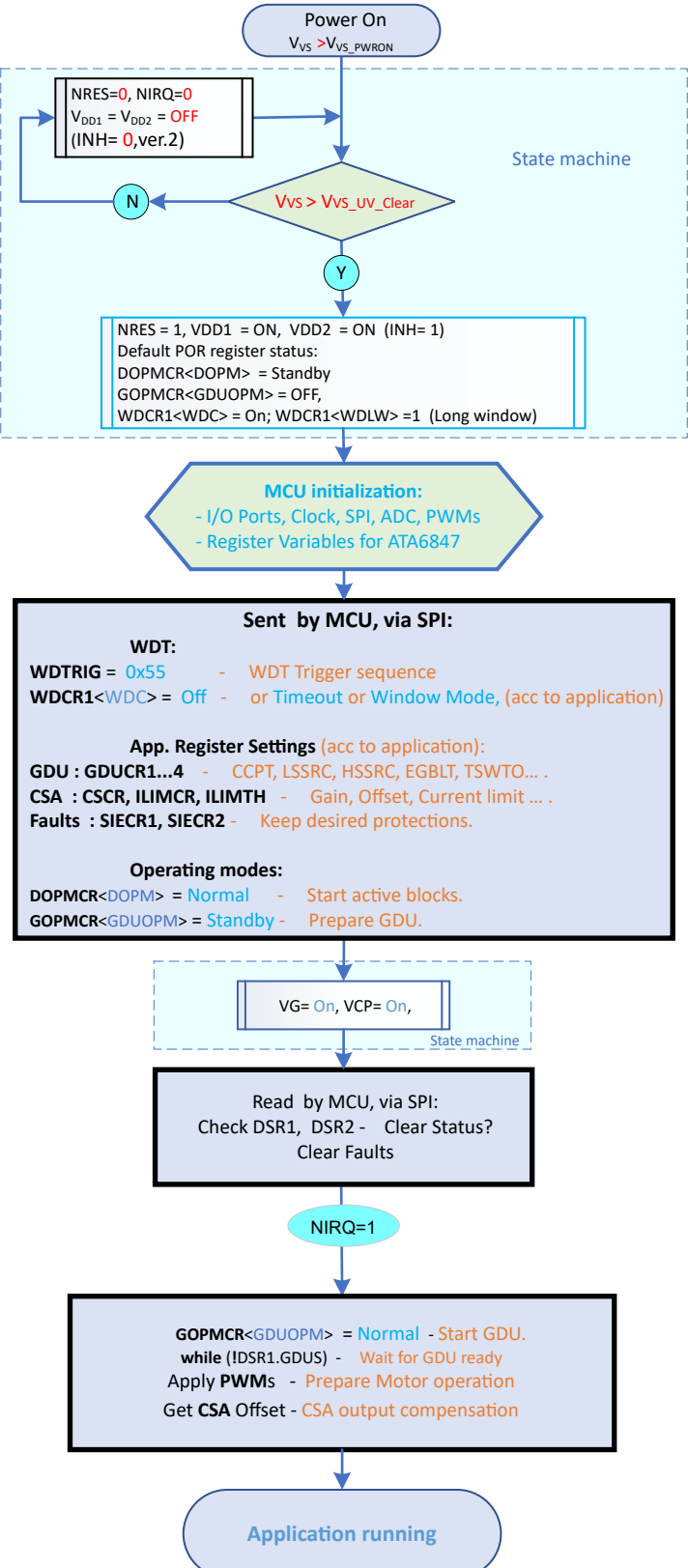
Power On
VVS >VVS_PWRON
NRES=0, NIRQ=0
VDD1 = VDD2 = OFF
(INH= 0,ver.2)
State machine
N
VVS > VVS_UV_Clear
Y
NRES = 1, VDD1 = ON, VDD2 = ON (INH= 1)
Default POR register status:
DOPMCR<DOPM> = Standby
GOPMCR<GDUOPM> = OFF,
WDCR1<WDC> = On; WDCR1<WDLW> =1 (Long window)
MCU initialization:
- I/O Ports, Clock, SPI, ADC, PWMs
- Register Variables for ATA6847
Sent by MCU, via SPI:
WDT:
WDTRIG = 0x55 - WDT Trigger sequence
WDCR1<WDC> = Off - or Timeout or Window Mode, (acc to application)
App. Register Settings (acc to application):
GDU : GDUCR1...4 - CCPT, LSSRC, HSSRC, EGBLT, TSWTO... .
CSA : CSCR, ILIMCR, ILIMTH - Gain, Offset, Current limit ... .
Faults : SIECR1, SIECR2 - Keep desired protections.
Operating modes:
DOPMCR<DOPM> = Normal - Start active blocks.
GOPMCR<GDUOPM> = Standby - Prepare GDU.
VG= On, VCP= On,
State machine
Read by MCU, via SPI:
Check DSR1, DSR2 - Clear Status?
Clear Faults
NIRQ=1
GOPMCR<GDUOPM> = Normal - Start GDU.
while (!DSR1.GDUS) - Wait for GDU ready
Apply PWMs - Prepare Motor operation
Get CSA Offset - CSA output compensation
Application running