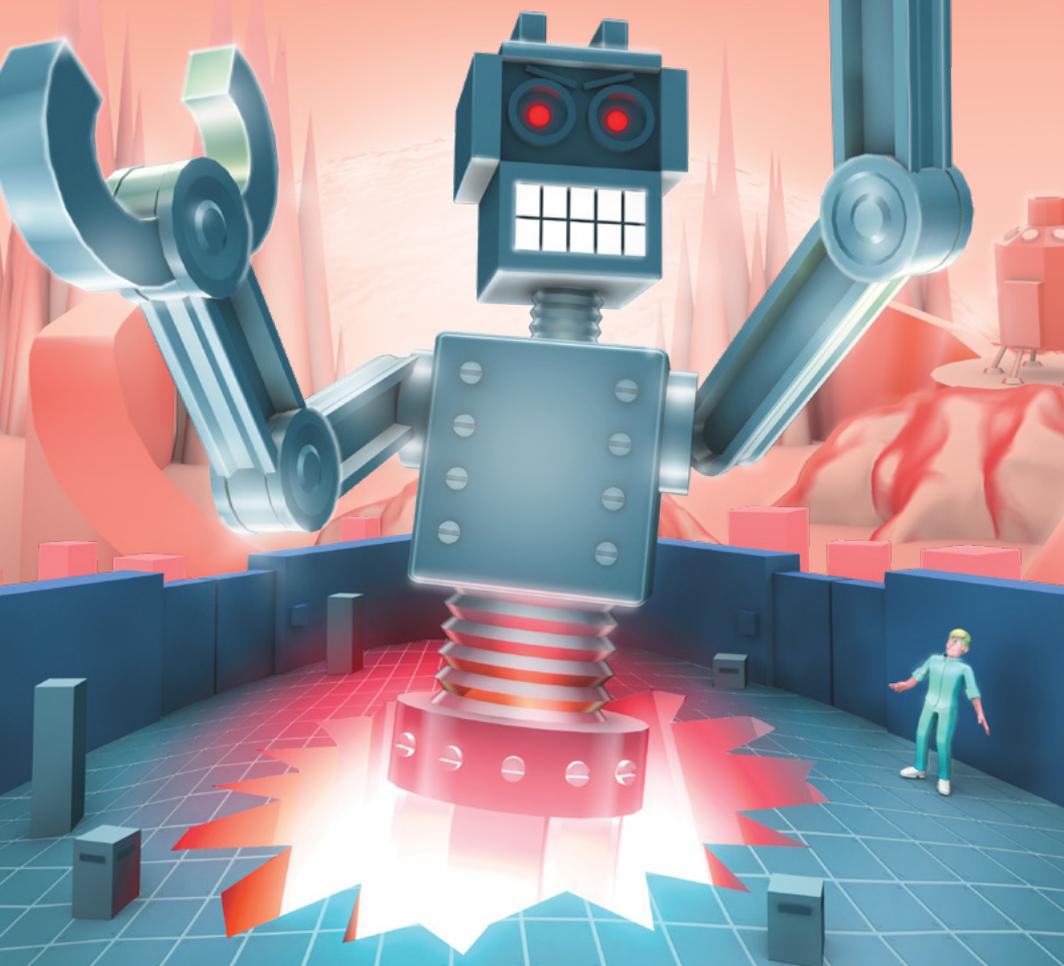


ATTACK OF THE PETSCII ROBOTS



USER MANUAL

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ATTACK OF THE PETSCII ROBOTS

WELCOME TO ATTACK OF THE PETSCII ROBOTS

This game was conceived around April of 2020 after I was gifted a Mini PET by *The Future was 8-Bit*, which I did an extensive review of on my channel. I was excited about the home-built computer and thought I should design a game for the Commodore PET.

I've created two successful games already, Planet X2 for the Commodore 64, and the follow up, Planet X3 for MS-DOS. In both cases, I wanted a game that had the most important feature: FUN! I don't care how fancy a game's graphics and animation are, or what kind of music it has. If it isn't fun, then it isn't worth playing. I also wanted a game that would allow people to immerse themselves into a world for 30 minutes or so. I didn't want to create an arcade-style game that somebody would play for five minutes and say "Well, that was cool, but I'm done now." I also didn't want to create a game that takes months to win, like Ultima. In this day and age nobody has time for that.



Once I realized that the scope and complexity of the game was possible on the Commodore PET, I also realized another problem. Realistically, it would be a huge project. I'd never be able to justify the amount of hours spent on it for such a small audience. The solution? Concurrently create a Commodore 64 version of the game. Most of the code was actually compatible, since the game wasn't using any sprites or custom graphics. Both computers use a 40 x 25 character screen.

The question was, at least in the early days, would users accept a game for the Commodore 64 that doesn't use anything besides text character graphics? Admittedly, I was very proud of the PETSCII artwork I had painstakingly created for the PET. However, one of the first things I did, was add color to the C64 version, which made an instant impact to the appearance of the game. I didn't stop there, I also added border flashes and screen shaking effects to the game as well. This added another dimension to the game. Shortly after, I explored the possibility of a version for the VIC-20. I was very concerned that the limitations of the VIC-20 may prevent the game from working. However, I managed to overcome most of those and soon after had a fully working VIC-20 version of the game as well.

Personally, I was very pleased with the PETSCII graphics being used on all three versions. I felt that every item was recognizable for what it was supposed to be, and more importantly, the game was fun. But there were still two problems. First, I hadn't created any sound or music yet. I put out a call for help on this and Alex Semen-

ov answered the call. He was the same programmer that created the sound engine for Planet X3, which I think everyone was extremely impressed with. Unfortunately, Alex has no access to any real Commodore PETs since he lives in Russia. To make matters worse, none of the emulators out there have 100% exact emulation for the sound system on the PET. This wouldn't have been an issue if he was just going to use the most primitive types of tones. However, he wanted to create something amazing for the PET, which meant pushing the hardware to the limits.



