Building Images with Yocto Project

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What is the Yocto Project?

- A Linux Foundation project that helps you build your own custom Linux distribution, from source to installable image
- A collection of tools to make building your own custom Linux distribution easier
- “yocto” is the smallest unit prefix in the SI system (10^{-24})

What is Open Embedded?

- A build system, using the “bitbake” tool, to create a Linux distribution
- A long time ago, in a galaxy far far away, it was what came to be known as Open Embedded Classic
- A not for profit organization which aims to champion embedded Linux

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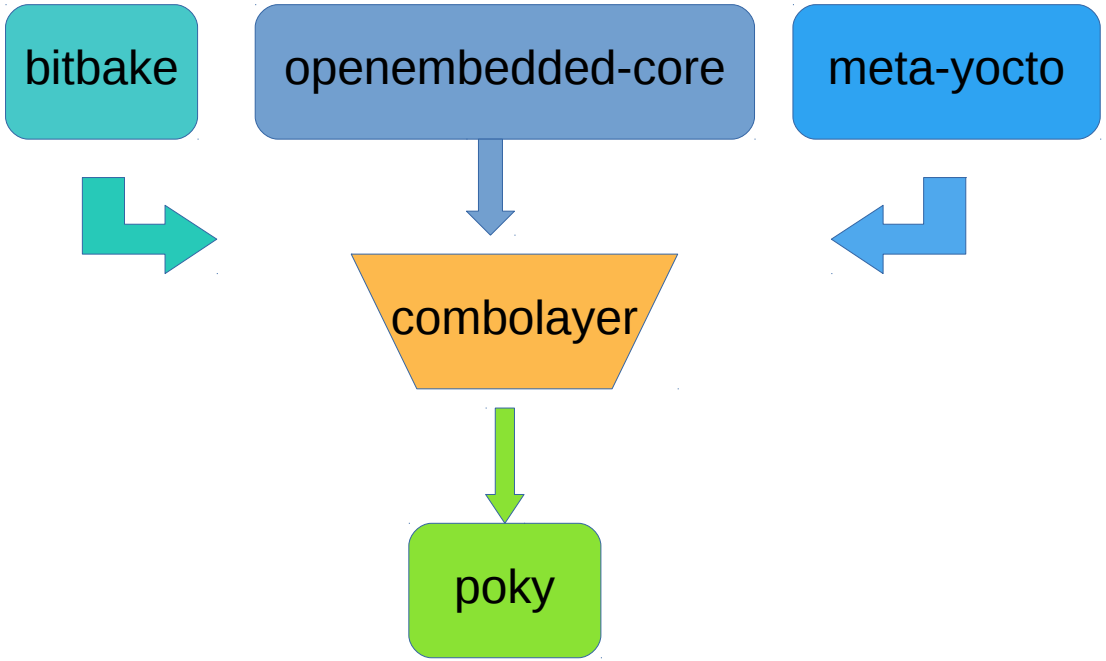
What is poky?

