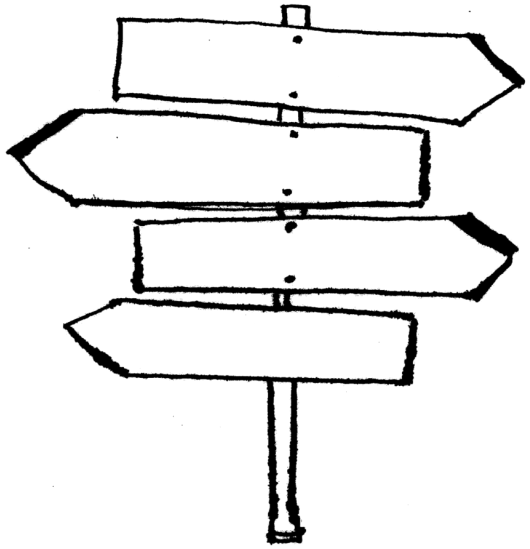
Polite for EV3

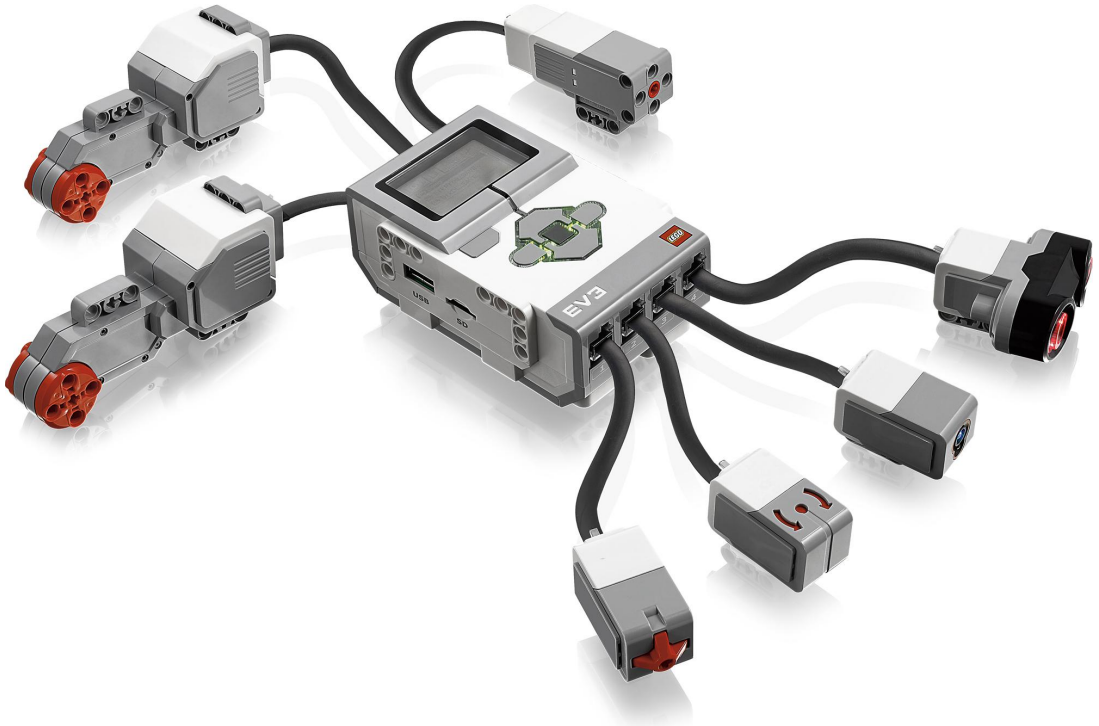
Stefan Borer, 11-932-407
Theodor Truffer, 11-103-157