The second issue was, despite how great the PETSCII art looked, I wasn't sure if people would accept it. So, I set out to create an enhanced version for the Commodore 64. Using PETSCII allowed me to have 256 unique tiles. For contrast,

Planet X2 was using re-defined characters. I was only able to make 47 tiles. Why the difference? Well, with character graphics, each tile is made from 9 other characters. These same characters are used and reused in several different tiles. The challenge was (when making a graphically enhanced version), that I would still need to focus on making characters that could be re-used across tiles. What I actually ended up doing was creating a new PETSCII-like character set that was more tailored to the needs of this specific game.

This worked out pretty well and I was able to enhance the appearance of most objects in the game. I also made use of the C64's 8 sprites. The new enhanced version has sprites for the player character, on-screen cursor, and weapons/items displays. I then took the work I had done on the C64 version, and was able to get most of it working on the VIC-20, thus giving the VIC-20 the same enhanced graphics as the C64 version. But, due to lacking sprites, I had to make certain compromises on things, such as the player character. Nevertheless, I'm very pleased with how it turned out.

Alex's sound routine was aimed mostly at the PET and VIC-20. But the game had started to look far more professional than I had ever dreamed, and I felt it needed some great sound to go along with it. So, I got Noelle Aman to produce 5 amazing musical scores for the game, along with some really nice sound effects. There was no need to re-invent the wheel, and since there was already an awesome tool available for the C64, we decided to use goattracker for the music and sound effects. This was easy to implement into the game.

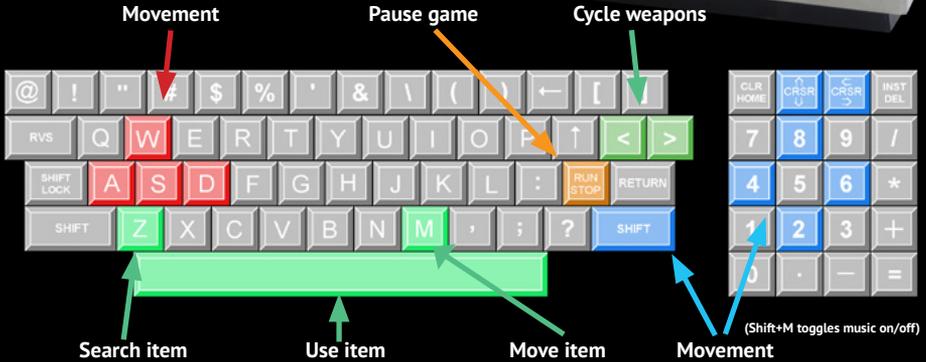
Overall, I'm extremely pleased with how the game turned out. I honestly feel it's the best game ever produced for the Commodore PET. And I feel confident to say it is in the top 5 for the VIC-20, and possibly the top 20 for the C64. That's quite a claim to make, but I hope you will agree with that as you play the game!

David Murray

COMMODORE PET

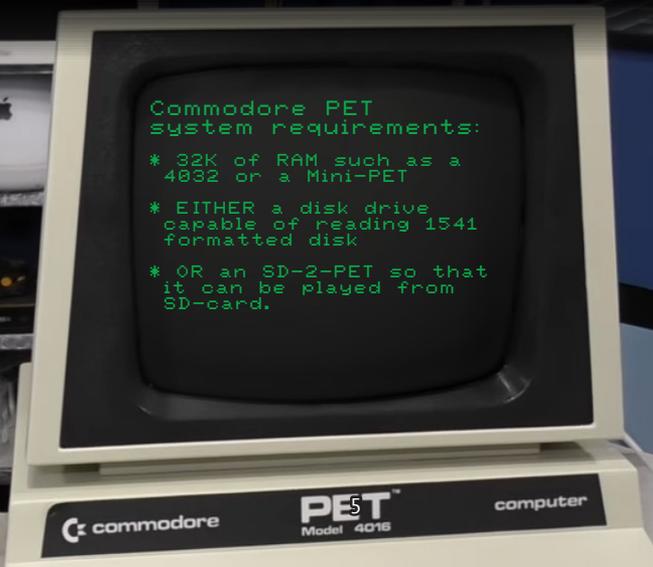


Photo: Bang, Wikimedia Commons (Creative Commons 2.0 BY)



The PET was the original target platform for this game. All development was done on the PET. Once a subroutine was validated to work there, it was then converted to the C64 and VIC-20 versions. Also the level-editor only exists on the PET, so all levels were designed and tested there. 80-Columns PET users will need to first load and run a program included on the disk called "CBM4032" which will reconfigure your pet to a pseudo 40-column mode, thus allowing the game to work correctly.

You'll find the PET version on the back side of the disk.



COMMODORE 64



Photo: Wikipedia Commons

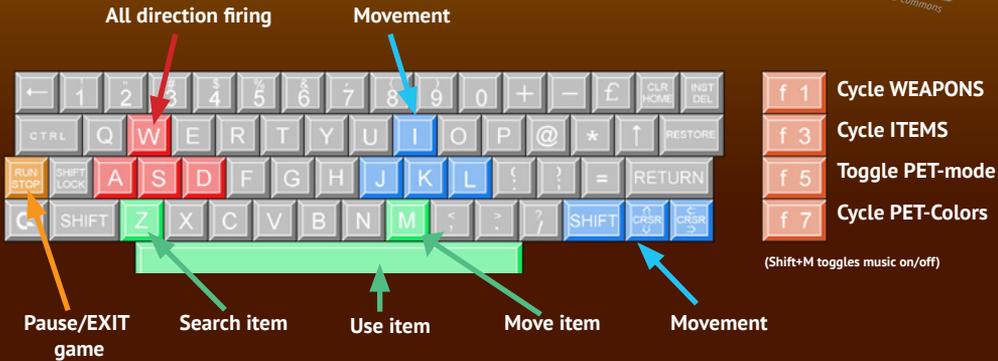


Photo: Kristian Paul Tiessem

GRAPHIC MODES ON THE C64

The Commodore 64 version can be played in 3 different modes:

