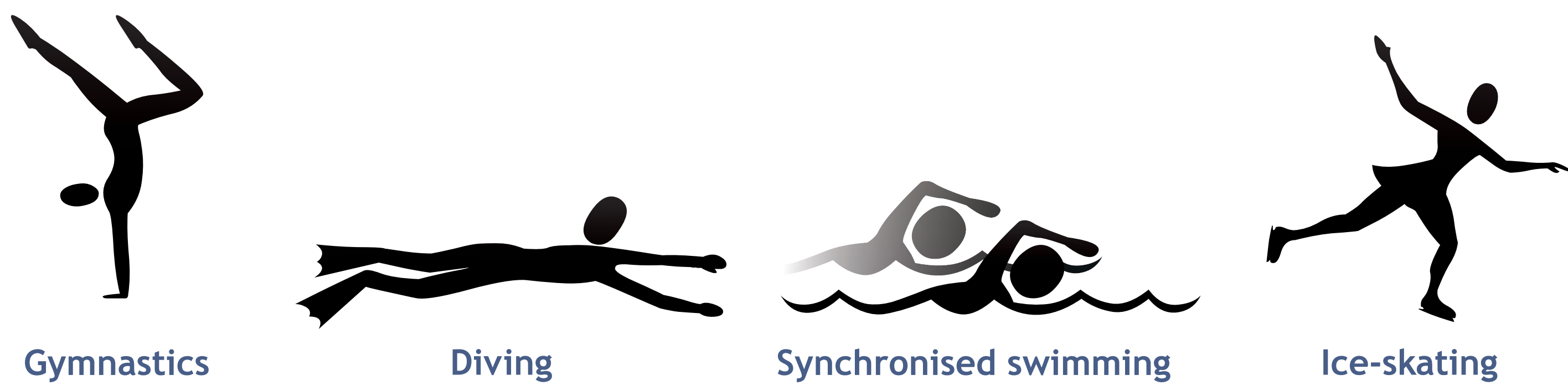


# Audience Voting System

## FOR THE OLYMPIC GAMES IN ATHENS 2004

### CONTEXT OF USE

An audience voting system can be used for receiving and counting votes in disciplines such as:



### DESIGN GOALS

#### Inclusive

Every spectator should be able to participate. We want to follow the concept: one person one vote.

#### Ease of use and accessibility

Spectators regardless of the background should be able to use the system immediately. This should include usage by people with disabilities.

#### Robustness

The system should be simple and robust with regard to installation and maintenance.

#### Cost effective

Development, installation, and operation of the system should be fairly cheap.

#### Sustainability

The system can be used in further events and it is ecological.