Roadmap

1. What is EV3?
2. Existing Projects
3. Polite for EV3
4. Demo



EV3 Brick

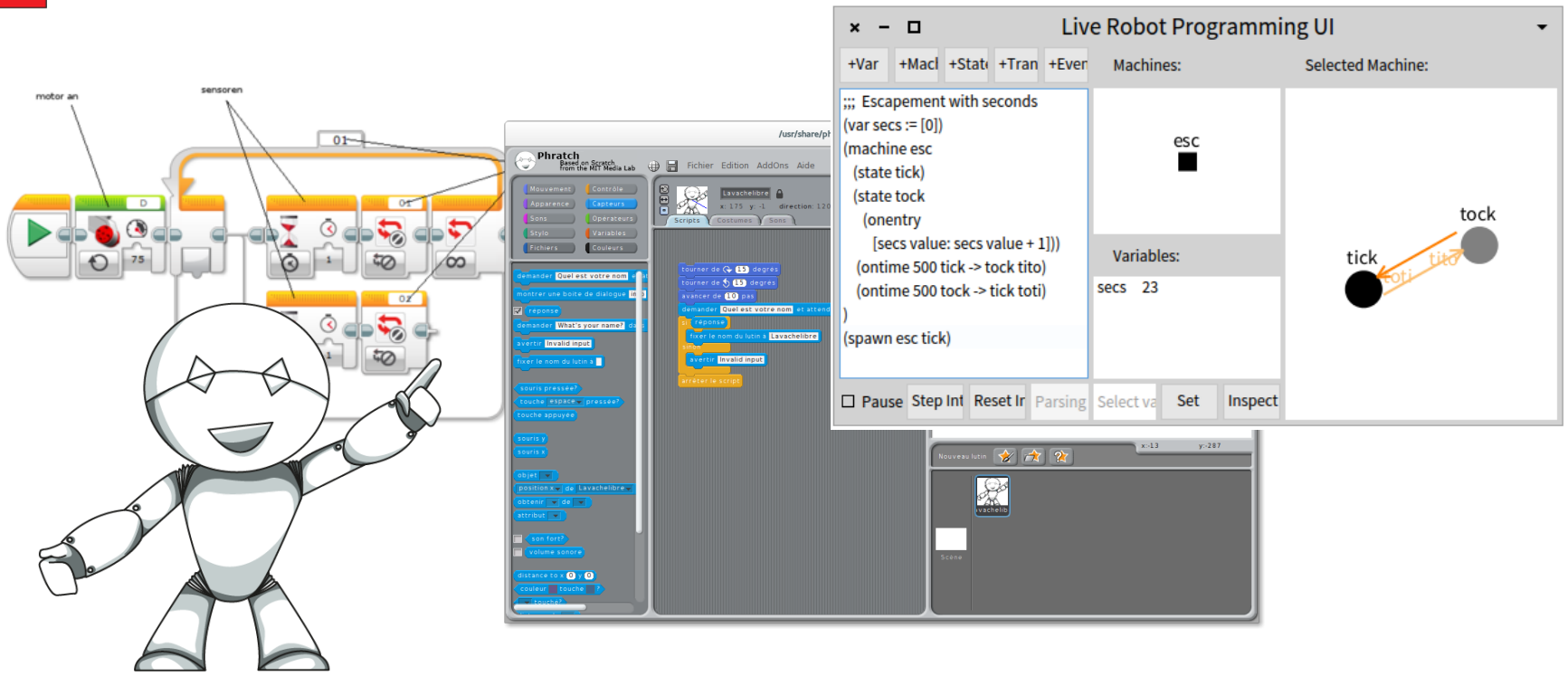


- 4 Sensors
- up to 4 Motors
- Wifi key
- HTTP-Server

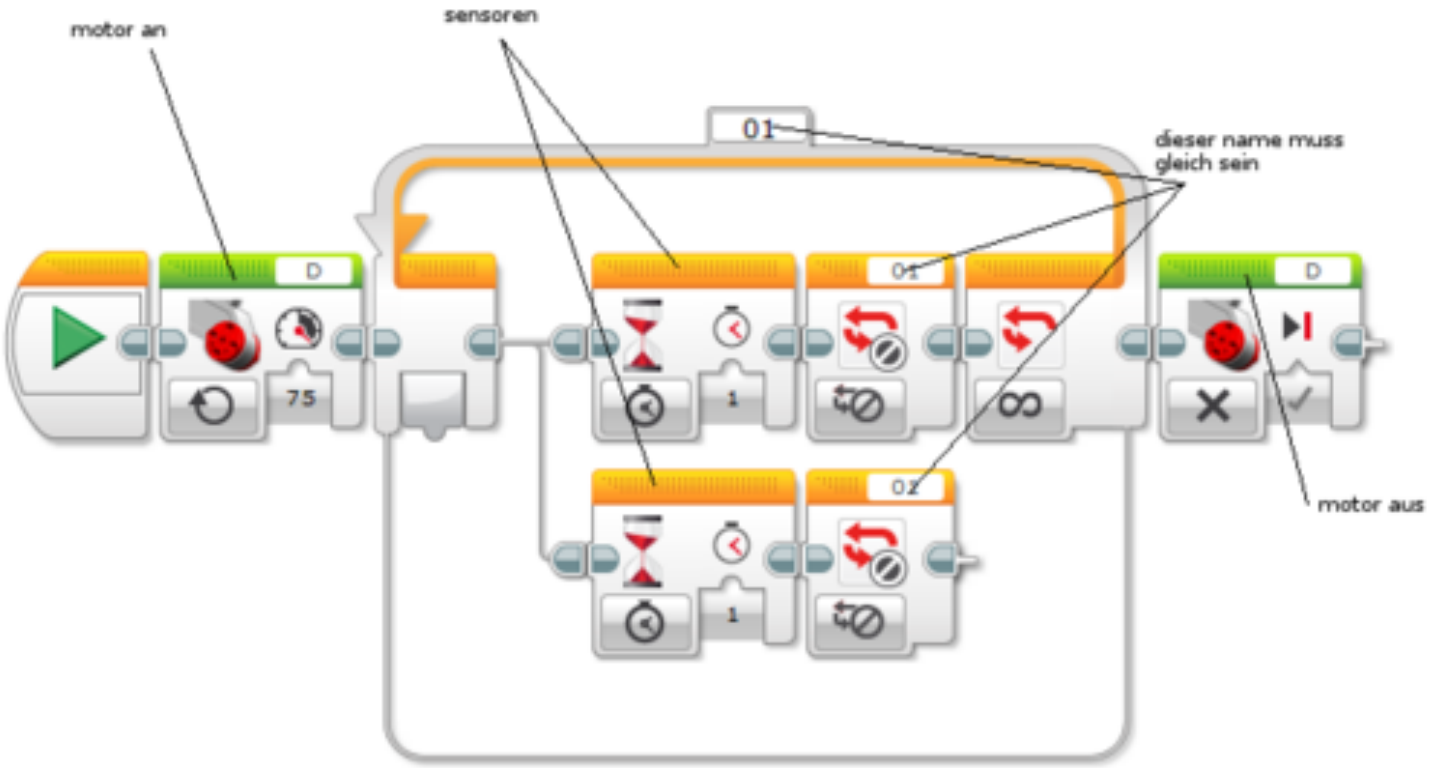