- **Color PETSCII mode**
- **PET Mode**
- **Enhanced Graphics Mode**

The first two modes are part of the same program called C64PETSCII. It starts in Color PETSCII mode, but during gameplay you can press F5 to change into PET mode. In this mode, it mimics the look of the PET version of the game in every last detail, changing everything to green monochrome, using the same tile-set as the PET, and even using the same screen effects as the PET. This will allow C64 users to get a first hand experience of what the game was intended to be for PET computers.

The enhanced version of the game uses custom graphics and music. It is called "C64ROBOTS" and is the default file on the disk. So, if you type LOAD "*",8 it will load the enhanced version.

COLOR PETSCII MODE

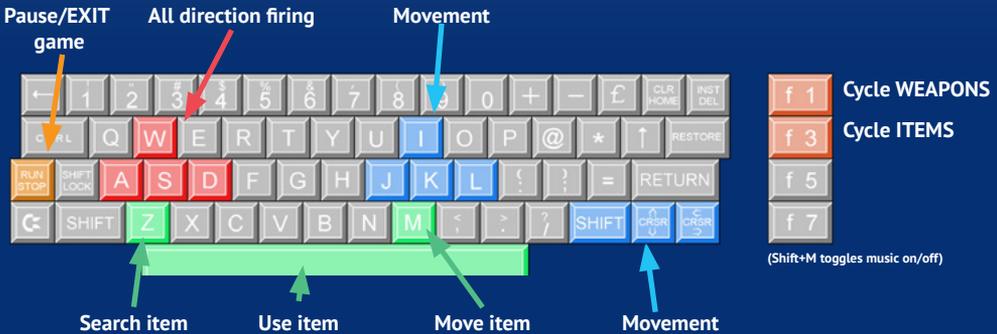


PET MODE

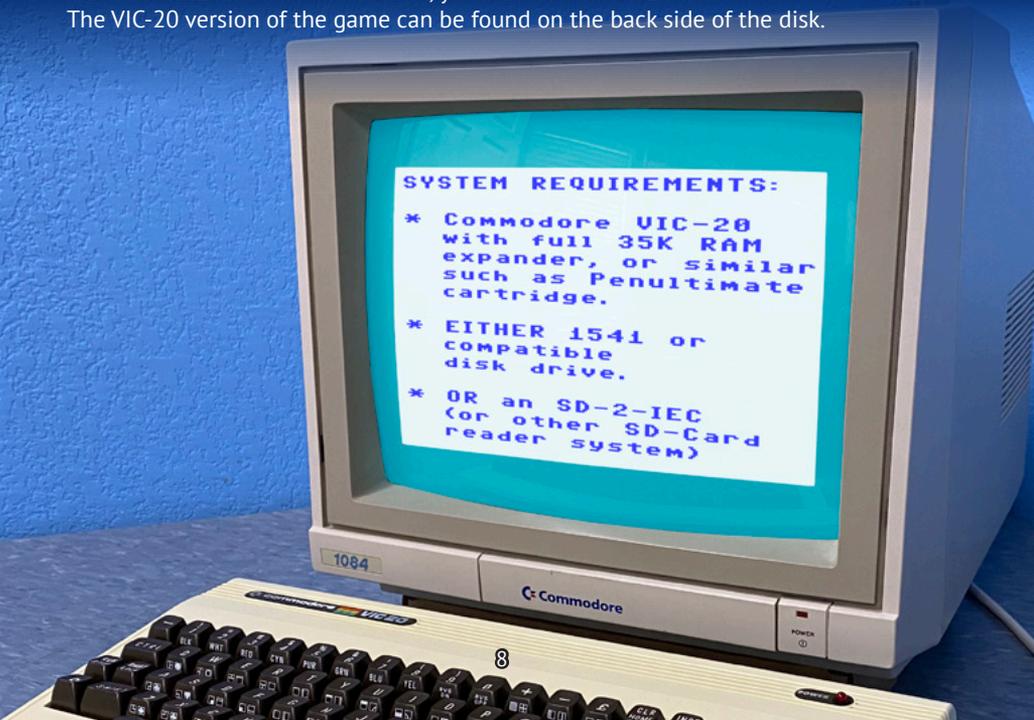


ENHANCED GRAPHICS MODE

COMMODORE VIC 20



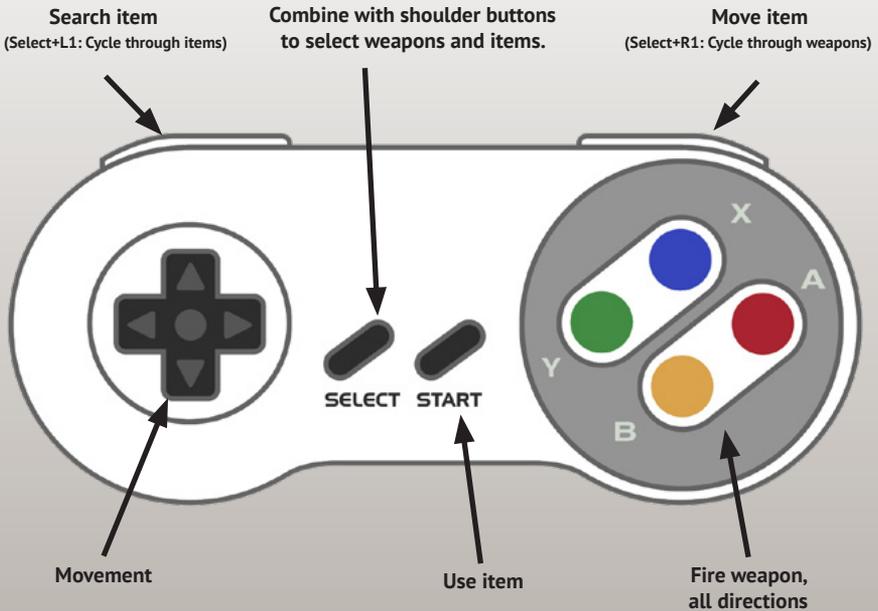
Due to RAM limitations, the VIC-20 does not have re-definable keyboard controls. However, it does have two keysets to pick from. The first is the one shown in the illustration. Keyset 2 swaps the left and right hand control so that WASD becomes IJKL and vice-versa. Also, you can use the SNES controller on the VIC-20. The VIC-20 version of the game can be found on the back side of the disk.



