CS122A: Intermediate Embedded and Real Time Operating Systems

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Pattern Recognition

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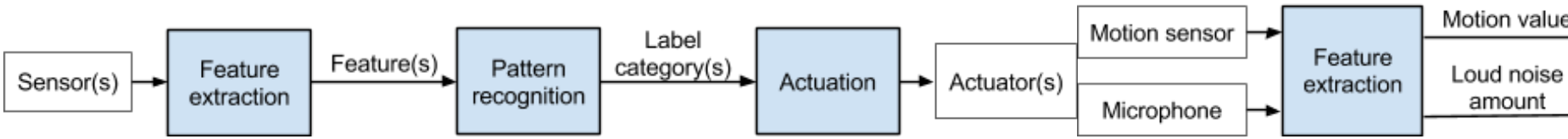

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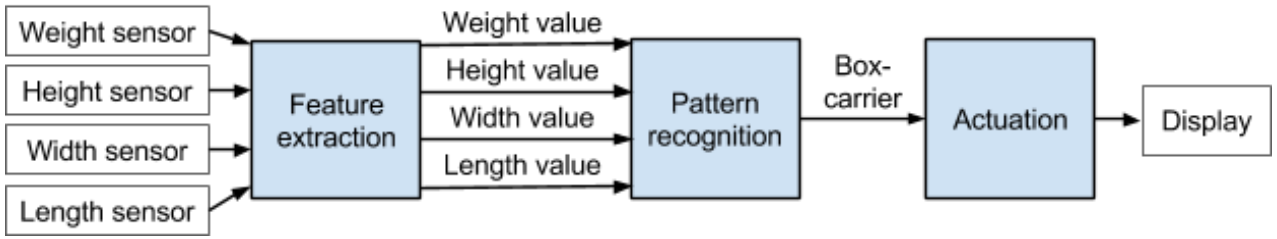

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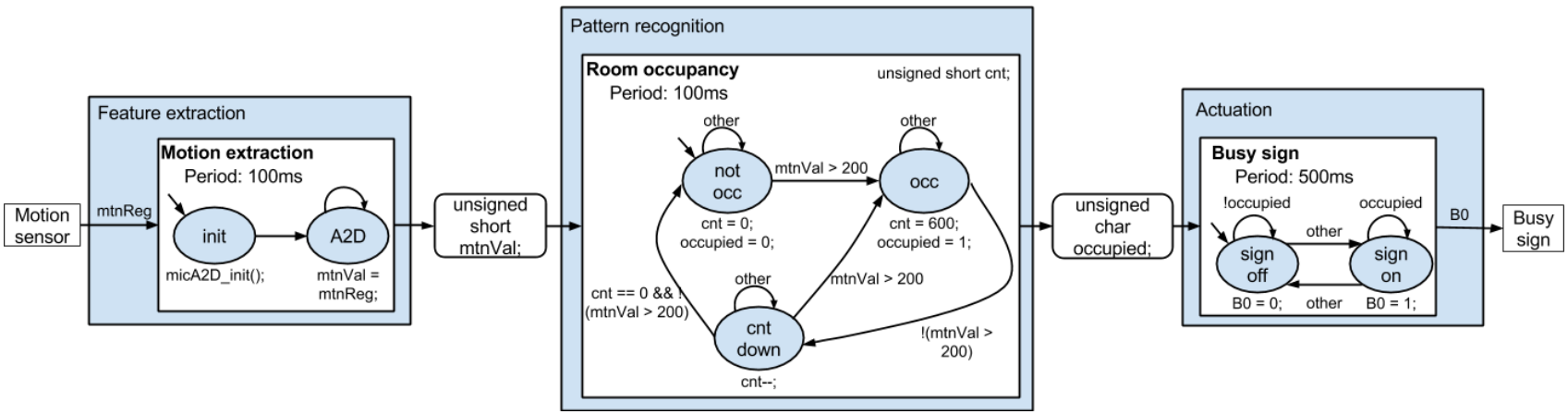

