

**what is IoT + what can we do with it?**

# WHAT IS AN IOT SYSTEM?

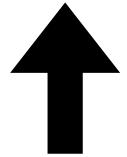
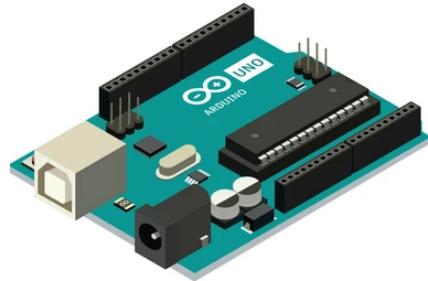
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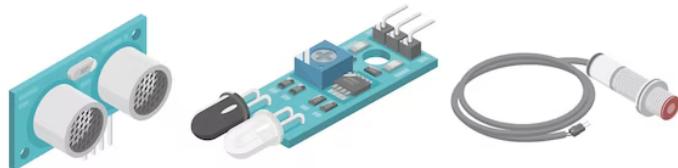
**Sensors**

# WHAT IS AN IOT SYSTEM?

**Microcontroller**

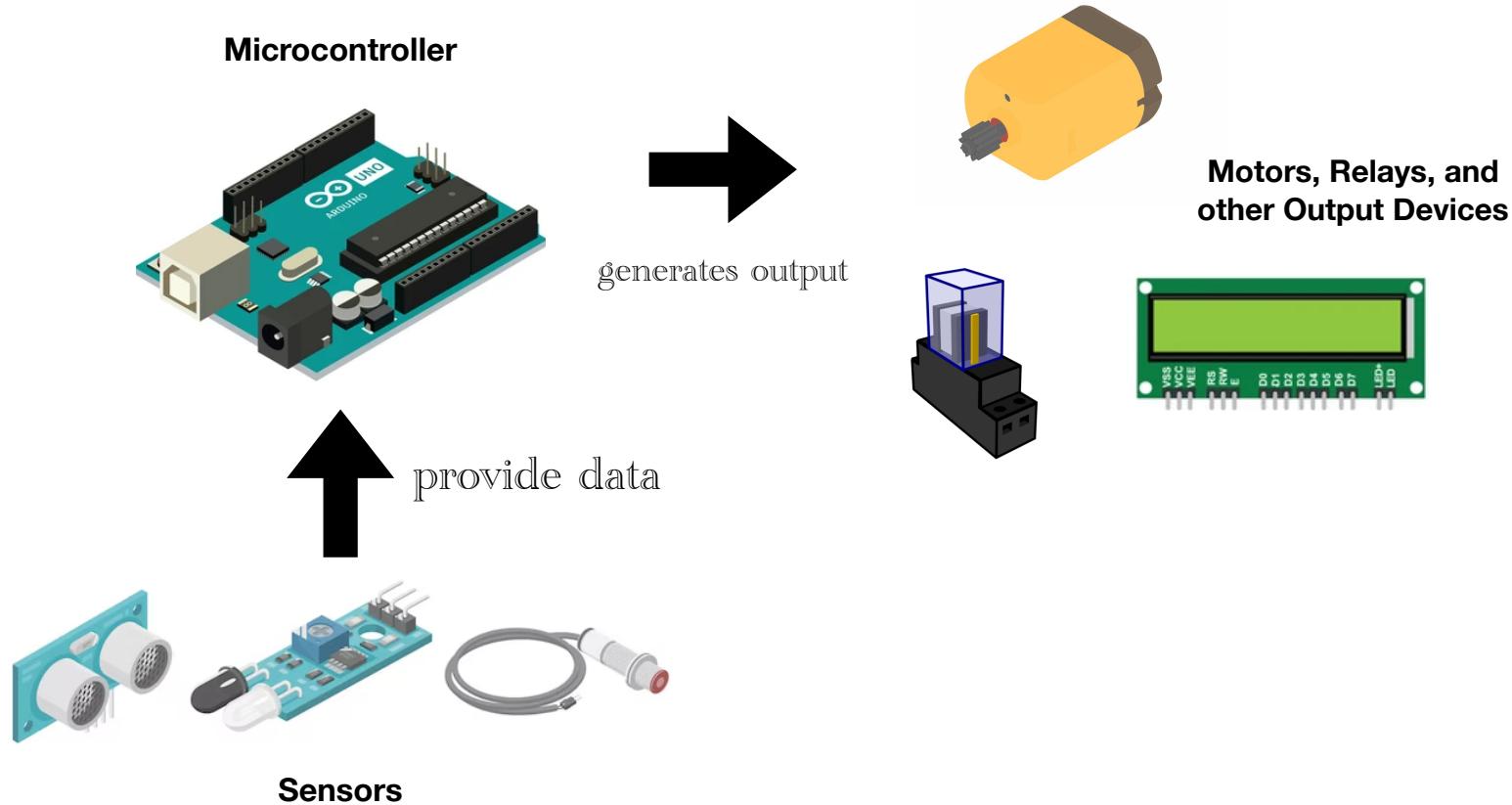


