

iRobot

Totally Vested Persona

1st Lt. J. Smith



Primary Job: War Fighter

Secondary: Robot Operator

Time in Job: Less than 5 years

Age Range: 22-32

Archetype

Natural problem solver
Abstract thinker
Mechanically inclined

Mental Model

- The robot is an extension of my capabilities (of self)
- Personification of the robot is expected
- I don't think of the robot as just a tool
- My clear, demonstrable, expertise makes me feel elite
- I want to be seen as the expert (I'm a robot snob)
- I save lives, the team depends on me
- I am the best suited for this role
- Mission Based / Attack the Network

Characteristics

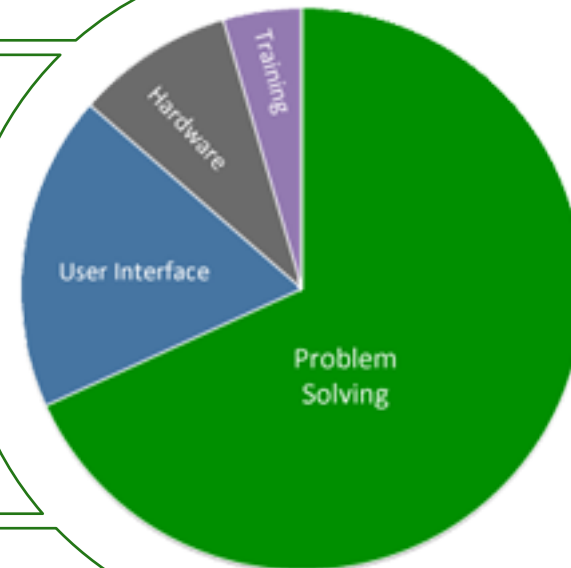
- Intuitively perceive robot articulation
- Appreciate the full depth of functionality
- Rapid abstract thinker / problem solver
- Excited by challenges
- Rapidly assesses SA, gaps and potentials
- Keyed up and dialed in ready to rock
- Keeping skills sharp is paramount
- Works well within a hierarchical team

Challenges

- Life and death decision making
- Everything is a threat (almost all are real)
- Hostile population. You are a high value enemy target
- Terrain / environmental conditions
- Time, distance, shielding, booby traps
- Conducting missions at night
- Discrete, fine manipulation
- Comms, glare, video quality



"My eyes on the scene."



"Grip it and Rip it!"

iRobot

Partially Vested Persona

SGT. D. Jackson



Primary Job: Bomb Tech

Secondary: Robot Operator

Time in Job: More than 10

Age Range: 26-55

Archetype

Some overt machismo
Straight forward approach
Impatient

Mental Model

- The robot is a tool nothing more (no real bond)
- Problem solving is a team effort (my immediate team)
- I can always suit up (real threats are rare)
- I don't want outsiders judging my competency
- Robot operator isn't my job
- I'm a bomb expert not a robot expert
- I trust my team. The best team idea(s) drive decisions
- We want to be perceived as the "best bomb techs"

Characteristics

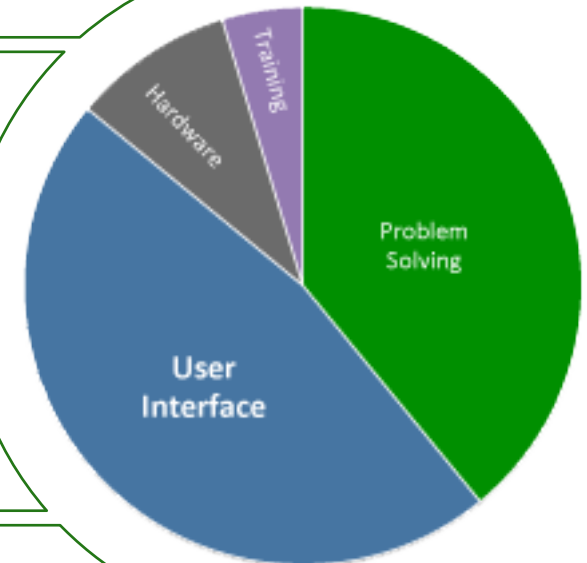
- Learn by doing and being shown
- Threatened by close observation (CYA)
- Challenge is not seen as good
- Will take the path of least resistance
- Financial focus on robot
- Impatient (robot process takes too long)
- Maintaining perception of competency
- Cavalier (few "real" threats encountered)

Challenges

- Fast moving chaotic situations (public areas)
- Shutting down public facilities for long periods of time
- Coordination with other law enforcement agencies
- Stick time, infrequent use, focused training
- Visualizing robot limb articulation not second nature
- Discrete, fine manipulation
- Coms, glare, video quality, complicated UI
- Managing unsolicited advice, questions and distractions



"I will suit up!"



"Every vehicle is alike."

iRobot Non-Vested Persona

M. Lewis
HAZWOPER



Primary Job: Nuclear Technician

Secondary: Robot Operator

Time in Job: More than 10

Age Range: 25-45

Archetype

Methodical and systematic
Observant, cautious
Patient, logical, pragmatic

Mental Model

- The robot is a tool
- We solve problems ahead of time then practice
- Success is paramount
- Every thing is by the book, we follow the regs
- Adhoc activity leads to bad surprises
- Usually we have one chance to get it right, its serious
- You either love this work or you hate it and move on

Characterisitcs

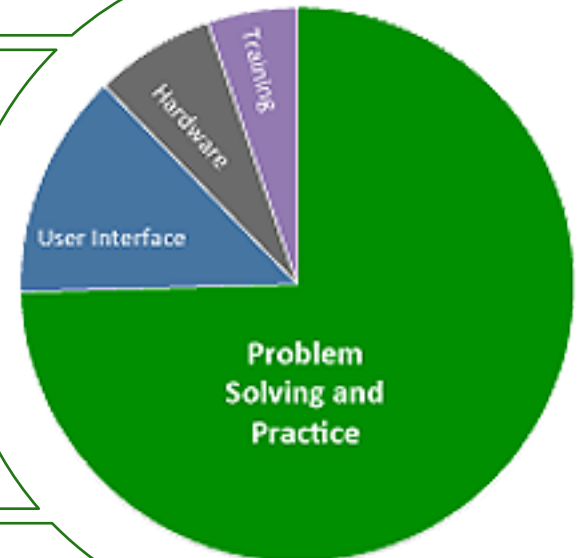
- Level headed thinker as safety and compliance are key
- My approach is cautious I protect the facility first robot second
- I appreciate how important accurate feedback and documentation is
- I think in terms of the mission

Challenges

- Dangerous working conditions
- Breakdown of coordination or surprises
- Coms and not treading on the optical fiber cable
- Stairs, narrow areas, double doors
- Environmental conditions, rubble, slippery, unstable etc.
- Coordination with other groups / agencies
- Special protection gear e.g. gloves (UI must be easier)
- Buildings not designed to be robot friendly



"We plan and practice."



"A shut down is huge."