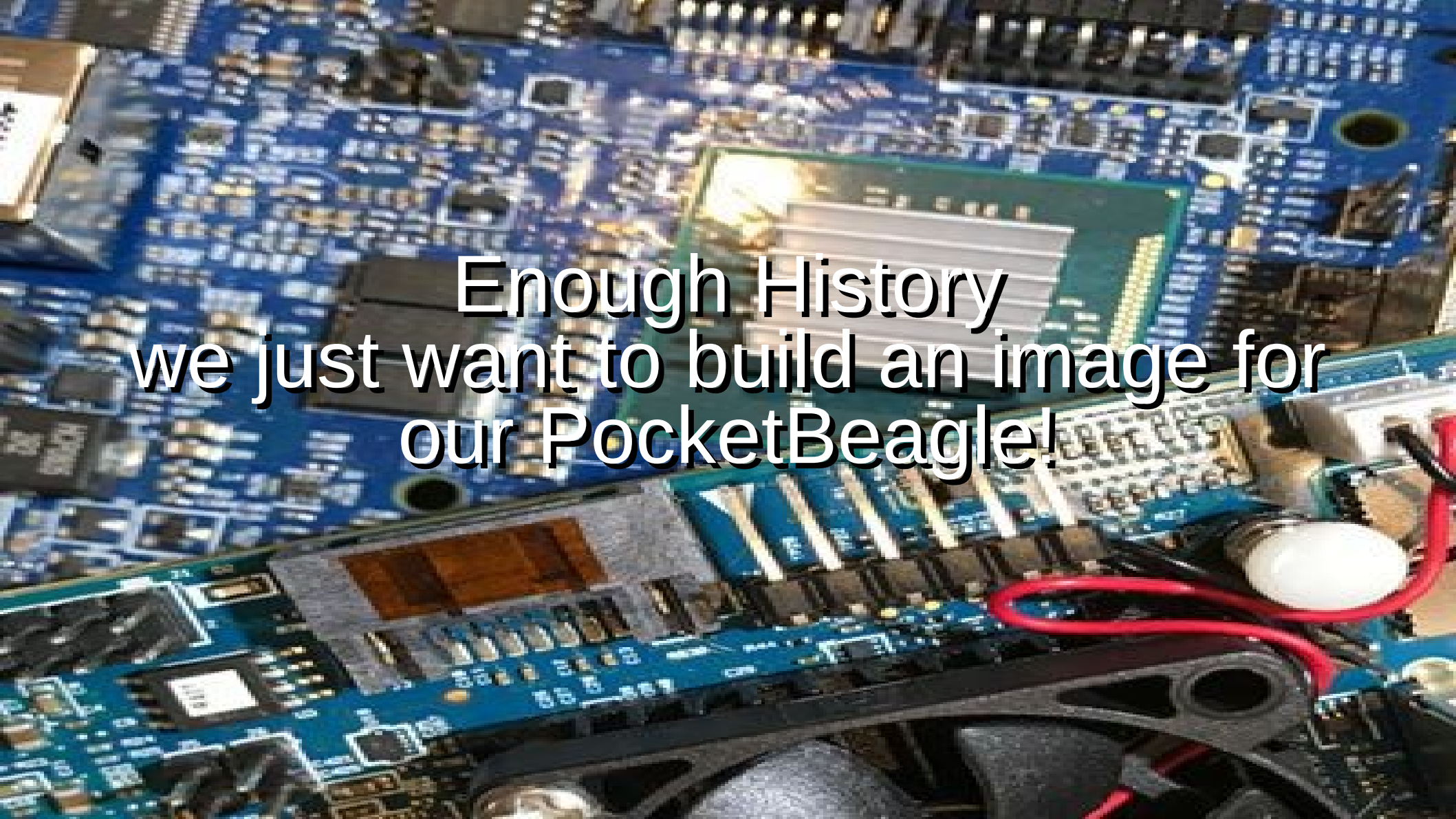
- “poky” is the reference distribution used to make sure the Yocto Project is “all systems normal”
- A conveniently and legally different name for something that sounds the same as a chocolate dipped cookie stick popular in Japan
- Not an equine companion to a green clay-mation character from a popular children’s Saturday morning show that sounds like it might be not so fast

What is poky?



What is poky?

```
$ tree -L 1 poky
poky
├── bitbake
├── documentation
├── LICENSE
├── meta
├── meta-poky
├── meta-selftest
├── meta-skeleton
├── meta-yocto-bsp
├── oe-init-build-env
├── README.hardware
├── README.LSB
├── README.poky
├── README.poky
└── scripts
```


Enough History
we just want to build an image for
our PocketBeagle!

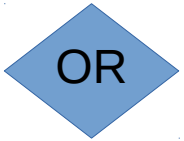
What do we mean by “image”?