Existing Projects

Pleiad

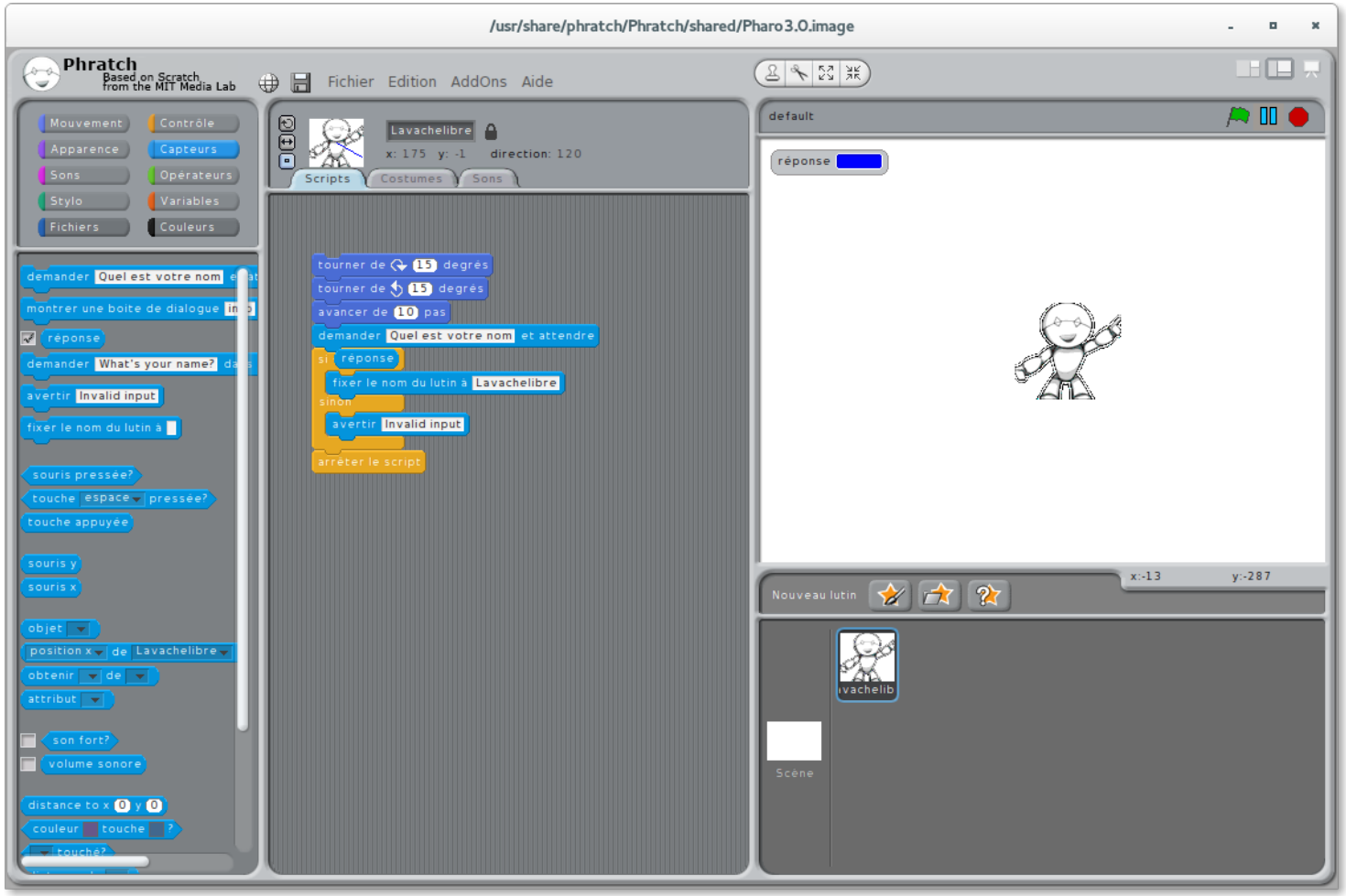
LEGO mindstorms



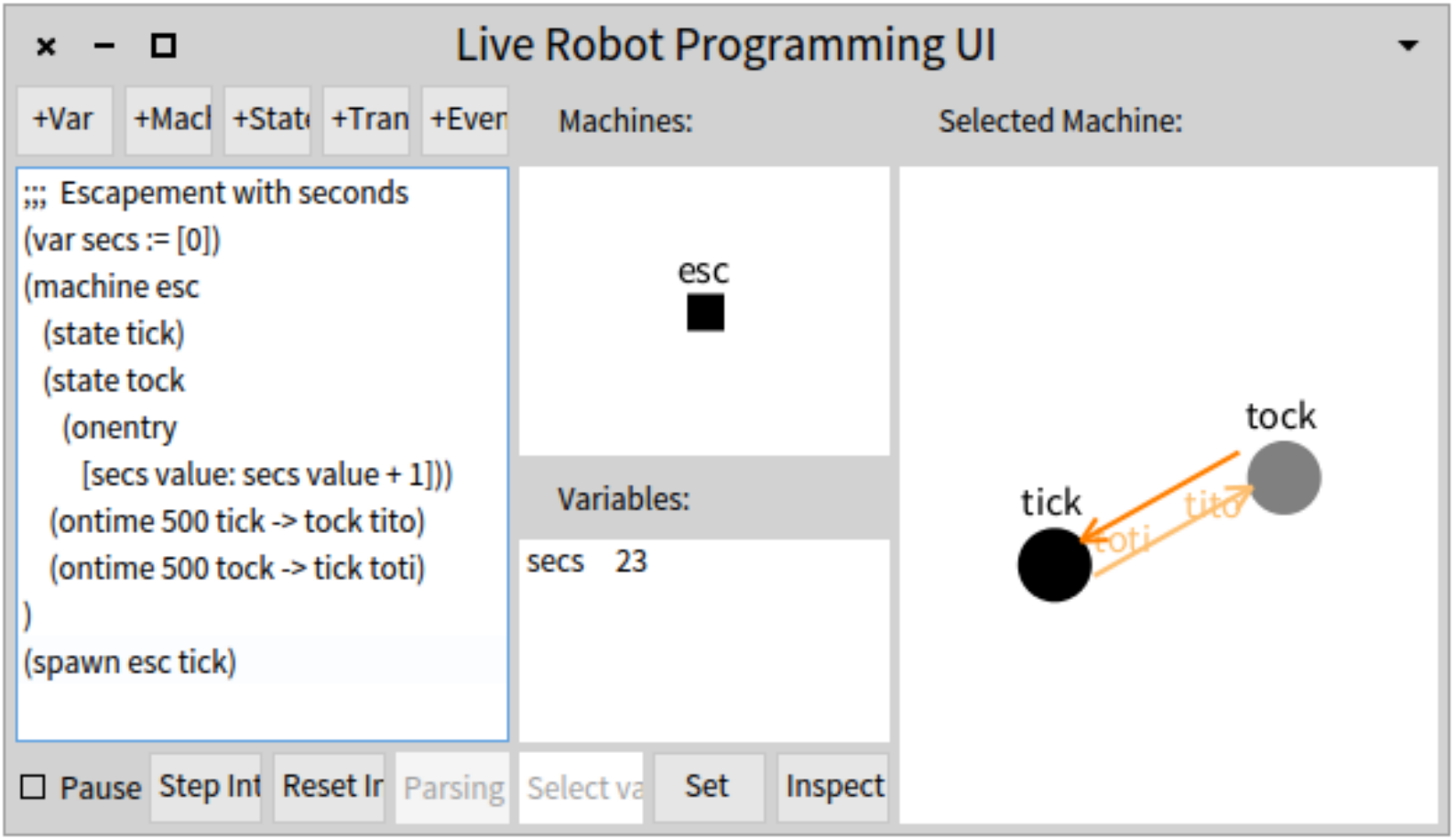
Lego Mindstorms



Phratch with Jetstorm



Live Robot Programming



What is Polite for EV3?

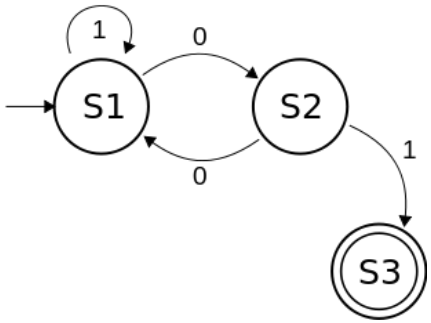
Polite Smalltalk

```
"Have some Polite Code:"
protagonist := Polite Hero, named: 'The Red Rider'.
protagonist, beat the hell out of: (the bad guys) and save: (the lady).
```

