

### 4.3 Maruzsi

Date: 11.11.2011  
 Stadium: Bozsik, Budapest, Hungary  
 Ball: Adidas, Jabulani, FIFA Approved

#### Results

	<i>criteria</i>	<i>value</i>	<i>No. of shots</i>	<i>Pass/fail</i>
<b>Goal Indication</b>				
	< 1s	<1 to 2s	-	Fail
	Vibration	yes	-	Pass
	Visual	yes	-	Pass
<b>Range</b>				
	full pitch		-	Pass
<b>Free shots (empty goal and near misses)</b>				
	100%	79%	85	Fail
<b>Sled test</b>				
	90% (-3/+3cm)	20%	15	Fail
<b>Impact wall</b>				
	90% (-3/+5cm)	38%	100	Fail
<b>Free joker shots</b>				
	100% (TBD)	74%	23	
<b>Free shots (outer net: side and on top)</b>				
	100% (TBD)	85%	20	
<b>Free shots on goal keeper</b>				
	100% (TBD)	0%	10	
<b>Total (side info)</b>		56%	253	Fail

Sled test (quasi static accuracy) 12.7 cm ± 9.7 cm

Phase 2 criterion

Optional

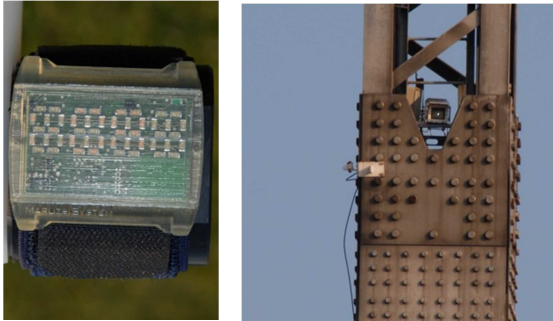
#### Comments

- Several referee watches had a problem with the radio transmission.
- Sometimes the system recognised the ball only when it was rolling back out of the goal. This was the reason why the delay is sometimes around 2s.
- Between 2 and 3 o'clock the system had problems with the position of the sun, according to the system provider.

**System**

Video based system with several cameras positioned on the post of the flood light system and on the stadium roof.

In comparison to the tests in February 2011, new referee watches were used



**Figure 13:** Indication device and one of the cameras of Maruzsi