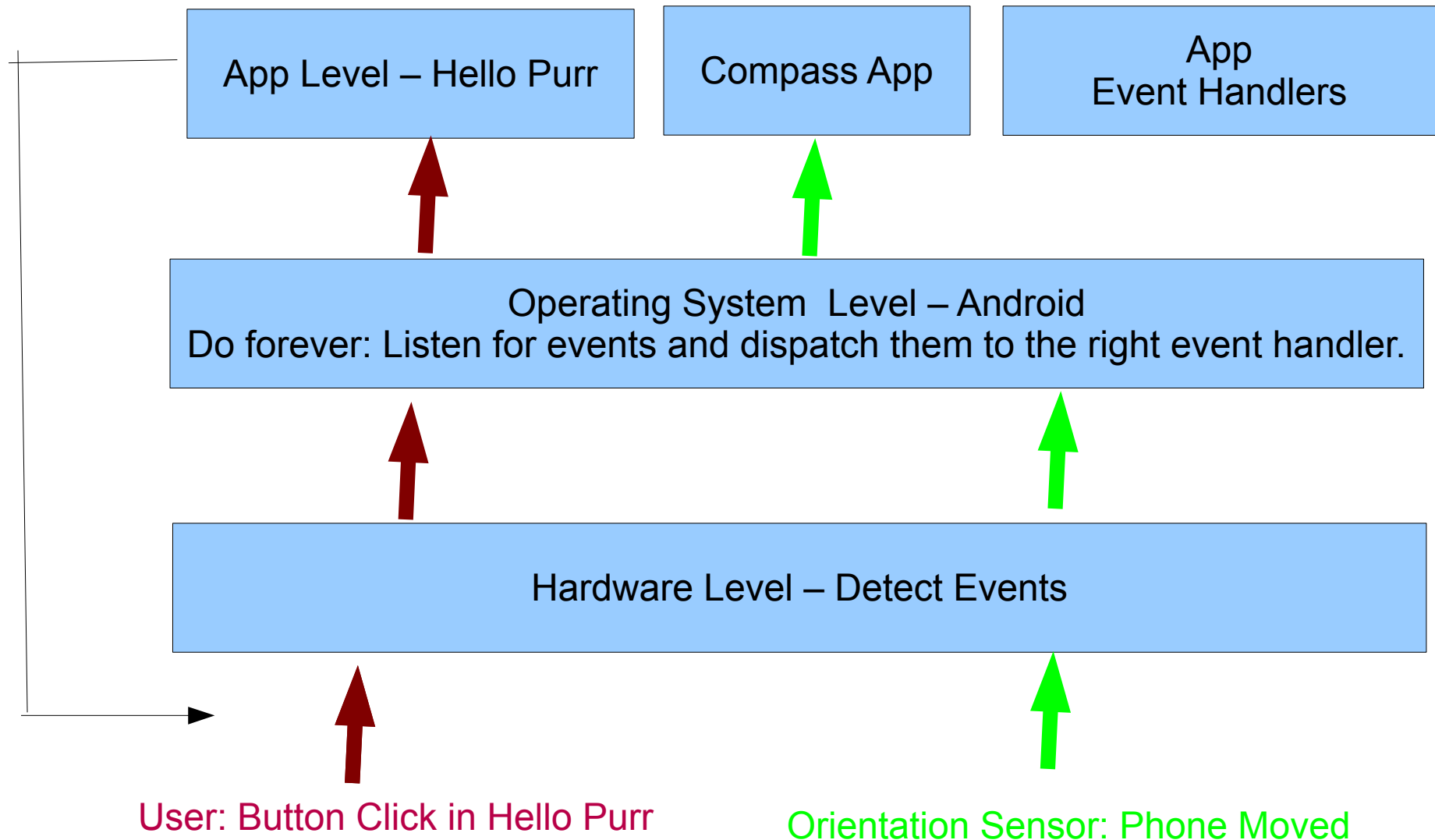


Event Driven Programming

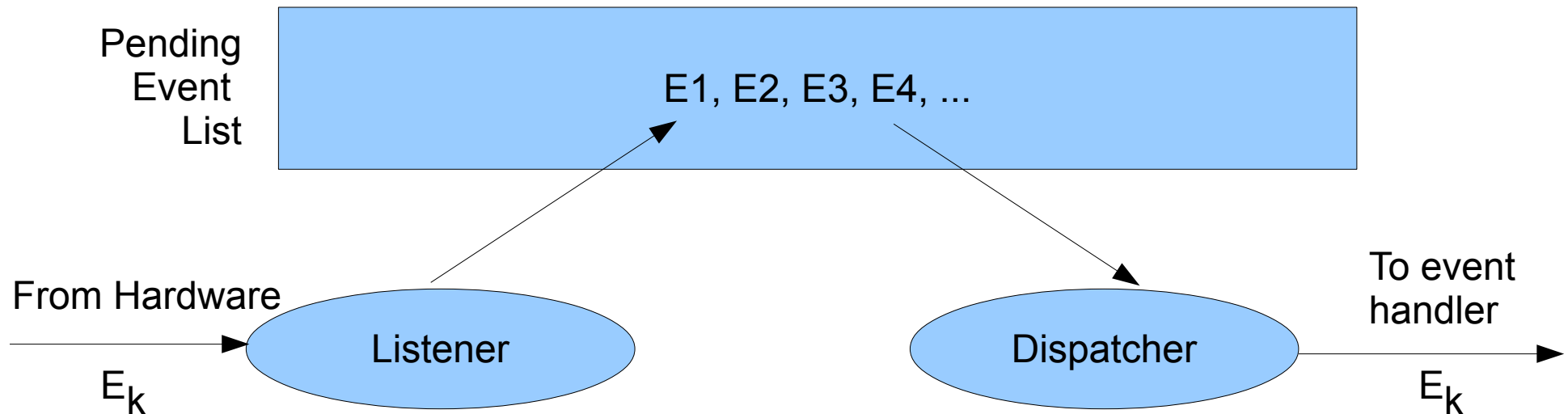
- A type of programming where:
 - Flow of control is determined by events.
- Events:
 - Physical occurrences in the real world
 - User actions (button click, menu selection)
 - Messages (text message, phone call)
 - Sensor inputs (GPS, orientation change)
 - Program actions (Display, outgoing message)
- Event Handlers
 - Software objects (blocks) that we can program to take action in response to events.

Levels of Event Processing



Main Controller's Event Loop

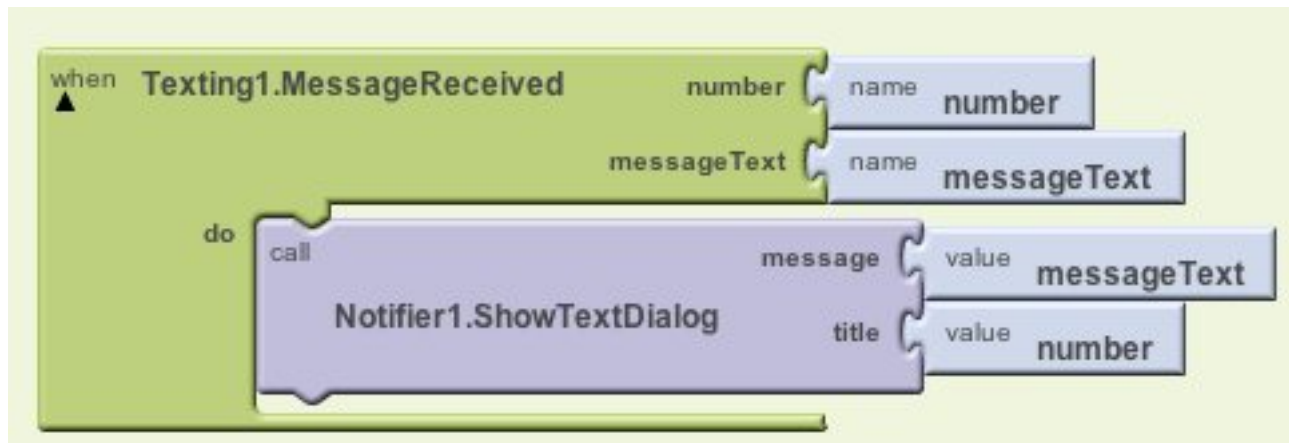
- Repeat forever (while the phone is running)
 - **Listener**: If an event is detected put it in the pending event list.
 - **Dispatcher**: Take the highest priority event from the event list and send it to the appropriate event handler.



Event Handler

- Wait (sleep) for an event to be delivered to you.
 - **When** sent an event by the dispatcher, wake up and
 - **Do** the prescribed list of actions.
 - Go back to sleep.
- Text Message Received Handler
 - **When** a text message is received from a given phone number
 - **Do** something with the message.
 - Go back to sleep.

AI's Message Received Handler



App Inventor's Button Click Handler

