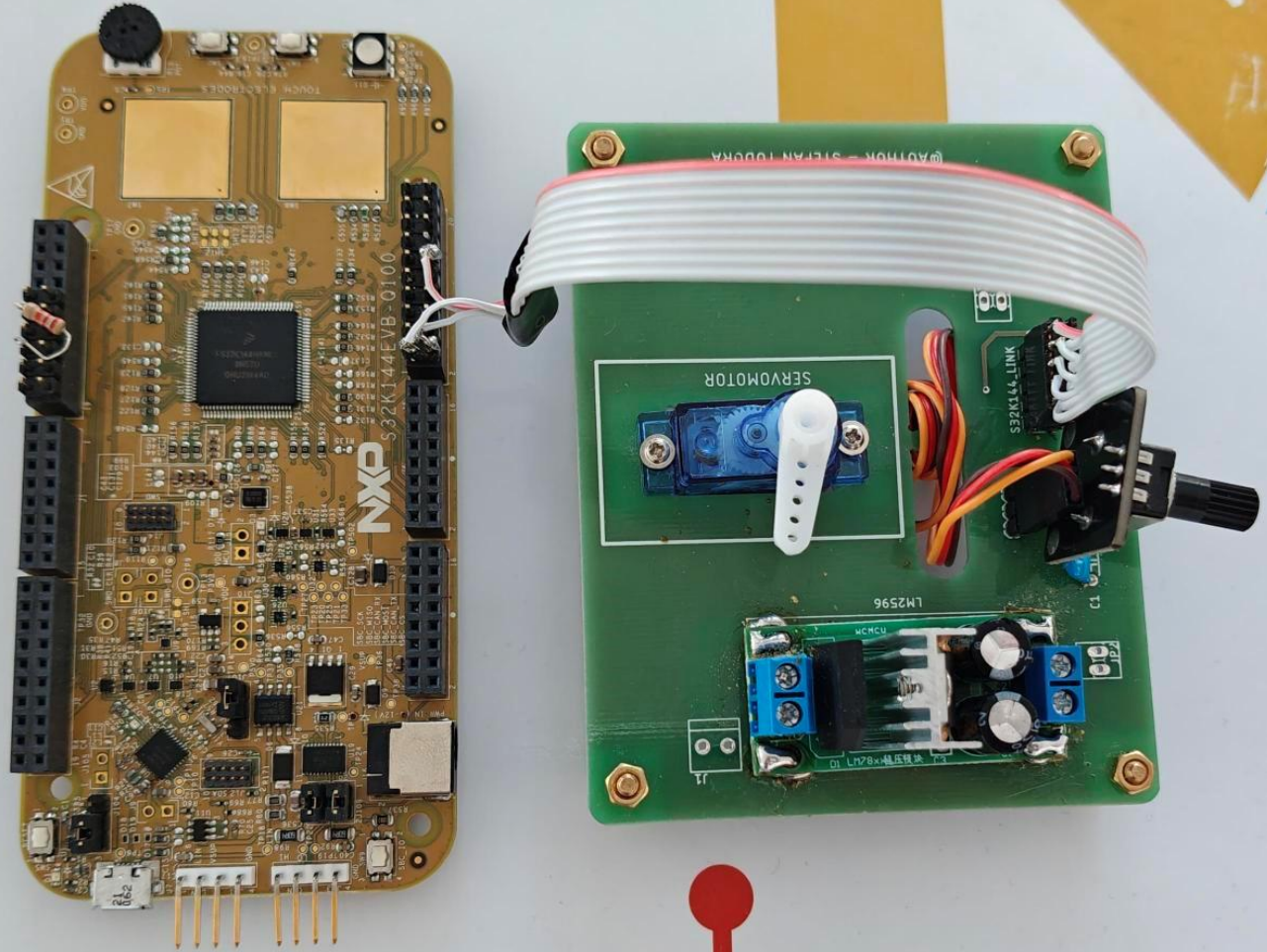
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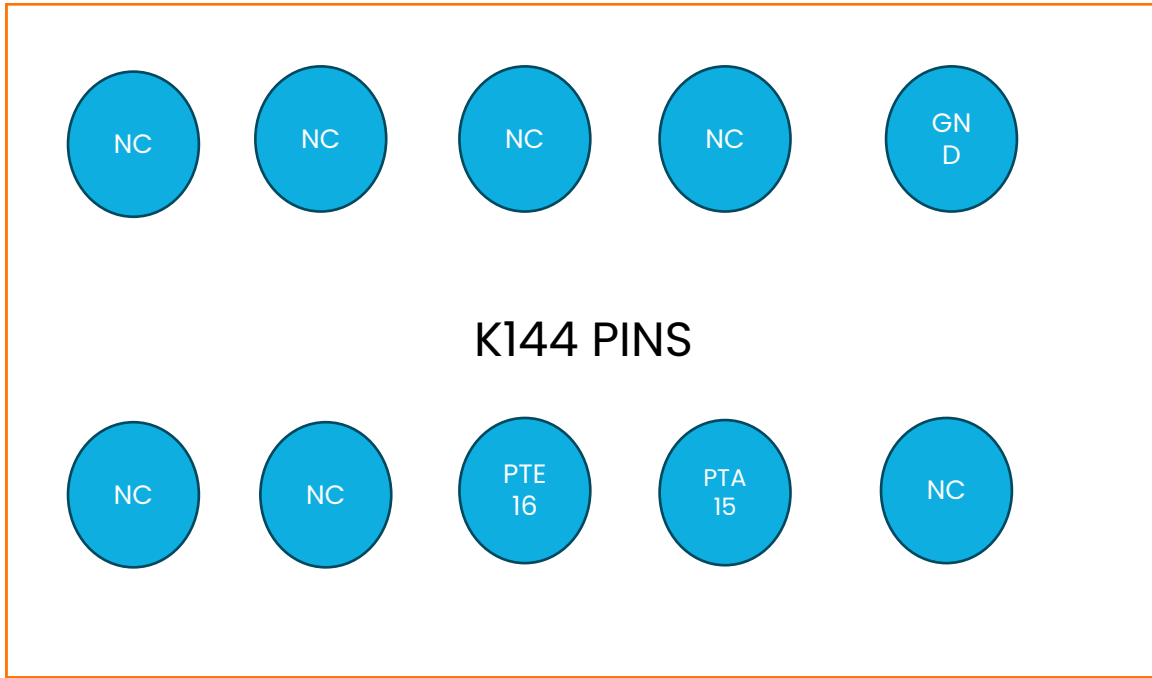
# Steering



