TEST A

BATTERY :

Max Battery Current Limit (Amp)	17.0
Max Battery Power (Watt)	625
Max Battery Current (Amp)	16.0
Battery Cells Number (7 ... 14)	10
Battery Low Voltage Cut-Off	29.0
Battery Pack Resistance (milli Ohm)	196
Battery Voltage for FOC calc. (Volt)	36.0
Li-Ion Cell Volt at 100% (Volt)	4.25
Li-Ion Cell Volt at 83% (Volt)	3.96
Li-Ion Cell Volt at 50% (Volt)	3.70
Li-Ion Cell Volt at 17% (Volt)	3.44
Li-Ion Cell Volt at 10% (Volt)	3.30
Li-Ion Cell Volt at 0% (Volt)	3.00
SOC Battery Voltage Filter Coefficient	4
SOC Battery Current Filter Coefficient	4
SOC ADC Battery per ADC step (Volt)	0.0866
MOT Battery Voltage Filter Coefficient	2
MOT Battery Current Filter Coefficient	2

MOTOR :

◉ Motor 36V   ○ Motor 48V
☐ Experimental High Cadence Mode
☐ Assistance Without Pedal Rotation

Max Motor Power (Watt)	500
Motor Phase Max Current (Amp)	30.0
Motor Rotor Offset Angle (Degree)	10
Motor Rotor ERPS Interpolation 60 deg.	10
Motor Over Speed ERPS	520
Motor Over Speed ERPS Experimental	700
Reserved	0
Reserved	0

PWM DUTY CYCLE :

PWM Frequency (Hertz)	15625
PWM Duty Cycle Min (0 ... 255)	20
PWM Duty Cycle Max (0 ... 255)	254
PWM Duty Cycle Ramp Up (milliSec)	2.5
PWM Duty Cycle Ramp Dw (milliSec)	2.5
Reserved	0
Reserved	0

WHEEL :

Default Wheel Perimeter (mm)	2083
Default Wheel Speed Max (Km/h)	45
VLCD6 Wheel Speed Factor	315
Wheel Speed Sensor Max PWM Ticks	1166
Wheel Speed Sensor Min PWM Ticks	65534
Wheel Speed PI Controller KP Dividend	100
Wheel Speed PI Controller KP Divisor	4
Wheel Speed PI Controller KI Dividend	40
Wheel Speed PI Controller KI Divisor	6
Reserved	0
Reserved	0

PAS :

PAS Number of Magnets	20
Reserved	0
Reserved	0

PEDAL ASSIST :

Default Assist Level Value (10 ... 500%)	40
Assist Level 1-Eco (10 ... 500%)	40
Assist Level 2-Tour (10 ... 500%)	100
Assist Level 3-Sport (10 ... 500%)	200
Assist Level 4-Turbo (10 ... 500%)	300

THROTTLE :

ADC Throttle Threshold (0 ... 255)	10
Throttle Filter Coefficient (0 ... 255)	1
ADC Throttle Range Min Value (0 ... 255)	47
ADC Throttle Range Max Value (0 ... 255)	176

TORQUE SENSOR :

ADC Torque Sensor Threshold (0 ... 255)	6
Pedal Torque Sensor Force per Unit (Nm)	0.52
Reserved	0

WALK ASSIST:

Walk Assist PWM Level 0 (max 100%)	15
Walk Assist PWM Level 1 (max 100%)	20
Walk Assist PWM Level 2 (max 100%)	22
Walk Assist PWM Level 3 (max 100%)	25
Walk Assist PWM Level 4 (max 100%)	95
Walk Assist Current (max 100%)	20
Walk Assist Max Ramp (0.0 ... 25.5 sec)	2.0
Walk Assist Range Min Value (0 ... 255)	0
Walk Assist Range Max Value (0 ... 255)	100

OFFROAD MODE :

Offroad Speed Limit (Km/h)	25
Offroad Power Limit (Watt)	250

MOTOR POWER BOOST :

☑ Limit Motor Boost to Max Power

Startup Motor Boost Level 1 (max 100%)	15
Startup Motor Boost Level 2 (max 100%)	43
Startup Motor Boost Level 3 (max 100%)	72
Startup Motor Boost Level 4 (max 100%)	100
Startup Motor Boost Time (max 25.5 sec)	2.0
Startup Motor Boost Fade (max 25.5 sec)	3.5

