Imagine…

Place-and-route
on an ~~Arduino~~
Raspberry Pi!?!

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P&R on Arduino!?!

- Not talking running VPR on an ARM…
- But “cloud” compilation!

- **Barrier to FPGA adoption:**
  mahoosive download, license registration, etc.
  - *Arduino IDE: 0.15GB download…*
  - FPGA Vendor #1 weighs in at 5GB download, 13GB installed, 0.5–2GB RAM
  - FPGA Vendor #2 weighs in at 3GB download 10GB installed, 1-3.5GB RAM

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  - **In the “Cloud”? Nada GB**

P&R on Arduino!?!

- ARM's own “mbed” has had an online IDE since at least 2008
  - You write C++ in a browser, download the compiled binary, and copy it onto the board as you would a USB thumb drive
  - A 12 year old on a cheap tablet can do this…

  This is what we need!

P&R on Arduino!?!

- Why hasn't FPGA industry adopted this?
  - No volume ($$$) in hobbyists
  - Their paying customers would never use this
  - Bigger fish to fry: faster/leaner tools for their ever-bigger devices

- **Up to us in the academic community to make this happen!**