Puzzle

Here's a little puzzle i used during the game - comments are welcome and so is imitation :-). In realtime, this puzzle probably takes a couple of hours to play. In gametime, in might take anywhere from a couple of hours to several days.

-- Logically, it requires hostiles, who's knows where the players ship is, but isn't interested in killing them off / capturing them right now. That might be because it would be politically unfortunate or because the players are needed to (involuntarely) lead them somewhere. The trap is installed in the players ship to allow the hostiles to follow the players and possibly to destroy them. The trap is designed to be fool-proof (but isn't! Both groups I've tried it on solved it with only minor guidiance.)

-- The puzzle includes a lot of Comp. prog./rep. and a bit of search, demolition and space transports repair. The players should have some skills in these areas (at least one player with 4D+ in each skill) A skilled Astromech (Rx-xx) unit also helps.

-- The GM would be wise to know more about computers than his players. The players should have a bit of computer experience - otherwise the GM will have to lead the players through the puzzle.

-- The puzzle can be scaled from beginning players to the very experienced. It's just a question of using better hostiles and making the computer access required harder, because of more elaborate security precautions taken by the intruders.

Background:

-- While the players are landed in a city (a spacestation, whatever) the hostiles (i usually use Storm Commandoes, but any gangster might work) break into the ship. They disable any droids which remains aboard and reprogram them to forget about the incident. Similarerly, they edit any automatic survaillance systems to erase their intrusion.

-- They install a hidden, master program in the ship main computer.

-- They install minor, hidden slave programs in the computer systems controlling a number of auxilary systems, f.ex. the airlock, the guns, the life support system, the torp. launcher & the sensors suite.

-- They install Thermal Detonators in a number of vital systems, including the hyperdrive, the sublight engines, the communications relay & the main computer.

Technical stuff:

-- All the thermal detonator are connected to the computer system (i.e. the master program) and requires a carrier signal every 10 seconds. If the master program doesn't send such a signal, the detonators explode, destroying every major system and leaving the ship helpless, possibly with a ruptured hull.

-- Upon receiving the carrier signal, the thermal detonators returns a message to the master program, which tells the computer they're still in place. If the master program doesn't receive such a signal from any of detonator within half a second after sending the carrier, it detonated all the detonators.

-- All the minor, slave programs are connected to the computer in a similar way. If a slave program fails to rapport in, the computer won't blow the detonators, but will increase the checking (of both slave programs and detonators) to once every second. If another slave program fails to rapport in, the master program orders detonation.

-- The slave programs serve a variety of functions at the GM's descretion. I had the one in the sensor system fail erase all ISD's from the sensors display, as well any detected spy ships. The airlock program was primed to open the airlock if the master program went offline, the torp program to program and fire a torpedo at the ship if the master program went down, and finally the comm program to scan for certain inbound messages to activate the detonators and provide a homing beacon for the hostiles. Any permutation would be possible and leave the players ship open to control from the outside.

The players task:

-- The players has to smell the rat somehow. It's no fun if their ship blow up underneath them in hyperspace, or they unwittingly lead the opposition to that ultra-secret rebel space. That's what the hostiles had in mind when they took the trouble of installing the trap, but the players SHOULD detect it. Some piece of moved furniture aboard ship, marks left by a shipjacking kit at the airlock, mysterious computer glitches, a confused R2-unit or an open hatch at the hyperdrive can all be used to have them investigate.

-- Now they have to locate the problems. That should require carefull inspection of all ship systems (a great way to tell beginning players what system a spaceship contains) and EASY to DIFF. search roll to find special thermal detonators. If the players have high search skills, have them roll against the heavies hide skills. If they're in space, have some of the inspection take place on outside system and have them suit up for vacuum (with suitable modifiers for any skill use).

-- They also have to locate the computer problems. When they find the detonators, tell them that the detonators are clearly wired into the computer with two wires each - that should make them investigate the computer, and hopefully discourages any immediate removal attempts.

-- Discovering the master program, the slave programs and the detonator connections, and the way these parts communicate with one another is the key to the solution of the puzzle:

---- No thermal detonator can be removed without triggering the rest within 10 seconds, because the removed detonator doesn't answar the master program, which then orders detonation.

---- Any removed detonator detonates itself within 10 seconds because it doesn't recieve a carrier signal from the computer.

---- Removing and desposing of 5 thermal detonators (which has to be pulled out of vital, delicate ship systems) within 10 seconds should be impractical for anyone. Even if that is pulled of, the master program would terminate and launch the slave program surprises (GM: ooops! the airlock just opened and a torp was fired, it appears to home on the ship. Players: Oh, Sh.t!!!)

---- Any one slave program can be removed (but it makes dealing with the explosives a lot harder, since there's now only a second between the master programs checks). Removing another will detonate the explosives.

Since this understanding of the puzzle is vital to solve it, it should require skills rolls which are hard for the players but ultimately succesfull. Comp. prog. would be appropriate for the computer work, demolition for discovering how the thermals work. Fooling around with the programs are inherently dangerous (1 on the wild die - GM: ooops! you just hit the button. Players: FIRE IN THE HOLE!) and smart players copy the programs to an R2-unit or a portable 'puter to study them.

-- Once the players realize and understand the danger, they have to figure out a way to deal with it. If it's ignored, the hostiles will show up a take advantage, by discovering their secret destination or by activating the detonators by remote and pounding the helpless hull to pieces afterwards. If the players doesn't realize this, you can always tell them it's unwise to travel with an unstable thermal detonator inside the hyperdrive :-)

-- I've thought of (or had my players show me) three ways to safely remove the trap.

---- move the detonators to safe distance before blowing them. This can be done by lengthening the wires which connects the detonators to the computer system. If no slave programs are removed, splicing in some extra wire has to be done in less than 10 seconds, which is somewhere between MOD and V.DIFF. depending on the situation (doing it while cramped inside the hyperdrive casing is hard, doing it on an external comm. relay inside an atmosphere isn't). If there's enough wire, the thermals can be moved 30 m. + away from the ship & the slave programs erased (a hard comp. prog. roll). That triggers the thermals, but who cares? Naturally, that solution most practical if the trap is discovered within an atmosphere. Otherwise large parts of the ships has to be depressurised for the wires to get into space.

---- fool the detonators into thinking they talking to the computer (and the other way around) while they're really talking to you. Minor programs could be inserted into the computer, simulating the exchanged signals and diverting the real signals. While this wouldn't remove the detonators, it could remove any outside control of them and allow the safe removal of the slave programs - an excellent temporary solution. This would probably require some really nifty programming (DIFF. to HEROIC) Alternately, small electronic devices could be constructed and spliced into the wires between the thermals & the computer. That would leave the detonators intact for using or selling (10 kCr.), but would require quite a bit of

electronics, which has to cannibalised from other ships systems, weapons, whatever. Constructing the device might require DIFF Comp. prog./rep. rolls/ Sp. tr. repair and splicing them in would require the same rolls as required for lengthening the wires as mentioned above.

---- There's bound to be other ways around it... ingenious players might leave some of the homing equipment intact and turn the tables on the hostiles.

Hope this wasn't to long, trivial or boring for you to read through...
Let me know what you think.
Mvh. Bo A. Nielsen,
Fidonet 2:235/306.15