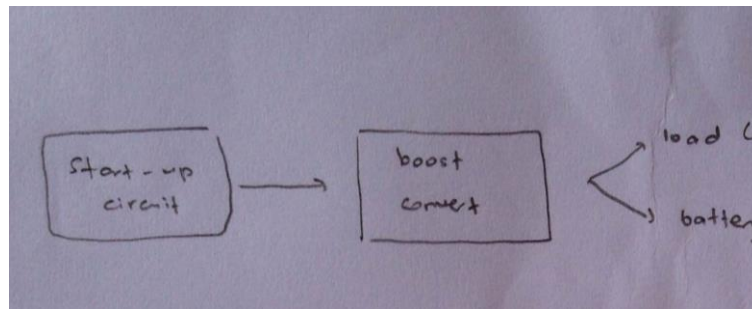
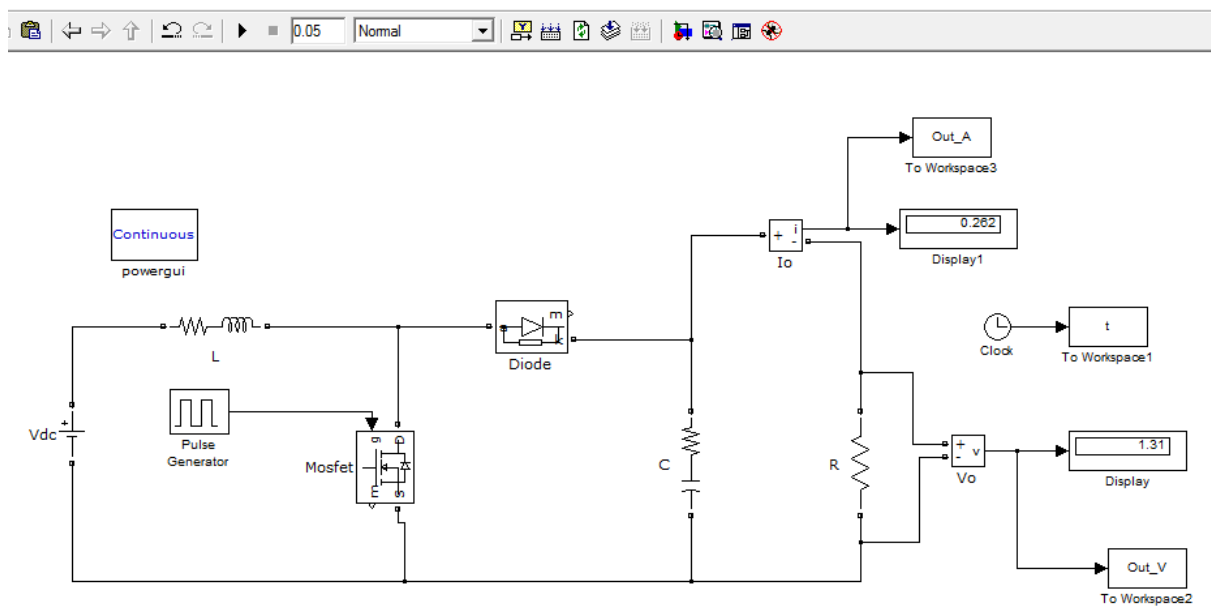


Project's Flow



Boost Converter Circuit



Parameters for Boost Converter Circuit

$$V_{dc} = 0.15 \text{ V}$$

$$L = 0.27 \times 10^{-6} \text{ H}$$

$$R_L = 51.38 \times 10^{-6} \Omega$$

$$C = 15000 \times 10^{-6} \text{ F}$$

$$R_{ESR} = 0.055 \Omega$$

$$R = 5 \Omega$$



Block Parameters: Mosfet

Mosfet (mask) (link)

MOSFET and internal diode in parallel with a series RC snubber circuit. When a gate signal is applied the MOSFET conducts and acts as a resistance (R_{on}) in both directions. If the gate signal falls to zero when current is negative, current is transferred to the antiparallel diode.

For most applications, L_{on} should be set to zero.

Parameters

FET resistance R_{on} (Ohms) :

internal diode inductance L_{on} (H) :

Internal diode resistance R_d (Ohms) :

Internal diode forward voltage V_f (V) :

Initial current I_c (A) :

Snubber resistance R_s (Ohms) :

Snubber capacitance C_s (F) :

☒ Show measurement port

Diode (mask) (link)

Implements a diode in parallel with a series RC snubber circuit.
In on-state the Diode model has an internal resistance (R_{on}) and inductance (L_{on}).
For most applications the internal inductance should be set to zero.
The Diode impedance is infinite in off-state mode.

Parameters

Resistance R_{on} (Ohms) :

Inductance L_{on} (H) :

Forward voltage V_f (V) :

Initial current I_c (A) :

Snubber resistance R_s (Ohms) :

Snubber capacitance C_s (F) :

☒ Show measurement port