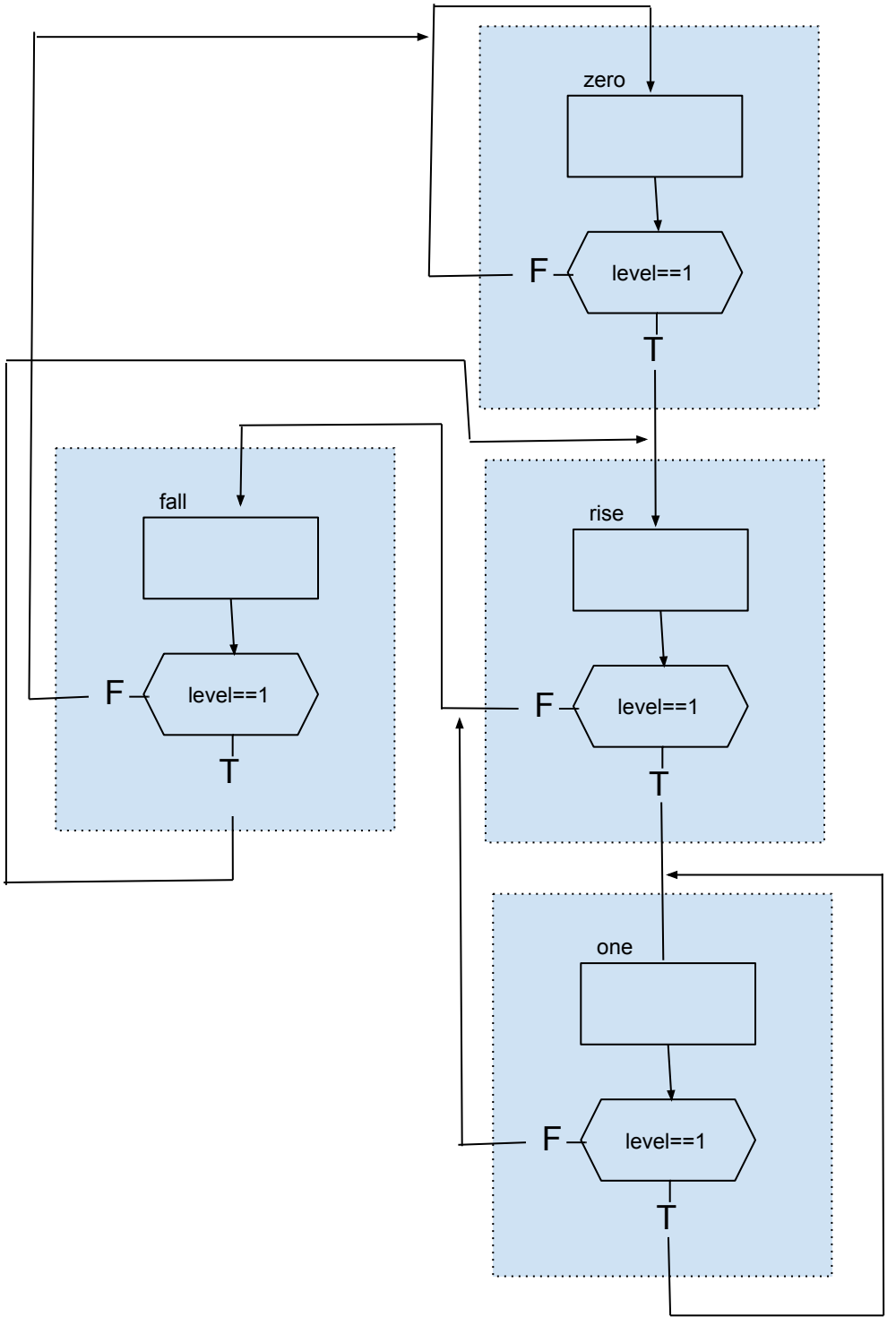DUAL EDGE DETECTOR ASM
(Algorithmic State Machine)