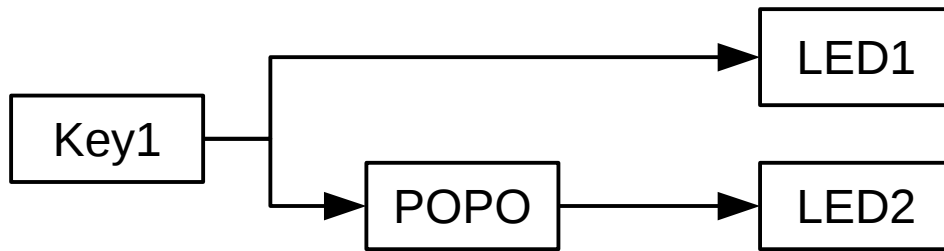


1. Push On / Push Off

Tekan tombol utk mengubah LED2

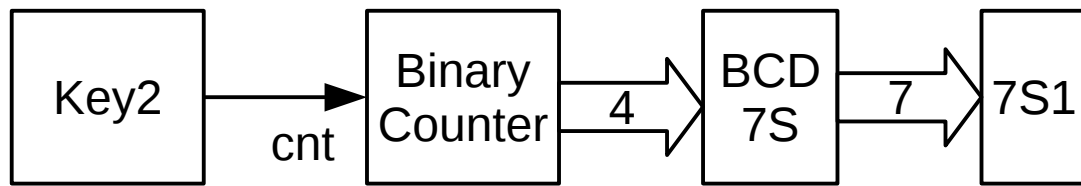


POPO: T-FF / JK-FF (circuit)

2. Counter

2.1 Binary Counter 4 bit

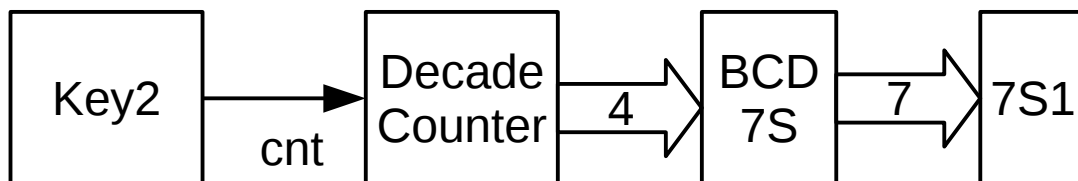
Naik setiap tombol ditekan



Counter: 4 x JK-FF (circuit)