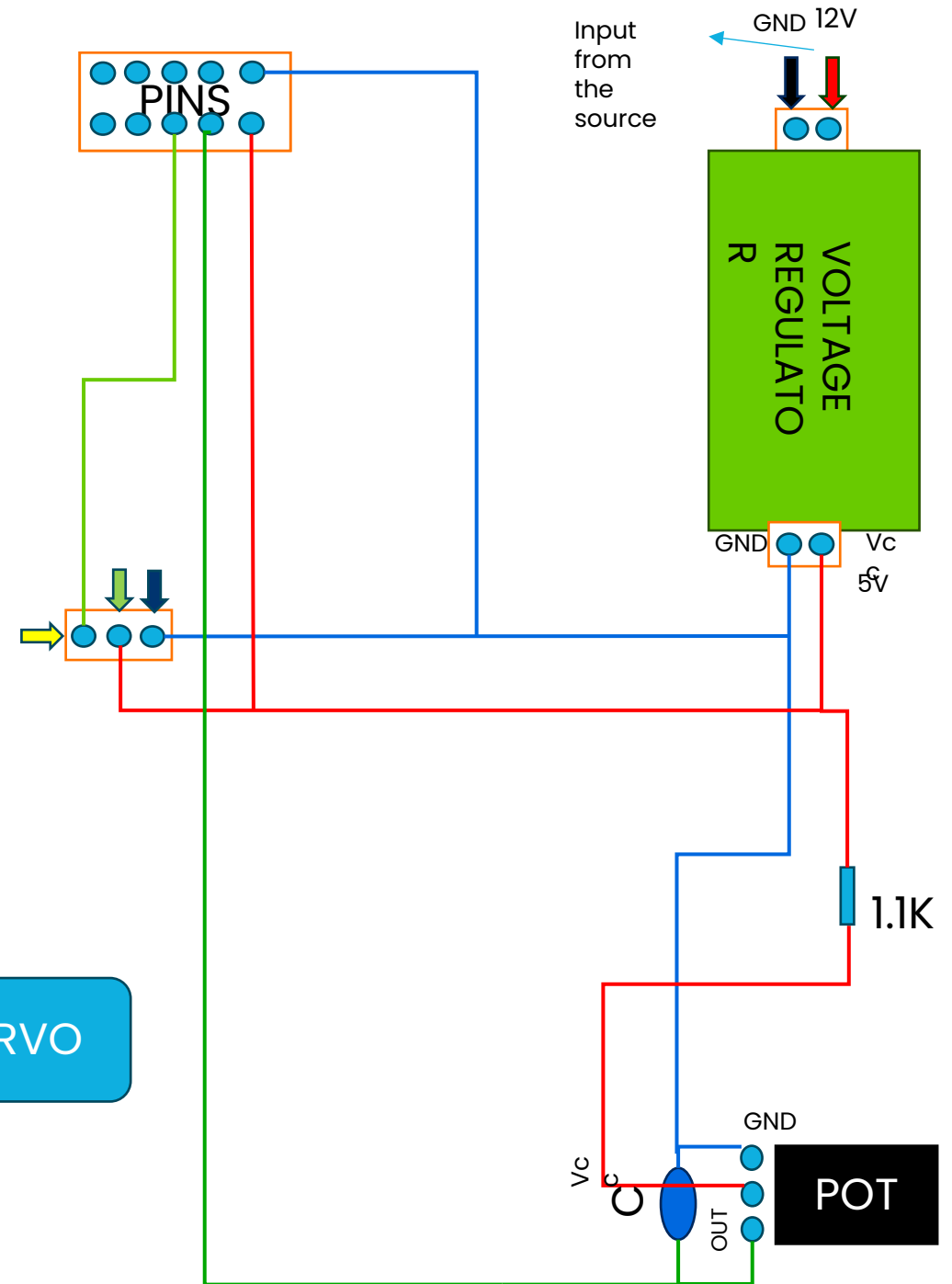


# STEERING





Matching arrow colors means a wire connection



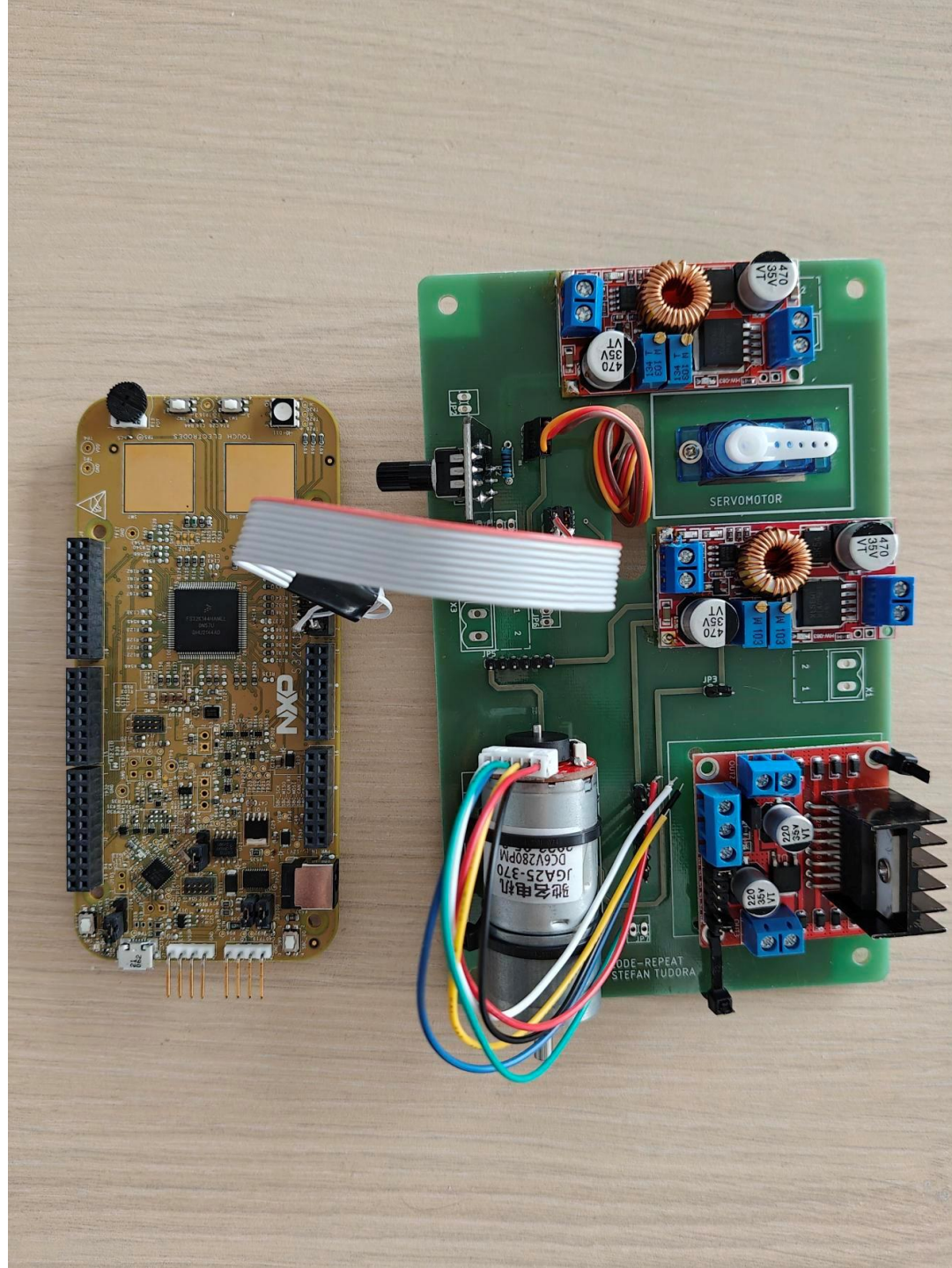