provide data



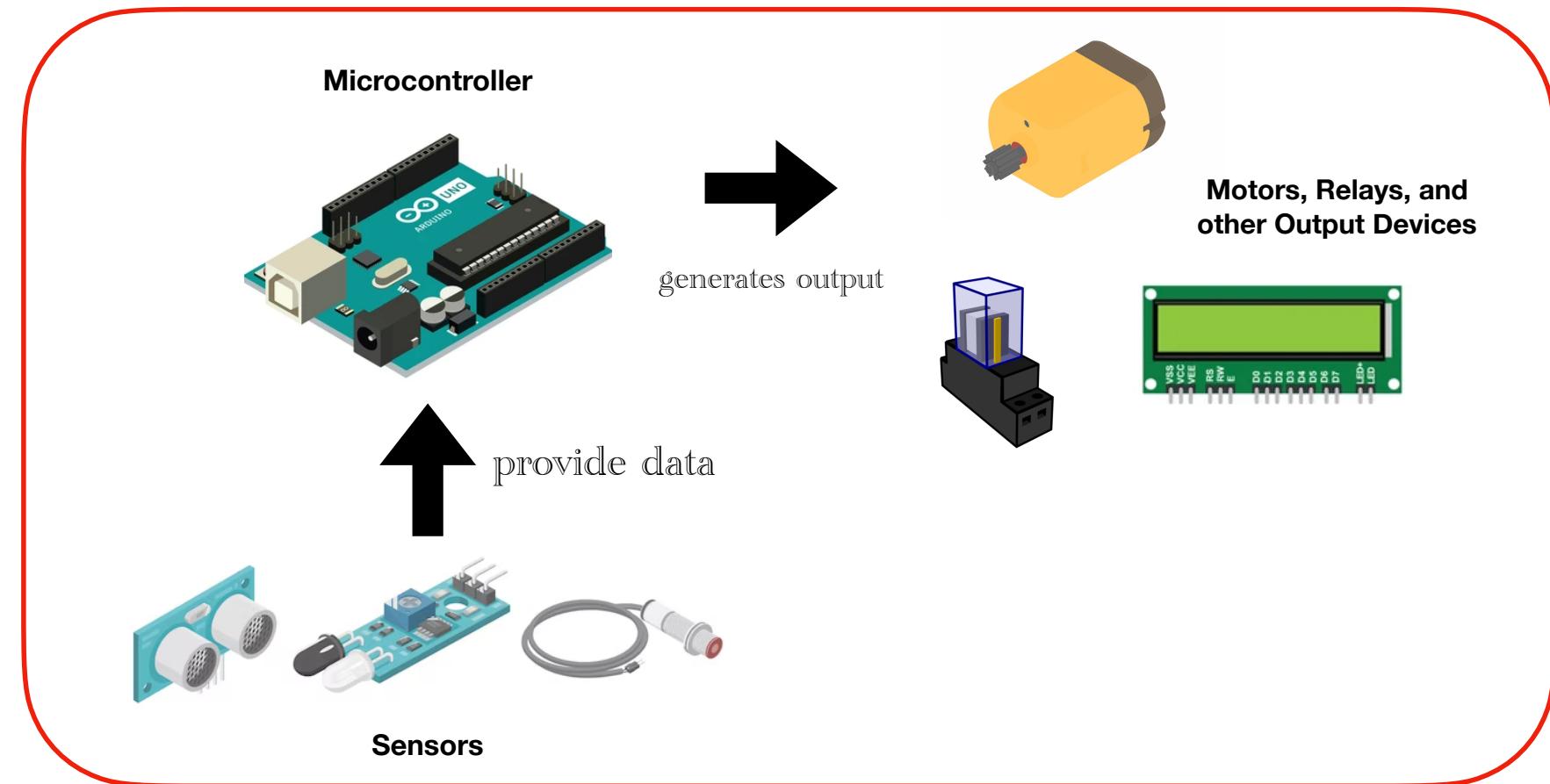
**Sensors**

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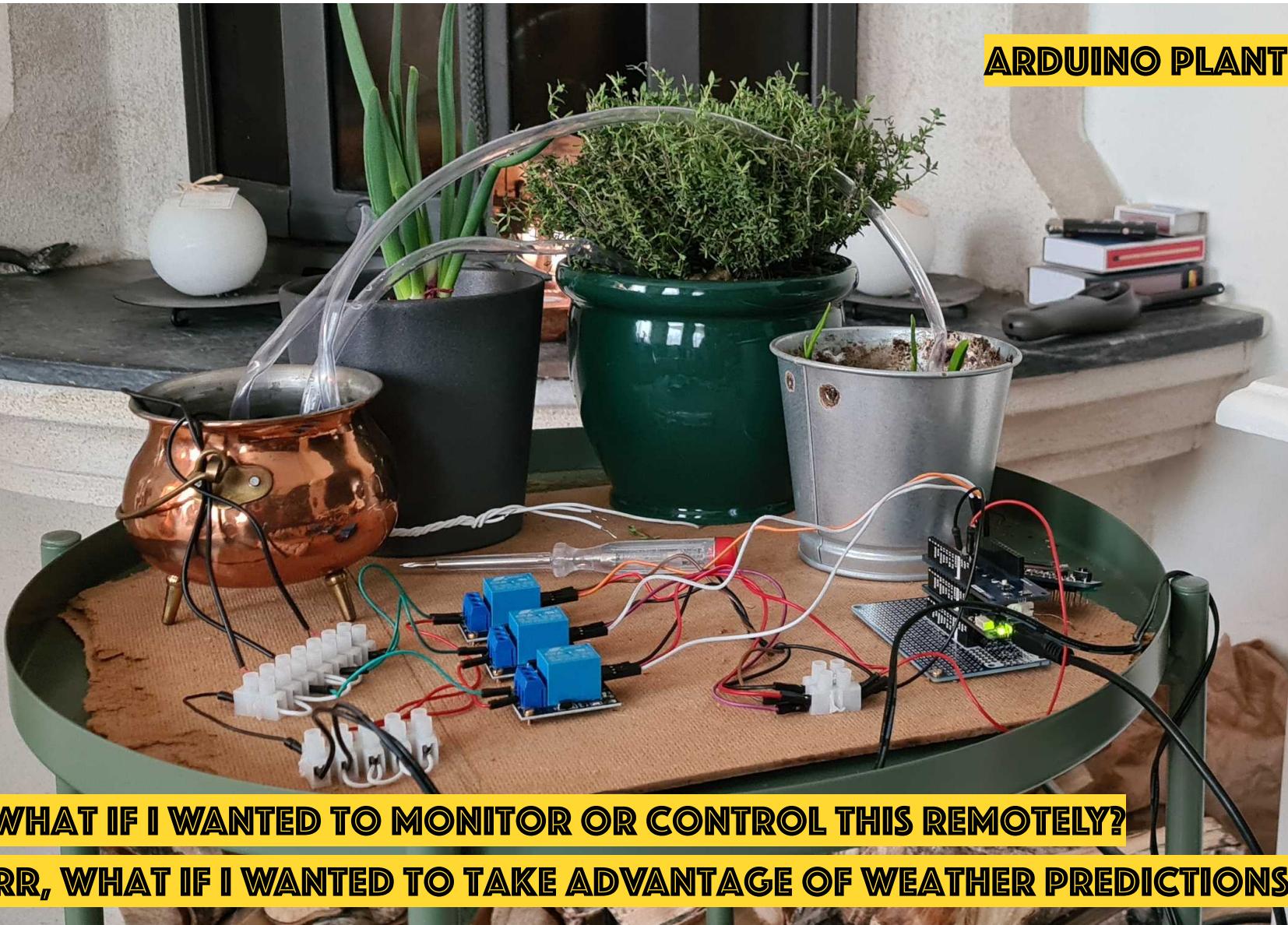