2.2 Decade Counter 4 bit

Naik setiap tombol ditekan, sampai 9 kembali 0

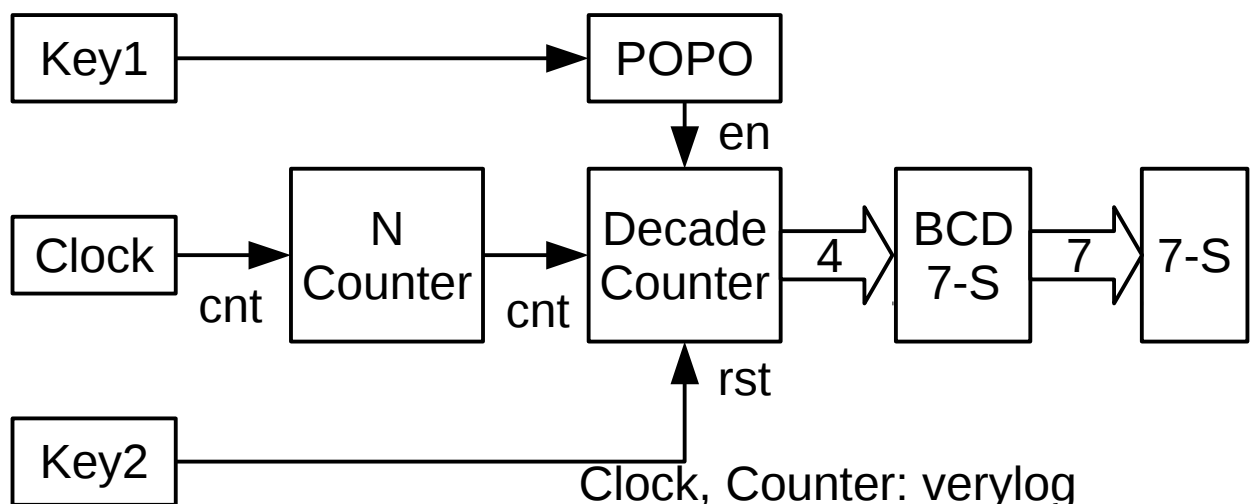


Decade Counter: tambah reset 10

2.3 Counter + POPO

Naik otomatis setiap 3 detik kalau POPO=on

Key2 ditekan, kembali 0



Clock, Counter: verylog

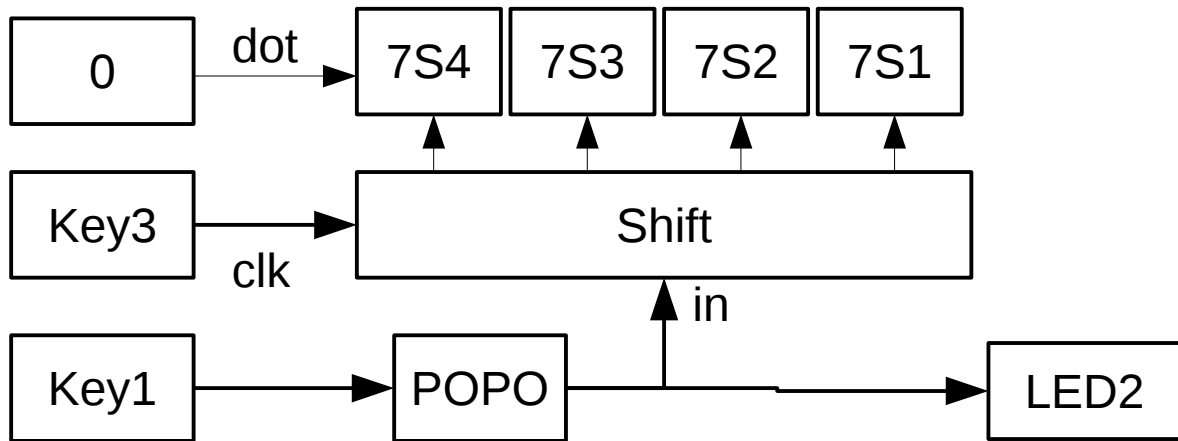
N counter = cacah max, sampai 3 detik
(verilog)

3. Shift Register

3.1 Shift 4 bit

Key1 + POPO = input

Key3 = Dot bergeser

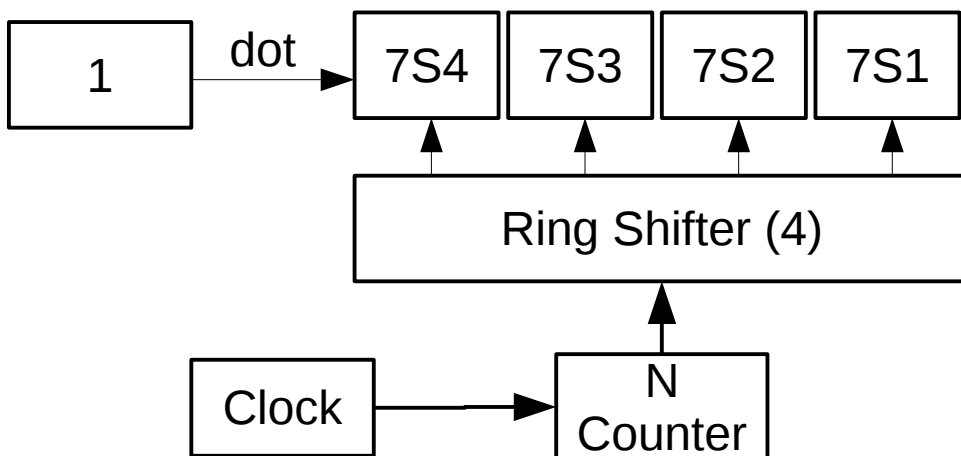


Shift: 4xD-FF (circuit)