CRUISE CONTROL :

Cruise Control Min (0 ... 255)	20
Reserved	0

MOTOR TEMPERATURE :

Motor Temperature Min Limit (Celsius)	75
Motor Temperature Max Limit (Celsius)	85
Motor Temperature Filter (0 ... 255)	4

ENABLES :

◉ VLCD6   ○ KT-LCD3   ○ Reserved
☐ Throttle   ☑ Brake Sensors
◉ Lights (Button Dw)   ◉ Offroad (Button Dw)
☐ Offroad On Startup   ☑ Offroad Limit
☑ Wheel Perimeter   ☐ Wheel Max Speed
☑ Walk Assist   ☐ VLCD6 Always On
☑ Motor Working Flag   ☑ Wheel Turning Flag
○ Boost (Button Dw)   ☐ Temperature Limit
◉ Boost at Speed 0   ○ Boost at Cadence 0

Proven Settings

Default_TSDZ2_Configurator.ini

Experimental Settings

TSDZ2_Config_TEST_A_20190109_25_45kph.ini
TSDZ2_Config_TEST_B_20190109_25_45kph.ini
TSDZ2_Config_TEST_C_20190109_25_45kph.ini

ST Visual Programmer (STVP) install directory:

Program Files (x86)\STMicroelectronics\st_toolset\stvp

☐ Save file .ini (when compile)

Compile   Magic Byte 170   Program

DATA MEMORY:

16 500

```
00004000  AA 04 00 10 32 22 01 23 08 2D 01 05 19 0A 0A C4   ....2".#.—......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;..........#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ...............
00004040  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ...............
00004050  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ...............
00004060  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ...............
00004070  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ...............
```

TEST B

TDSZ2 Controller's Parameters Configurator ver. 0.1.3 (by marcoq) | Project Repository | Thanks to stancecoke | Note: Colored fields used by VLCD6 selection | Help

BATTERY :

Parameter	Value
Max Battery Current Limit (Amp)	16
Max Battery Power (Watt)	625
Max Battery Current (Amp)	15
Battery Cells Number (7 ... 14)	10
Battery Low Voltage Cut-Off	29.0
Battery Pack Resistance (milli Ohm)	196
Battery Voltage for FOC calc. (Volt)	36.0
Li-Ion Cell Volt at 100% (Volt)	4.25
Li-Ion Cell Volt at 83% (Volt)	3.96
Li-Ion Cell Volt at 50% (Volt)	3.70
Li-Ion Cell Volt at 17% (Volt)	3.44
Li-Ion Cell Volt at 10% (Volt)	3.30
Li-Ion Cell Volt at 0% (Volt)	3.00
SOC Battery Voltage Filter Coefficient	4
SOC Battery Current Filter Coefficient	4
SOC ADC Battery per ADC step (Volt)	0.0866
MOT Battery Voltage Filter Coefficient	2
MOT Battery Current Filter Coefficient	2

MOTOR :

- ◉ Motor 36V   ○ Motor 48V
- ☐ Experimental High Cadence Mode
- ☐ Assistance Without Pedal Rotation

Parameter	Value
Max Motor Power (Watt)	450
Motor Phase Max Current (Amp)	30.0
Motor Rotor Offset Angle (Degree)	10
Motor Rotor ERPS Interpolation 60 deg.	10
Motor Over Speed ERPS	520
Motor Over Speed ERPS Experimental	700
Reserved	0
Reserved	0

PWM DUTY CYCLE :

Parameter	Value
PWM Frequency (Hertz)	15625
PWM Duty Cycle Min (0 ... 255)	20
PWM Duty Cycle Max (0 ... 255)	254
PWM Duty Cycle Ramp Up (milliSec)	2.5
PWM Duty Cycle Ramp Dw (milliSec)	2.5
Reserved	0
Reserved	0

WHEEL :

Parameter	Value
Default Wheel Perimeter (mm)	2083
Default Wheel Speed Max (Km/h)	45
VLCD6 Wheel Speed Factor	315
Wheel Speed Sensor Max PWM Ticks	1166
Wheel Speed Sensor Min PWM Ticks	65534
Wheel Speed PI Controller KP Dividend	100
Wheel Speed PI Controller KP Divisor	4
Wheel Speed PI Controller KI Dividend	40
Wheel Speed PI Controller KI Divisor	6
Reserved	0
Reserved	0

