Additional experiments on Knowledge infusion using process ontology

The specific features of process ontology are:

(i) consists of definition and item specification of sensors and equipments,

(ii) relationship between the sensors and equipments,

(iii) function and involvement of each sensors and robots with respect to the cycle states,

(iv) expected (or anomalous) values of sensor variables in with respect to each cycle state,

(v) type of anomaly that could be associated with each cycle state,

(iv) sensor values and other knowledge can be dynamically updated as per the change in experiment set up.

A snapshot of the ontology for a given cycle state has been shown in Figure 1 and Figure 2.
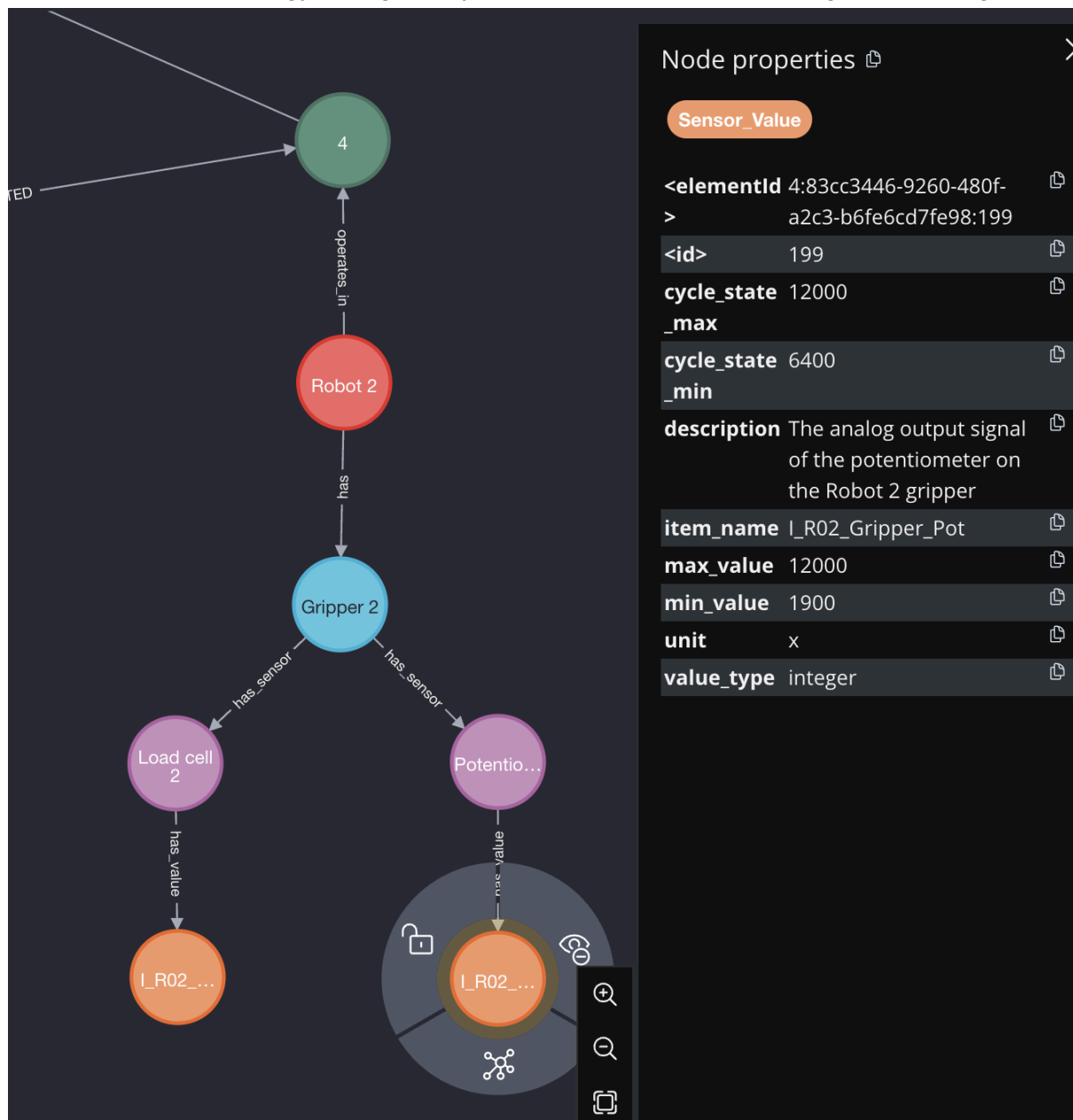

