**BUILD AUTONOMOUS CAR FROM SCARTCH**

Circuit electrical: Arduino Nano, L298n, 4 DC motor, IMU 9250, 3 Pin cell 8051

Embedded devices: Jetson Nano 4Gb(Ubuntu 20.04 OS), Rplidar A1m8 of Slamtech

Purpose: Scan map indoor, auto move, may be object detection, communicate with human,.. Moving point to point, path planning and navigation, localization and mapping,...ss

Knowlegage: ROS, RosSerial, Node, Mobile Robot, Communication, Embed OS,..

* Make circuit: Control motor and read IMU from Arduino. Assemble the car(3 floors: Motor, Circuit, Lidar)
* Installation Ubuntu 20.04 on Jetson Nano(use SD Card 64Gb)
* Install ROS Noetic, install and catkin\_make Rplidar, Hector\_slam, Rosserial, Install Vscode, PlatformIO
* May be using Docker to remote Jetson Nano from Computer

Error:

* Install Hector\_SLAM: Recommended use from Wiki page
* Install Platform IO: “Initial Platform IO can’t work python3.6 interpreter...”
  + Fixed: Run cmd. Run command “**sudo apt python3-venv**”
  + Restart and Try. 🡪 error fixed

1. Installation Rosserial-arduino-tutorials on PlatformIO On Jetson Nano