



Currently (12/04/2014), both a single channel or simultaneous attack on both channels on safe-state configuration has been added. The simultaneous attack is introduced to make it possible to compare results with BDMP. This model of simultaneous attack, however, is unrealistic. The eMotor device is accessed via the CAN bus, hence one attack at a time is only possible.

In details the model achieves the following:

A) attacks of the safe-state configurations of the channels. Successful attacks create hazards. Unsafe failures may occur only later, when the safe state is called upon before the configuration is repaired. Further developement is possible:

- one channel only. For this model I would need to consider in detail the consequences of a unsafe failure of one of the channels. A number of options existit:
 - select one of the channels at random to execute the safe state. If the safe state of the chosen channel is corrupted, then unsafe failure results.
 - compare the safe state configurations:
 - if different, diagnose the channels with a delay. If a channel with correct safe state configuration exists, select it with probability greater than the probability of selecting the other (i.e. with corrupted safe state configuration). If both are corrupted (even if different), then unsafe failure results.
 - If the safe states configurations are different, then ...
- both channels, one at a time (with a small delay in between the attacks. Currently a simplistic model used).

B) Attacks on the control parameters. Such attacks on a channel will lead to a failure of the respective channel with a very short delay (can be instantaneous). Must consider:

- an attack on a single channel (done).
- an attack on both channels (in succession, one at a time).

Further considerations:

- failure of a channel should be compared against the outcome of the previous cycle calculation. This can