

Event Driven State Machine Lab

BME554L - Fall 2025 - Palmeri

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Wireless Heart Rate Monitor State Diagram

- Generate a state diagram for a wristwatch-based heart rate monitor that sends “instantaneous” heart rate data to a smartphone.
 - I would recommend doing this with pencil and paper first, not immediately jumping into a tool.
 - Err on the side of more detail than not.
- Make sure that your state diagram:
 - Has start and termination dots.
 - Includes all functional states, including (but not limited to):
 - * `Init`
 - * `Idle`
 - * `Measuring`
 - * `Transmitting`
 - * `Error`
 - Consider if states should have entry and exit actions.
 - Make sure all transitions between states are annotated with associated triggering events.

Generate the State Diagram

- Formally render your state diagram using either:
 - [PlantUML](#) (the tool shown in lecture)
 - [Mermaid](#)
 - [draw.io](#)
 - [Lucidchart](#)

Gradescope

- Upload your rendered state diagram to the associated Gradescope assignment.