# WHAT IS AN IOT SYSTEM?



## ARDUINO PLANT WATERING

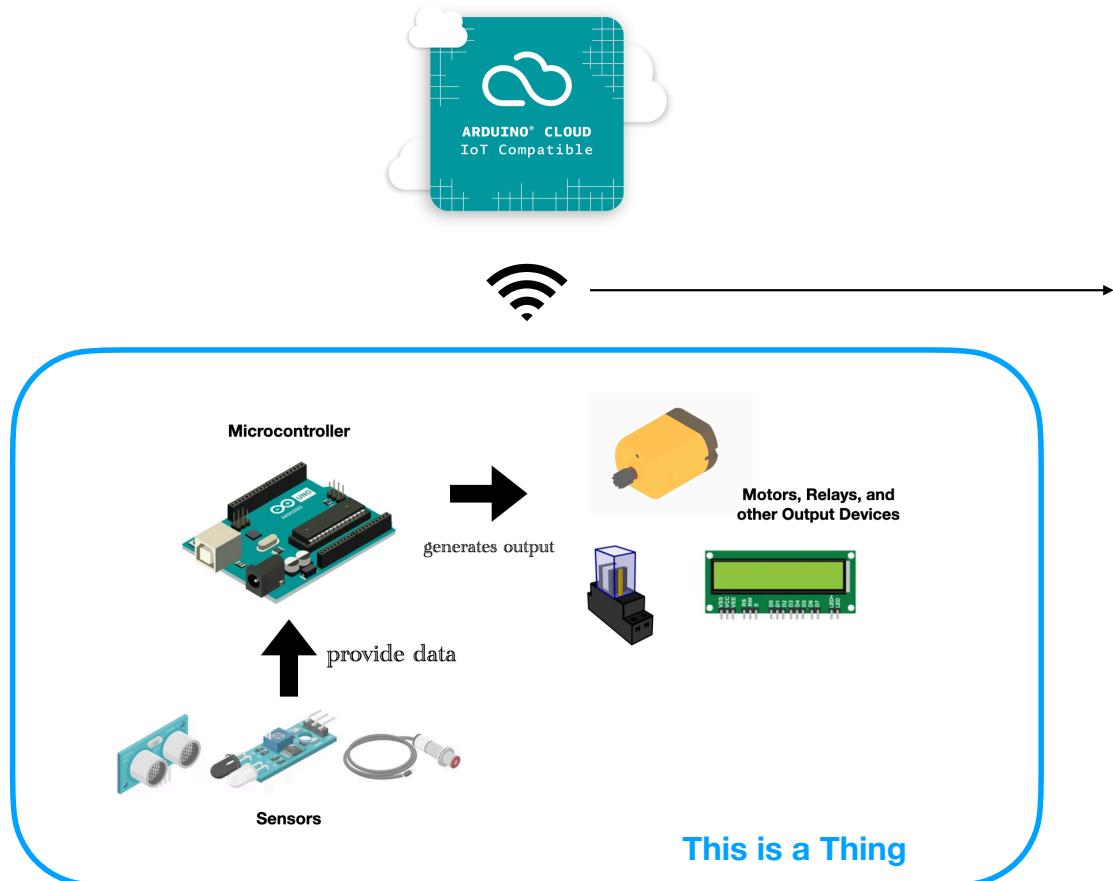


BUT WHAT IF I WANTED TO MONITOR OR CONTROL THIS REMOTELY?

ORRRR, WHAT IF I WANTED TO TAKE ADVANTAGE OF WEATHER PREDICTIONS?



# WHAT IS AN IoT SYSTEM?



We connect it to “a network” hosted database. This is DIFFERENT than connecting it to the internet. It does not need to be on the internet, it just needs to be on a “network.”

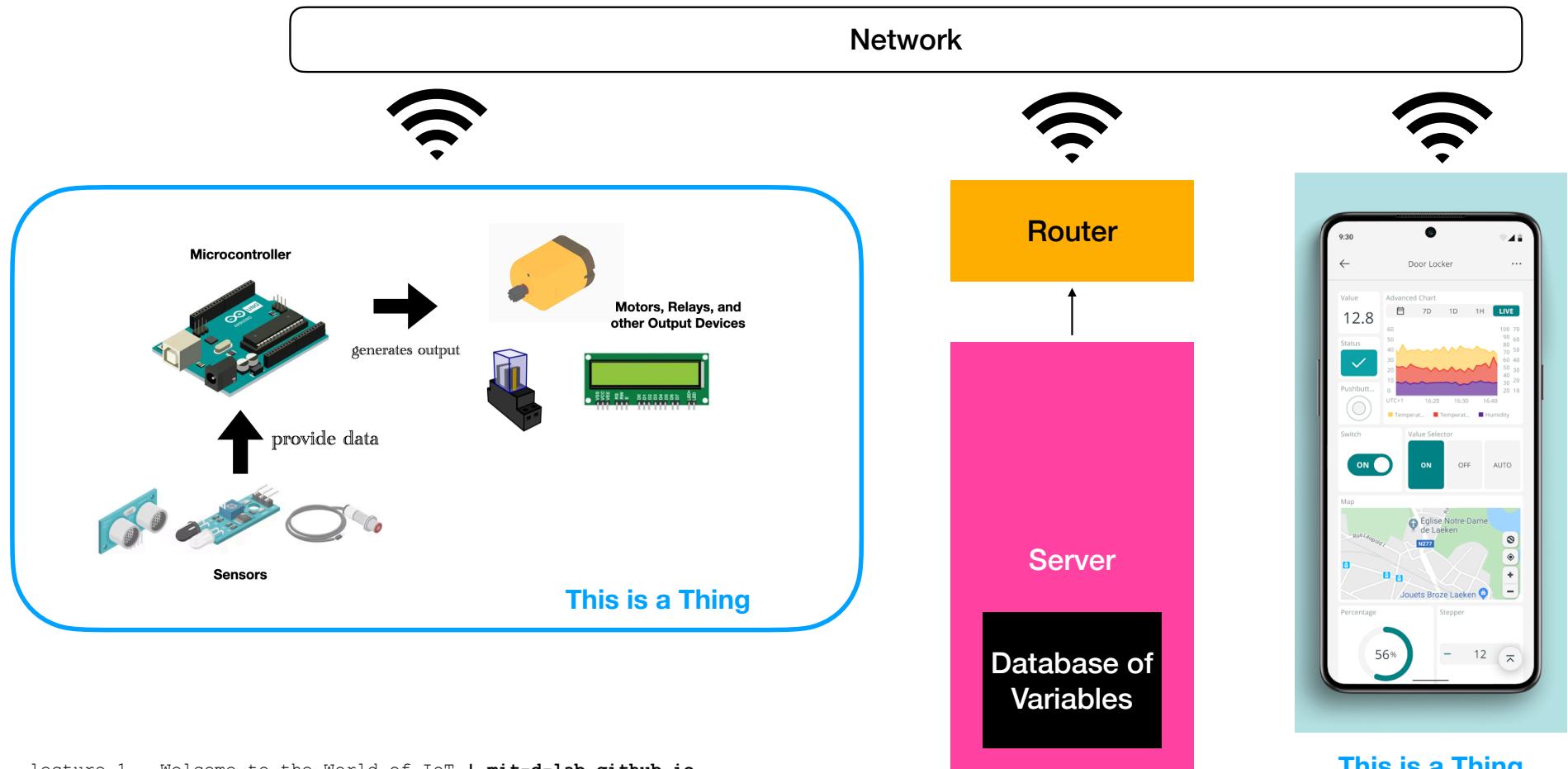
A database is just a list of shared variables that all nodes or “things” in the network can access!

