

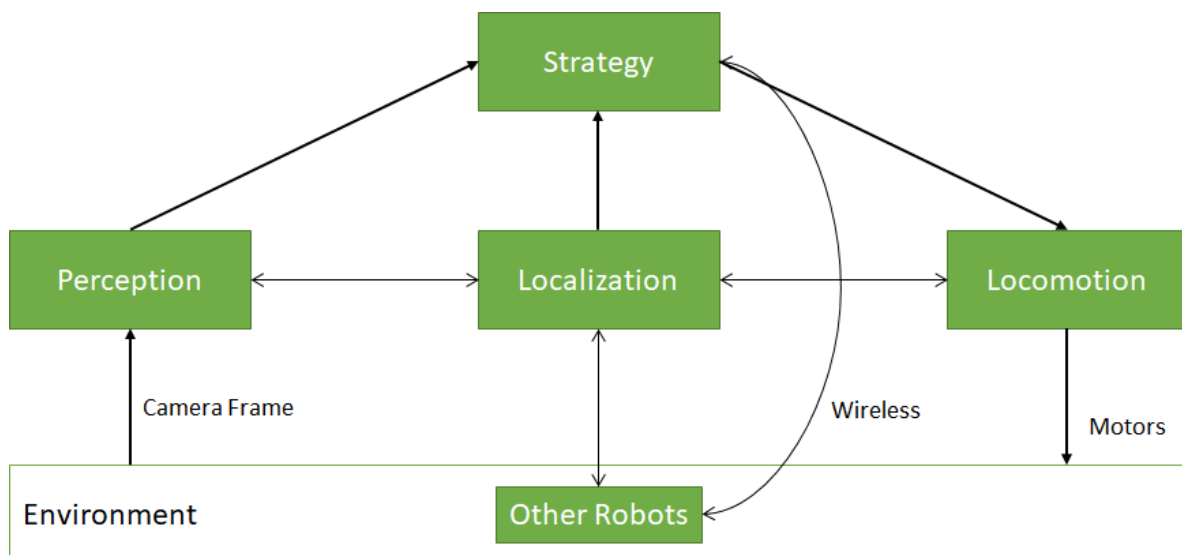
### PEAS for Robot Soccer Player:

PEAS	Description
Performance Measure (P)	To Play, Make Goals & Win the Game.
Environment (E)	Soccer, Team Members, Opponents, Referee, Audience, and Soccer Field.
Actuators (A)	Navigator, Legs of Robot, View Detector for Robot.
Sensors (S)	Camera, Communicators, and Orientation & Touch Sensors.

### Task Environment:

Environment	Type
Observable	Partially
Deterministic	No, Stochastic
Episodic	No, Sequential
Static	No, Dynamic
Discrete	No, Continuous
Agent	Multi-agent

### Suitable Design for Robot Soccer Player Agent (Model-Based Reflex Agent):



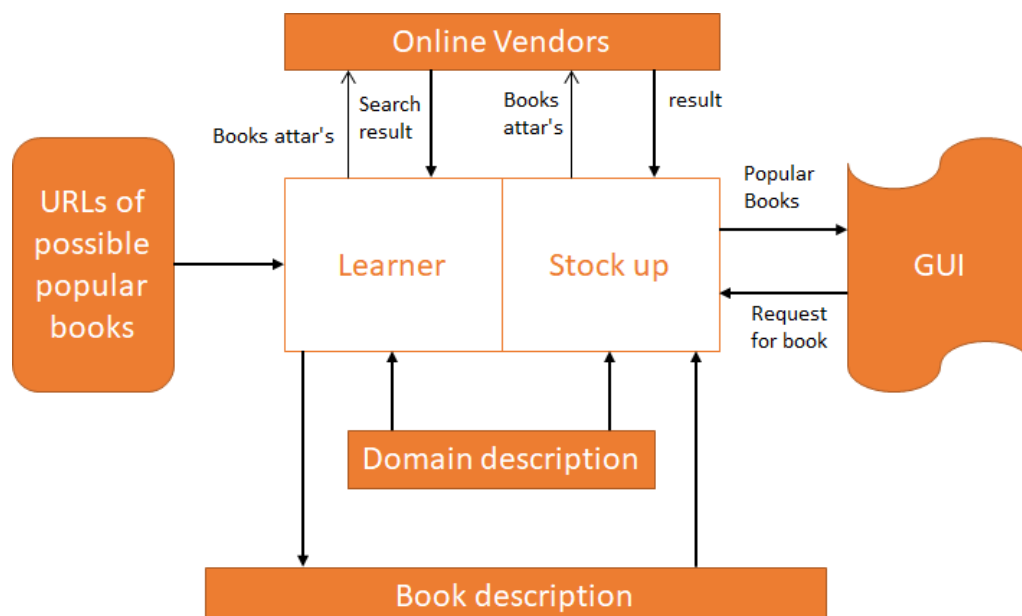
## PEAS for Internet book-shop agent (Model-based Reflex Agent)