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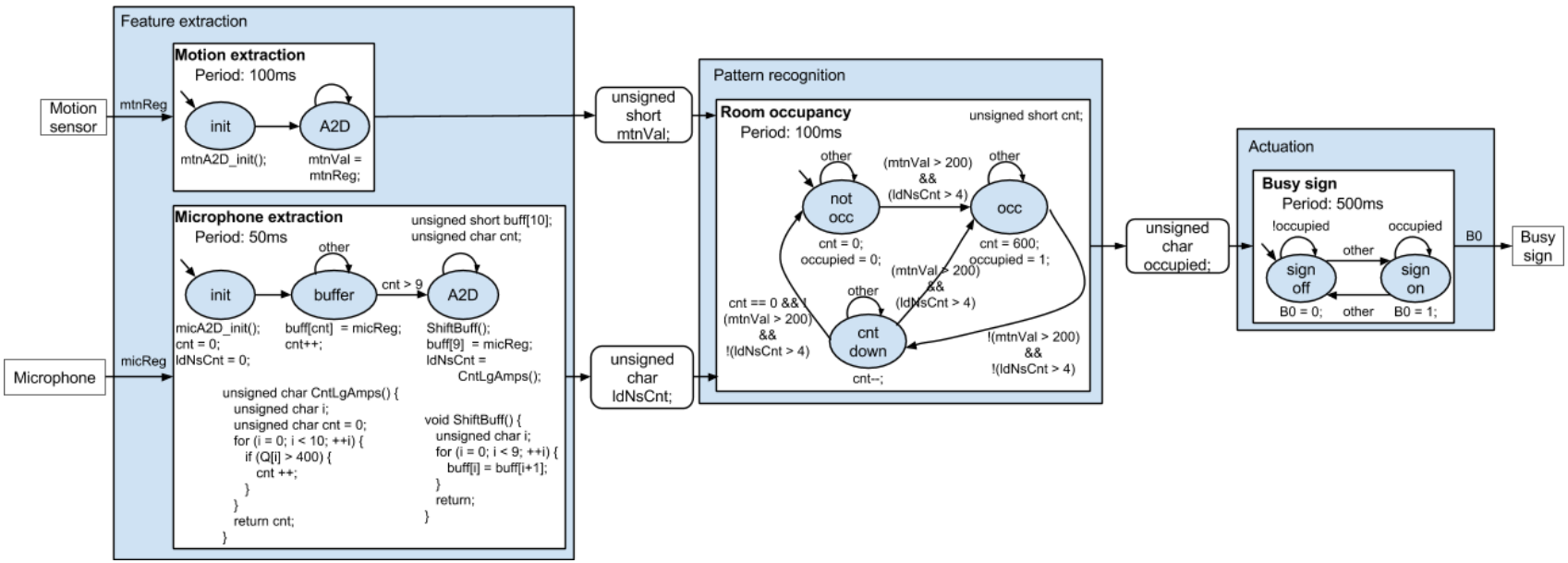
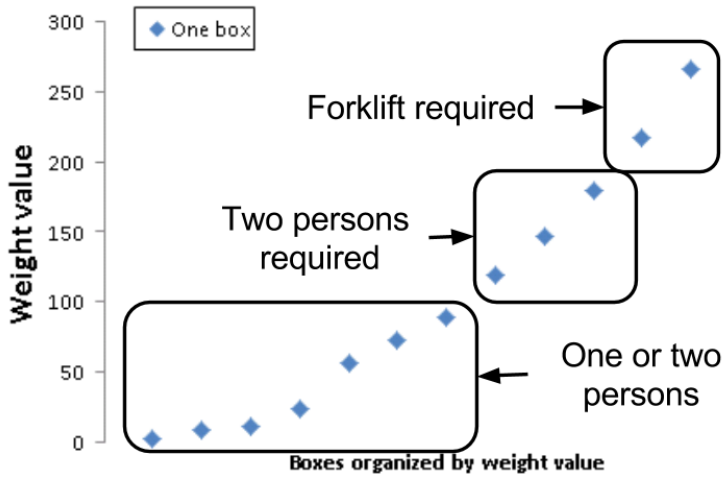


Feature Extraction



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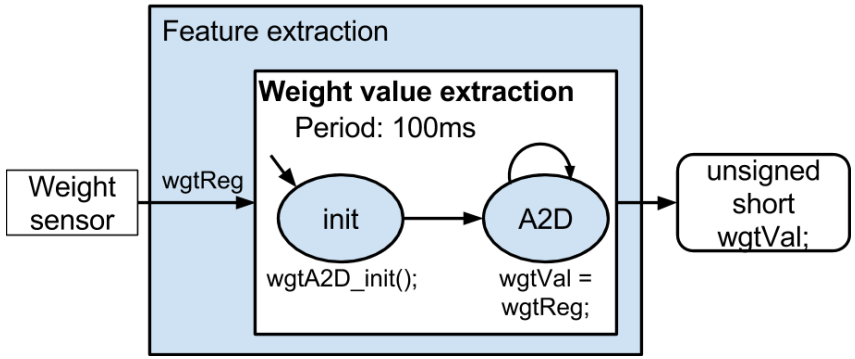