PAS :

Parameter	Value
PAS Number of Magnets	20
Reserved	0
Reserved	0

PEDAL ASSIST :

Parameter	Value
Default Assist Level Value (10 ... 500%)	40
Assist Level 1-Eco (10 ... 500%)	40
Assist Level 2-Tour (10 ... 500%)	100
Assist Level 3-Sport (10 ... 500%)	200
Assist Level 4-Turbo (10 ... 500%)	300

THROTTLE :

Parameter	Value
ADC Throttle Threshold (0 ... 255)	10
Throttle Filter Coefficient (0 ... 255)	1
ADC Throttle Range Min Value (0 ... 255)	47
ADC Throttle Range Max Value (0 ... 255)	176

TORQUE SENSOR :

Parameter	Value
ADC Torque Sensor Threshold (0 ... 255)	6
Pedal Torque Sensor Force per Unit (Nm)	0.52
Reserved	0

WALK ASSIST:

Parameter	Value
Walk Assist PWM Level 0 (max 100%)	15
Walk Assist PWM Level 1 (max 100%)	20
Walk Assist PWM Level 2 (max 100%)	22
Walk Assist PWM Level 3 (max 100%)	25
Walk Assist PWM Level 4 (max 100%)	95
Walk Assist Current (max 100%)	20
Walk Assist Max Ramp (0.0 ... 25.5 sec)	2.0
Walk Assist Range Min Value (0 ... 255)	0
Walk Assist Range Max Value (0 ... 255)	100

OFFROAD MODE :

Parameter	Value
Offroad Speed Limit (Km/h)	25
Offroad Power Limit (Watt)	250

MOTOR POWER BOOST :

☑ Limit Motor Boost to Max Power

Parameter	Value
Startup Motor Boost Level 1 (max 100%)	15
Startup Motor Boost Level 2 (max 100%)	43
Startup Motor Boost Level 3 (max 100%)	72
Startup Motor Boost Level 4 (max 100%)	100
Startup Motor Boost Time (max 25.5 sec)	2.0
Startup Motor Boost Fade (max 25.5 sec)	3.5

CRUISE CONTROL :

Parameter	Value
Cruise Control Min (0 ... 255)	20
Reserved	0

MOTOR TEMPERATURE :

Parameter	Value
Motor Temperature Min Limit (Celsius)	75
Motor Temperature Max Limit (Celsius)	85
Motor Temperature Filter (0 ... 255)	4

ENABLES :

- ◉ VLCD6   ○ KT-LCD3   ○ Reserved
- ☐ Throttle   ☑ Brake Sensors
- ◉ Lights (Button Dw)   ◉ Offroad (Button Dw)
- ☐ Offroad On Startup   ☑ Offroad Limit
- ☑ Wheel Perimeter   ☐ Wheel Max Speed
- ☑ Walk Assist   ☐ VLCD6 Always On
- ☑ Motor Working Flag   ☑ Wheel Turning Flag
- ○ Boost (Button Dw)   ☐ Temperature Limit
- ◉ Boost at Speed 0   ○ Boost at Cadence 0

Proven Settings

Default_TSDZ2_Configurator.ini

Experimental Settings

TSDZ2_Config_TEST_A_20190109_25_45kph.ini
TSDZ2_Config_TEST_B_20190109_25_45kph.ini
TSDZ2_Config_TEST_C_20190109_25_45kph.ini

ST Visual Programmer (STVP) install directory:

Program Files (x86)\STMicroelectronics\st_toolset\stvp

☐ Save file .ini (when compile)

| Compile | Magic Byte 170 | Program |

DATA MEMORY:


```
          15   450
00004000  AA 04 00 0F 2D 22 01 23 08 2D 01 05 19 0A 0A C4   ....-".#.-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004040  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004050  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004060  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004070  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004080  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004090  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
```

TEST C

BATTERY :

