



SHOW JUMPING + IOT

A STORY OF BOREDOM



Judy the judge is bored. As yet another horse comes into the arena, she squares up to filling in another line of ticks and crosses on her score sheet.

Charlie the competitor is bored. His competition was supposed to start an hour ago but they are still on the previous class, he decides to wander over to the judges box and see Judy's latest estimate for when his class will finally get under way.

Oscar the organiser is not bored, he is running around making sure riders are where they are supposed to be, the course designer is ready to change the fences in ring 2 and he must remember to take Judy a cup of tea when he has a minute.

Sally the spectator, and aunt of Charlie, is the most bored of all at her first show. The first 10 horses were quite interesting, at around 20 they all started to look the same. She is waiting for her nephew Charlie to jump.

Overview of Show Jumping

Horses and riders compete over a set course of jumps to find out who can clear all the jumps in the fastest time. In a typical class there are two rounds. All the competitors who don't knock any fences down in the first round, go through to a second round. In the second round, the winner is the one who clears all the fences and has the fastest time.

The following year...

Judy the judge is enjoying watching the class progress as her phone keeps track of the faults and is glad she does not have to deal with those silly form any more. With the new app, she lets the sensors on the jumps and bluetooth timers do their thing and just needs to tell it when to start and verify the result at the end.

Charlie the competitor is having a quick cup of tea before he gets ready for his class, that is due to start in 43 minutes. He receives regular tweets on the progress of the show and has an allocated slot.

Oscar the organiser is bored now that that everyone can see who is needed where and when. He is looking at the progress of all three rings on his mobile app and decides to do a quick Facebook and Twitter update with the results of a class just finishing.

Sally the spectator is getting excited. There are only 5 to go in the class she is watching and the last competitor nearly beat the fastest time, the new scoreboard visualises the current competitor racing against the current leader and the video feed means she does not have to crane her neck to see the action.

Note: this prototype focuses on the judges experience but by solving her problems and automating the collection of data, this also relieves the pain points of other users.



PERSONAS



Judy the Judge

“I volunteer for judging at shows because I like being part of the horse crowd. ”

About

Judy is 72 and got involved with horses when her daughter went through a horsey phase. She got bored with standing around at shows, so one day she volunteered to help and the rest is history.

Responsibilities

- I have the overall responsibility for ensuring a competition runs efficiently and according to the rules and regulations.
- I am responsible for Time Keeping, Scoring, Result Keeping, Discipline, Commentating and Course Walking.
- I am also responsible for collating the results

Needs

- A very easy and quick way of keeping score of the number of faults and time of each round.
- PA system so I can announce who is about to jump and their result when they finish
- People to put up fences when they are knocked down
- Someone to bring me a hot cup of tea during a long class

Main Goals

- The class goes smoothly without interruption
- All rider and horses have the same course to jump
- The records of the competition are accurate

Pain Points

- For each fence I have to watch the horse jump then look down and put a tick in a box, look up again...
- Running out of working pens
- Embarrassment when I miss a knocked fence because I was interrupted or sidetracked.
- Saying the wrong score or time at the end of the round - my writing is not the best!
- No rider waiting to go as soon as the next rider finishes
- Timing heads go out of alignment and have to stop the class until they are setup up again





Points of View

As a Judge I need a way to run the competition efficiently so that competitors, organisers and spectators do not become frustrated.

As a Judge I need a way to accurately record a riders score so that the competition is fair and the result is right.

As a Judge I need reliable technology that helps me run competitions smoothly

As a Judge I need a way to share the current status of a competition so that if it is running late competitors are notified

As a Competitor I need a way to know when I will be jumping so that I can be prepared to jump when it is my turn.

As a Competitor I need to know how I am doing in a competition so that I am ready to ride in for the prize giving if I am placed.

As a Uninformed Spectator I need a way to know how the competition is progressing so that there is excitement in watching a stream of horses all jumping around the same course.

As an Informed Spectator I need to know the current status of each competition and when riders will be jumping so I can watch the ones I am interested in.

As an Organiser I need a way to make sure everyone (riders, judges, course builders) are where they should be, when they should be so the event runs smoothly.

