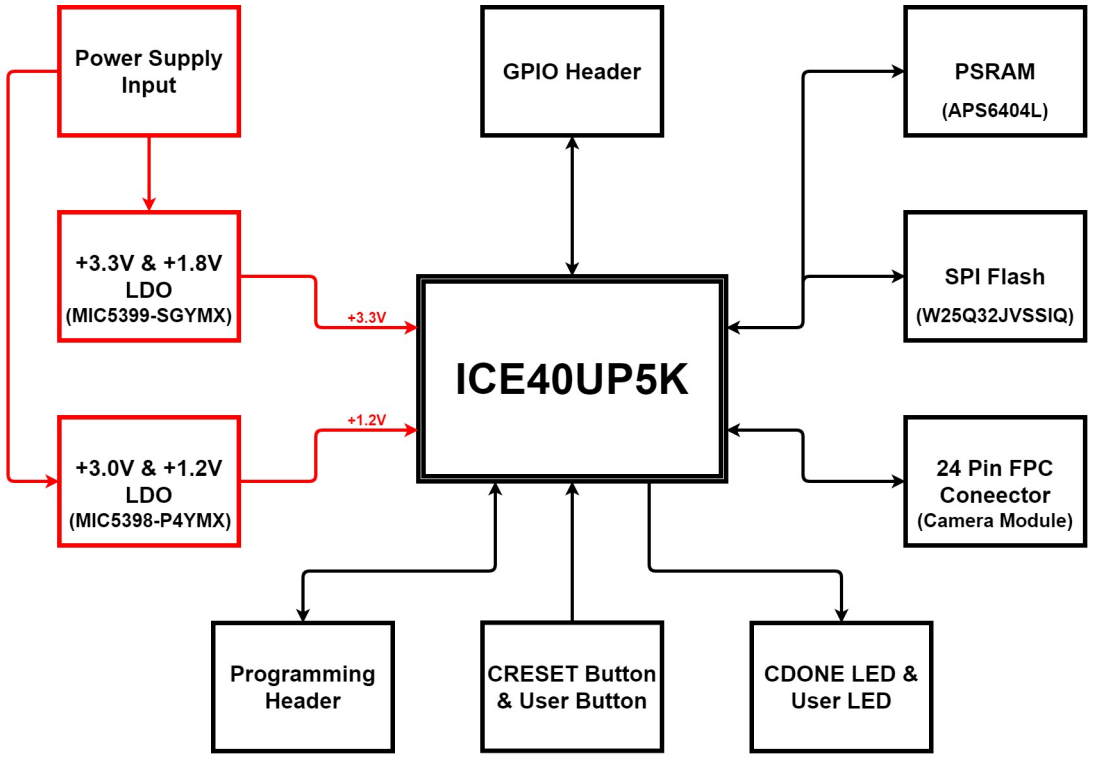
Block Diagram



Sheet: power_supply
File: power_supply.sch

Sheet: iCE40UP5K
File: iCE40UP5K_SG48ITR.sch

Sheet: io_headers
File: io_headers.sch

Sheet: OV7670_spi-flash_SRAM
File: OV7670_spi-flash_SRAM.sch

H1 H2 FID1 FID2 FID3

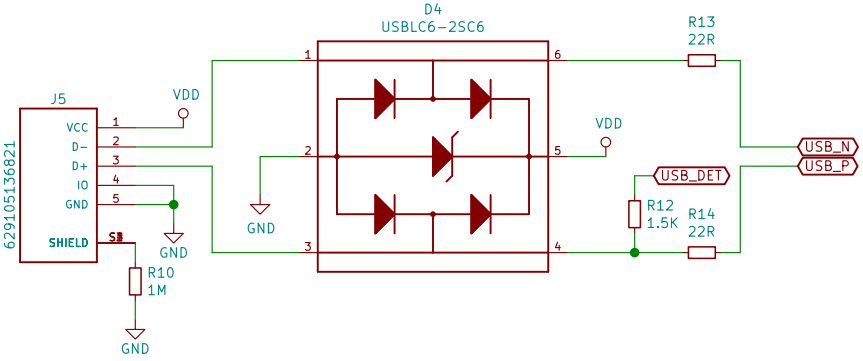
Designed by Mahesh Venkitachalam
Drawn by Sivaprakash
electronut.in
Electronut Labs

