

1. Robot soccer player

Performance Measure (P): To Play, Make Goal & Win the Game.

Environment (E): Soccer, teammates, Opponents, Audience and Soccer Field, Referee.

Actuators (A): Navigator, Legs of Robot, View Detector for Robot.

Sensors (S): Gyro, Communicators and Orientation, Camera, Touch Sensors.

2. Internet book-shop agent

Performance Measure (P): Minimizing cost, information & review about interesting books

Environment (E): Internet, Browser, Number of books.

Actuators (A): Navigator, Legs of Robot, View Detector for Robot.

Sensors (S): Gyro, Communicators and Orientation, Camera, Touch Sensors.

3. Autonomous Mars rover

Performance Measure (P): Identify roads, collect samples, test samples and deliver results.

Environment (E): Mars surface road conditions, vehicle driving conditions, dangerous objects.

Actuators (A): Wheels, Collection, analysis, and motion devices, radio transmitter.

Sensors (S): Element analyzer, cutting machine, Video camera, audio receivers, communication links.

4. Mathematical theorem prover

Performance Measure (P): Ability to calculate quickly, rich mathematical knowledge and self-justification.

Environment (E): Classrooms, institutes and mathematicians.

Actuators (A): Receive the arguments of others, analyze the relationship between mathematics and physics, and draw the final conclusion and whether the debate is correct.

Sensors (S): Sound receiver, keyboard input, image recognition.

5. First-person shooter (Counterstrike, Unreal Tournament etc.)

Performance Measure (P): Identify friendly forces and enemies, prepare to predict the enemy's position, lock the enemy's position and shoot.

Environment (E): Internet, friendly forces and enemies, obstacles.

Actuators (A): Mouse, analysis and processing, predictive aiming.

Sensors (S): Image recognition, sound receiver, keyboard and mouse.