- /boot (and boot loader)
- kernel (and kernel modules)
- rootfs
  - /etc
  - /var
  - /usr

Cloning our tools and metadata

```
git clone bitbake
```

```
git clone openembedded-core
```




```
git clone poky
```

```
git clone meta-foo
```

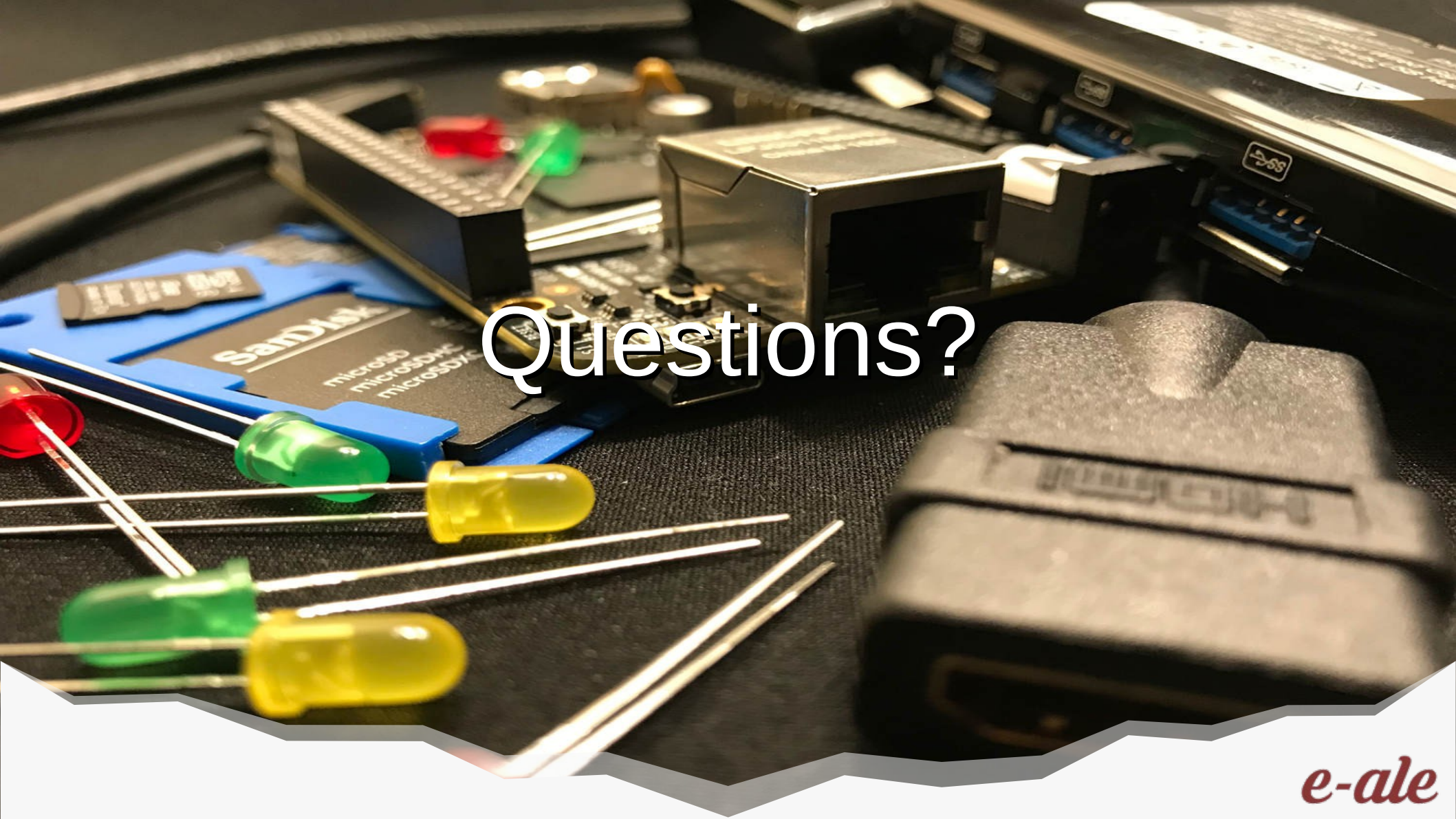
Setting up our build environment

- Without any options

```
. ./poky/oe-init-build-env
```

```
MACHINE ??= “qemux86”
```

```
TOP_DIR = “./build”
```


Questions?
SanDisk
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Thank you!
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