# Limited network modeling

Only network delay can be defined per message send. The nondeterminism in the network cannot be resolved by the user.

# No internal verification

Verification must be done with external tools. And since the cyber behavior is abstracted in final hybrid automaton the verification will be limited.

# Limited interaction between cyber and physical behaviors

Cyber behavior can only start continuous (physical) behaviors. And continuous behaviors can only notify cyber behaviors when their behavior is finished.

Other necessary interactions:

* Reading continuous variables in cyber behaviors.
* Stopping/modifying continuous behaviors during execution in cyber behaviors.

# Interference of physical behaviors on cyber behaviors

Since an actor can have continuous behaviors in parallel with its cyber behaviors, continuous behaviors can alter the actor’s state during computation delay.

# Nondeterminism

Sources of nondeterminism:

* Expiration of continuous behaviors at the same time on one actor
* Execution order of actors (Affects the message communication)
* Messages with same network delay

# No local time modeling

There is only one global time.

# Inconsistency in network

Consecutive messages to one destination with no network delay will reach the destination in order but if they have same network delay the ordering will be nondeterministic.