

# User Interaction: Intro to Multi-Touch

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# Getting Multi-Touch up and Running

- Community Core Vision (<http://ccv.nuigroup.com/>)
  - is a open source/cross-platform solution for computer vision and machine sensing. It takes an video input stream and outputs tracking data (e.g. coordinates and blob size) and events (e.g. finger down, moved and released) that are used in building multi-touch applications.



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- Community Core Vision (<http://ccv.nuigroup.com/>)
  - can interface with various web cameras and video devices as well as connect to various TUIO/OSC/XML enabled applications and supports many multi-touch lighting techniques including: FTIR, DI, DSI, and LLP with expansion planned for the future vision applications (custom modules/filters).



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- MT4J
  - MT4j - Multitouch for Java™ - is an open source Java™ development platform, created for rapid development of graphically rich applications. MT4j is designed to support different kinds of input devices with a special focus on multitouch support.
  - <http://www.mt4j.org>



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- Processing
  - Processing is an open source programming language and environment for people who want to program images, animation, and interactions. It is used for learning, prototyping, and production. It is created to teach fundamentals of computer programming within a visual context and to serve as a software sketchbook and professional production tool.
  - <http://processing.org/learning/eclipse/>



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- TUIO
  - TUIO is an open framework that defines a common protocol and API for tangible multitouch surfaces. The TUIO protocol allows the transmission of an abstract description of interactive surfaces, including touch events and tangible object states.
  - <http://www.tuio.org/>



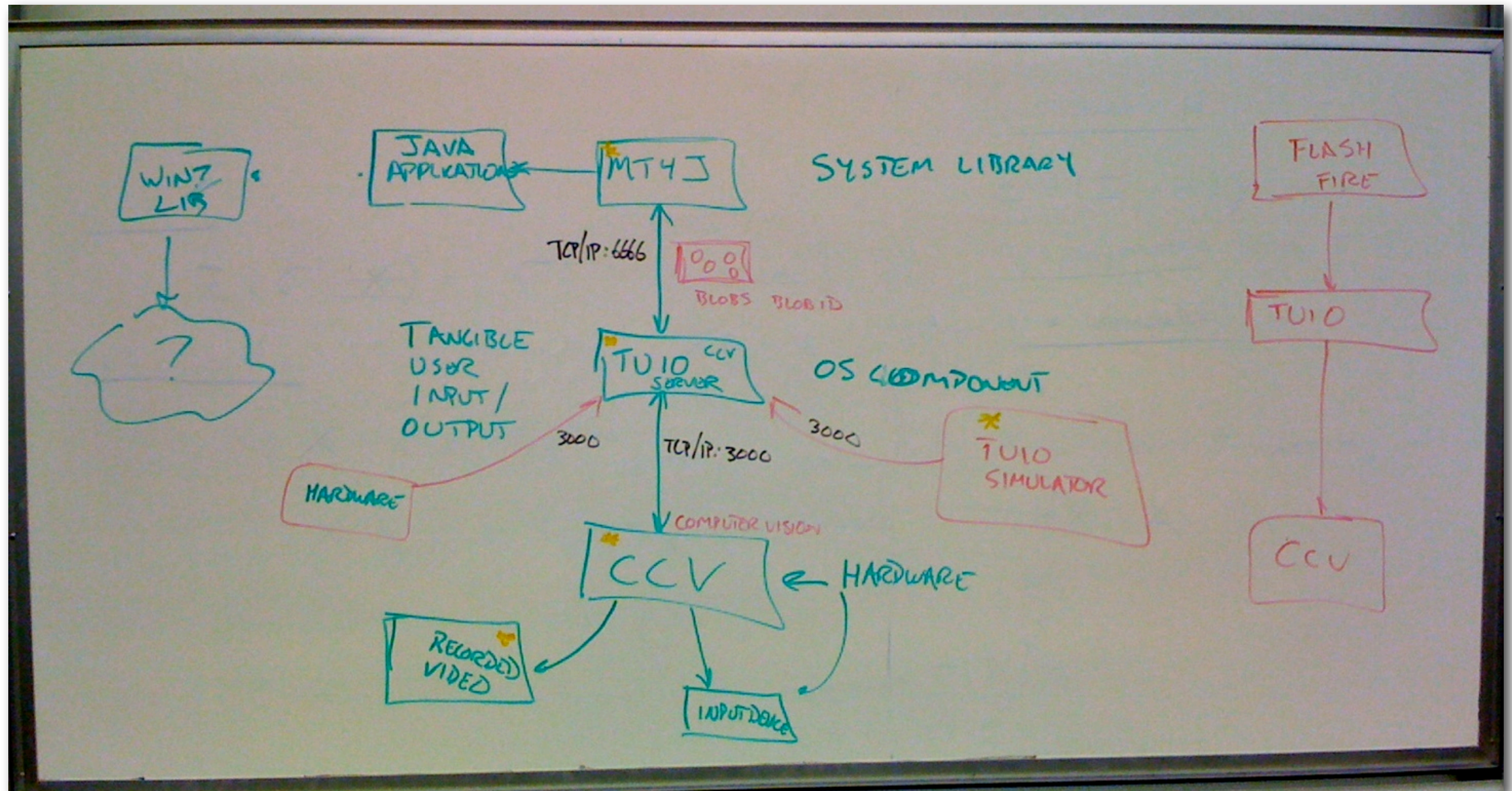
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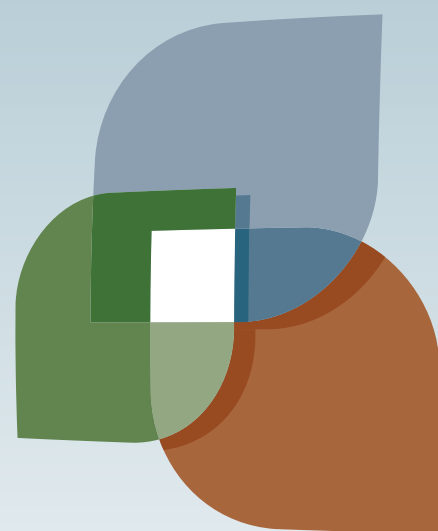




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