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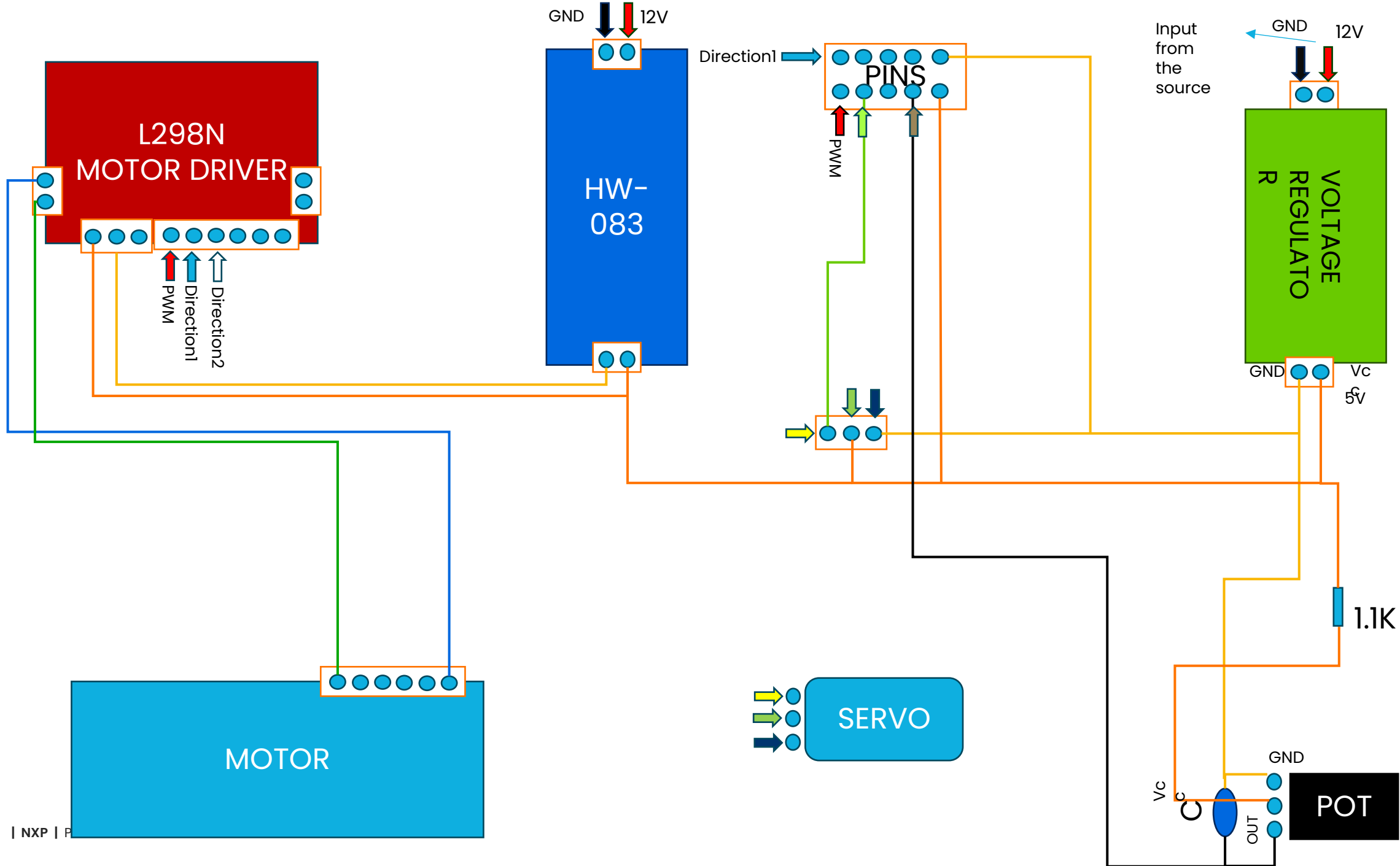
# Transmission