**NETWORK IS NOT THE SAME AS INTERNET.**

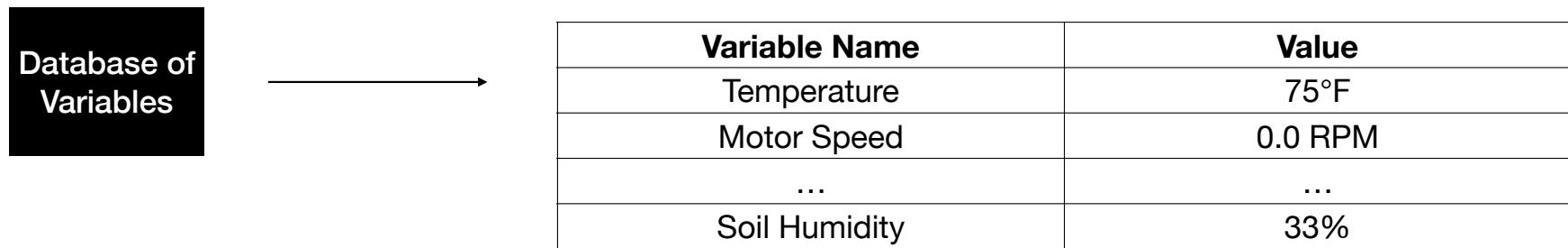
**HAVE YOU EVER CONNECTED TO WIFI BUT HAD "NO  
INTERNET?"**

**A NETWORK IS JUST A BUNCH OF THINGS THAT CAN SHARE  
DATA WITH EACH OTHER, INTERNET GIVES YOU THE ABILITY  
TO CONNECT TO THINGS OUTSIDE YOUR NETWORK.**