USING A SUPER NINTENDO CONTROLLER

With the user port adapter, you can connect a single SNES (Super Nintendo Entertainment System) controller, or a compatible aftermarket controller, which are easily available online. To use the controller, load the game like normal, but in the main menu, select **CONTROLS** until it says “**SNES PAD**”. The user port adapter is supported on PET, C64, and VIC-20 versions of the game.

The user port adapter contains an audio output for PET computers. Since the original PET did not include a speaker, sound was generated from the user-port. Later PETs included an internal speaker. With the first prototype of the SNES adapter, it was realized that this would prevent some PET users from being able to use sound due to blocking the user port. Thus, it was decided to add an audio output to the adapter so that it could serve both functions.



The SNES controller only works during game play. You will still need to use the keyboard when the **GAME OVER** screen appears, as well as in the **MAIN MENU**. Also, if you wish to **PAUSE** or **EXIT** in the middle of a game, you will still need to press **RUN/STOP** on the keyboard.

COMPARISON OF GRAPHIC MODES

C64 ENHANCED GFX



COMMODORE PET



C64 COLOR PETSCII



VIC 20

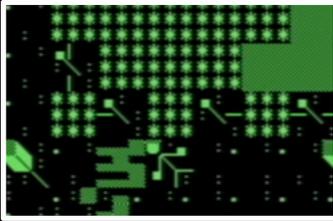
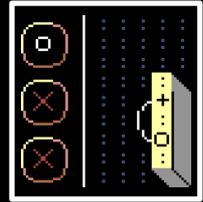


HOW TO PLAY

Sometime in the future, robots attempt to take over human settlements on various planets. Your goal is to infiltrate these settlements and destroy all of the robots. To do this, you'll need to locate weapons and other tools.

WHEN CAN YOU EXIT THE LEVEL?

There is a transporter room in every settlement. However, to prevent unauthorized robots from leaving the area, the transporter systems have been remotely programmed not to activate until all robots have been destroyed. Once you have destroyed all robots, you will see the transporter pad activate, then you can step onto it to complete the level.



BRAINS OR BRAWNS?

At first glance, Attack of the PETSCII Robots might look like an action shooter game. However, it's really not. Think of it more of a strategy and exploration game. While you are given weapons to fight with, you will never win if you try to fight the robots head on in battle.

THE INQUISITIVE MIND

The way to victory is by examining each robot situation as a strategy. In most cases there will be a way to defeat every robot without engaging with them in a head on battle. The trick is learning to find all of the right tools, and learning how to use them. By following this manual, you will be properly prepared.



TROUBLESHOOTING

- **GAME WON'T START ON VIC-20 OR PET**

The most common and likely problem with the VIC-20 and PET versions is not having enough RAM. Your PET will require 32K and your VIC-20 will require a 35K RAM expander (total of 40K). If you are trying to use the game with an emulator, double check your RAM settings.

- **JOYSTICK NOT WORKING**

PETSCII Robots doesn't actually support a standard Commodore joystick as there aren't enough buttons. You'll have to either use the keyboard, or use an SNES controller with the provided user-port adapter.

- **CURSOR KEYS WON'T WORK ON EMULATOR**

Many emulators default to having a joystick emulated on the PC's cursor keys. However, PETSCII Robots doesn't support a standard Commodore joystick. If you simply disable joystick emulation, the cursor keys should work for playing the game.

- **GAME IS SLOW TO LOAD ON REAL C64 / VIC-20**

You may want to invest in a fast-load cartridge for your C64. However, there isn't much that can be done on the VIC-20 to speed up loading times.

- **GAME IS SLOW TO LOAD ON EMULATOR**

Since PETSCII Robots doesn't use any enhanced disk drive routines or copy protection, the simplest solution is to disable "True Drive Emulation." In most cases this will allow the game to load and start very quickly.

- **TRANSPORTER WON'T ACTIVATE, BUT THERE ARE NO MORE ROBOTS!**

Actually, there really is one or more robots you just haven't found yet. Many times during testing I even wondered if there was a bug in the code, so I had to break into a machine language monitor and examine the RAM to find the robot, but it was always there in every single case. I eventually learned to trust the game!

- **I BLEW UP A BRIDGE IN THE GAME AND CAN'T GET ACROSS!**

This is not a bug, it is by design. You have to be careful around bridges, or you can forfeit the game if you blow it up. Just press Run/Stop and abort the game.

SEARCHING FOR ITEMS

One of the first things you'll need to do once you start playing is to search for items. To do this, walk up to the item you wish to search and use the search function on your keyboard or controller. When you do this, a cursor will appear over your character. At this point, it is waiting for you to select a direction (up, down, left, or right) to search.

Some items are not searchable. If you attempt to search a wall or the floor, for example, it will immediately respond with a message "nothing found here." If you search an item that is considered searchable, you will see a delay and a progress indicator in the information box showing that a search is in progress, followed by a message stating what, if anything, was found there.

