

LaosLaser.org



- The Project (Background)
- The People
- The Idea
- The Technology
- The Status
- The Future



The Project (Background)

- The Project (Background)
- The People
- The Idea
- The Technology
- The Status
- The Future

The Project

- Started because people (Jaap) where unhappy with the closed source software and hardware offered with many (low cost) commercial laser systems
- Various laser systems where standing idle because people could not work with the software
- "easySeal", "newly draw", "corel draw"

The People

- Jaap Vermaas (fablabtruck.nl)
- Peter Brier (pbrier.nl)
- Jerry Jacobs (xor-gate.org, electronics pcb design)
- Bart Bakker (mini fablab: offers system)
- (Siert, Jelle) (ProtoSpace.nl): provide laser system and coffee

The Idea

- Make software and hardware for laser cutters
- Allow you to "JUST PRINT" from any app
- Open source
- Hackable
- Platform independent Linux, Windows, Mac
- Stand alone laser operations

The Technology

- Software:
 - Postscript based CUPS printer driver
 - Conversion to vector(bitmap data via ghostscript and PS2EDIT backend
 - Embedded firmware for laser with TCP/IP, SD-card, I2C display and stepper motor drivers
- Hardware:
 - MBED: LPC1678 cortex M3 ARM
 - Pololu steppers or external driver

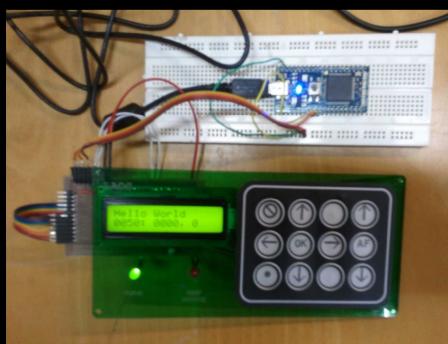
The Technology

- (CUPS) PPD file
- Postscript (PS2EDIT postscript include file)
- PS2EDIT Backend: C++
- Simulator: C#
- Embedded firmware: MBED (C++)
- LCD Driver: Arduino (C++)

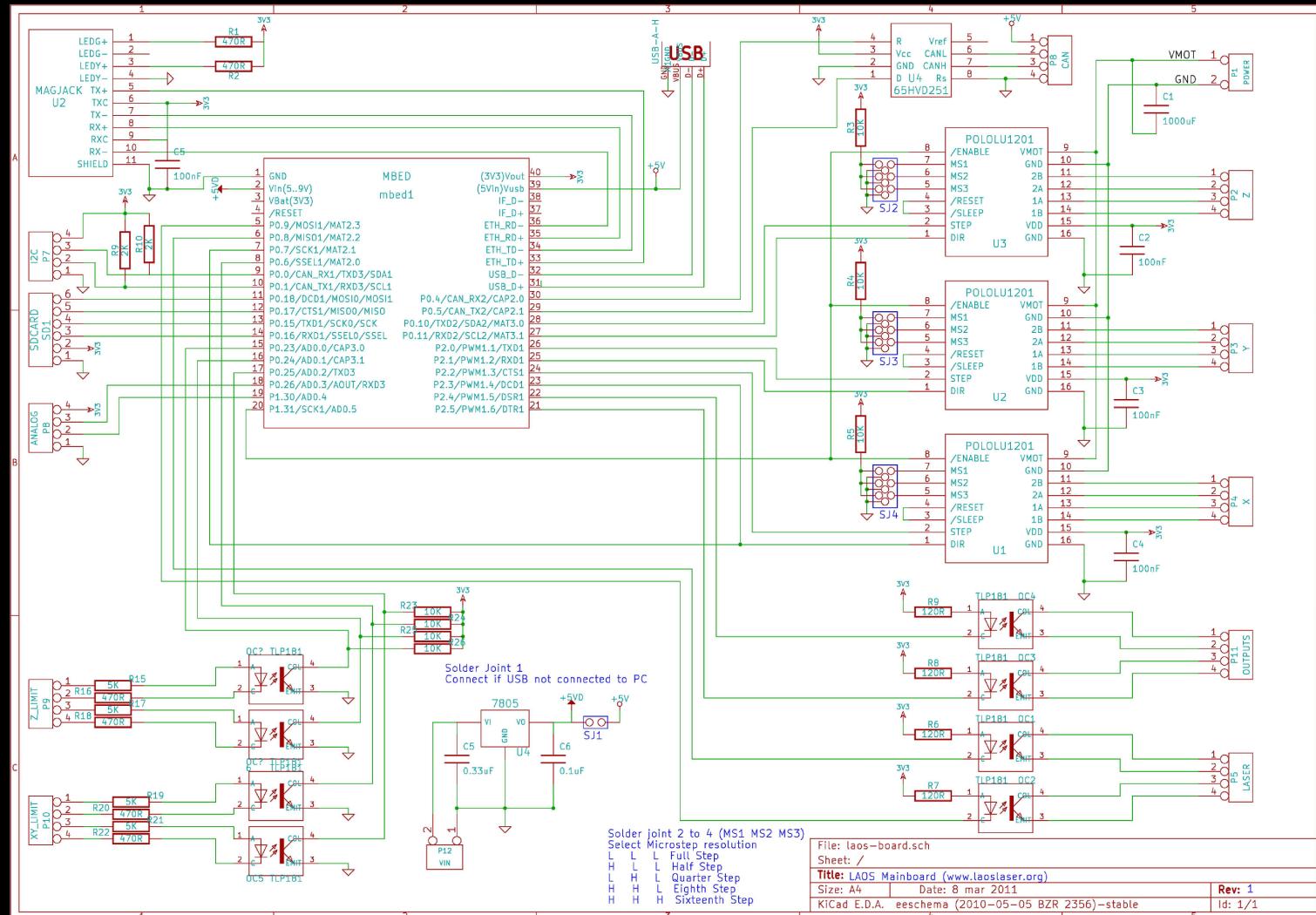
The Status

- Website and wiki, all info online
- Two systems "converted"
- First batch of prototype PCB's (KiCAD!)
- Software working in "concept phase"

The Status: Hardware



The Status: PCB



The Future

- Make board available to developers and to upgrade existing systems
- Further develop the boards
- Make desktop laser system available for early adopters
- Make laser systems fly to the moon!

Questions?

- Can you contribute?