Max Battery Current Limit (Amp)	15
Max Battery Power (Watt)	625
Max Battery Current (Amp)	14
Battery Cells Number (7 ... 14)	10
Battery Low Voltage Cut-Off	29.0
Battery Pack Resistance (milli Ohm)	196
Battery Voltage for FOC calc. (Volt)	36.0
Li-Ion Cell Volt at 100% (Volt)	4.25
Li-Ion Cell Volt at 83% (Volt)	3.96
Li-Ion Cell Volt at 50% (Volt)	3.70
Li-Ion Cell Volt at 17% (Volt)	3.44
Li-Ion Cell Volt at 10% (Volt)	3.30
Li-Ion Cell Volt at 0% (Volt)	3.00
SOC Battery Voltage Filter Coefficient	4
SOC Battery Current Filter Coefficient	4
SOC ADC Battery per ADC step (Volt)	0.0866
MOT Battery Voltage Filter Coefficient	2
MOT Battery Current Filter Coefficient	2

MOTOR :

- ● Motor 36V   ○ Motor 48V
- ☐ Experimental High Cadence Mode
- ☐ Assistance Without Pedal Rotation

Max Motor Power (Watt)	350
Motor Phase Max Current (Amp)	30.0
Motor Rotor Offset Angle (Degree)	10
Motor Rotor ERPS Interpolation 60 deg.	10
Motor Over Speed ERPS	520
Motor Over Speed ERPS Experimental	700
Reserved	0
Reserved	0

PWM DUTY CYCLE :

PWM Frequency (Hertz)	15625
PWM Duty Cycle Min (0 ... 255)	20
PWM Duty Cycle Max (0 ... 255)	254
PWM Duty Cycle Ramp Up (milliSec)	2.5
PWM Duty Cycle Ramp Dw (milliSec)	2.5
Reserved	0
Reserved	0

WHEEL :

Default Wheel Perimeter (mm)	2083
Default Wheel Speed Max (Km/h)	45
VLCD6 Wheel Speed Factor	315
Wheel Speed Sensor Max PWM Ticks	1166
Wheel Speed Sensor Min PWM Ticks	65534
Wheel Speed PI Controller KP Dividend	100
Wheel Speed PI Controller KP Divisor	4
Wheel Speed PI Controller KI Dividend	40
Wheel Speed PI Controller KI Divisor	6
Reserved	0
Reserved	0

PAS :

PAS Number of Magnets	20
Reserved	0
Reserved	0

PEDAL ASSIST :

Default Assist Level Value (10 ... 500%)	40
Assist Level 1-Eco (10 ... 500%)	40
Assist Level 2-Tour (10 ... 500%)	100
Assist Level 3-Sport (10 ... 500%)	200
Assist Level 4-Turbo (10 ... 500%)	300

THROTTLE :

ADC Throttle Threshold (0 ... 255)	10
Throttle Filter Coefficient (0 ... 255)	1
ADC Throttle Range Min Value (0 ... 255)	47
ADC Throttle Range Max Value (0 ... 255)	176

TORQUE SENSOR :

ADC Torque Sensor Threshold (0 ... 255)	6
Pedal Torque Sensor Force per Unit (Nm)	0.52
Reserved	0

WALK ASSIST :

Walk Assist PWM Level 0 (max 100%)	15
Walk Assist PWM Level 1 (max 100%)	20
Walk Assist PWM Level 2 (max 100%)	22
Walk Assist PWM Level 3 (max 100%)	25
Walk Assist PWM Level 4 (max 100%)	95
Walk Assist Current (max 100%)	20
Walk Assist Max Ramp (0.0 ... 25.5 sec)	2.0
Walk Assist Range Min Value (0 ... 255)	0
Walk Assist Range Max Value (0 ... 255)	100

OFFROAD MODE :

Offroad Speed Limit (Km/h)	25
Offroad Power Limit (Watt)	250

MOTOR POWER BOOST :

- ☑ Limit Motor Boost to Max Power

Startup Motor Boost Level 1 (max 100%)	15
Startup Motor Boost Level 2 (max 100%)	43
Startup Motor Boost Level 3 (max 100%)	72
Startup Motor Boost Level 4 (max 100%)	100
Startup Motor Boost Time (max 25.5 sec)	2.0
Startup Motor Boost Fade (max 25.5 sec)	3.5

CRUISE CONTROL :

Cruise Control Min (0 ... 255)	20
Reserved	0

MOTOR TEMPERATURE :

Motor Temperature Min Limit (Celsius)	75
Motor Temperature Max Limit (Celsius)	85
Motor Temperature Filter (0 ... 255)	4

ENABLES :