Figure 1: Relevant knowledge for a given cycle state in the process knowledge-1.
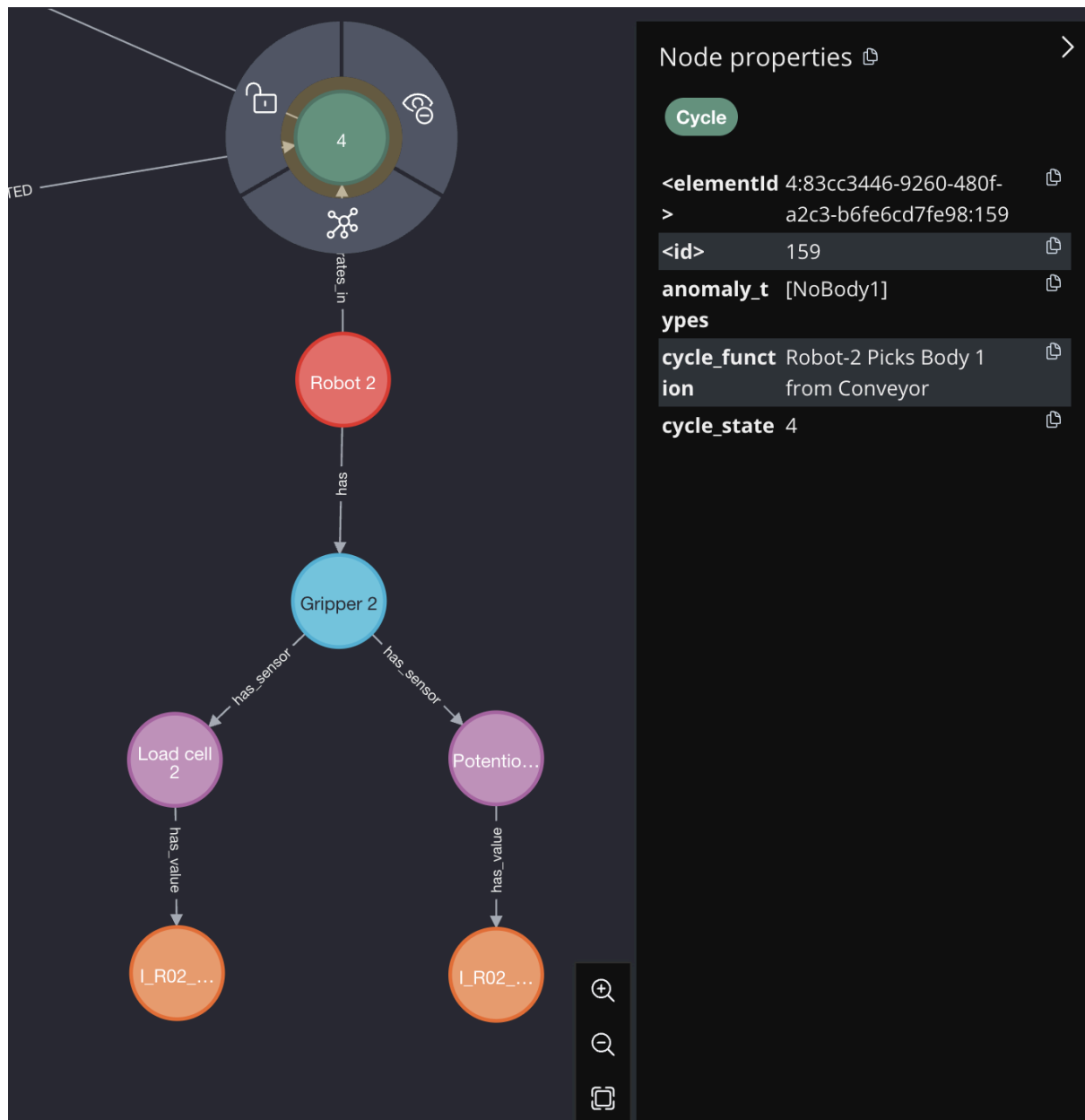
Figure 2: Relevant knowledge for a given cycle state in the process knowledge-2.