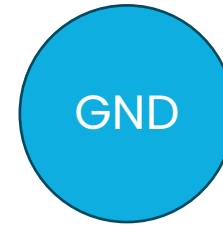
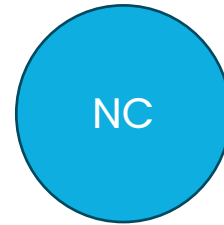
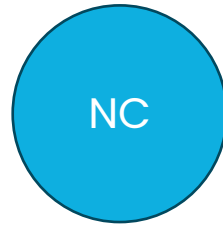
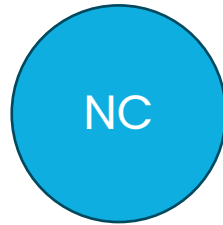




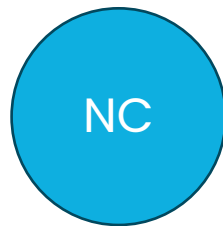
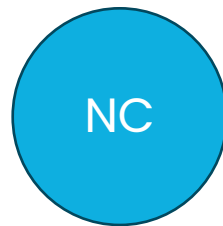
# TRANSMISSION







K144 PINS



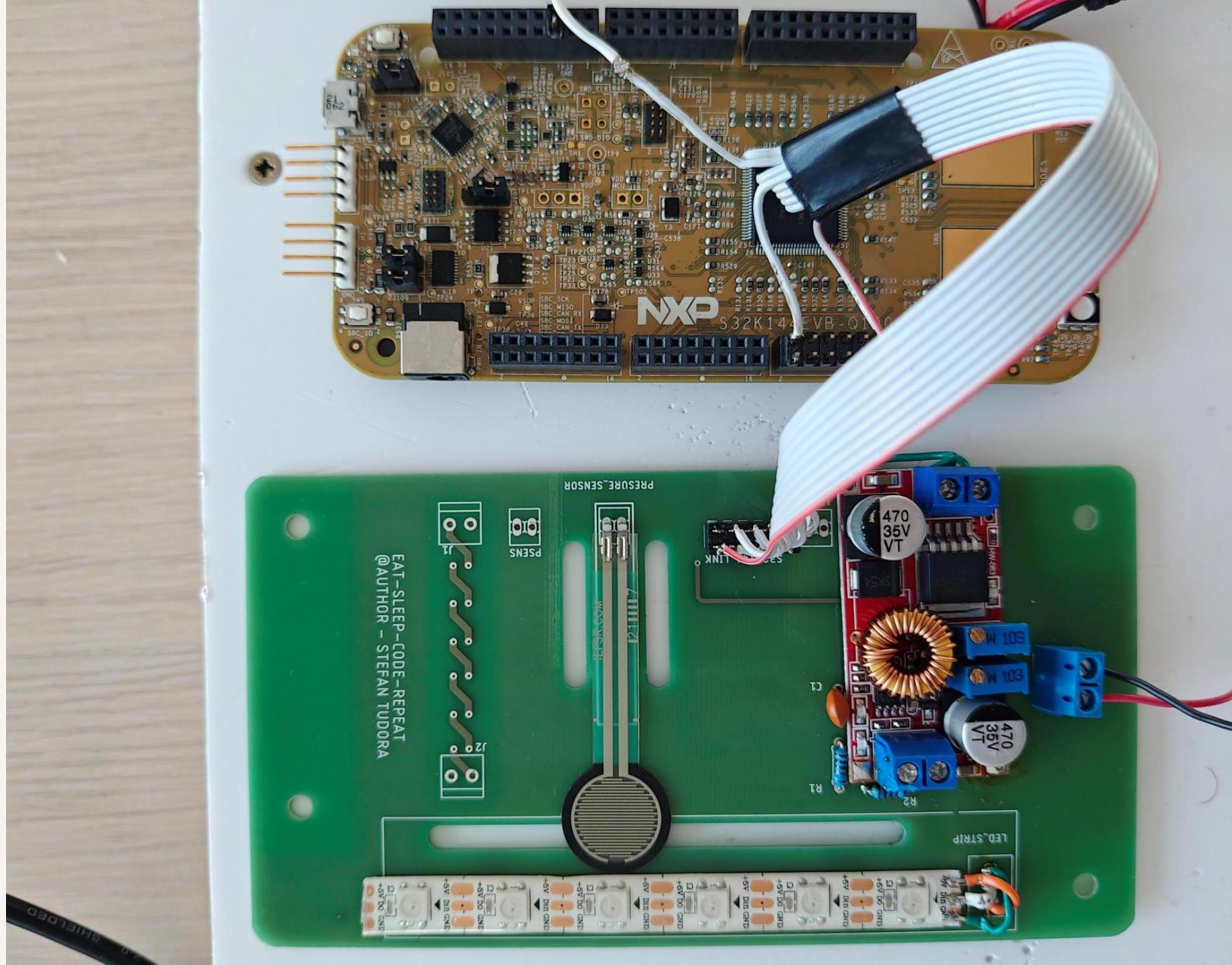


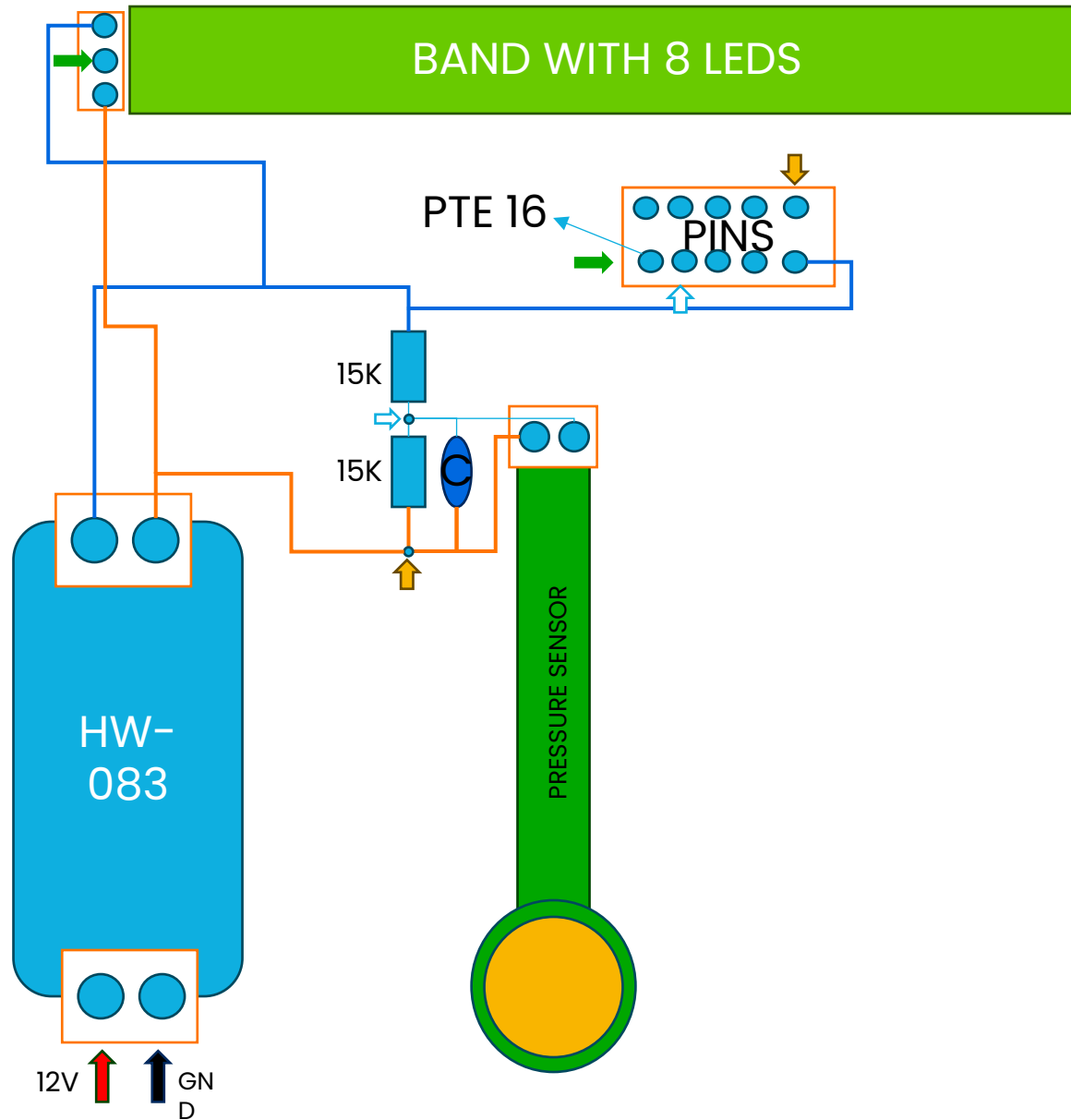
04