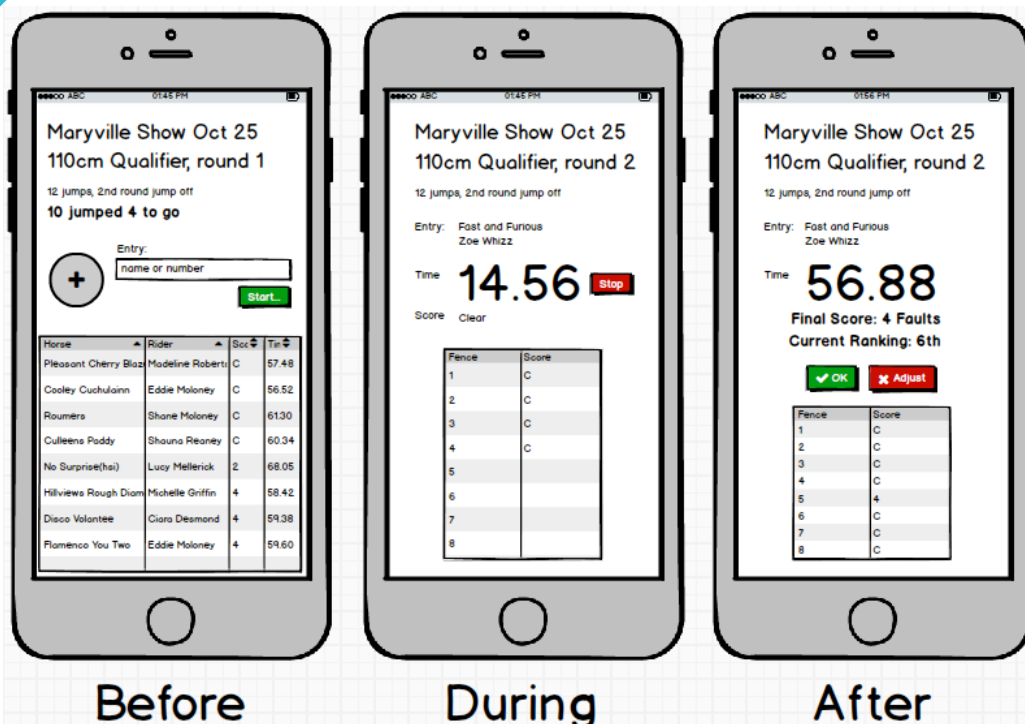


JUDGES EXPERIENCE OF SINGLE COMPETITORS ROUND

ACTIONS	Waiting for next horse to enter arena	Horse enters arena - Judge rings bell to say they have 45 secs to start round. Writes name on score sheet	Horse goes through start timing beam	Horse clears first fence - judge updates score sheet	Horse knocks second fence - judge updates score sheet	Horses finishes round going through finish timing beam - Judges notes time of round and calculates total score	Next horse is waiting to go - Judge announces score
MINDSET	"They should have been waiting to go as the last horse finished. Where are they? I'm going to make another announcement"	"Finally, we can get started"	"Off we go."	"Mark that with a tick"	"Mark that with a cross"	"Nice round, nice horse, pity about the fence down."	"Good back on track"
FEELING							
	Frustration			Boredom		Relief	
TOUCH POINTS	PA System	PA System Bell/Buzzer Score Sheet Pen Timing Beam	Timing Beam	Score Sheet Pen	Score Sheet Pen	Timing Beam Score Sheet Pen	PA System



Judge enters name and presses start when the course and rider are ready...



Judge accepts (or adjusts) score and has all the information to read out over the PA. "So that was 4 faults for Zoe Whizz riding Fast and Furious in a time of 56.88 putting her in into 6th place".

Judge watches the timer counting and the sensors marking fences jumped clear or not...

ELECTRONIC SCOREBOARD

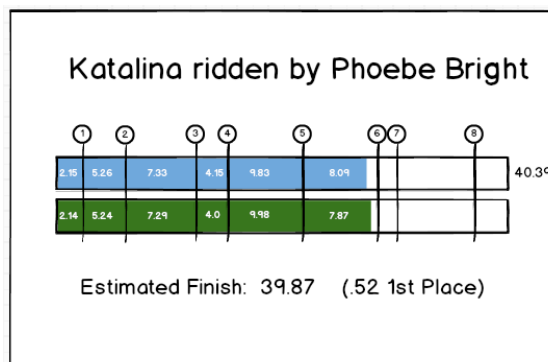
Between rounds the Scoreboard cycles round the current standings and next riders and horses to jump.

110cm Qualifier Standings				
Horse	Rider	Score	Time	
Pleasant Cherry Blaze	Madeline Roberts Allen	C	57.48	
Cooley Cuchulainn	Eddie Maloney	C	56.52	
Roumiers	Shane Maloney	C	61.30	
Culleens Paddy	Shauna Reaney	C	60.34	



Streaming video from camera that auto tracks horse, zooming to fill screen.

During the round two bars race to the finish. The blue bar is the fastest round so far, the green bar is the current round.