Sheet: /
File: fpga-play.sch

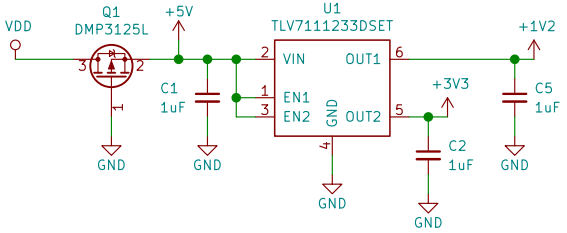
Title: fpga.play

Size: A4	Date: 2020-06-19	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.5)-3		Id: 1/5

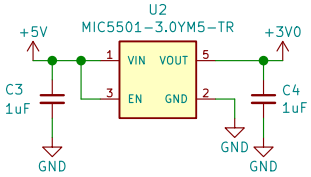
USB Bootloader



Power Supply



Input Voltage
2.5V to 5.5V



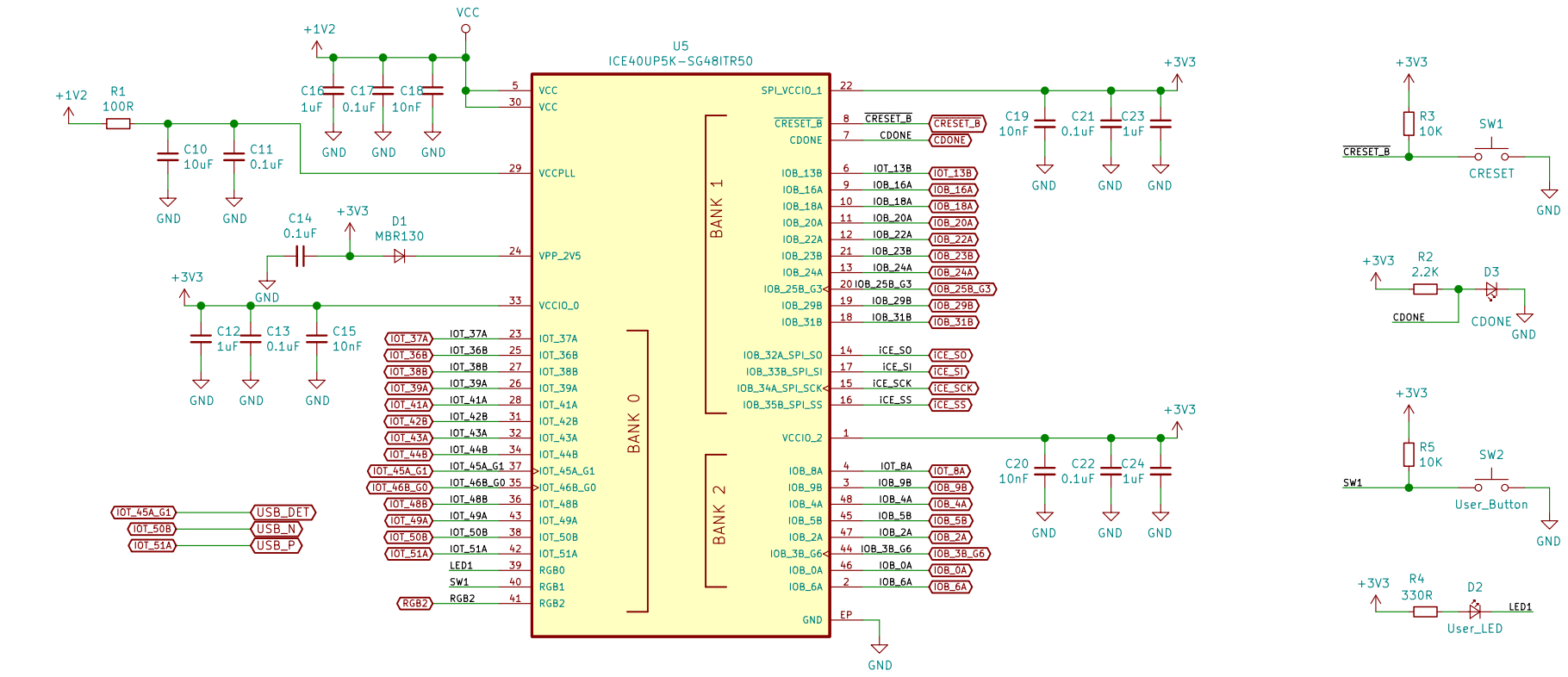
Designed by Mahesh Venkitachalam
Drawn by Sivaprakash
electronut.in
Electronut Labs

Sheet: /power_supply/
File: power_supply.sch

Title: fpga.play

Size: A4	Date: 2020−06−19	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.5)−3		Id: 2/5