These are the types of things you can search. Most items are hidden inside of crates, therefore crates should always be searched. Once a crate is searched, it will appear with the lid off, thus indicating to you that you've already searched it.

Some items are more than one tile in size, such as beds, desks, and air conditioners. It is not necessary to search every tile. If you search one tile of that item it will find the hidden item, regardless of which part of it you search first.



SERVER



FILE CABINETS



CRATES



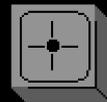
DESKS AND BENCHES



BED



**POWER
TRANSFORMER**



AIR CONDITIONER

WEAPONS AND ITEMS

Once you've started finding weapons and items, it is probably a good idea to learn what each one does.

PISTOL One of two weapons available. This is the most abundant one you will find around the maps, with the most ammo. It does exactly 1 point of damage to anything you shoot. Thus, it takes 10 shots to kill a Hoverbot, the weakest of robots. When using this weapon, it is best to seek cover and fire behind an item that will separate you from the robot. For example, shooting over a desk, or through a window. The pistol will also set off canisters if you shoot one, thus making a powerful explosion with a single shot.



PLASMA GUN This is the more powerful of your two weapons available. It creates 11 points of damage and a blast 5 tiles wide. Thus it will damage your target and anything near it as well. Be careful with this weapon as it is easy to kill yourself if you are too close to what you are shooting. It's probably best to conserve your ammo with this weapon for the Rollerbots and Evilbots.



EMP The Electro-Magnetic-Pulse generator will force any robots within your viewable area to reboot, thus causing them to freeze for several seconds. During this time you can make your escape, or attack. Use these sparingly and save them for the hard to kill robots. Also, if you use an EMP while a Hoverbot is hovering over water, it will fall into the water and short-circuit. Thus, the EMP can be used to kill a Hoverbot by itself when used correctly.



TIME BOMB When you "use" the time bomb, a cursor will appear over your character indicating it is waiting for a direction to be selected. Once you pick a direction, you will see the bomb next to you. It is best to run at this point. Within a few seconds the bomb will explode and create a blast 5 tiles wide. The blast will inflict 11 points of damage on anything it contacts. This can be used on robots that are generally staying in one place, or it can be used in cases where you need to blow up something blocking your path, or even set off a chain reaction of canisters.



Pro Tip: You may use more than one time-bomb at a time. You can place them on different tiles, or on top of each other. It is possible to deploy up to 4 at once, but you'd better be quick!

MAGNET The magnet is deployed much like the time-bomb.

However, you need to position it somewhere you expect a robot to roll over it. If you are in direct contact with a robot, you can also place it directly on the robot. Once it attaches, it causes their brain to go haywire. They will move in random directions for about 15 seconds. During this time, they are vulnerable to attack, although they can be unpredictable and thus hard to know where to shoot.



If you placed the magnet in the wrong place, you can simply walk over it to pick it up again. If you leave the Magnet on the ground for too long, it will disappear. You can only deploy one magnet at a time, as in, there can only be one magnet on the floor at a time. But several can be “in use” at the same time. The magnet is probably the most powerful tool available to you, when used correctly. However, there aren't very many located on each map.

Pro Tip: A robot will shake off the magnet in about 15 seconds. But if you get them with another magnet while they are already incapacitated, they will never recover and thus remain haywire indefinitely.

MEDKIT The Medical Kit can be used to heal your injuries.

When you “use” the medkit, it will heal all 12 health points assuming you have that much available in your medkit supplies. If not, it will heal as much as you have available. If you have more than enough, the remainder of the medkit will remain in inventory for future use.



CANISTER These chemical canisters are located all around the map. You can move them around. They are

safe to touch. But, they will explode if you shoot them. They will also explode if they are nearby another exploding

item, or if they are shot by the Rollerbot. These can be strategically placed where you need them, and thus used like a weapon. Once a canister explodes, it will leave a mangled, exploded canister on the map. You can't do anything with it, but you can move it around and use it to block pathways.



KEY CARDS You will notice some doors are locked, and a symbol will be displayed next to the door

such as a heart, spade, or star. You will need to find the appropriate key card to open these doors. If you have a keycard, it will appear on the right side of the screen under “KEYS.”



ENEMY ROBOTS

Obviously one of the main goals is to destroy all of the robots. But first it probably helps to learn a little bit about them.

HOVERBOT This is the most docile of the robots as it will generally not attack you unless you attack it first. Well, this is at least the case when playing in easy and normal modes. Thus it is usually best to leave them alone until you are ready to attack them. And when you are ready, you should have a strategy formed as to how to do so without them attacking you back. (When playing in hard mode, Hoverbots attack automatically.)



Hoverbot can only attack at close range. It attacks with an electric shock. It causes one point of damage every time it shocks you. However, this can add up quickly especially if there are multiple Hoverbots attacking you.

Hoverbot has a health of 10 points, thus it takes 10 shots from the pistol, or 1 large explosion to kill it.

ROLLERBOT This is a bit more powerful robot, which rolls around on a single large ball. Unlike Hoverbot, it cannot float over water or other items. However, it doesn't need to as it carries a projectile weapon, which causes 1 point of damage. It will not shoot at you unless it is aligned with you on the X or Y axis where it can take a direct shot. So keep this in mind when battling Rollerbot. Also keep in mind how you might use canisters to your advantage by placing them in the path of his weapon's fire.



Rollerbot has a health of 20 points, and thus will take 20 shots from the pistol or two large explosions to kill.

EVILBOT This is the most powerful robot you will encounter. He shreds you apart with his spinning arms. He may seem disadvantaged compared to the other robots, because he cannot hover and he has no projectile weapon. However, what makes him so dangerous, is his attack which causes 6 points of damage on contact. So, taking two hits from Evilbot will kill you. This can happen very quickly. Evilbot will chase you the moment you release him from whatever room he is hiding in. He's fast too.