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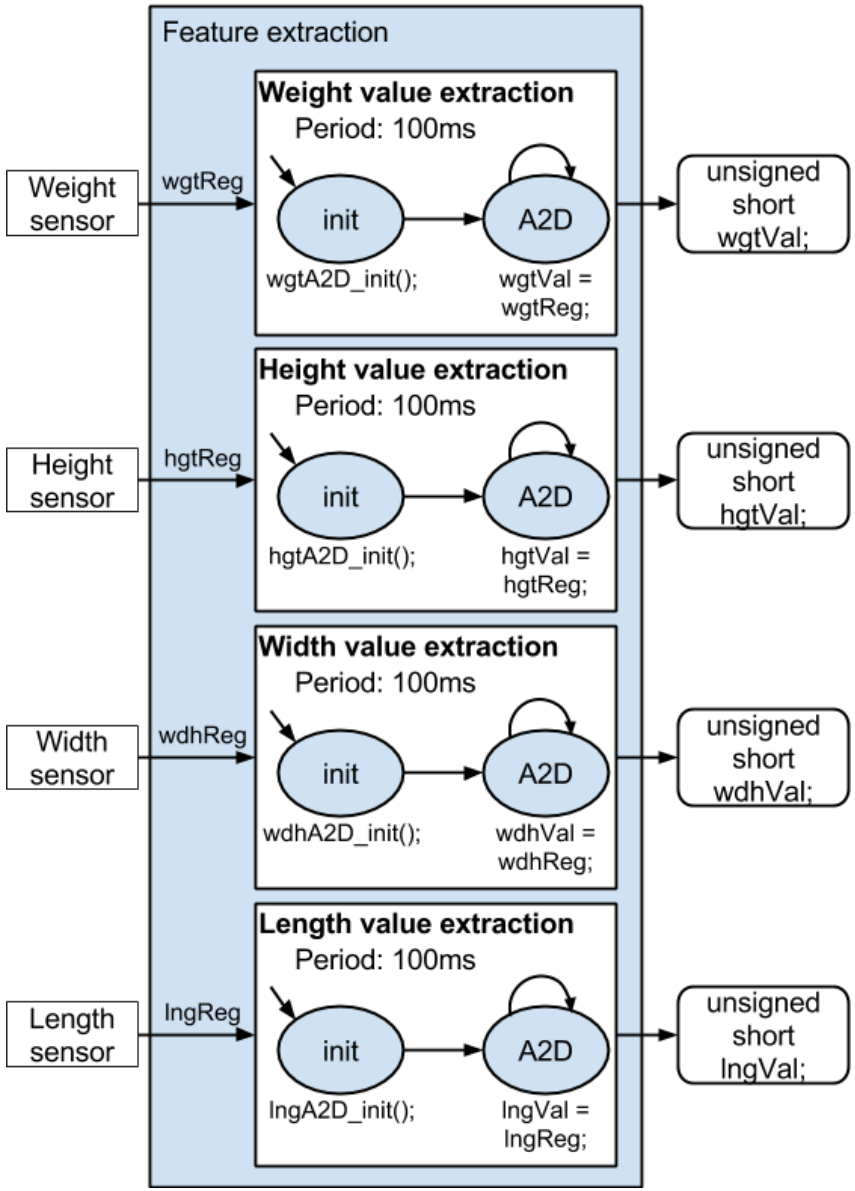

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2. Develop the SM to extract those features from the sensor
3. Sometimes multiple SM's are needed for multiple features