# WHAT IS AN IOT SYSTEM?



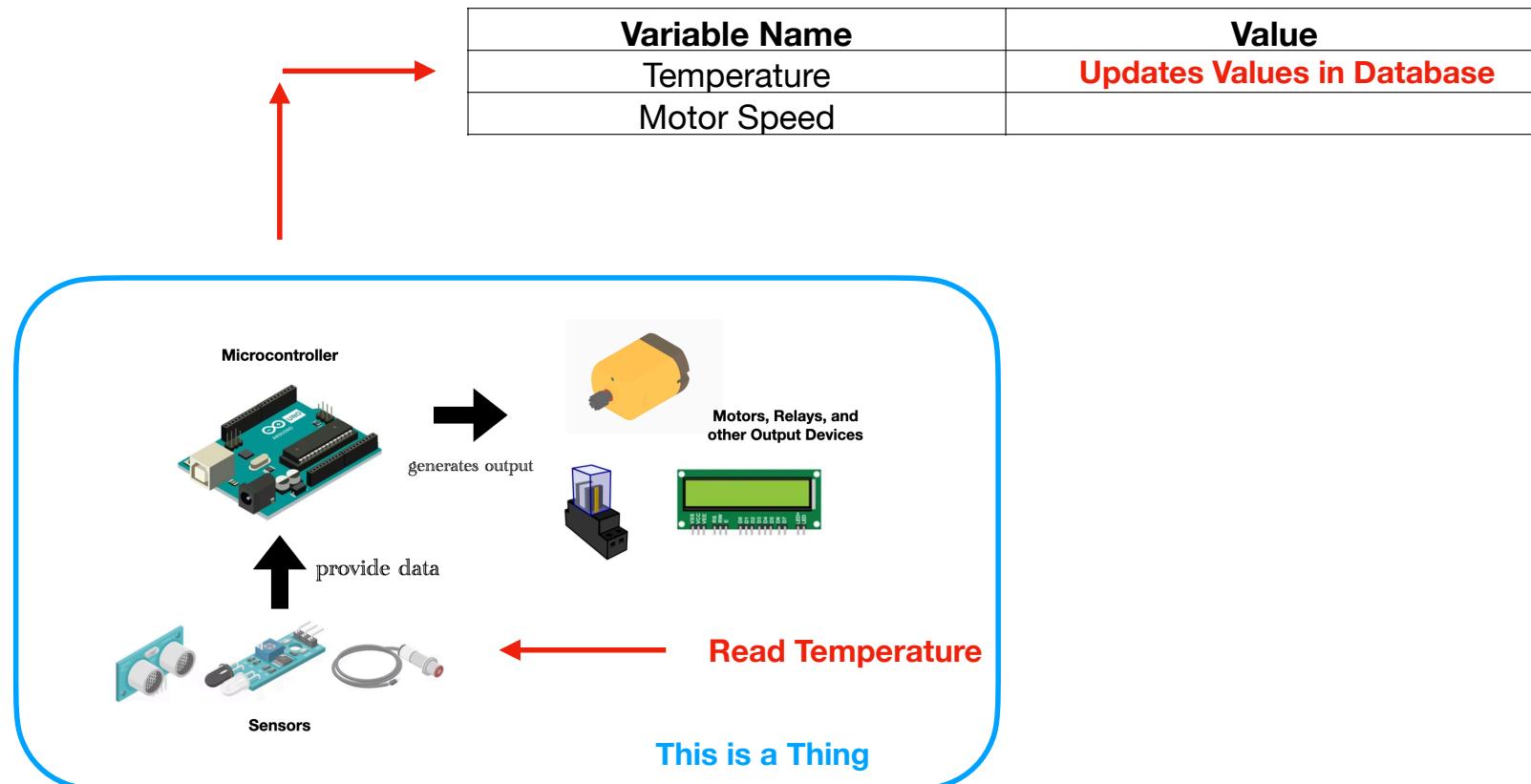
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**A DATABASE IS JUST A SET OF VARIABLES THAT IS STORED ON A SERVER COMPUTER SO THAT MULTIPLE "THINGS" CAN ACCESS THE SAME VARIABLES.**

