**Child Tracker 5000 Setup Instructions**

**Instructions for Setting up the Local Server:**

Setting up the local system is fairly simple: assuming you’ve setup the AIY vision kit according the instruction at <https://aiyprojects.withgoogle.com/vision/> all you need to do is download our source code, modify the monitoring script’s default configurations (or pass them as parameters), and run the script.

1. git clone <https://github.com/mjmillan/PassengerAndDriverSafety>
2. cd PassengerAndDriverSafety/facedetection
3. vim 1\_monitor.py
   1. This is the main script, towards the bottom is a main() function that parses arguments and sets default values for flags that are not passed into the script.
   2. Flags you MUST configure or pass into the script:
      1. –region : define a rectangular region of the camera within which faces will be recognized using the facial recognition model
      2. –enter\_side : Used to determine which side of the region should be considered "entering": 0 = right, 1 = left. Or, in dual camera operation: 2 = entering, 3 = Exiting
      3. –url: this is the base url/ip of the cloud server. Ex. <https://10.8.0.6:8000>
      4. –username: the device username, used for getting the JWT authentication token
      5. –password: the device password, used for getting the JWT authentication token
      6. –dev: the id of this device
   3. There are other flags you can explore as well
4. Simply run the script:
   1. Python3 1\_monitor.py

**Instructions for setting up a development environment with Django and React**

**Django Setup:**

* Install Python 3.7.2
* Go To https://www.python.org/downloads/ and install version 3.7.2 for your OS.
* Install the Virtualenv library for Python
  + In your terminal: pip install virtualenv
* Create a virtual enviroment (I'd suggest creating a dedicated folder outside the project):
  + python -m virtualenv (enviroment name here)
* A folder for will be created with all the virtual enviroment stuff. Go into it and find the activate script. Run the script to activate the enviroment. On Windows, it is "activate.bat".
  + start <path to virtual environment>/Scripts/activate.bat
  + You enviroment is now activated.
* Navigate to the project (within the virtual environment) and install all the libraries needed for the project from "requirements.txt".
* Install python dependencies:
  + cd /c/PassengerAndDriverSafety/webapp/ct5000\_python/
  + pip install -r requirements.txt
* Make migrations for the Rest framework API, then migrate.
  + python manage.py makemigrations api
  + python manage.py migrate
* Create a superUser
  + python manage.py createsuperuser
* You can now run the project.
  + python manage.py runserver
* By Default, Django development server runs on port 8000 (i.e. go to 127.0.0.1:8000)
* Troubleshooting tips:
  + Having a ValueError (can't resolve api.user)?
    - Delete all your migrations and sqlite database.
    - python manage.py makemigrations
    - python manage.py migrate
    - python manage.py createsuperuser

**React Setup:**

* Install Node.js (comes with npm)
  + Download the installer from: https://nodejs.org/en/
* Now, navigate to the frontend directory:
  + cd /c/PassengerAndDriverSafety/webapp/ct5000\_react/
* Install the dependencies
  + npm install
* Start the development Server
  + npm start
* By Default, react front end runs on port 3000 (i.e. go to 127.0.0.1:3000)