States

in auto	in ctrl	out auto	out manual	out manip
0	0	0	0	1
0	1	0	1	0
1	0	0	0	1
1	1	1	0	0

	in IsDriveCont	in auto	in manual	in manip	out uart	out ppm
	0	0	0	0	0	0
	0	0	0	1	0	1
	0	0	1	0	0	0
NA	0	0	1	1		
	0	1	0	0	0	0
NA	0	1	0	1		
NA	0	1	1	0		
NA	0	1	1	1		
	1	0	0	0	0	0
	1	0	0	1	0	0
	1	0	1	0	0	1
NA	1	0	1	1		
	1	1	0	0	1	0
NA	1	1	0	1		
NA	1	1	1	0		
NA	1	1	1	1		

only if auto an If (manual AND

All possible states of rover operation are extracted in this chart.

Control inputs include:

1. “auto” for choosing autonomous drive mode (= 1) or manua
2. “ctrl” for choosing drive mode (= 1) or manipulation mode

Manipulation can be chosen with two possible combinations, since

Final outputs tell the MCU where to get control data:

1. “uart” is the port for autonomous contol data input
2. “ppm” is the port for manual control data input

The input “IsDriveCont” is a boolean value which can easily be set
chip’s use. The chip can be used as the motor Drive controller, or th

out
none
1
0
1
1
1
1
0
0

Ɔ IsDrive) or (manip AND !IsDrive)

al mode (= 0)
(= 0)

there is no autonomous manipulation.

t in the MCU firmware to define the
he Manipulation controller.