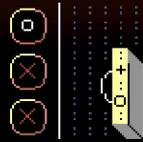


Evilbot also has very thick armor. He has 75 health points and thus could take over 7 explosions to kill him.

HOW TO GET AROUND

Besides walking, there are 4 other ways to get around the map.

TRANSPORTER It's easy enough to use, you just step onto it and wait a second or two. However, not all transporters work the same. Some are always active, and you will see this because they will have a flashing circle in the middle. If they are inactive, they will have a red X displayed in the middle.



ACTIVE:

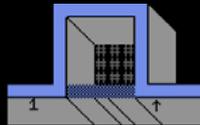
INACTIVE:

Some transporters will just transport you somewhere else on the map. Usually, there will be a pad nearby to transport you back. However, the final transporter will only activate when all robots have been destroyed. Stepping on this will transport you away from the map, thus meaning you have finished the map.

AUTOMATED RAFT You will sometimes find a dock at the edge of the water and wonder how you are supposed to leave the island. If you wait there long enough, an automated raft will show up. You can walk onto it, then it will transport you to another island.



ELEVATOR Some maps will have an elevator that takes you to another floor of a building. Buildings with elevators typically have between 2 and 5 floors. When you walk into the elevator, wait for the door to close. Then a panel will appear in your information screen showing how many levels. You can press left or right to move between levels, then press down to open the elevator door. If you stand there long enough, the door will close again. The current floor is usually marked on the wall next to the elevator.



```
| INFORMATION |
| ELEVATOR PANEL | DOWN
| SELECT LEVEL | OPENS
| 12345 | DOOR
```

BRIDGE Using the bridge is fairly obvious, as in, you just walk across it. However, one important thing to consider is that it is that wooden bridges are easily damaged. If you set off an explosion on or near the bridge, you may destroy parts of it, making your path inaccessible, thus forfeiting the map. Concrete bridges are safe to use any weapons on.



MOVING ITEMS AROUND

These are the objects that can be moved around. This is accomplished by pressing the MOVE button, after which a cursor will appear over your character waiting for a direction. This allows you to select which object to move. If the object is movable, it will highlight the object, waiting for you to then select a direction to move the object. You can move it any direction except towards you. There is no way to pull an object.

Moving items can play an important role in solving problems in the game. There are many reasons you might want to move an item:

- **Moving a canister to a place where the explosion would work in your favor.**
- **Blocking a robot from leaving some place when you intend to attack him, with a time-bomb for example.**
- **Moving an item to gain access to something that needs to be searched for weapons.**
- **Using items to alter the path of a robot, for example, into a trash compactor.**

Typically, most items can only be moved around inside buildings. You cannot move items around outside of a building.



CRATES



CHAIRS



CANISTERS



SCIENTIFIC EQUIPMENT



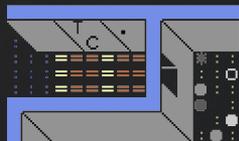
BLOWN CANISTER

TIPS & TRICKS

As you play, you will find that Attack of the PETSCII Robots is a very complex game. There are often many different ways to solve problems, but here are a few hints:

USEFUL HINTS

- * Hoverbots over water are susceptible to an EMP blast because they will fall into the water and short-circuit.
- * You can shoot through windows. This often gives you additional safety if attacking a robot on the other side. You may even be able to shoot canisters through a window.
- * The trash compactor will kill anything that walks inside of it, including the player. However, there are various ways to manipulate items in order to trick robots into walking into the trash compactor to their death. Also, if you use the magnet on a robot near the trash compactor, you may be able to herd the crazed robot into the compactor.
- * You should try to avoid direct confrontations with the robots. In every situation there is an alternative to a shootout. Try to find these ways. Also don't forget to use your EMP, magnets, and time-bombs where appropriate.



commodore



POWER

VIDEO MONITOR
MODEL 1702

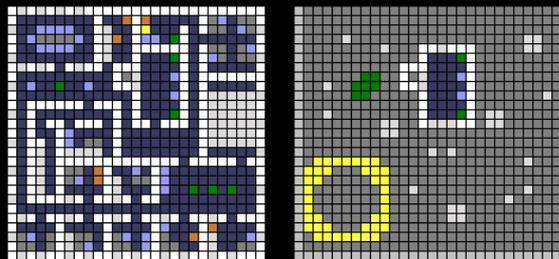
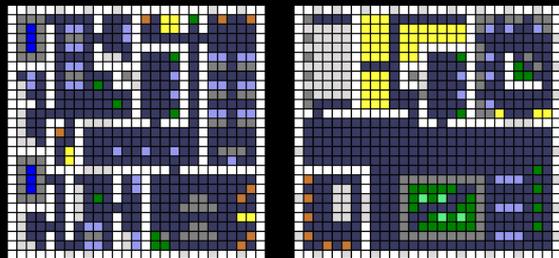
MAPS AND HINTS

