

1. RoboCar
  - a. Run the 6 motors from Arduino IDE
  - b. Setup wifi/Bluetooth to control the 6 motors from ArduinoIDE
  - c. Make a flask server
    - i. Python script to control all 6 motors
    - ii. On IP
    - iii. All devices should be on the same network
  - d. Unity Connection
    - i. Make UnityWebRequest
      1. Or a TCPClient to connect to the flask server address
    - ii. Run this in a **coroutine**.
2. Share Unity Project:
  - a. Download git/github desktop
  - b. Create a github account
  - c. OR Compress and Upload to a cloud drive
  - d.
3. Live Streaming Car with Alert
  - a. Stream the camera view from car to unity app
  - b. Raise an alert on some event
    - i. Get the trigger in unity app whenever the event happens
      1. Get an all time connected channel tcpclient or UDP
      2. Mqtt topic : event driven
        - a. Create a mqtt topic to /alert
        - b. Robot Side Code: publish on the above topic some info whenever sensor reads alert
        - c. Unity Side: Subscribe to the above topic
          - i. Get notifications or infor whenever something is published
          - ii. Do what you like with it
            1. If true
              - a. Change color to red
      3. Server running on the unity app or the same computer as unity project
      4. All should be in the same network ; same wifi
4. RoboArm
  - a. Use serialport System.IO.Ports for wired USB connection to robot arm – Arduino
  - b. Use
    - i. Python flask server on robot side
    - ii. Tcp client or unitywebrequest on unity side
5. Demo
  - a. Digital Twin creation
    - i. Real Robot Arm control
  - b. Object Detection
    - i. <https://www.youtube.com/watch?v=RQ-2JWzNc6k>

- ii. <https://ai.google.dev/edge/mediapipe/solutions/guide>
- c. AI integration
  - i. <https://github.com/undreamai/LLMUnity>
  - ii.