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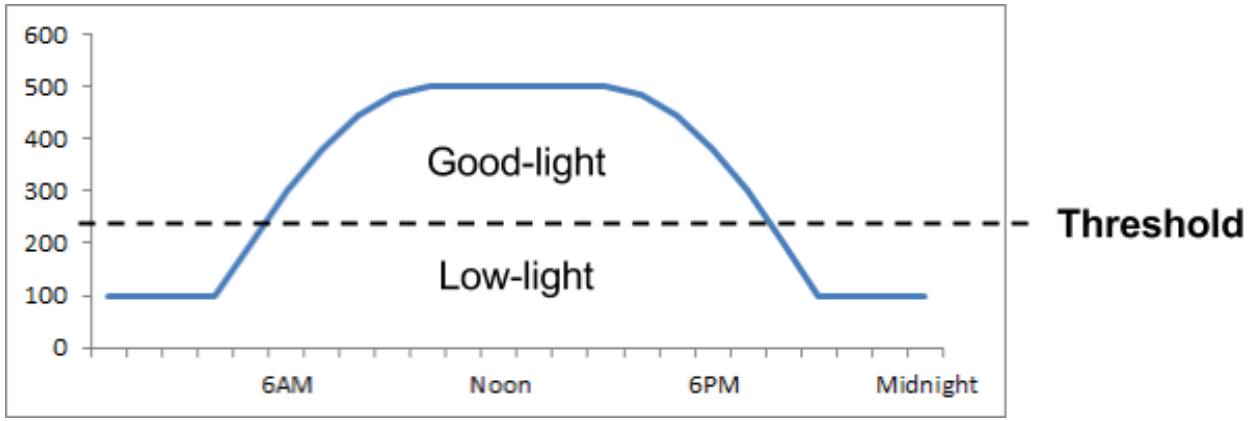

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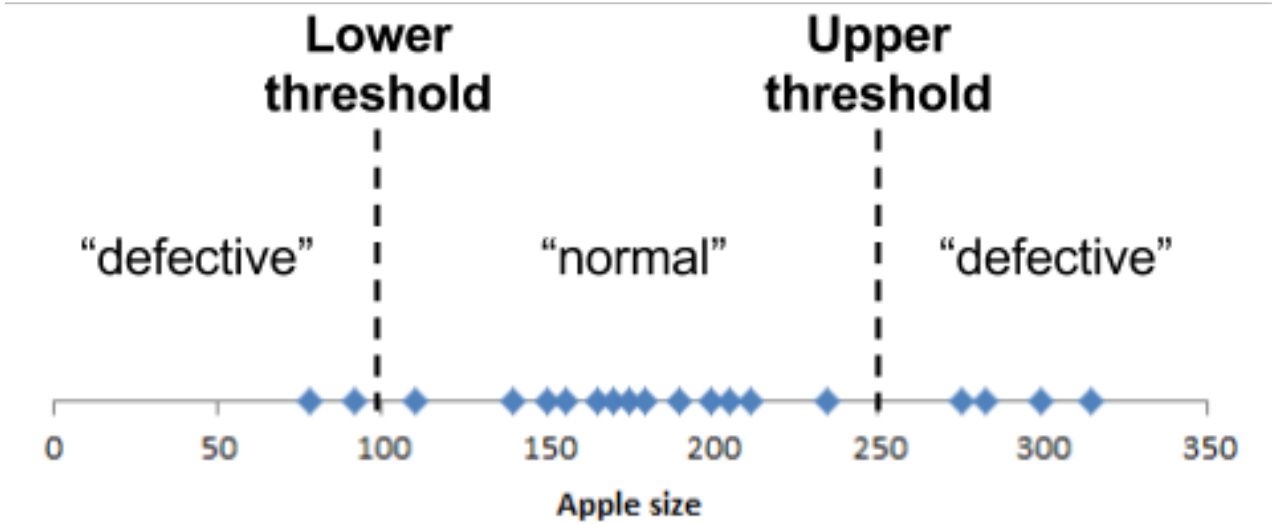

