For each of the following agents, develop a PEAS description of the task environment:

a. Robot soccer player;

b. Internet book-shopping agent;

c. Autonomous Mars rover;

d. Mathematician's theorem-proving assistant.

a. Robot soccer player;

Agent：Robot soccer player

Performance measure: Playing soccer to win in sports

Environment: soccer court ; soccer

Actuators: Jointed feet and arms and hands , camera

Sensors: Camera , joint angle sensors

b. Internet book-shopping agent;

Agent：Internet book-shopping agent

Performance measure: shopping in the internet

Environment: internet

Actuators: buy shops , view shops

Sensors: Camera ,

c. Autonomous Mars rover;

Agent：Robot soccer player

Performance measure: safe , maximize profits , explore

Environment: soccer court ; Mars , weather , stone

Actuators: Steering wheel , accelerator ,brake ,signal ,horn ,display

Sensors: Camera , joint angle sensors ,sonar ,GPS ,odometer ,engine sensors, gauges ,keyboard

d. Mathematician's theorem-proving assistant;

Agent：Mathematician's theorem-proving assistant

Performance measure: theorem-proving assistant

Environment: soccer court ; coumputer

Actuators: compiler

Sensors: keyboard , screen