Polite for EV3

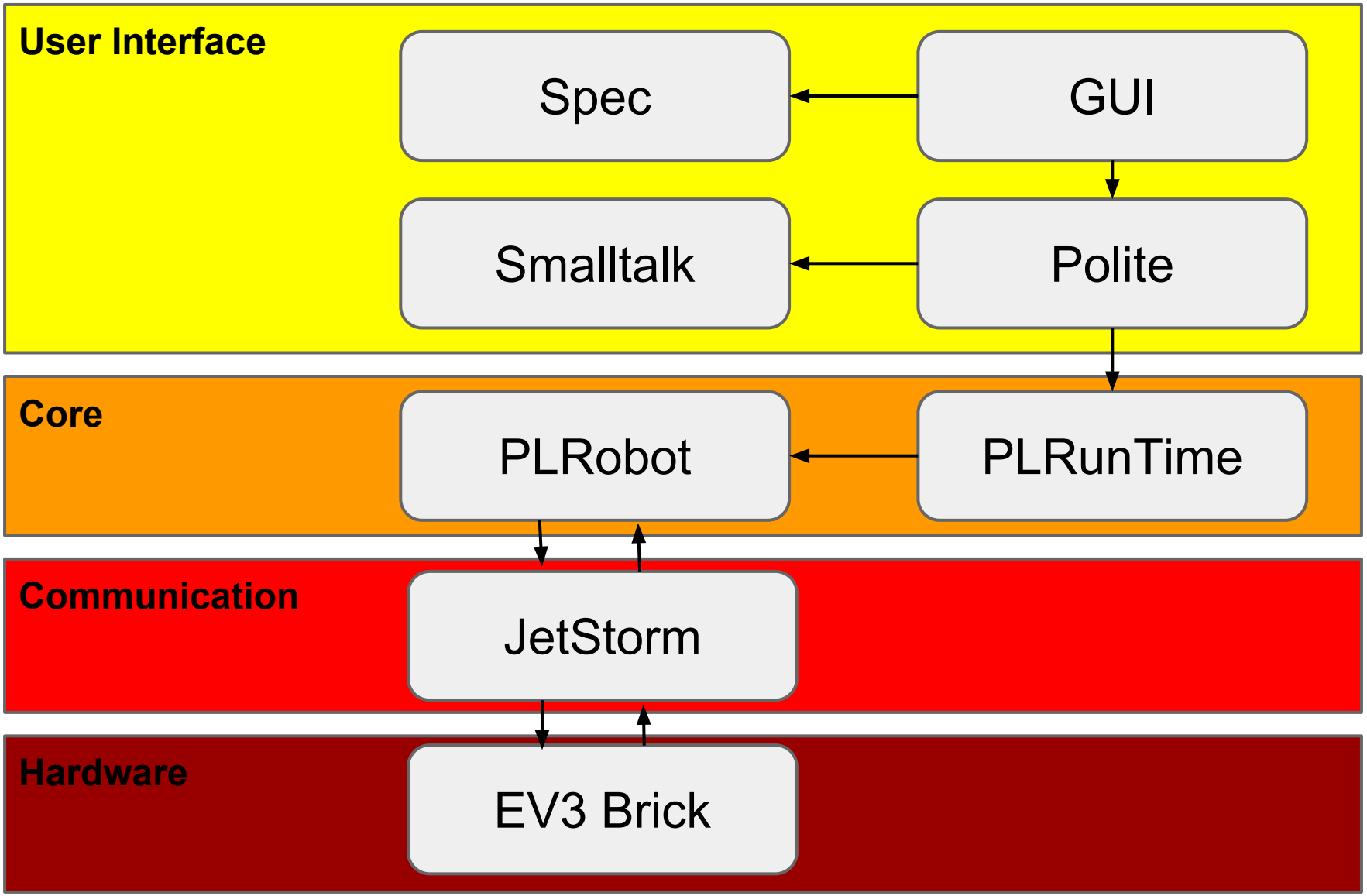
JetStorm

+

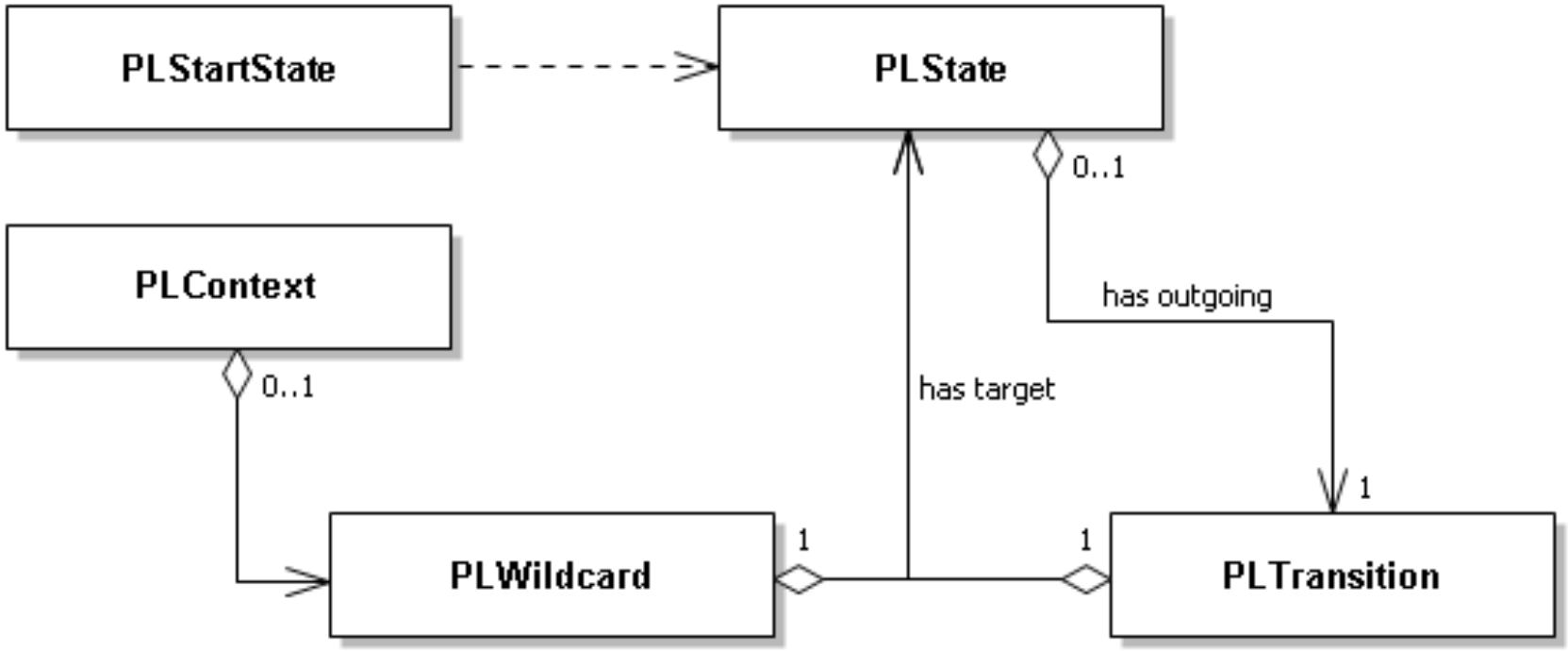


+

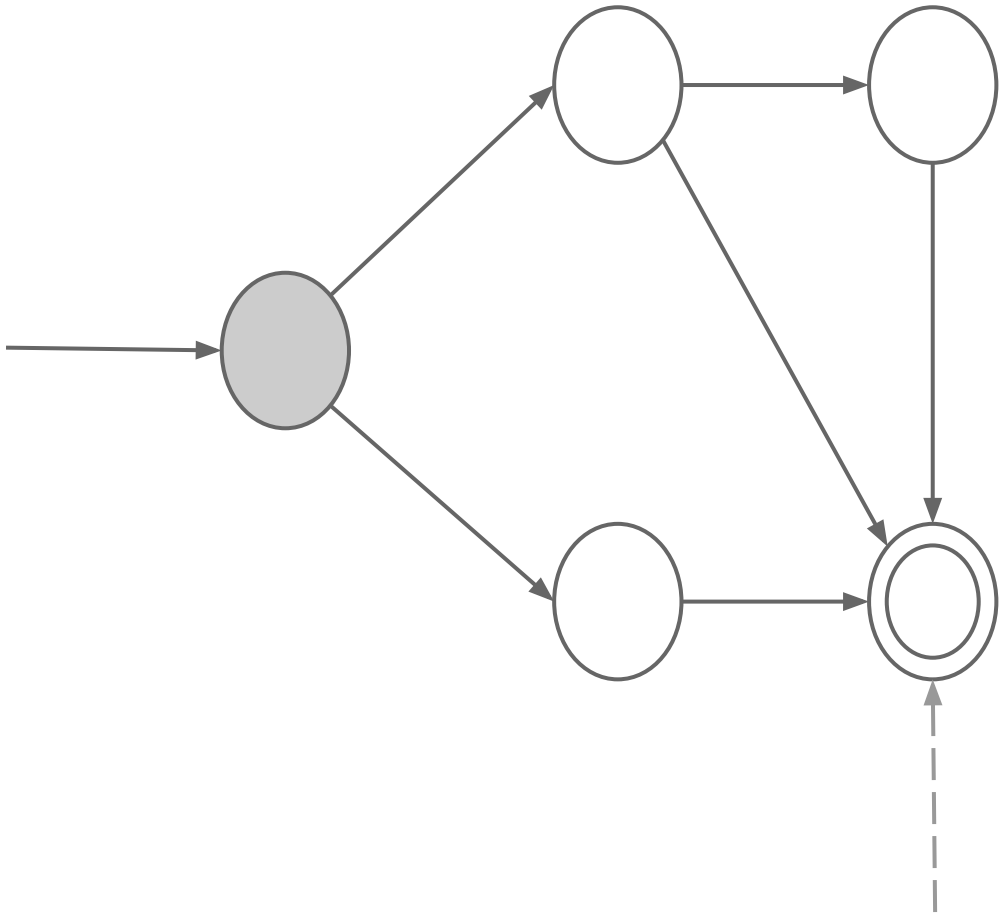
Architectural overview



State machine - UML

