

# open source support

- <https://robertou.com/unofficial-open-source-place-and-route-for-xilinx-coolrunner-ii-cplds.html>

```
dpavlin@klin:/klin/FPGA$ sudo apt-get install cargo
```

```
dpavlin@klin:/klin/FPGA$ git clone https://github.com/azonenberg/openfpga
```

```
dpavlin@klin:/klin/FPGA$ cd openfpga/src/xc2par/
```

```
dpavlin@klin:/klin/FPGA/openfpga/src/xc2par$ cargo build --release
```

```
dpavlin@klin:/klin/FPGA/openfpga/src/xc2par$ cargo install --root /usr/local
```

```
warning: Using `cargo install` to install the binaries for the project in current working directory
```

```
Installing xc2par v0.0.2 (/klin/FPGA/openfpga/src/xc2par)
```

```
Finished release [optimized] target(s) in 0.07s
```

```
Installing /usr/local/bin/yosys-json-to-intermed-json
```

```
Installing /usr/local/bin/inputgraph-json-par
```

```
Installing /usr/local/bin/intermed-json-to-inputgraph-json
```

```
Installing /usr/local/bin/demo-driver
```

```
Installing /usr/local/bin/xc2par
```

```
dpavlin@klin:/klin/FPGA$ yosys -p "synth_coolrunner2 -json blinky.json" blinky.v
```

```
dpavlin@klin:/klin/FPGA$ xc2par -p xc2c32a-4-vq44 blinky.json
```

```
dpavlin@klin:/klin/FPGA$ ls -al blinky.jed
```

```
-rw-r--r-- 1 dpavlin dpavlin 15870 Nov  5 14:33 blinky.jed
```

```
dpavlin@klin:/klin/FPGA$ git clone https://github.com/azonenberg/jtagghal-cmake
```

```
dpavlin@klin:/klin/FPGA$ cd jtagghal-cmake/
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake$ git submodule init
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake$ git submodule update
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake$ mkdir build
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake$ cd build/
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake/build$ sudo apt-get install libprotobuf-dev protobuf-compiler
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake/build$ cmake ..
```

```
dpavlin@klin:/klin/FPGA/jtagghal-cmake/build$ make
```

## boards

I have two CoolRunner-II boards from Dangerous Prototypes:

### XC2C32A Bus Blaster

- [http://dangerousprototypes.com/docs/Bus\\_Blaster](http://dangerousprototypes.com/docs/Bus_Blaster)
- v2.0a1 and v.2.5 - [http://dangerousprototypes.com/docs/Bus\\_Blaster\\_v2\\_design\\_overview](http://dangerousprototypes.com/docs/Bus_Blaster_v2_design_overview)
- [https://github.com/DangerousPrototypes/Bus\\_Blaster/tree/master/hardware](https://github.com/DangerousPrototypes/Bus_Blaster/tree/master/hardware)

### XC95144XL breakout board

- <http://dangerousprototypes.com/blog/2011/11/24/xc95144xl-breakout-board/>

- [http://dangerousprototypes.com/docs/Ricet : XC95144 CPLD Breakout Board development](http://dangerousprototypes.com/docs/Ricet%20XC95144_CPLD_Breakout_Board_development)
- [https://github.com/scanlime/dangerous-prototypes-open-hardware/tree/master/CPLD\\_Breakout/hard](https://github.com/scanlime/dangerous-prototypes-open-hardware/tree/master/CPLD_Breakout/hard)