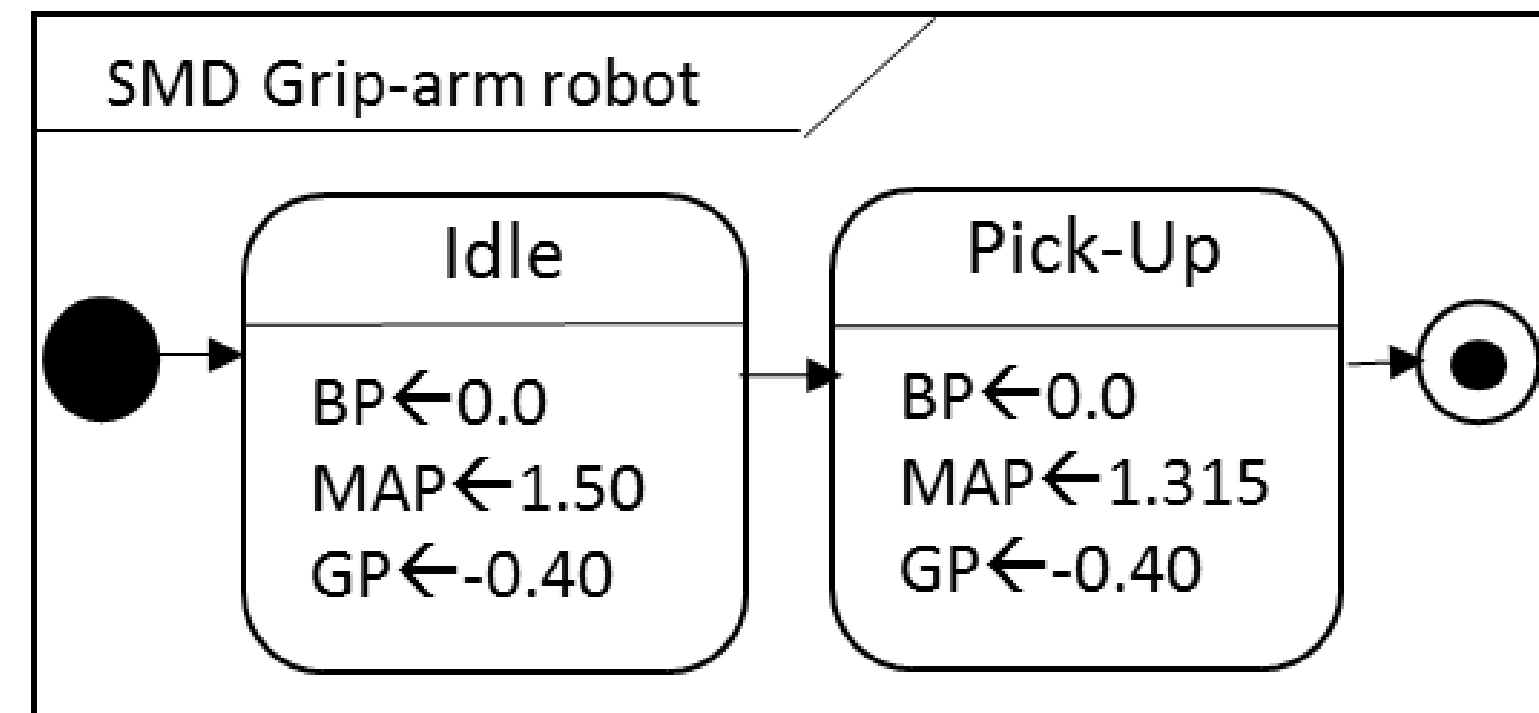
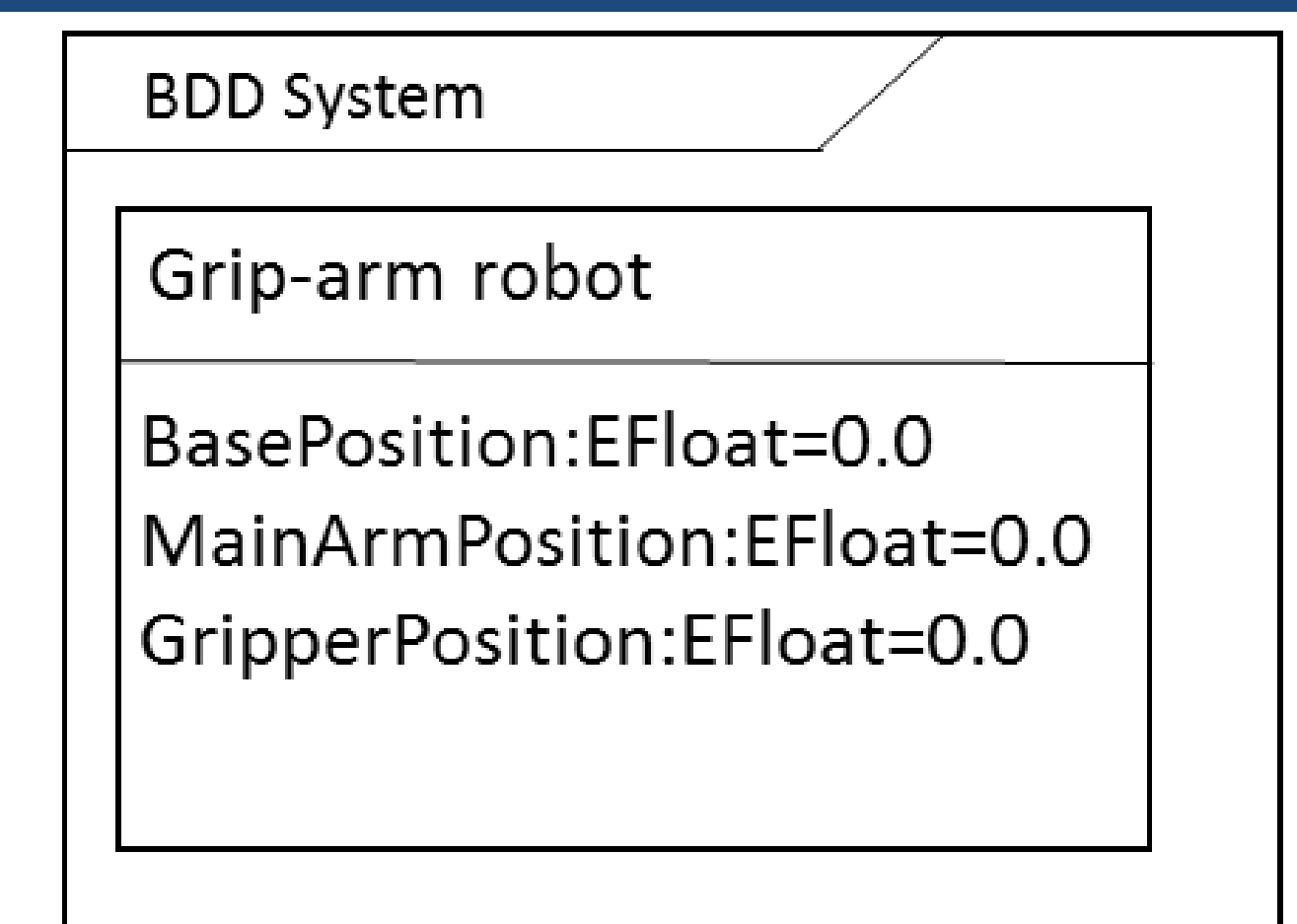