01 RESEARCH LAB



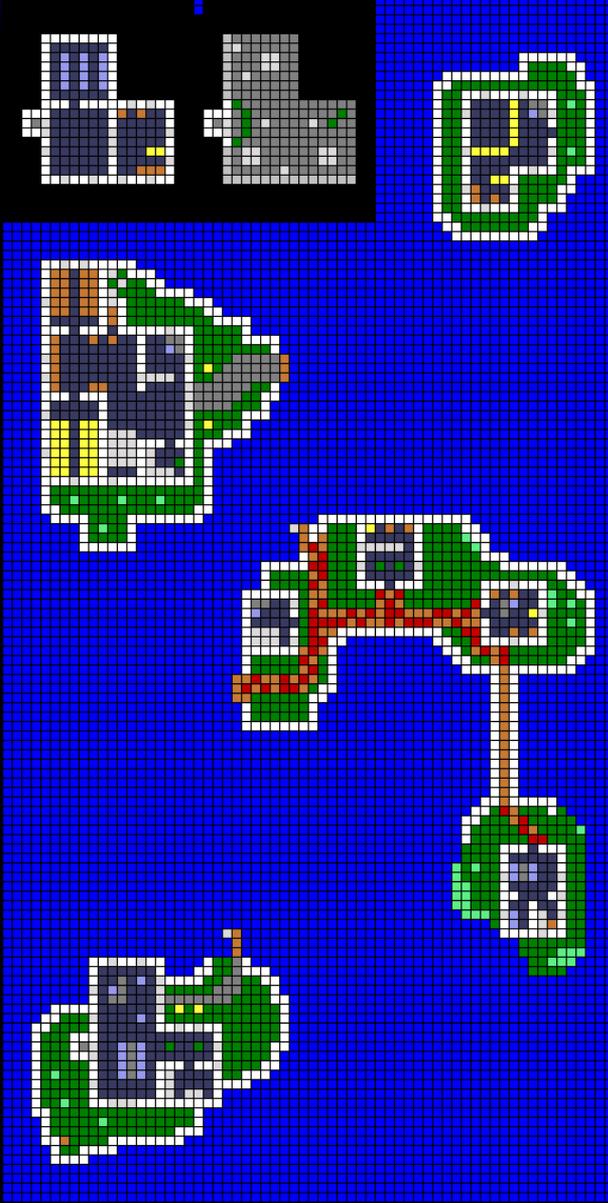
- Don't forget to search your lander.
- Find the first key in the big desk in the main lobby.
- There's a surprise crate in the wilderness on the south-east side of the river
- By moving items around the trash compactor, it is possible to lure the Evilbot to his death.

02 HEADQUARTERS



- Find the first key in the guard shack at the south-west corner of the map
- It's possible to position the canisters around the entrance to the transporter room to trap and destroy the Evilbot

04 THE ISLANDS



- The first key is in the L-Shaped desk in the main building lobby
- There is an automated raft that will come to the dock every 10 seconds. Step on the raft and it will take you to the next island.
- Move the crate out of the way of the trash compactor and the Rollerbot will roll right into it on his own. You may need to move the crate back to trap him there.
- The two Hoverbots on the roof are already in attack mode. There are many ways to defeat them. One easy way is to place a time bomb by the crates and then go back to the elevator before they explode.

05 DOWNTOWN



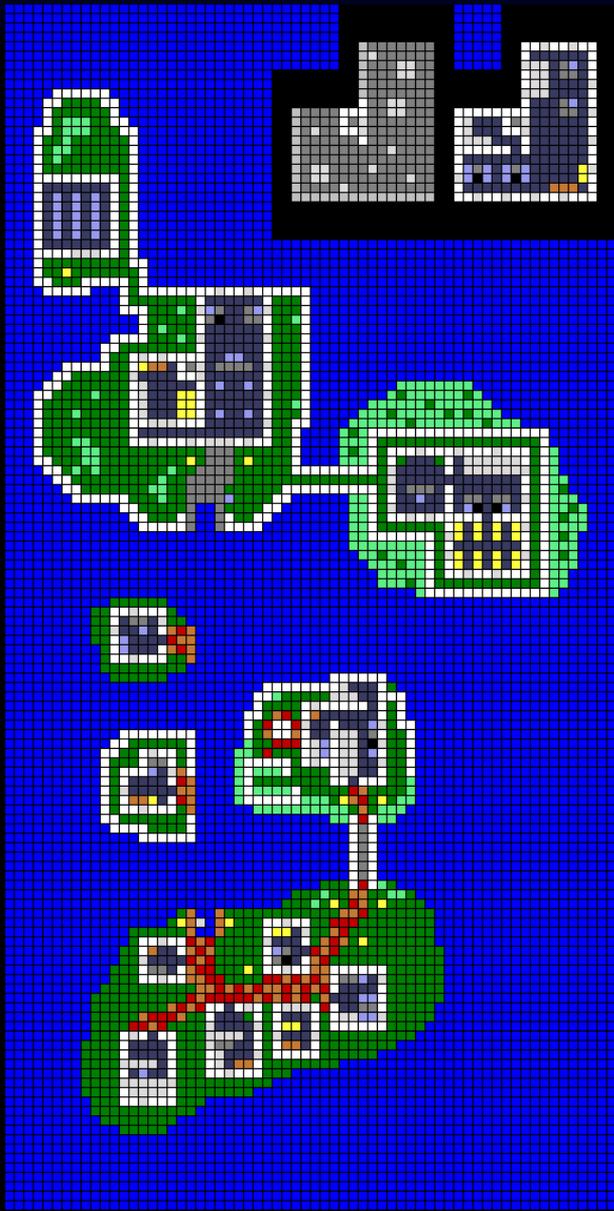
- Find your first key in the big desk of the main lobby on the building SouthWest of the main circle.
- In the same building, it is possible to move the crates in a way that the Rollerbot will actually kill the Hoverbot.
- Shoot the canisters through the window of the NorthWest storage building to kill or damage the Evilbot inside.
- On the second floor, there is room for one canister on each of the far sides of the server racks. It involves moving some things around to make it work. You can use this to destroy the Rollerbot.
- The Evilbot on the roof will typically be at the far side of the roof when you first exit the elevator. If you go immediately to the left, he will get himself stuck to the left of the elevator, giving you time to setup an attack. If you fail, just go back to level 3 for a moment, then back to the roof.
- There is a building full of water with 3 Hoverbots. It's possible to kill them all with one EMP by getting all 3 in view at the same time.