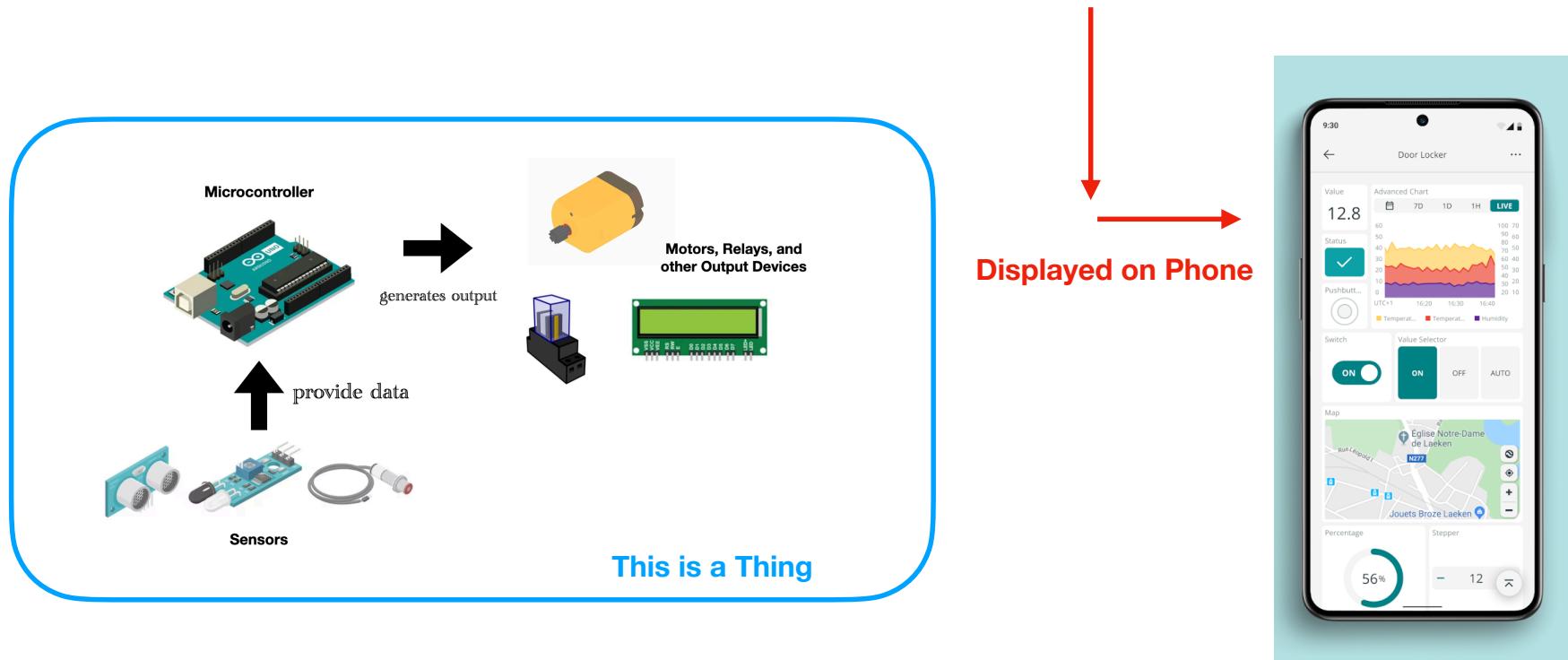
**THINGS CAN READ, AND CHANGE THE VALUE OF THE VARIABLES, AND ALL THE OTHER THINGS WILL BE ABLE TO SEE THOSE CHANGES.**

# WHAT IS AN IOT SYSTEM?



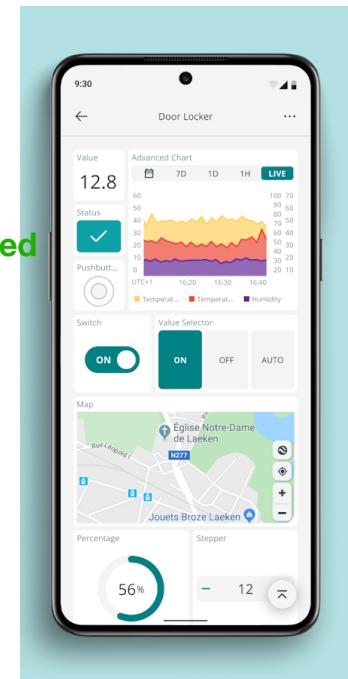
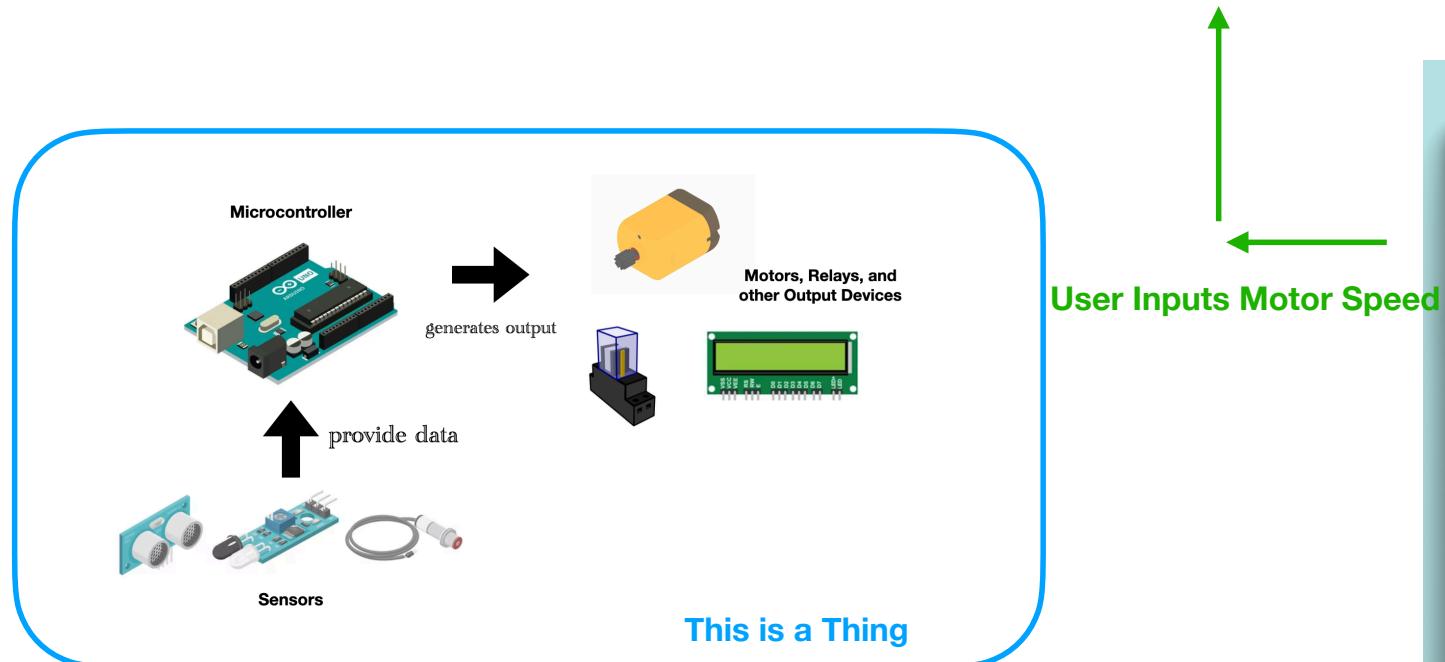
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Variable Name	Value
Temperature	New Value
Motor Speed	