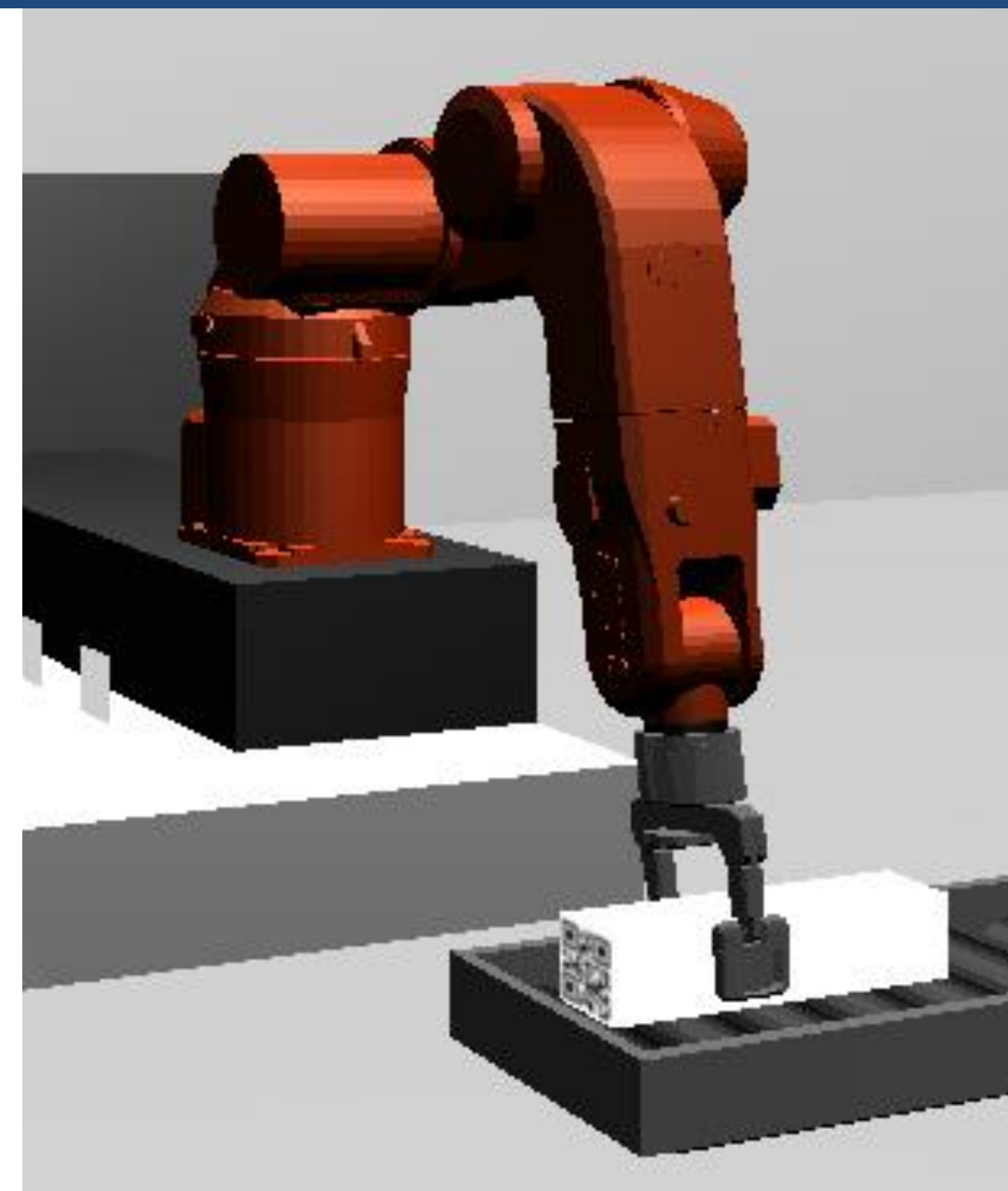