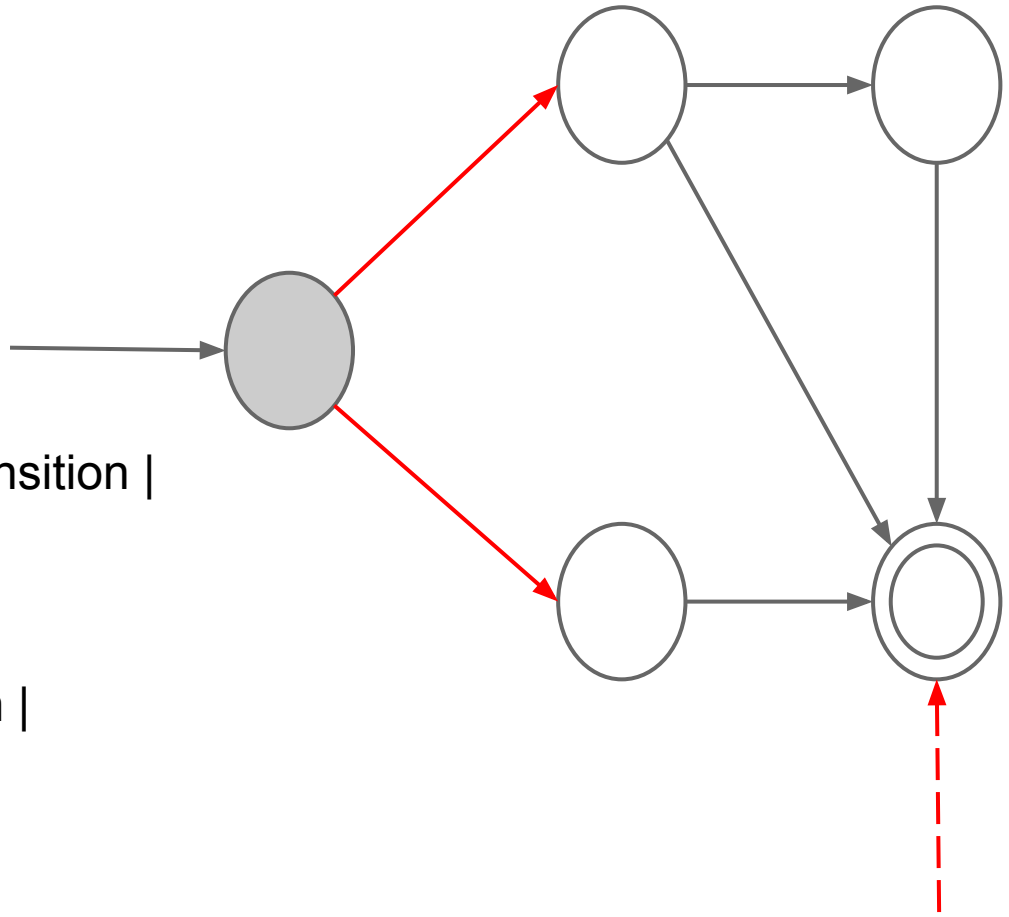


State machine - Processing



...
processor, start: (start state).
...

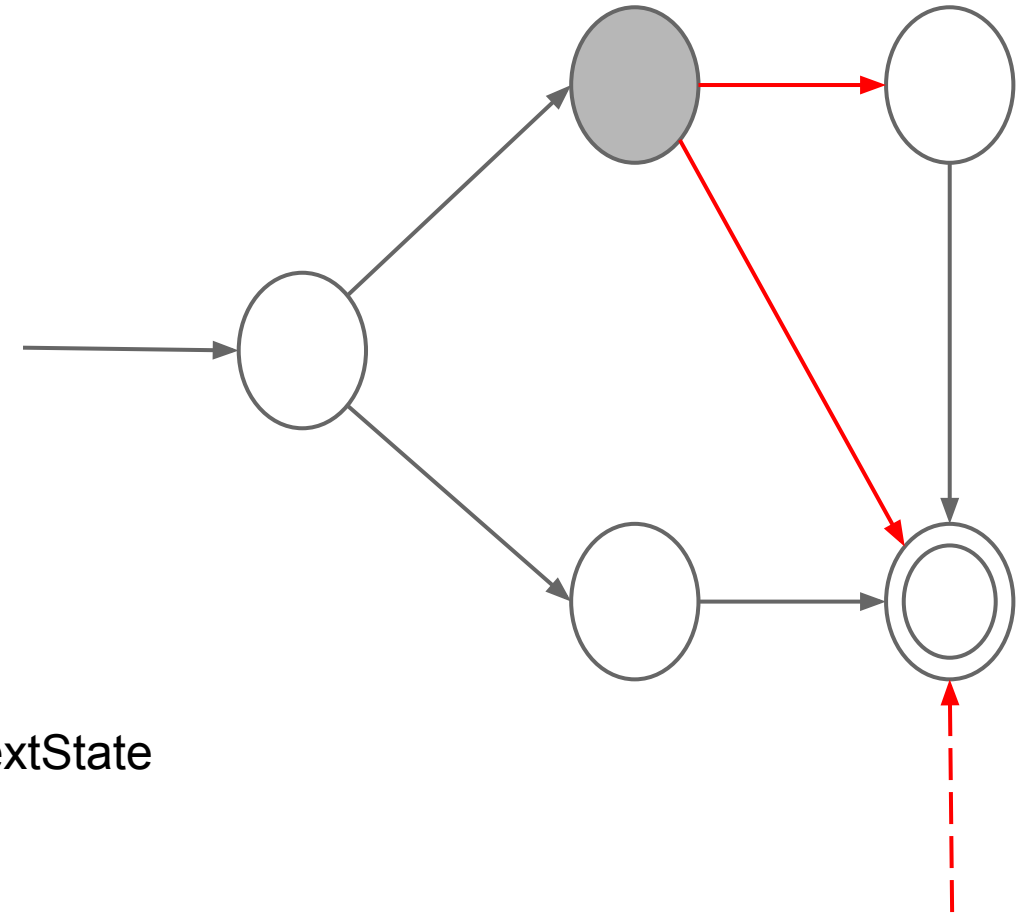
State machine - Processing



```
currentState transitions do: [ :transition |
        …
]

context wildcards do: [ :transition |
        …
]
```

State machine - Processing



```
(transition condition) ifTrue: [
        transition action.
        currentState := transition nextState
]
```

Demo

Outlook

- Add beginner-friendly API-Layer
- Support for variables
- More responsive UI
- Allow rendering of nested machine

Thank you!