# MIGRATING WEB APPS

* Targets the following - <https://github.com/noopkat/mxchip-gifs/blob/master/README.md>

## PREP

* Install docker
* VS2017 required or something fries out in one of the VSCode kits
* Follow instructions at <https://github.com/noopkat/mxchip-gifs/blob/master/README.md> for pre-req’s.
* Pull down repo from <https://github.com/noopkat/mxchip-gifs.git>

# FIGURE OUT NAME FOR YOUR HUB AND RG

IoTHub: dfiothub3

Rg: iot-rg3

# CREATE IOT HUB

Go to portal

Create resource group: iot-rg3

Create iot hub: dfiothub3

# CREATE NEW DEVICE

Go to az cloud shell

* Azure: az iot hub device-identity create --hub-name YourIoTHubName --device-id MyNodeDevice"
* Azure: az iot hub device-identity create --hub-name dfiothub2 --device-id DevfishTroutDevice

***Eeek! az iot hub: 'device-identity' is not in the 'az iot hub' command group. See 'az iot hub --help'***

Install iot hub extensions into cloud shell

<https://github.com/Azure/azure-iot-cli-extension/blob/dev/README.md>

* Azure: az extension add --name azure-cli-iot-ext

Create an identity for your device:

* Azure: az iot hub device-identity create --hub-name dfiothub3 --device-id Devfish<uniquefishname>Device

# GET IOT HUB CONNECTION STRING

* Azure > az iot hub device-identity show-connection-string --hub-name dfiothub2 --device-id DevfishTroutDevice --output table

Paste the string here for future ref:

HostName=dfiothub2.azure-devices.net;DeviceId=DevfishTroutDevice;SharedAccessKey=rr5z/kBqzYxWZVgKKQTrL0oePujUoF23/CATgnaq3kU=

# CONFIG WIFI AND HUB CONNECTION STRING

Get com port via device manager

Enter config mode : <https://microsoft.github.io/azure-iot-developer-kit/docs/use-configuration-mode/>

Open PuTTY

* Port: Serial <<<< do this first
* Serial line: com3
* Speed: 115200
* Click: Open

Serial mon should open and update after a few seconds.

On device, hold down A, push and release reset, release A.

Device screen should show MAC address and configuration.

Run set\_wifissid, set\_wifipwd, set\_az\_iothub

Run exit to get out of config.

You should see connection to IoT Hub

Open Azure Cloud Shell and run following command to see sensor events

* **az iot hub monitor-events --hub-name dfiothub2 --output table**

# IOT HUB CONFIG

Go to your IoT Hub

Create a new IoT Hub Access Policy

* Name: mxchipgif
* Permissions: service connect, registry read, registry write

Copy out the connection string for the policy and save it.

HostName=dfiothub2.azure-devices.net;SharedAccessKeyName=mxchipgif;SharedAccessKey=QFM5OEeMGgboSSEPcDgrEizkAUPXOODba8UOpOrEhYc=

# THE CODE

## ADD EXTENSIONS

Open VS Code

Install Arduino code into VSCode

Install Azure IoT Extensions into VS Code

Ctrl+Shift+P > Arduino->Board Manager – search out AZ3166, hit enter

# CODE CLIENT

VS Code Open folder on your downloaded project

Open the workspace file when it offers

Setup com port and board in bottom right.

* {ctrl+shift++p} Azure IoT Device Workbench : Update Device Code

Code will deploy and device will be waiting on a gif.

# CODE SERVER

Create a .env file under server

CONNECTION\_STRING={mxchipgif-connection-string}

Use terminal inside vscode

Cd to the server directory if not already in it

* Npm install
* Npm start

Navigate to <http://localhost:3000>

Send a gif

# RESETTING THE DEVICE

* Download new firmware and drag it to storage. Best way - <https://microsoft.github.io/azure-iot-developer-kit/docs/firmware-upgrading/>