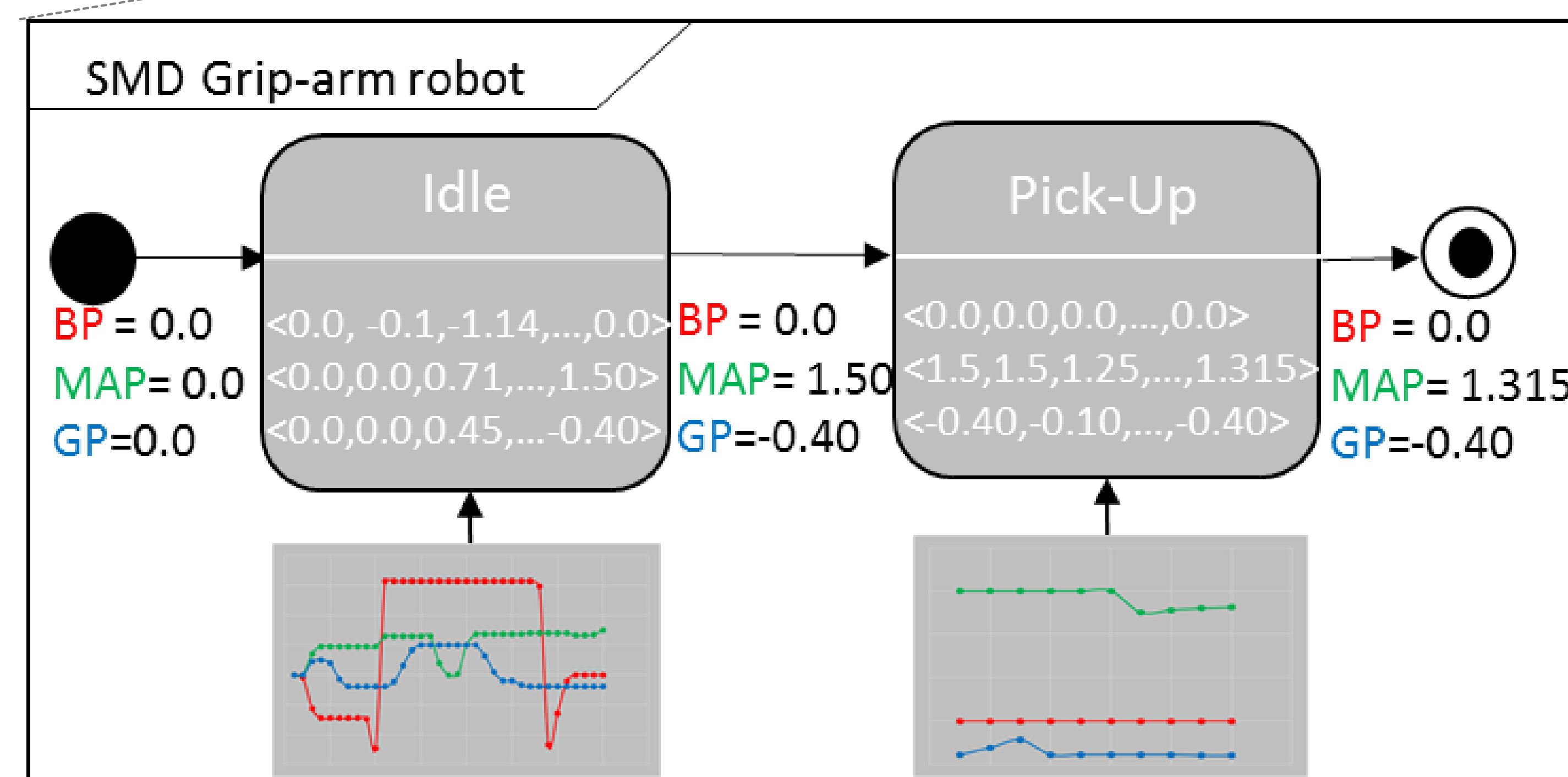
Motivation

- **Monitor continuous systems**
- **Reason** about the **precision of models** such as activity overlaps, late realization of activities, hidden activities etc.
- Employ time series mining to produce condensed figures of the variable value changes within the different states

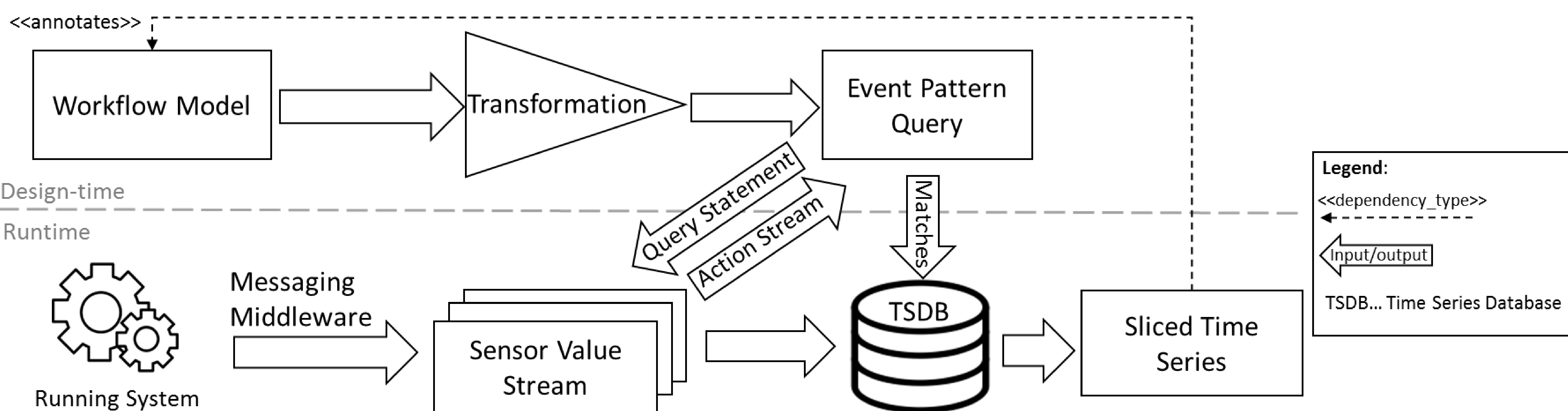


Challenges

- Actions in a continuous system are not instantly realized but require time.
- **Classical MDE approaches are black-box**
 - Actions expressed as value assignments
 - Source and target state of the system is specified
 - Tracing within states not possible
- **How to provide a grey-box view?**
 - Trace the changes of continuous variables within states



Solution Architecture



Initial Results

- ✓ **Setup**
 - Design Model / MQTT Server / Blender Simulation / Influx DB
- ✓ **Backpropagation of timing information into the design model**
 - Avg. transition delays

Next Steps

- **Evaluation of**
 - Time-series mining algorithms
 - Sampling strategies
- Generating EPQs from properties
- Augmenting diagrams with derived information