# Brake



# BRAKE





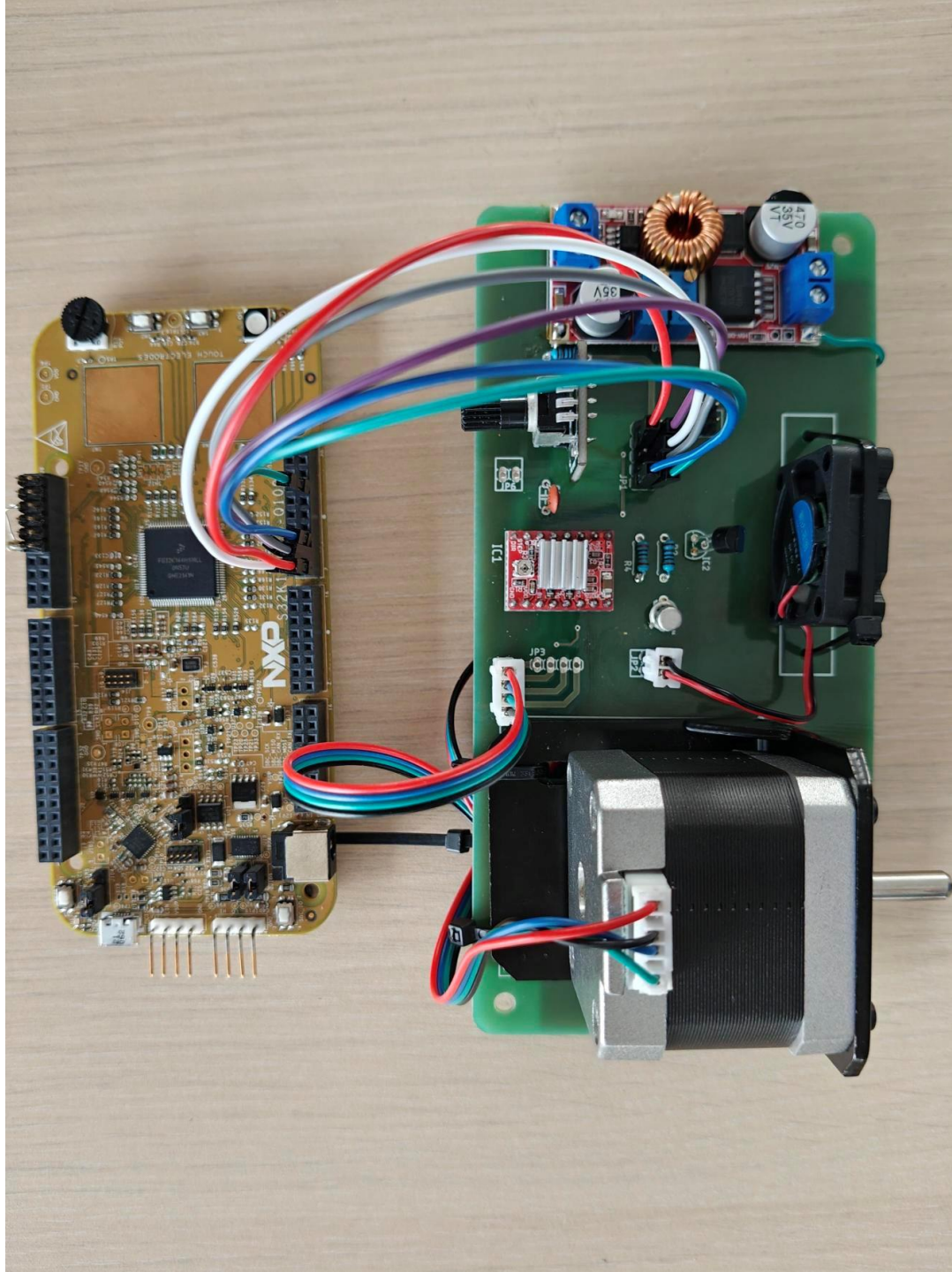
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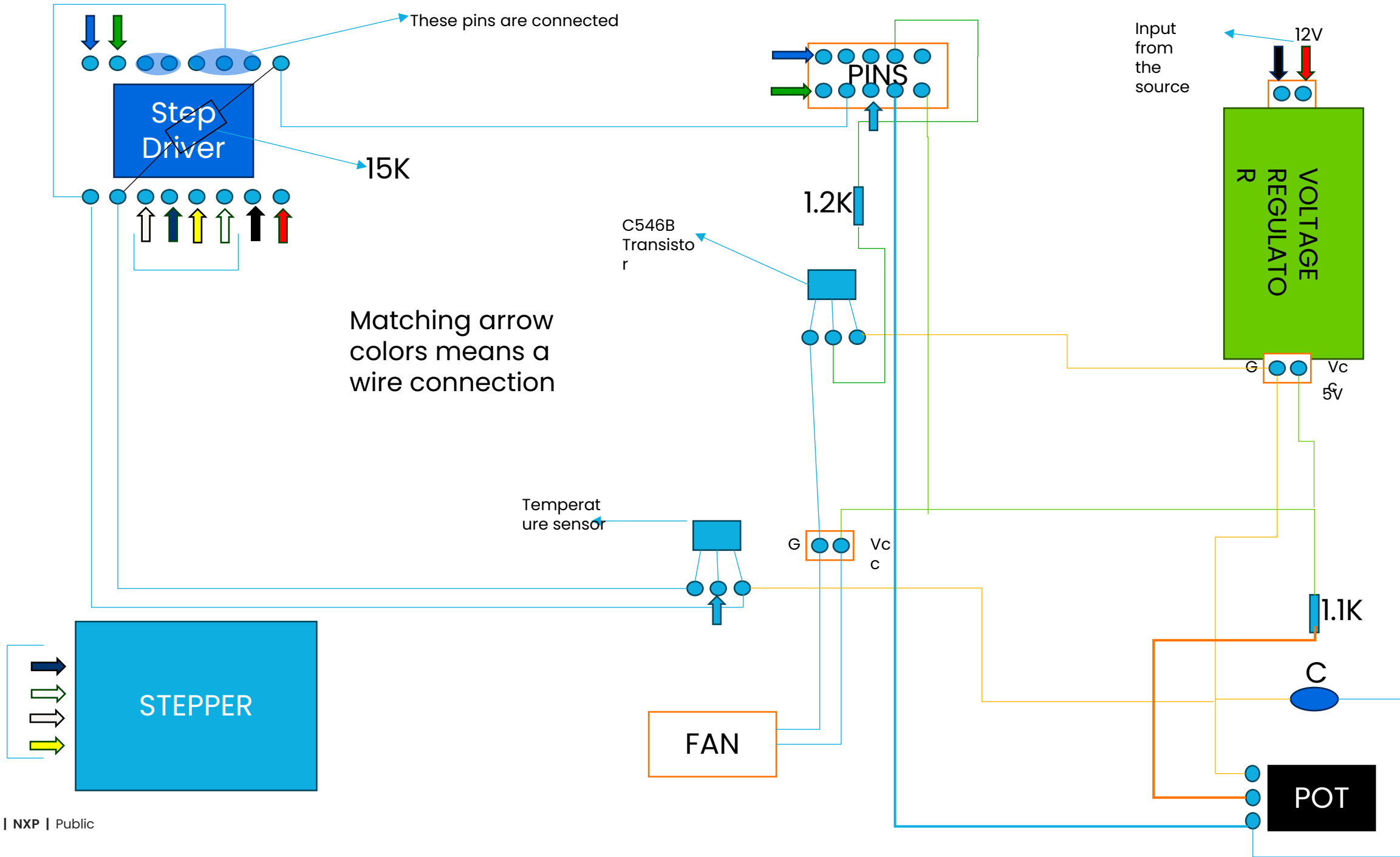
# Door Control + HVAC