3.2 Ring Shift Register

Dot bergeser secara otomatis tiap 3 detik

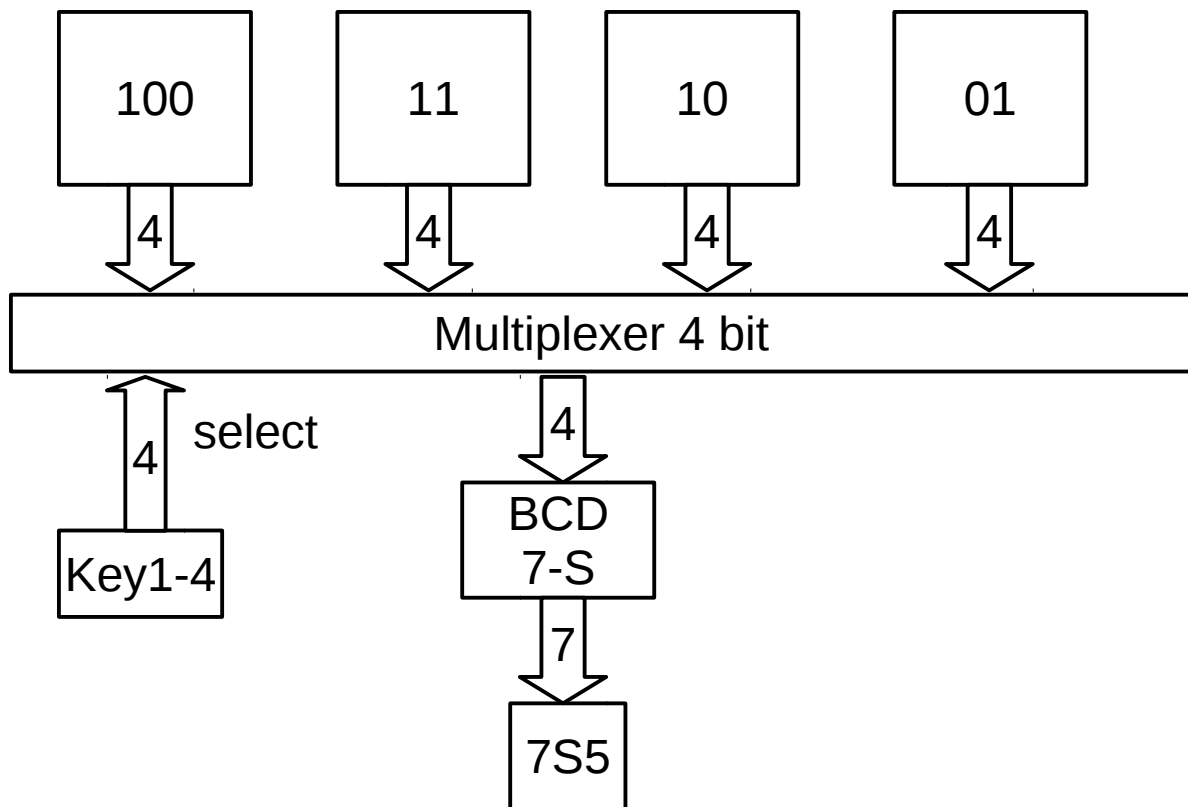
Lalu coba turunkan sampai 20 mili detik



Shifter : 4xD-FF (circuit)

4. Multiplexer

7S menampilkan nomor key yang ditekan (1-4)