06 TT UNIVERSITY



- Find your first key in the tiny building behind the forest at the SouthWest corner of the map.
- You can kill 2 Hoverbots instantly with the EMP if you time it right to wait for both to be over the swimming pool at the same time.
- Kill the Evilbot in the canister room by exiting the building and going around to the South window and shooting a canister. As the room explodes, keep moving along the wall (in safety) to get the Evilbot to follow you to more unexploded canisters.

07 MORE ISLANDS



- Jump on and off the raft to get to the two smaller islands in the middle. You have to be quick.
- The two Hoverbots in the canister room in the South are already in “angry mode.” But remember you can shoot through windows.

08 ROBOT HOTEL



- One of the transporters is always active and will transport you to the little house at the SouthEast of the map. However, you'll have to walk back. There is a key in that little house you will need anyway.

BETA TESTERS

As with the previous game, the design process attracted quite a few interested parties. Here are some pictures from the beta testers and their setups.

- Arne Schmitz
- Walter Francesco Cangemi
- Christian Simpson aka Perifractic
- Rick Reynolds
- Robby Hatmaker
- Samuel Stinson
- Brandon Griffon
- Ashton Cole
- Ramiro Herrera
- Chris Haslage
- Bo Zimmerman
- Edison Williams
- George B. Vetter

Right: Edison Williams, “The music is great and the game play is better.”

Below: Rick Reynolds on his modded VIC-20 (Raspberry Pi emulating the PET).



CREDITS

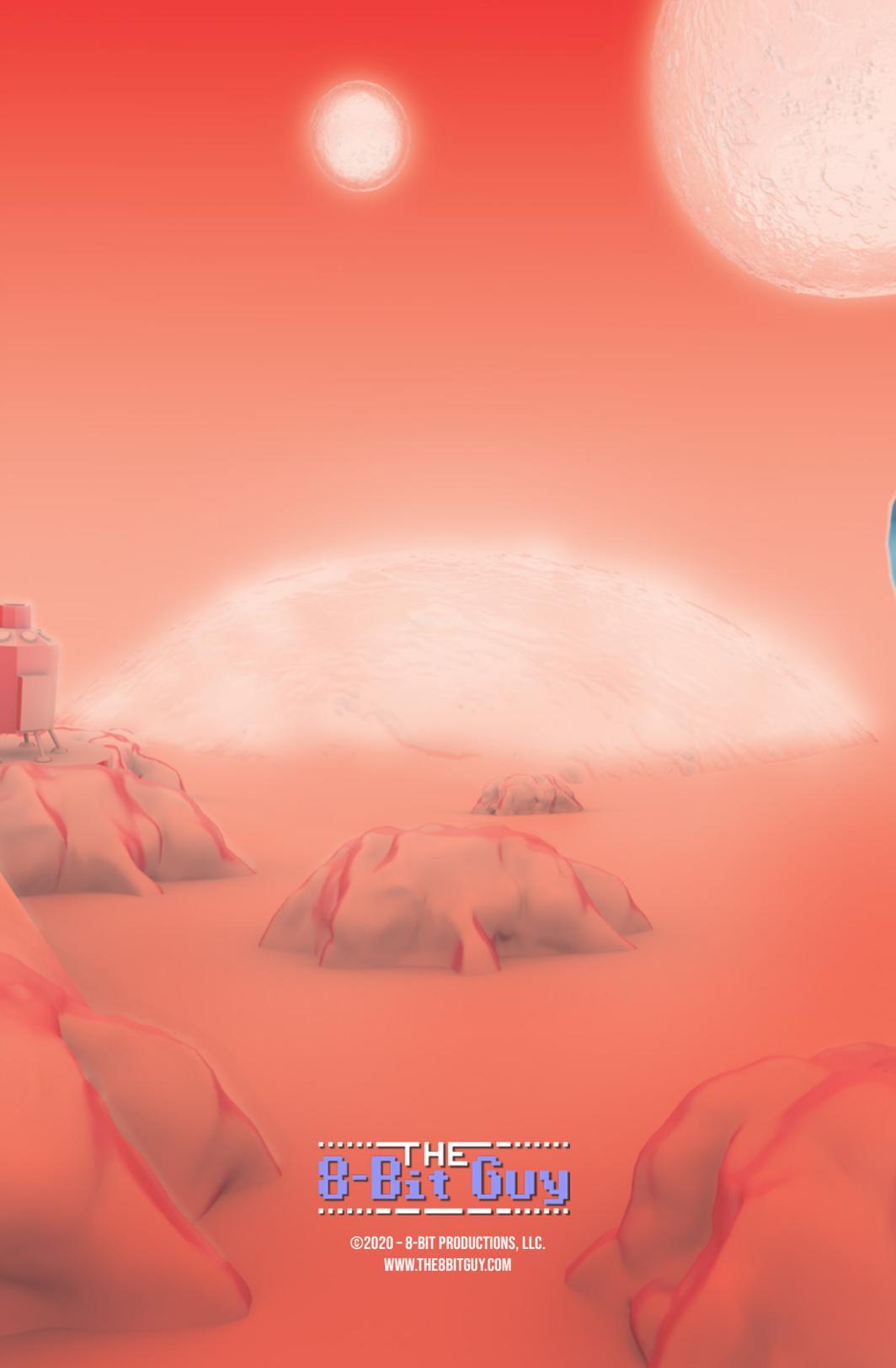
- David Murray Game design, assembly coding, artwork
- Alex Semenov Assembly code for sound/music
- Noelle Aman Music
- Anders Enger Jensen Box, manual and label design
- Andrew Miller Art for player and weapon sprites
- Brendan Carmody Graphics for box art and manual



Left: George B. Vetter testing the VIC-20 version.

Below: Brandon Griffin testing the game together with his son, Wesley using the VICE emulator.





THE
8-Bit Guy

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