- ● VLCD6   ○ KT-LCD3   ○ Reserved
- ☐ Throttle   ☑ Brake Sensors
- ● Lights (Button Dw)   ● Offroad (Button Dw)
- ☐ Offroad On Startup   ☑ Offroad Limit
- ☑ Wheel Perimeter   ☐ Wheel Max Speed
- ☑ Walk Assist   ☐ VLCD6 Always On
- ☑ Motor Working Flag   ☑ Wheel Turning Flag
- ☐ Boost (Button Dw)   ☐ Temperature Limit
- ● Boost at Speed 0   ● Boost at Cadence 0

Proven Settings

Default_TSDZ2_Configurator.ini

Experimental Settings

TSDZ2_Config_TEST_A_20190109_25_45kph.ini
TSDZ2_Config_TEST_B_20190109_25_45kph.ini
TSDZ2_Config_TEST_C_20190109_25_45kph.ini

ST Visual Programmer (STVP) install directory:

Program Files (x86)\STMicroelectronics\st_toolset\stvp

☐ Save file .ini (when compile)

Compile	Magic Byte 170	**Program**

DATA MEMORY:

(handwritten annotations: 14, 350)

```
00004000  AA 04 00 0E 23 22 01 23 08 2D 01 05 19 0A 0A C4   .....#".#.-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?.......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004040  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004050  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004060  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004070  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004080  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
00004090  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
000040A0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
000040B0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
000040C0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
000040D0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
000040E0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
000040F0  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
```

TEST FINALE basato su TEST A + 29" e OFFROAD ON STARTUP

TDSZ2 Controller's Parameters Configurator ver. 0.1.3 (by marcoq)　　Project Repository　　Thanks to stancecoke　　Note: Colored fields used by VLCD6 selection　　Help

BATTERY :

Max Battery Current Limit (Amp)	17.0
Max Battery Power (Watt)	625
Max Battery Current (Amp)	16.0
Battery Cells Number (7 ... 14)	10
Battery Low Voltage Cut-Off	29.0
Battery Pack Resistance (milli Ohm)	196
Battery Voltage for FOC calc. (Volt)	36.0
Li-Ion Cell Volt at 100% (Volt)	4.25
Li-Ion Cell Volt at 83% (Volt)	3.96
Li-Ion Cell Volt at 50% (Volt)	3.70
Li-Ion Cell Volt at 17% (Volt)	3.44
Li-Ion Cell Volt at 10% (Volt)	3.30
Li-Ion Cell Volt at 0% (Volt)	3.00
SOC Battery Voltage Filter Coefficient	4
SOC Battery Current Filter Coefficient	4
SOC ADC Battery per ADC step (Volt)	0.0866
MOT Battery Voltage Filter Coefficient	2
MOT Battery Current Filter Coefficient	2

MOTOR :

- ● Motor 36V　　○ Motor 48V
- ☐ Experimental High Cadence Mode
- ☐ Assistance Without Pedal Rotation

Max Motor Power (Watt)	500
Motor Phase Max Current (Amp)	30.0
Motor Rotor Offset Angle (Degree)	10
Motor Rotor ERPS Interpolation 60 deg.	10
Motor Over Speed ERPS	520
Motor Over Speed ERPS Experimental	700
Reserved	0
Reserved	0

PWM DUTY CYCLE :

PWM Frequency (Hertz)	15625
PWM Duty Cycle Min (0 ... 255)	20
PWM Duty Cycle Max (0 ... 255)	254
PWM Duty Cycle Ramp Up (milliSec)	2.5
PWM Duty Cycle Ramp Dw (milliSec)	2.5
Reserved	0
Reserved	0

WHEEL :

Default Wheel Perimeter (mm)	2287
Default Wheel Speed Max (Km/h)	45
VLCD6 Wheel Speed Factor	315
Wheel Speed Sensor Max PWM Ticks	1166
Wheel Speed Sensor Min PWM Ticks	65534
Wheel Speed PI Controller KP Dividend	100
Wheel Speed PI Controller KP Divisor	4
Wheel Speed PI Controller KI Dividend	40
Wheel Speed PI Controller KI Divisor	6
Reserved	0
Reserved	0

PAS :

PAS Number of Magnets	20
Reserved	0
Reserved	0

PEDAL ASSIST :

Default Assist Level Value (10 ... 500%)	40
Assist Level 1-Eco (10 ... 500%)	40
Assist Level 2-Tour (10 ... 500%)	100
Assist Level 3-Sport (10 ... 500%)	200
Assist Level 4-Turbo (10 ... 500%)	300