PEAS	Description
Performance Measure (P)	book demand, quality, appropriateness, efficiency, availability, price, minimizing cost, information about interesting books
Environment (E)	Internet browser, current, and future WWW sites, vendors, shippers, advertisement
Actuators (A)	display to a user, follow URL, fill in a form, add a new order, retrieve existing order information, display information to a user
Sensors (S)	HTML pages (text, graphics, scripts), buttons or hyperlinks clicked by users.

## Task Environment:

Environment	Type
Observable	Partially
Deterministic	Yes
Episodic	No // sequential
Static	Semi // the world changes partly while the agent is thinking Discrete -Yes
Agent	Single agent

## Suitable Design for Internet Book-shop Agent (Model-based Reflex Agent)



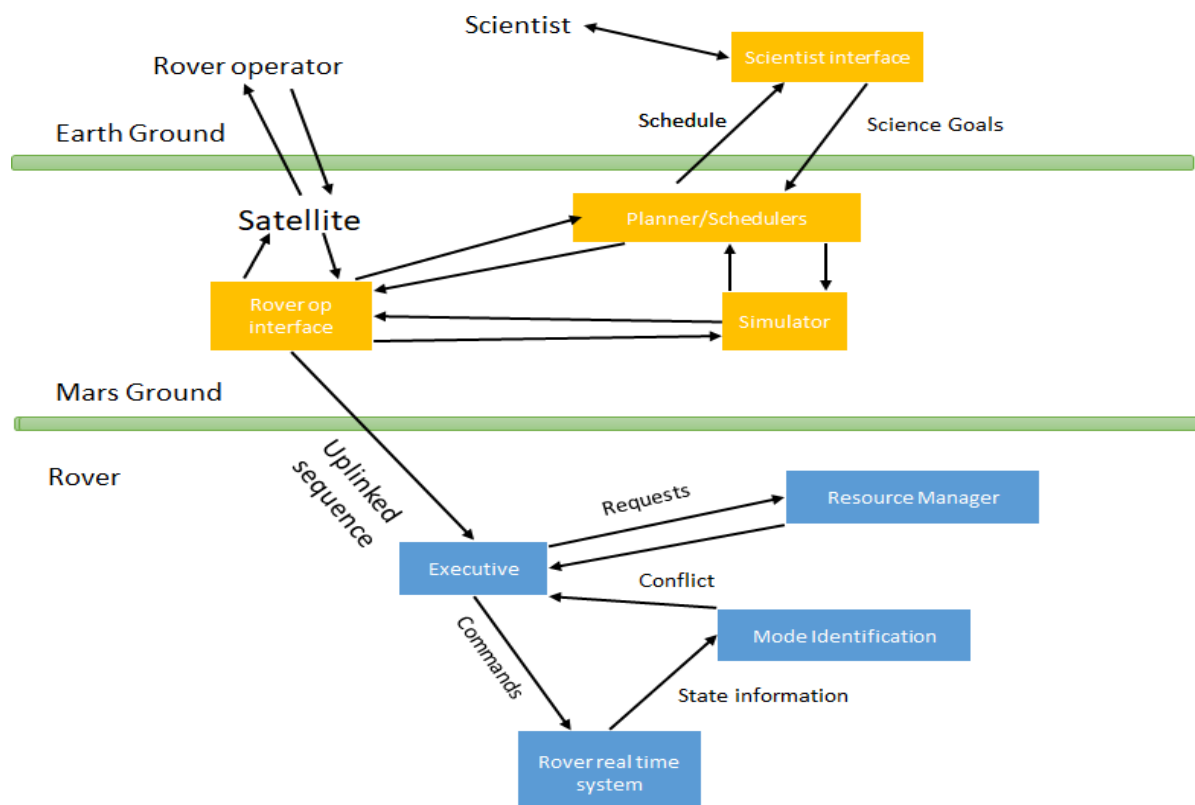
### PEAS for Autonomous Mars Rover (Goal-based Agent):