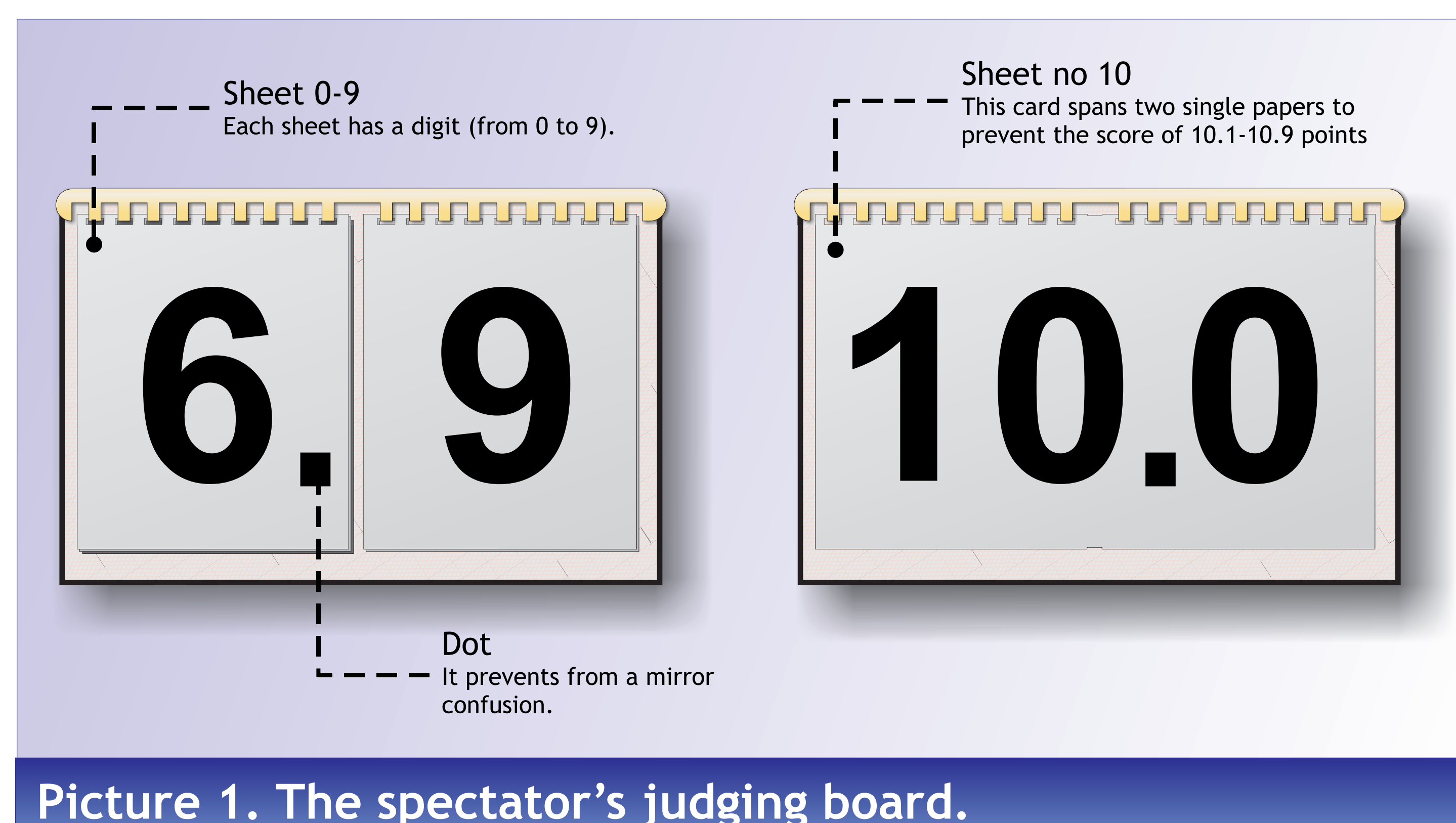
#### Tamper proof

Make sure that the system is save from direct manipulation so the audience can trust it.

### USING THE SYSTEM

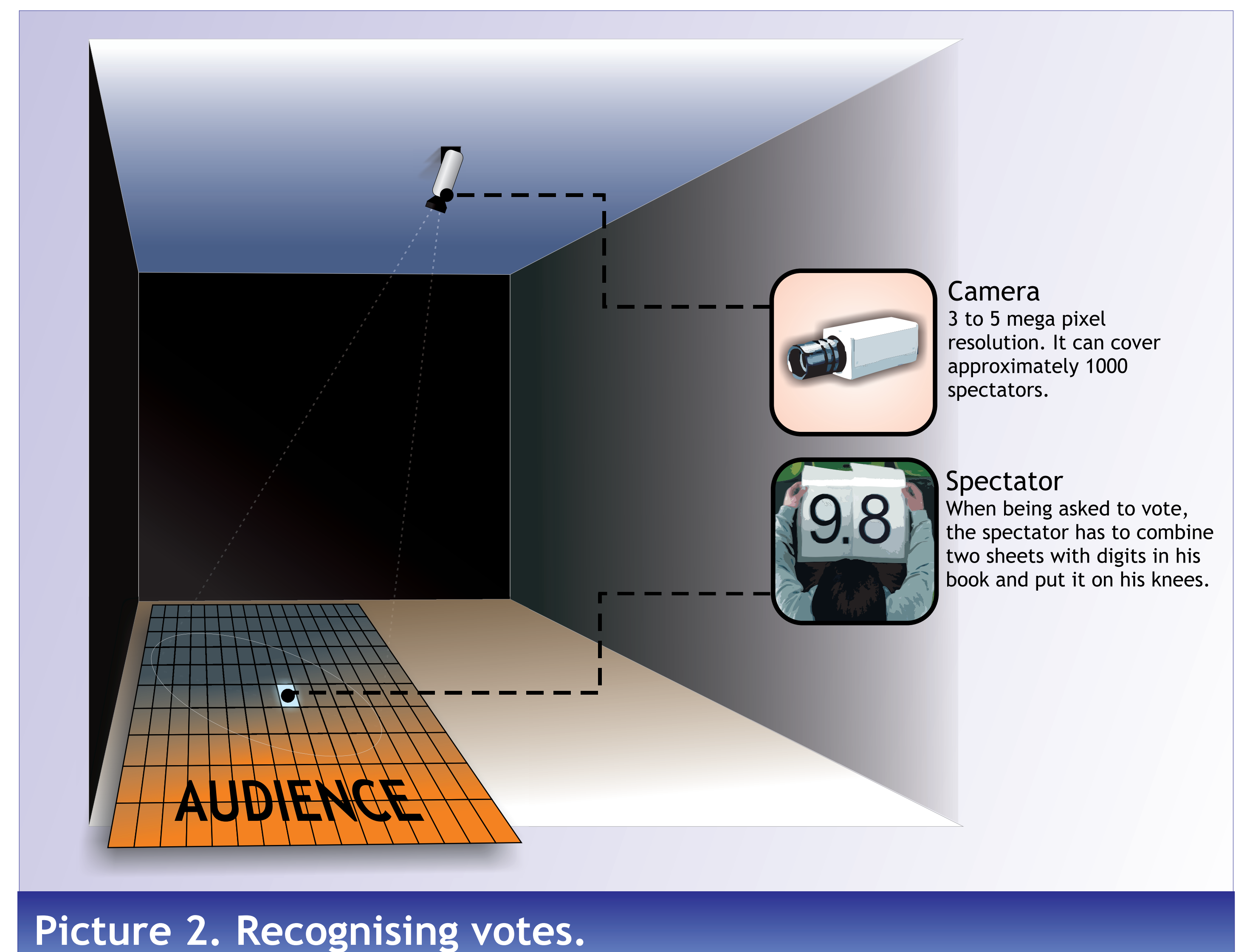
#### Phase 1: Distributing answer sheets among spectators

The spectator receives a brochure which contains 21 sheets of paper. On the papers are two digits from 0 to 10 and one with 10.0. Papers are individually fixed to the brochure which allows to form any possible mark.



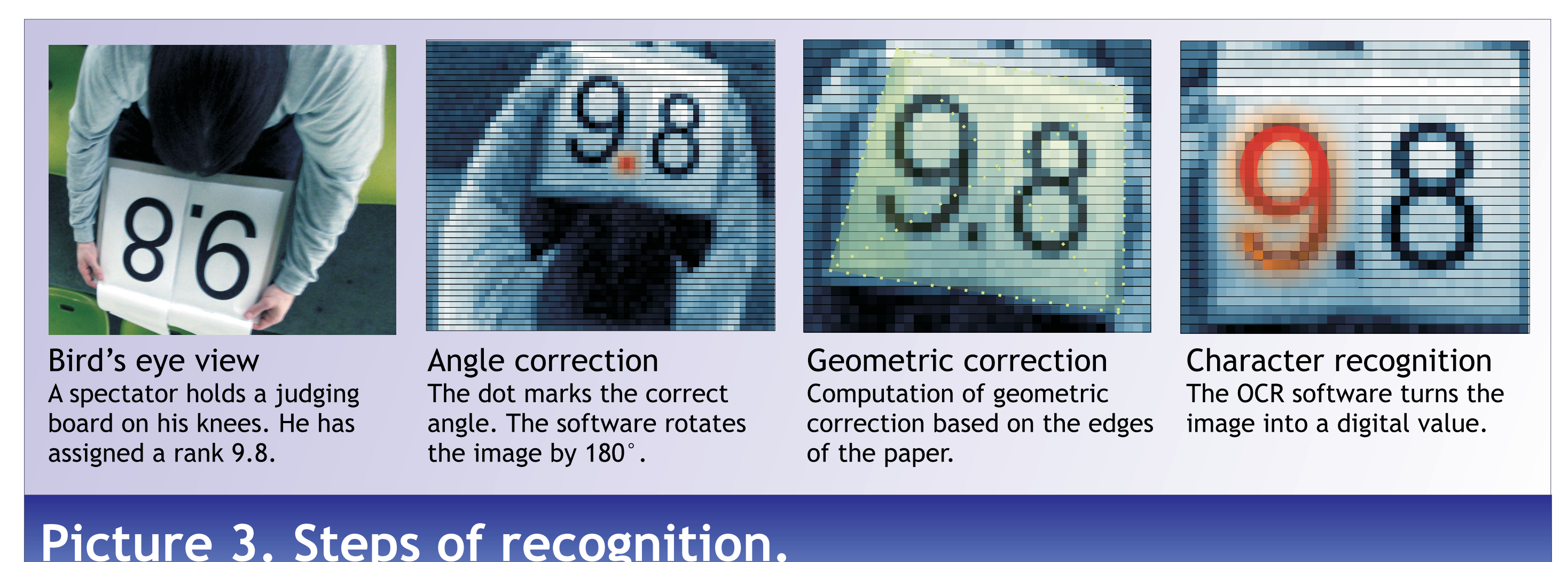
#### Phase 2: Capturing votes

The system is based on cameras that are individually fixed to the ceiling. In this way, 15 cameras can cover 15000 seats.



#### Phase 3: Recognising characters

After geometric correction, every seat gets a rectangular piece of the picture. Then the software recognises the numbers on the sheets and counts the votes.



#### Phase 4: Displaying results

The audience interacts with the stadium display. The stadium display shows the grid of seats like a mirror. Every seat is represented by a square which turns light if the system has counted the vote. So every spectator can identify himself on the display and check if the judgement was registered.