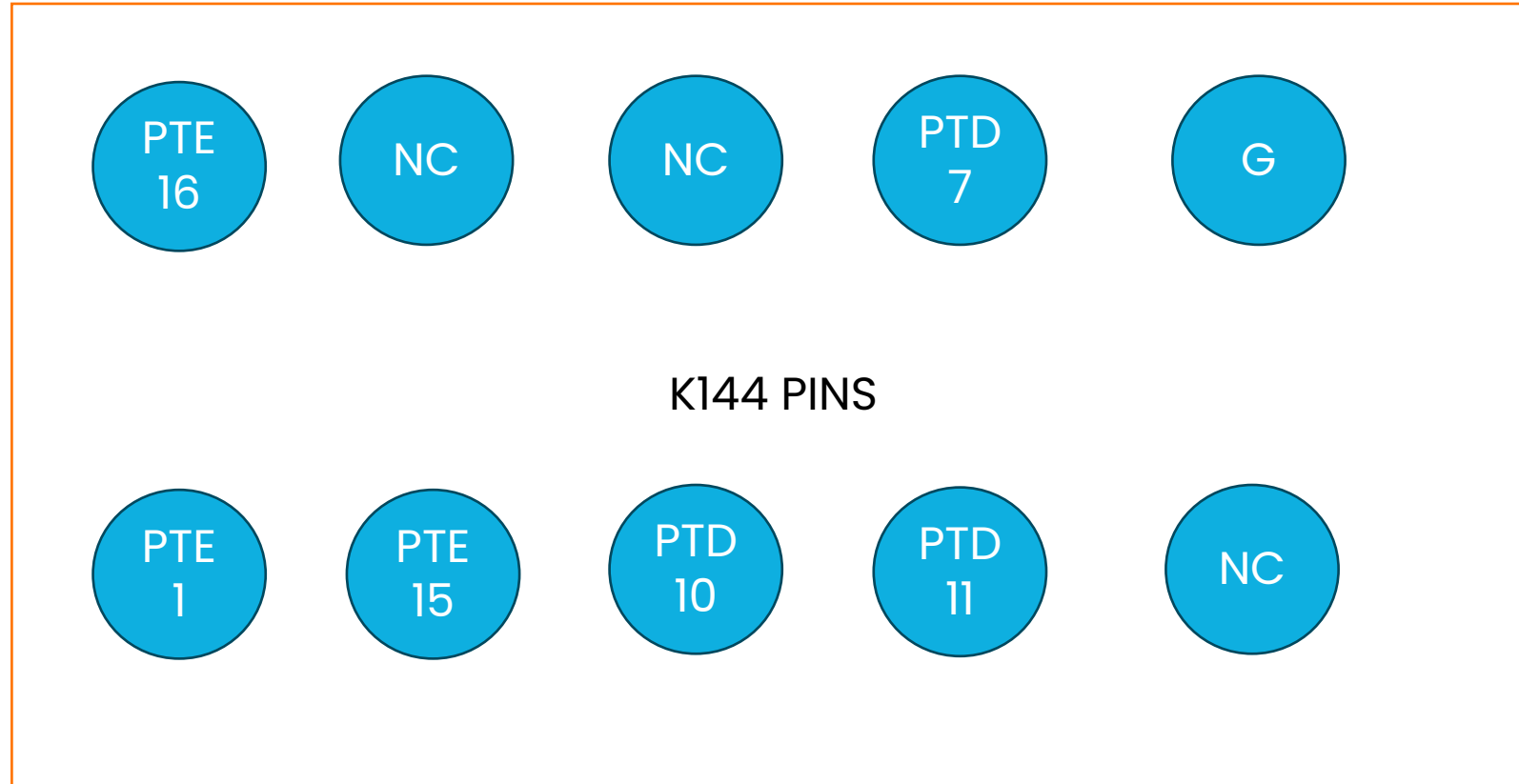


# DOOR Control + HVAC







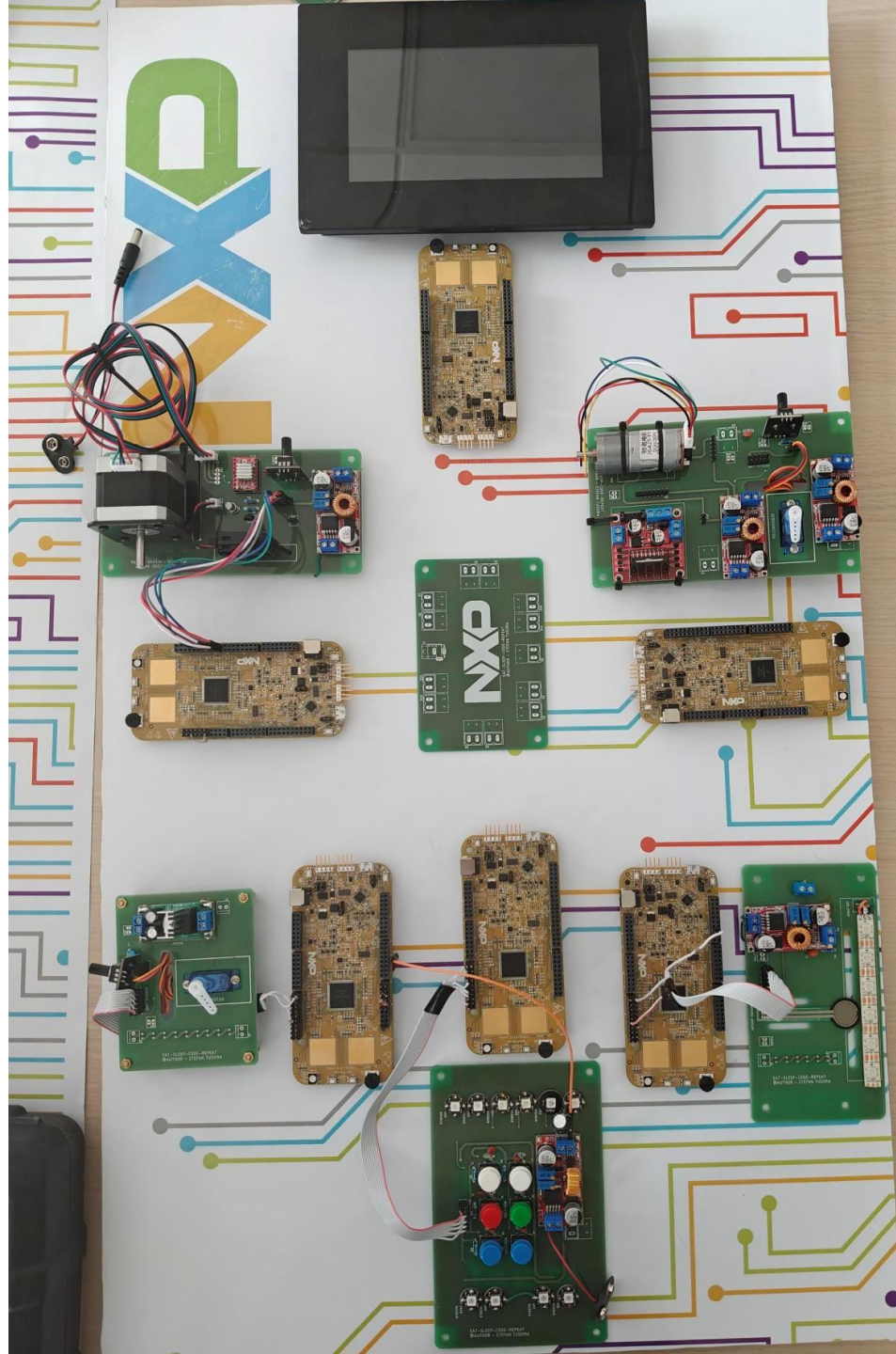


04

# FINAL SETUP



# FINAL SETUP





Brighter  
Together

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