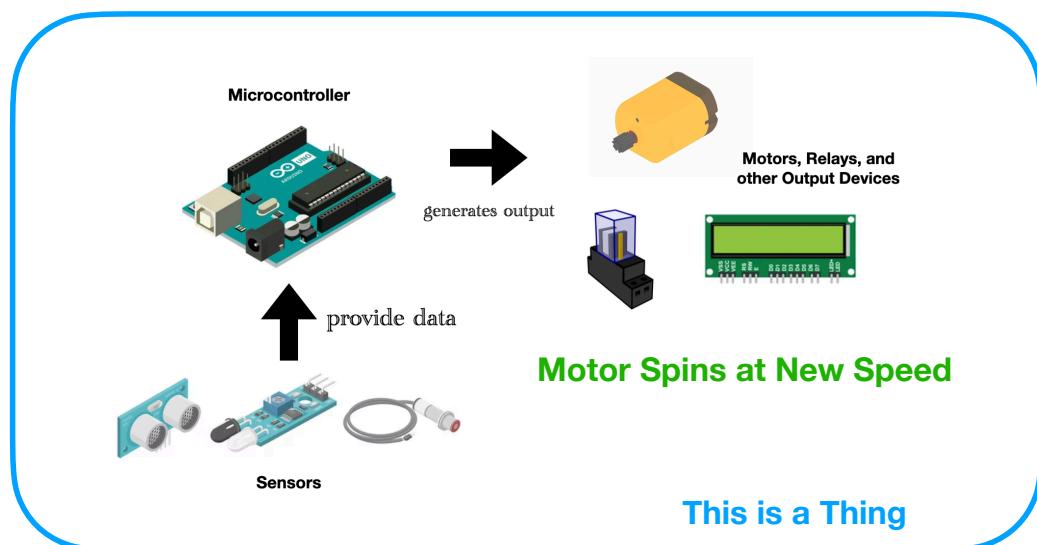
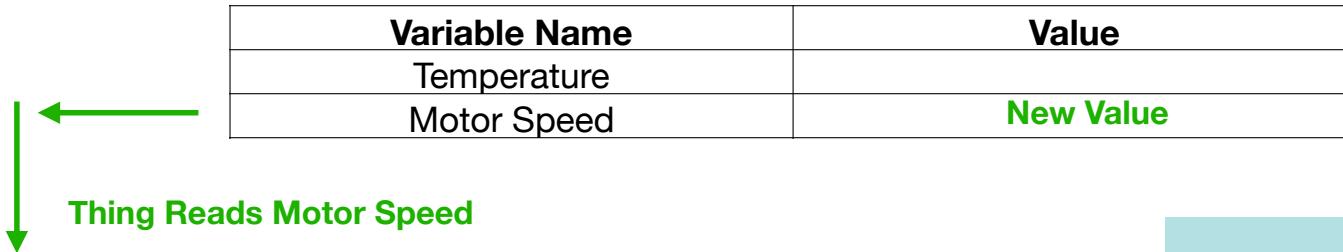


# WHAT IS AN IOT SYSTEM?

Variable Name	Value
Temperature	
Motor Speed	New Value



# WHAT IS AN IOT SYSTEM?



**IOT IS JUST A WAY TO TRANSFER DATA FROM ONE DEVICE TO  
ANOTHER OVER SOME SORT OF NETWORK PROTOCOL.**