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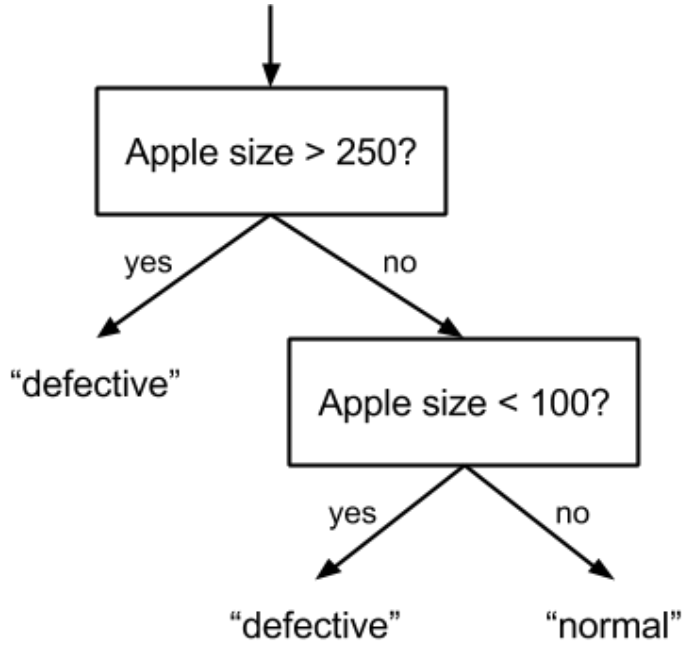
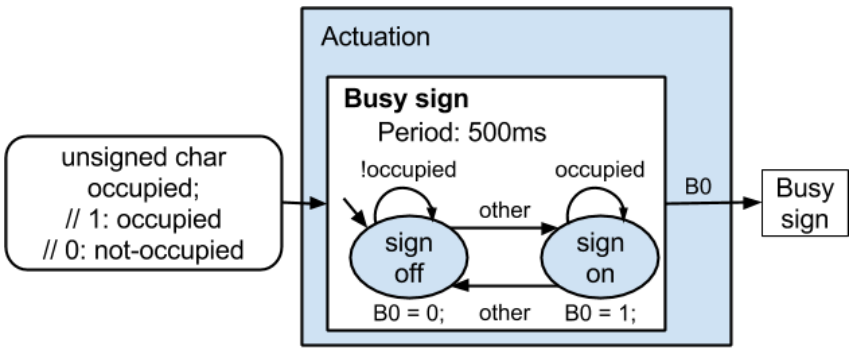


- Identifies the pattern and applies a label
- **Thresholds** are the values at which features change what label they are given
- A **decision tree** is the logical combination of multiple thresholds

Actuation



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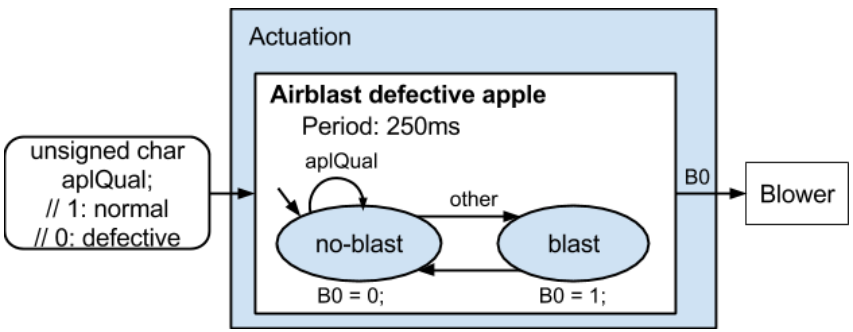

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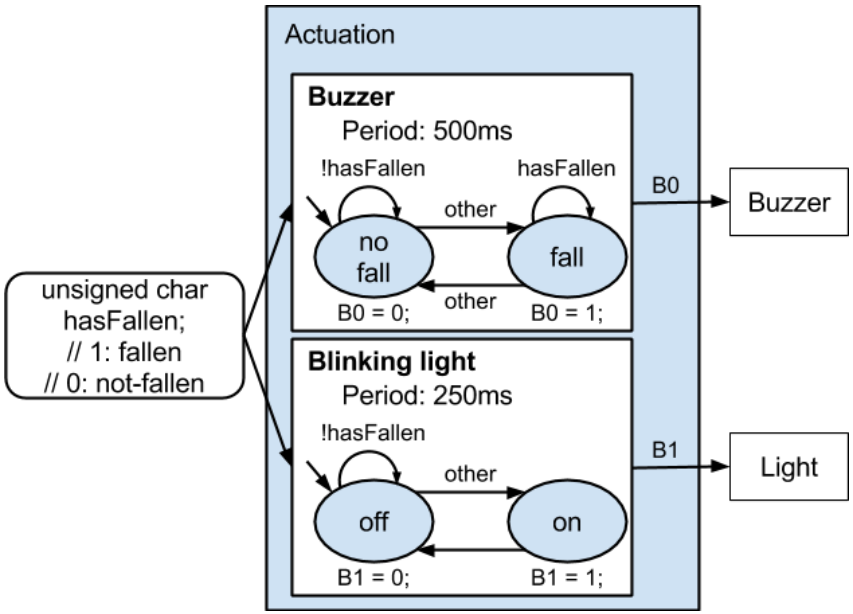

- Actuator is controlled based on label
- The actuations can be captured as an SM
- Multiple actuators can be controlled