THROTTLE :

ADC Throttle Threshold (0 ... 255)	10
Throttle Filter Coefficient (0 ... 255)	1
ADC Throttle Range Min Value (0 ... 255)	47
ADC Throttle Range Max Value (0 ... 255)	176

TORQUE SENSOR :

ADC Torque Sensor Threshold (0 ... 255)	6
Pedal Torque Sensor Force per Unit (Nm)	0.52
Reserved	0

WALK ASSIST :

Walk Assist PWM Level 0 (max 100%)	15
Walk Assist PWM Level 1 (max 100%)	20
Walk Assist PWM Level 2 (max 100%)	22
Walk Assist PWM Level 3 (max 100%)	25
Walk Assist PWM Level 4 (max 100%)	95
Walk Assist Current (max 100%)	20
Walk Assist Max Ramp (0.0 ... 25.5 sec)	2.0
Walk Assist Range Min Value (0 ... 255)	0
Walk Assist Range Max Value (0 ... 255)	100

OFFROAD MODE :

| Offroad Speed Limit (Km/h) | 25 |
| Offroad Power Limit (Watt) | 250 |

MOTOR POWER BOOST :

- ☑ Limit Motor Boost to Max Power

Startup Motor Boost Level 1 (max 100%)	15
Startup Motor Boost Level 2 (max 100%)	43
Startup Motor Boost Level 3 (max 100%)	72
Startup Motor Boost Level 4 (max 100%)	100
Startup Motor Boost Time (max 25.5 sec)	2.0
Startup Motor Boost Fade (max 25.5 sec)	3.5

CRUISE CONTROL :

| Cruise Control Min (0 ... 255) | 20 |
| Reserved | 0 |

MOTOR TEMPERATURE :

Motor Temperature Min Limit (Celsius)	75
Motor Temperature Max Limit (Celsius)	85
Motor Temperature Filter (0 ... 255)	4

ENABLES :

- ● VLCD6　　○ KT-LCD3　　○ Reserved
- ☐ Throttle　　☑ Brake Sensors
- ● Lights (Button Dw)　　● Offroad (Button Dw)
- ☑ Offroad On Startup　　☑ Offroad Limit
- ☐ Wheel Perimeter　　☐ Wheel Max Speed
- ☑ Walk Assist　　☐ VLCD6 Always On
- ☑ Motor Working Flag　　☑ Wheel Turning Flag
- ● Boost (Button Dw)　　Temperature Limit
- ● Boost at Speed 0　　● Boost at Cadence 0

Proven Settings

Default_TSDZ2_Configurator.ini

Experimental Settings

TSDZ2_Config_20190109_25_45kph.ini
TSDZ2_Config_TEST_A_20190109_25_45kph.ini
TSDZ2_Config_TEST_B_20190109_25_45kph.ini

ST Visual Programmer (STVP) install directory:

Program Files (x86)\STMicroelectronics\st_toolset\stvp

- ☐ Save file .ini (when compile)

Compile　　Magic Byte 170　　Program

DATA MEMORY:

```
00004000  AA 04 00 10 32 22 01 EF 08 2D 01 07 19 0A 0A C4    ....2"...-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01    .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00    ..KU.&38?......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00    ................
00004040  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00    ................
00004050  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00    ................
```

TEST A

```
00004000  AA 04 00 10 32 22 01 23 08 2D 01 05 19 0A 0A C4   ....2".#.-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?.......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
```

TESTB

```
00004000  AA 04 00 0F 2D 22 01 23 08 2D 01 05 19 0A 0A C4   ....-".#.-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?.......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
```

TEST C

```
00004000  AA 04 00 0F 2D 22 01 23 08 2D 01 05 19 0A 0A C4   ....-".#.-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?.......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
```

TEST A + 29" + OFFROAD ON STARTUP

```
00004000  AA 04 00 10 32 22 01 EF 08 2D 01 07 19 0A 0A C4   ....2"...-......
00004010  00 3B 01 04 0A 14 1E 00 00 04 0C 14 1C 14 23 01   .;............#.
00004020  19 00 4B 55 14 26 33 38 3F F2 14 00 00 00 00 00   ..KU.&38?.......
00004030  00 00 00 00 00 00 00 00 00 00 00 00 00 00 00 00   ................
```