ICE40UP5K



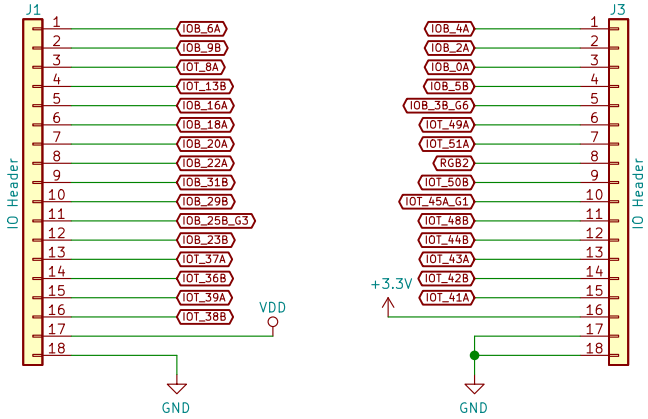
Designed by Mahesh Venkitachalam
Drawn by Sivaprakash
electronut.in
Electronut Labs

Sheet: /iCE40UP5K/
File: iCE40UP5K_SG48ITR.sch

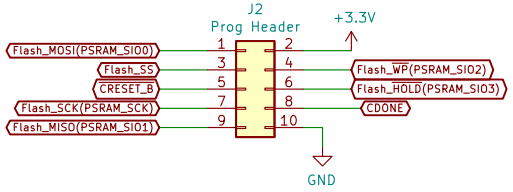
Title: fpga.play

Size: A4	Date: 2020-06-19	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.5)-3		Id: 3/5

GPIO Header



Programming Header



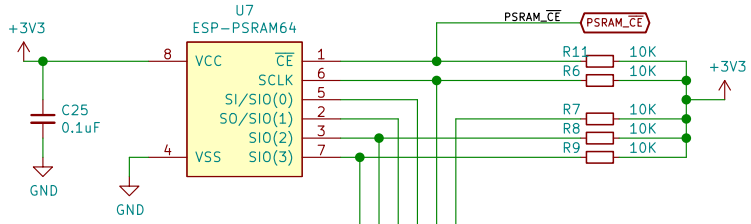
Designed by Mahesh Venkitachalam
Drawn by Sivaprakash
electronut.in
Electronut Labs

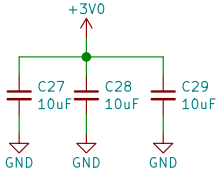
Sheet: /io_headers/
File: io_headers.sch

Title: fpga.play

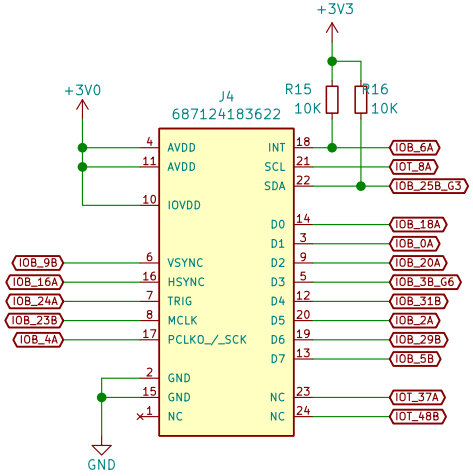
Size: A4	Date: 2020-06-19	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.5)-3		Id: 4/5

PSRAM

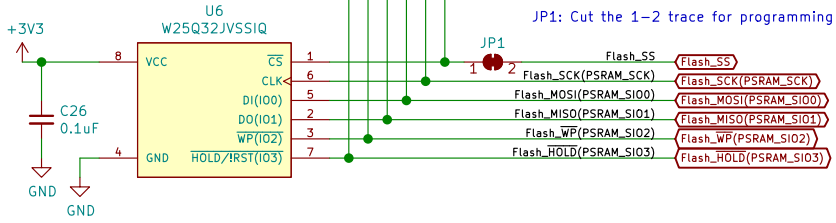


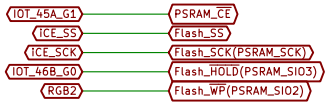


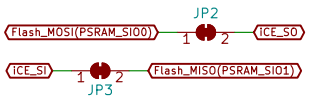
24 Pin FPC Connector



Flash Memory







= For programming Flash

|| For programming FPGA RAM

For programming FPGA RAM directly cut the 1-2 traces from JP2 and JP3 and connect them as 1-1 and 2-2.

Designed by Mahesh Venkitachalam
Drawn by Sivaprakash
electronut.in
Electronut Labs

Sheet: /OV7670_spi-flash_SRAM/
File: OV7670_spi-flash_SRAM.sch

Title: fpga.play

Size: A4	Date: 2020-06-19	**Rev: 0.1**
KiCad E.D.A. kicad (5.1.5)-3		Id: 5/5