RoboJackets
FIRST - IGVC - BattleBots - RoboCup

Eagle CAD Tutorial
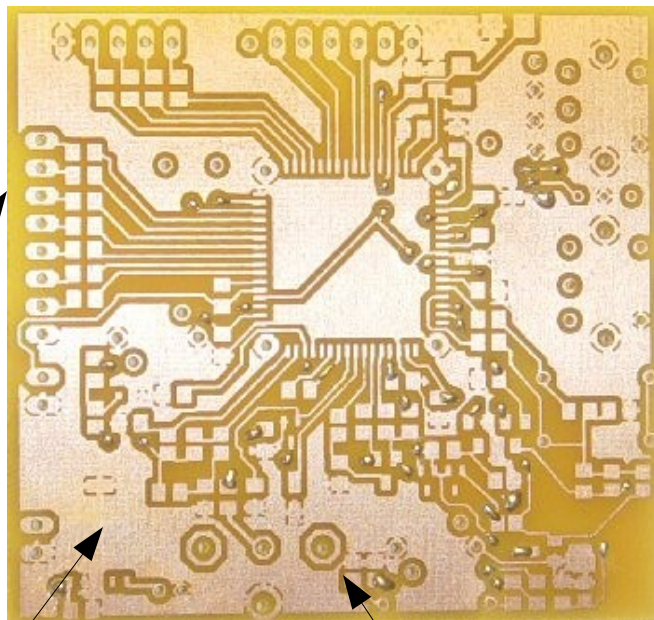
LED Flasher
alternatively flashes two LEDs

What I Did

– Drew schematic by hand

– Selected parts

– Prototyped circuit on breadboard

What I Want

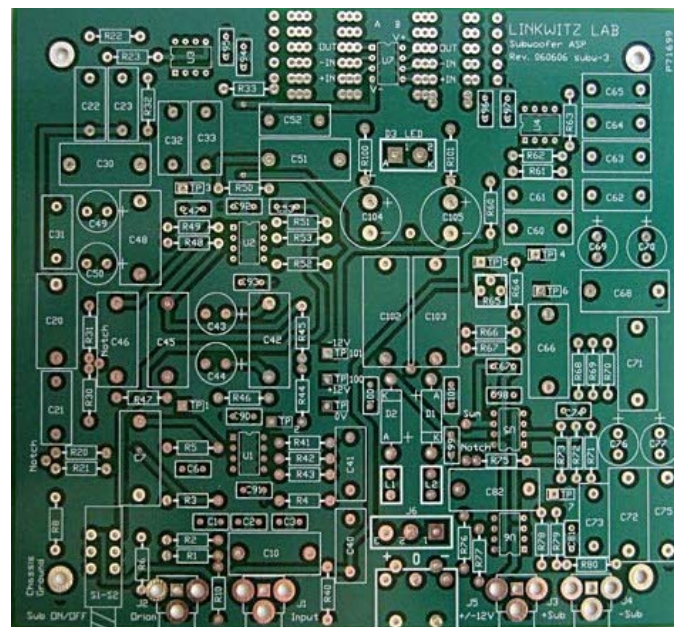– Make a permanent version of the circuit

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What is a Printed Circuit Board

Board
(yellow)