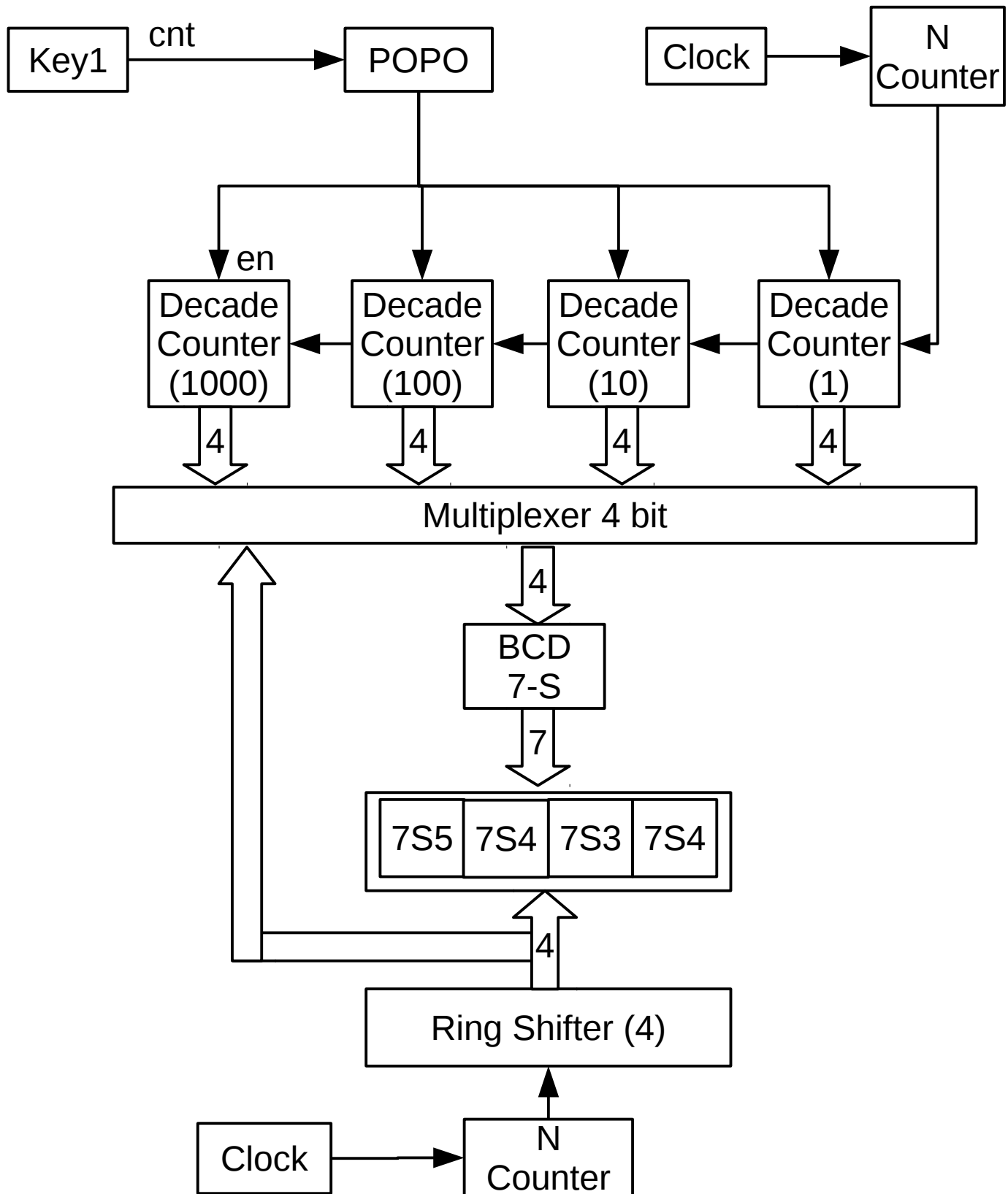


Multiplex: verylog (switch saja)

5. Aplikasi Stop Watch

Jika POPO=on,

cacahan naik otomatis setiap 1 detik, bisa sampai 9999



Decade Counter cascade

N Counter => decade counter = 1 detik

N Counter => Ring Shifter = 20 ms