Face Drawing Robot Demo Setup Guide

This guide walks you through setting up and running the Face Drawing Robot Demo locally.

🛠️ Prerequisites

- `Node.js` and `npm` installed
- Two terminal windows or tabs
    - Windows Subsystem for Linux (WSL) was used for development
- Laptop connected to robot with ethernet
- URCap: `Remote TCP & Toolpath` installed on robot

📦 Backend Setup

1. Open a terminal and navigate to the `backend` folder:

```
cd UR_Demo_Webcam_Drawing_webUi/backend
npm install
npm run dev
```

2. Open a second terminal and navigate to the `frontend` folder

```
cd UR_Demo_Webcam_Drawing_webUi/frontend
npm install
npm start
```

3. In `UR_Demo_Webcam_Drawing_webUi/backend/pages/api/send-to-robot.js` change `const ROBOT_IP = '192.168.1.160';` to the IP address of the robot you are connecting to.

4. The WebUI should be hosted on `localhost:3000` on your browser.

5. Use WebUI to take a picture with the device camera, or upload a picture. Click `Save GCode`, then `Process Edges`, then `Send to Robot` buttons.

6. `output.nc` file should appear in robot's `/programs` file.

🤖 Robot Setup

1. Make a simple program on the robot. Add a toolpath from the URCap `Remote TCP & Toolpath`

2. Create a feature plane of the drawing plane

3. Teach TCP of drawing tool

4. Select `output.nc` from the `\programs` folder