

TiNo Actions Definition



EEPROM Mapping:

Address from	to	Parameter
318	318	NUM_ACTIONS
319	478	Action Blocks
479	480	CRC16 Checksum

$0 \leq \text{NUM_ACTIONS} \leq 40$

$40 \times 4 \text{ Bytes} = 160 \text{ Bytes}$

Action Structure: 4 Bytes

Node The Node to Listen to
Mask Bit in the Flag Byte that triggers
Port The Pin to activate
OnOff Action to take on the Port

N ₇	N ₆	N ₅	N ₄	N ₃	N ₂	N ₁	N ₀	0...255
x	x	x	T	T	T	T	T	
R	R	R	P ₄	P ₃	P ₂	P ₁	P ₀	0...31
D	Pd ₄	Pd ₃	Pd ₂	Pd ₁	Pd ₀	A ₁	A ₀	

N Node
R Reserved.
P Pin of Receiver, 5 bit Number representing Arduino Pin Numbering. A0=14, A1=15, ...
x don't care
T Trigger bit. Flag byte is compared with Flag Byte from Sender
D Pin state at power up. 0= LOW, 1= HIGH
Pd Pulse duration. time = $2^{\text{Pd}-1}$ seconds. Pd=0 is 0.5 seconds (minimum)
only valid when A = 0b11

A1	A0	
0	0	turn pin LOW
0	1	turn pin HIGH
1	0	toggle port
1	1	Pulse



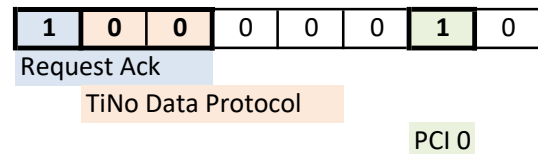
Remote Control Hardware:

- D6 Tactile switch #1, connects D6 to GND when active Turns Smart-Socket to ON state
D7 Tactile switch #2, connects D7 to GND when active Turns Smart-Socket to OFF state

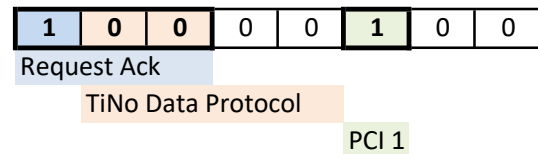
Remote Control Configuration:

NODEID	1	
GATEWAYID	22	
PCI0PIN	6	Connect Interrupt PCI0 to Pin D6
PCI0TRIGGER	10	Falling Edge, using internal Pull-up
PCI1PIN	7	Connect Interrupt PCI1 to Pin D7
PCI1TRIGGER	10	Falling Edge, using internal Pull-up
REQUESTACK	1	Request Acknowledge of command

If button #1 is active: PCI 0 will be triggered Flag Byte:



If button #2 is active: PCI 1 will be triggered Flag Byte:



Smart-Socket Hardware:

- D6 Relais, operating active HIGH
D7 Tactile Switch Button, connects pin to GND when active (active LOW)
D8 Status LED (ON at HIGH state of Pin)

Smart Socket Configuration:

NODEID	22	
PCI0PIN	7	Define Interrupt PCI0 on Pin D7
PCI0TRIGGER	10	Falling Edge, using internal Pull-up

Action which turns Relais ON at Pin D6 and is triggered by the remote control:

ACTION0.NODE	1	React to remote control with Nodeid 1
ACTION0.PORT	6	switch Pin D6
ACTION0.MASK	2	if bit (PCI0) is set, take action.
ACTION0.ONOFF	1	turn pin HIGH

x	x	x	x	x	x	PCI0	x
x	x	x	x	x	x	0	1

Action which turns Relais OFF at Pin D6 and is triggered by the remote control:

ACTION1.NODE	1	React to remote control with Nodeid 1
ACTION1.PORT	6	switch Pin D6
ACTION1.MASK	4	if bit (PCI1) is set, take action.
ACTION1.ONOFF	0	turn pin LOW

x	x	x	x	x	PCI1	x	x
x	x	x	x	x	x	0	0

Action which toggles Relais on Pin 6, triggered by the tactile switch button on Pin 6 of the Smart-Socket:

ACTION2.NODE 22 React to an interrupt on my device
 ACTION2.PORT 6 switch pin D6
 ACTION2.MASK 1 PCI 0 triggerd by D7
 ACTION2.ONOFF 2 toggle Pin

x	x	x	x	x	x	1	0
---	---	---	---	---	---	---	---

Action which toggles the LED at Pin 8 of the Smart-Socket, triggered by the tactile switch button at the Smart-Socket:

ACTION3.NODE 22 React to an interrupt on my device
 ACTION3.PORT 8 switch pin D8
 ACTION3.MASK 1 PCI 0 triggerd by D7
 ACTION3.ONOFF 2 toggle Pin

x	x	x	x	x	x	1	0
---	---	---	---	---	---	---	---

alternatively, permanent illumination of the LED can be replaced by a short pulse:

ACTION3.ONOFF 7 Pulse with 1 second duration

Action which turns the LED at the Smart-Socket ON, triggered by the remote control

ACTION4.NODE 1 React to remote control with Nodeid 1
 ACTION4.PORT 8 switch pin D8
 ACTION4.MASK 2 if bit (PCI0) is set, take action.
 ACTION4.ONOFF 1 turn pin HIGH

x	x	x	x	x	x	PCI0	x
x	x	x	x	x	x	0	1

alternatively, permanent illumination of the LED can be replaced by a short pulse:

ACTION4.ONOFF 7 Pulse with 1s duration (3 for a Pulse with 1/2 second)

Action which turns the LED at the Smart-Socket ON, triggered by the remote control

ACTION5.NODE 1 React to remote control with Nodeid 1
 ACTION5.PORT 8 switch pin D8
 ACTION5.MASK 4 if bit (PCI1) is set, take action.
 ACTION5.ONOFF 0 turn pin LOW

x	x	x	x	x	PCI 1	x	x
x	x	x	x	x	x	0	0

alternatively, permanent illumination of the LED can be replaced by a short pulse:

ACTION5.ONOFF 7 Pulse with 1s duration (3 for a Pulse with 1/2 second)