PEAS	Description
Performance Measure (P)	Distance the rover traverses, along with the number of collected samples or possibly finding life, or maximize lifetime, analyze and explore samples on Mars
Environment (E)	Mars, vehicle
Actuators (A)	wheels, robot arm, drill, motion devices, and radio transmitter
Sensors (S)	Video camera, audio receivers, communication links

### Task Environment:

Environment	Type
Observable	Partially
Deterministic	Stochastic
Episodic	Sequential
Static	Dynamic
Discrete	Continuous
Agent	Single agent

### Suitable Design for Autonomous Mars Rover:



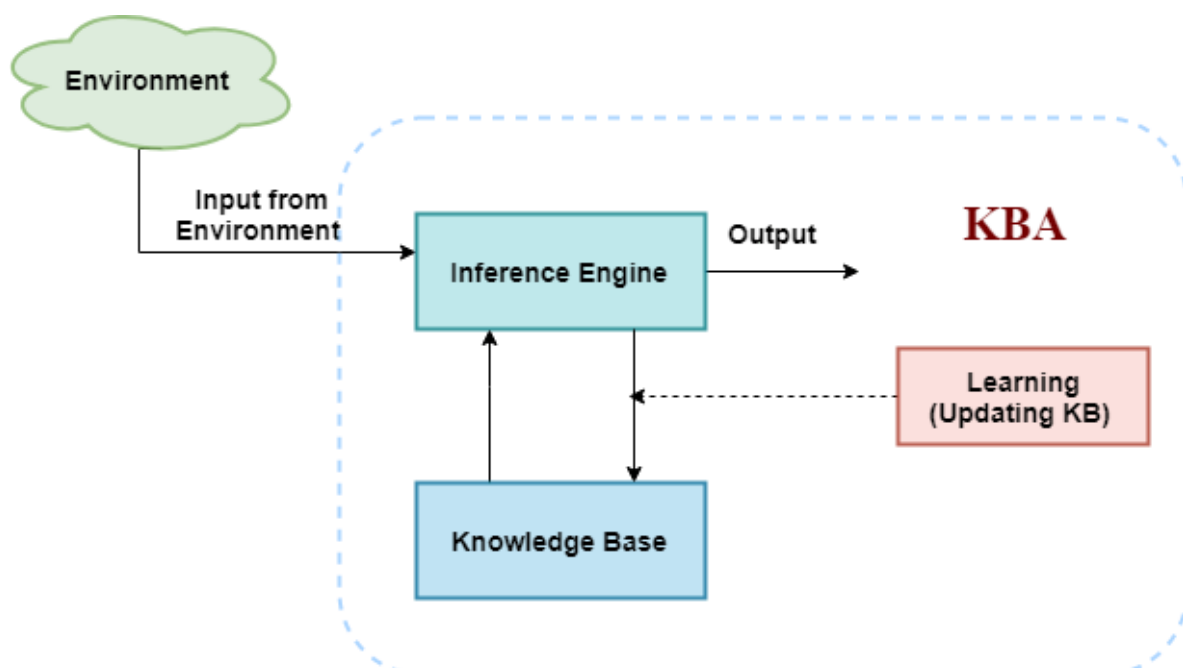
## PEAS for Mathematical Theorem Prover (Knowledge-based Agent)

PEAS	Description
Performance Measure (P)	Theorems proved good math knowledge, new theorems discovered, time requirement, and degree of correction
Environment (E)	CPU, the theorem to prove, existing axioms, internet, library.
Actuators (A)	Display to a user, accept the right theorem, reject the wrong theorem, infer based on axioms and facts.
Sensors (S)	User input (keyboard, file system), an input device that reads the theorem to prove.

### Task Environment:

Environment	Type
Observable	Fully
Deterministic	Yes
Episodic	No // sequential
Static	Yes
Discrete	Yes

### Suitable Design for Mathematical Theorem Prover:



PEAS for First-person shooter (Goal-based Agent):

PEAS	Description
Performance Measure (P)	Number of targets hit, useful techniques
Environment (E)	Virtual battlegrounds
Actuators (A)	Rotate the camera, shoot, and weapons.
Sensors (S)	Sight, hearing, clock

Task Environment:

Environment	Type
Observable	Fully
Deterministic	No, Stochastic
Episodic	No, Sequential
Static	No, Dynamic
Discrete	No, Continuous
Agent	Multi-agent

Suitable Design for First-person Shooter:

