

## 4.2.2. Client Sensor Protocol

From server to client
<pre> (hear Time Sender "Message") (hear Time Online_Coach Coach_Language_Message)     Time ::= simulation cycle of the <b>soccerserver</b>     Sender ::= <b>online_coach_left</b>   <b>online_coach_right</b>   <b>coach</b>   <b>referee</b>   <b>self</b>   <i>Direction</i>     Direction ::= <b>-180</b> ~ <b>180</b> degrees     Message ::= string     Online_Coach ::= <b>online_coach_left</b>   <b>online_coach_right</b>     Coach_Language_Message ::= see the standard coach language section </pre>
<pre> (see Time ObjInfo<sup>+</sup>)     Time ::= simulation cycle of the <b>soccerserver</b>     ObjInfo ::= (<i>ObjName Distance Direction DistChange DirChange BodyFacingDir HeadFacingDir</i> )                  (<i>ObjName Distance Direction DistChange DirChange</i>                  (<i>ObjName Distance Direction</i>)                  (<i>ObjName Direction</i>)     ObjName ::= (<b>p</b> ["Teamname" [<i>UniformNumber</i> [<b>goalie</b>]]])                  (<b>b</b>)                  (<b>g</b> [<i>l</i> <i>r</i>])                  (<b>f</b> <i>c</i>)                  (<b>f</b> [<i>l</i> <i>c</i> <i>r</i>] [<i>t</i> <i>b</i>])                  (<b>f</b> <b>p</b> [<i>l</i> <i>r</i>] [<i>t</i> <i>c</i> <i>b</i>])                  (<b>f</b> <b>g</b> [<i>l</i> <i>r</i>] [<i>t</i> <i>b</i>])                  (<b>f</b> [<i>l</i> <i>r</i> <i>t</i> <i>b</i>] <b>0</b>)                  (<b>f</b> [<i>t</i> <i>b</i>] [<i>l</i> <i>r</i>] [<b>10</b> <b>20</b> <b>30</b> <b>40</b> <b>50</b>])                  (<b>f</b> [<i>l</i> <i>r</i>] [<i>t</i> <i>b</i>] [<b>10</b> <b>20</b> <b>30</b>])                  (<b>l</b> [<i>l</i> <i>r</i> <i>t</i> <i>b</i>])                  (<b>B</b>)                  (<b>F</b>)                  (<b>G</b>)                  (<b>P</b>)     Distance ::= positive real number     Direction ::= <b>-180</b> ~ <b>180</b> degrees     DistChange ::= real number     DirChange ::= real number     HeadFaceDir ::= <b>-180</b> ~ <b>180</b> degrees     BodyFaceDir ::= <b>-180</b> ~ <b>180</b> degrees     Teamname ::= string     UniformNumber ::= 1 ~ 11 </pre>
<pre> (sense_body Time     (view_mode {<b>high</b>   <b>low</b>} {<b>narrow</b>   <b>normal</b>   <b>wide</b>} )     (stamina <i>Stamina Effort</i>)     (speed <i>AmountOfSpeed DirectionOfSpeed</i>)     (head_angle <i>HeadAngle</i>)     (kick <i>KickCount</i>)     (dash <i>DashCount</i>)     (turn <i>TurnCount</i>)     (say <i>SayCount</i>)     (turn_neck <i>TurnNeckCount</i>)     (catch <i>CatchCount</i>)     (move <i>MoveCount</i>)     (change_view <i>ChangeViewCount</i>))     Time ::= simulation cycle of the <b>soccerserver</b>     Stamina ::= positive real number     Effort ::= positive real number     AmountOfSpeed ::= positive real number     DirectionOfSpeed ::= <b>-180</b> ~ <b>180</b> degrees     HeadAngle ::= <b>-180</b> ~ <b>180</b> degrees     *Count ::= positive integer </pre>