Plating
(light yellow)
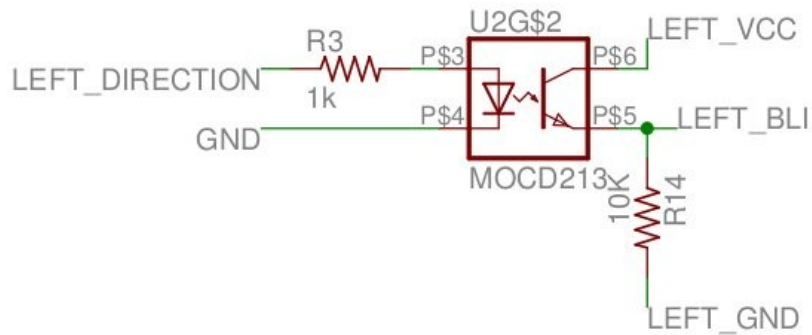wires and pads

Holes
pads, vias, and
mounting

Silkscreen
(white)
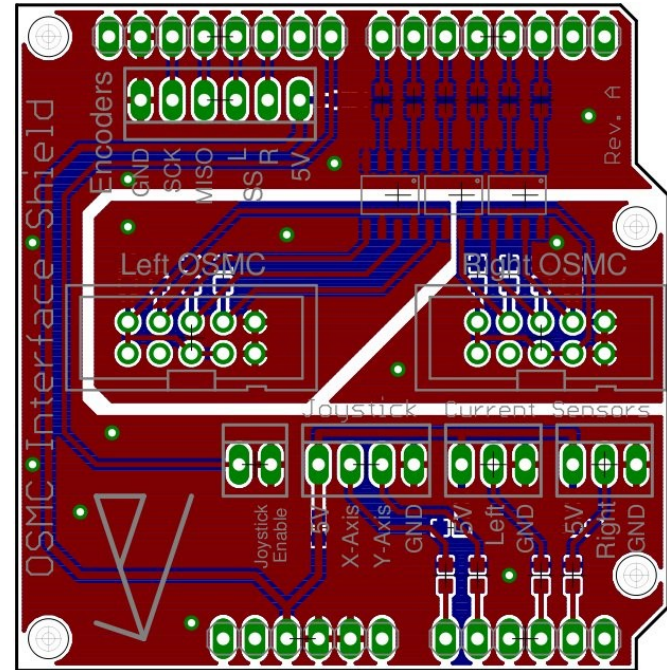for writing notes

Solder Mask
(green)
keeps solder on pads

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Designing a PCB

Schematic
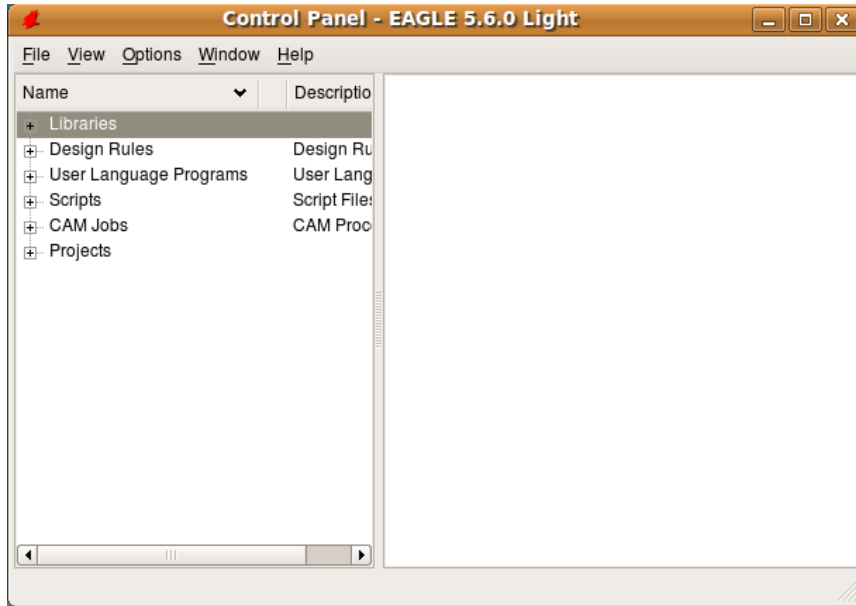Symbolic representation of circuit

Layout
Physical representation of circuit

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What is Eagle

- Schematic capture and board layout program
- Hobbyist's standard
- Freeware version – has a few limitations

alternatives: KiCAD, gEDA, PCB123, utiliboard, others

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