IOT USED

Trackers on Horse and Rider
Sensors on jumps + timing beam
for start and finish
Movement Tracking camera
records each round

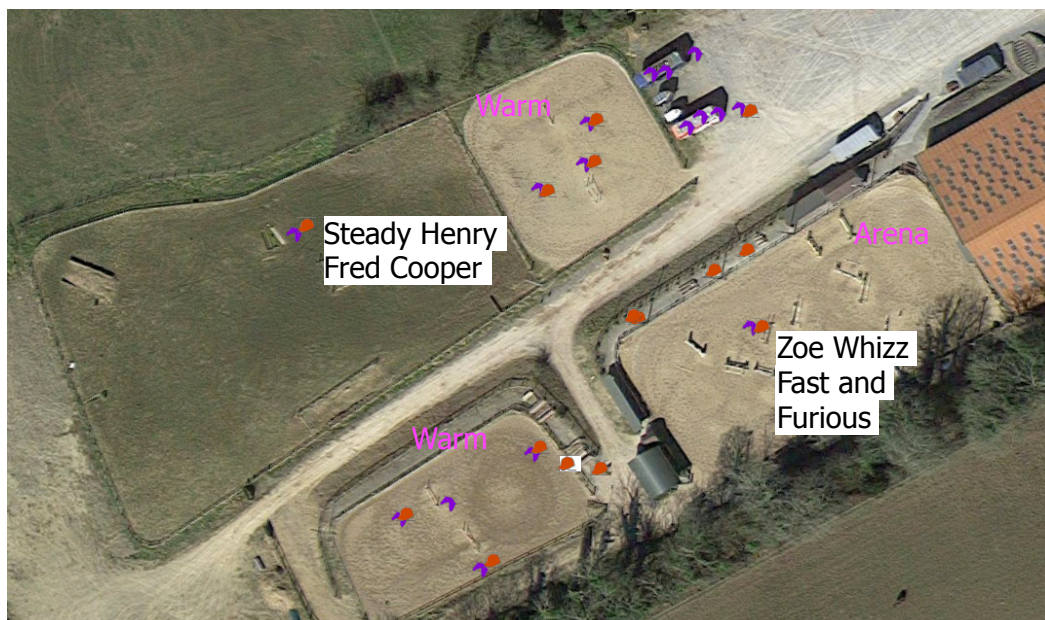


Photoelectric retro-reflective proximity sensor - jump knows when the horse is jumping the jump. Used for timing.

Photoelectric proximity sensor - Knows when the pole has been dislodged from the cup.

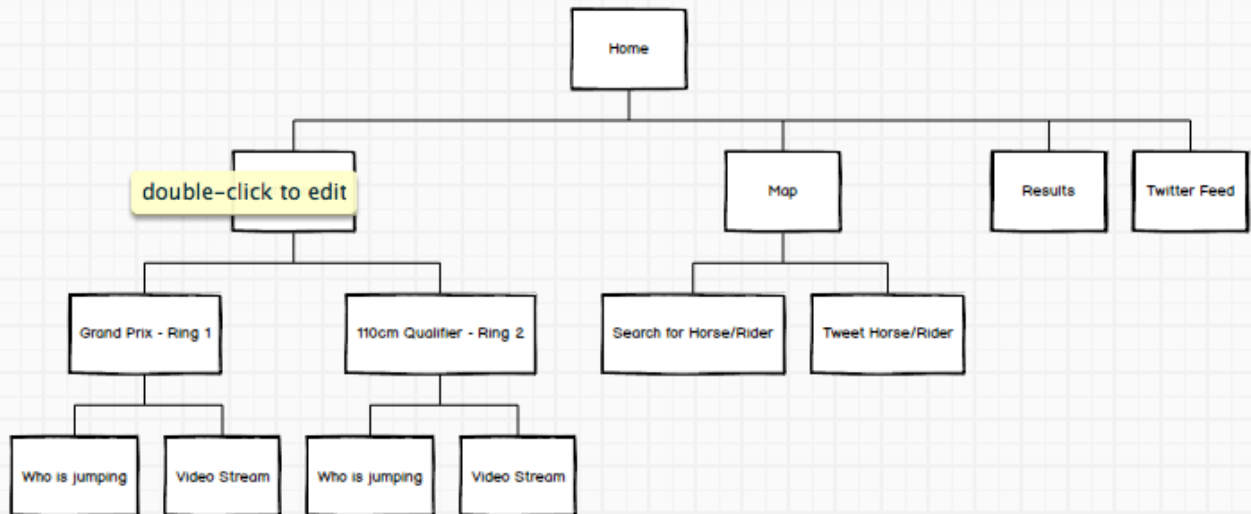
Active RFID tag in the rider's pocket to identify the rider location on the show grounds

Active RFID tag on the bridle to identify the horse location on the show grounds



Judge can check if the next horse and rider into the arena are in the warm up area and knows which horse and rider are jumping without them telling the judge.

JUDGE + ORGANISER APP



RIDER + SPECTATOR APP

