# Sports Timing Systems Research

Systems challenges:

* management of hardware
* wires over long distances
* delay on signal (rfid)
* unified start signals (referee vs timer)
* how many signals can it process?
* power management of the sensors
* batteries etc. (notification on low battery)
* materials (weather conditions)
* ease of set up.

Challenges to consider:

* Sophisticated GUI
* ease of use
* software vs. mechanical switches.

Common Attributes:

* accurate and consistent
* specifications for certain timing standards
* sensor validity
* print out (format of time)

USE CASE: IND RUN



# Three Use Cases:

USE CASE: Retrieving Data



USE CASE: System Operations



system startup - sys admin - startup and shut down - conn, disc

Export - race sdmin - reset, newrun, endrun

IND run - tog, num, clr, dnf, trig, start, finish

# Stories:

Release 1: Simulator start, Simulator File Input, Simulator Console Input, Start, Stop, Reset, TIME(set time), TOG, CONN, DISC, NEWRUN, ENDRUN, START, FINISH, TRIG<NUM>, SWAP

Release 2: EVENT<Type>, multiple channels, export to file, display on console

Release 3: Group races (single start, series of single finishes), various displays, GUI

Release 4: Parallel Group Races (Swimming), send results to web server

# Division of Labor:

Timing System:

Fue, Isaac, Phil

Simulator:

Andrew, Riley

# Team Contributions

Riley – contribute to research on other systems, use cases, documentation of research, organizing stories

Phil- Contribute to generating question, created use case diagrams.