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Roscoe The Robotic Frog

Operating Manual

Roscoe the Robotic Frog is the latest in a software and hardware technology from the laboratories of the Institute of Robotic Technology. Roscoe's computer brain is programmed to simulate the action and reactions of a real Frog. Better still, Roscoe will actually tell you what is on his mind!

Thanks to his Tekno 2.0 artificial intelligence program, Roscoe will let you know how he is feeling and provide feedback on the care you provide. Roscoe knows how long it's been since he's been fed and is quick to remind you when he is need of some attention. Like a real Frog, he goes to sleep if left alone!

Roscoe has state-of-the-art sensors that allow him to "see" and "hear" and even "feel" your touch. With these sensors and Roscoe's powerful computer brain, Roscoe can determine if it is getting dark, if the lights in the house suddenly turn on, if someone's talking to him, if there is a loud noise (*like a knock at the door*) - and even if you're petting him on the back!

Roscoe has the latest motor drive technology to make him actually "hop". Better yet, you can race your Roscoe Frog against his best time or against other robot Frogs. The better you take care of him, the more stamina he will have and longer he will race in the event. You can even replace the batteries in your Roscoe and not loose his stamina level!

Roscoe comes with his own Lilly Pad home and Robotic Fly treat. He really likes to be cared for by a loving owner. The better that you take care of Roscoe, the happier he will be. In short, Roscoe is programmed to respond just like a real pet Frog!

WARNING: *Roscoe is a robotic frog. Keep him away from water or his electronics circuits will be damaged or destroyed! Never play with him in a tub or pool of water – even with the switch off -- or he will stop to function permanently.*

Understanding Roscoe

By the following instructions in this manual (or using the web site <http://www.tekno-robot.com/>) you will be able to provide the best life possible for Roscoe... and lead to greater enjoyment in your new role as Cool Pet Owner.

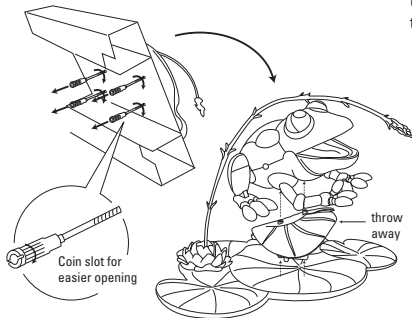


Fig 1

1. Removing Roscoe From The Package

Roscoe is held in place by a plastic column under his belly. They are attached to the base by four thumbscrews (**Fig 1**). Undo the thumbscrews and carefully remove Roscoe from the base and the plastic stands. Discard the thumbscrews and plastic stand as they are no longer needed. Be careful not to damage the flower stem that the Robotic Fly attach to it (**Fig 2**).

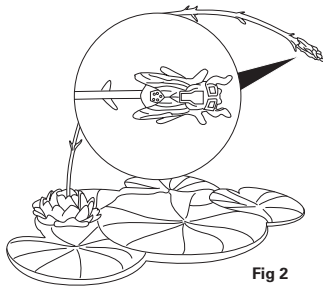


Fig 2

2. Initial Set Up

After Roscoe is free from the package, pull the Tab out of his bottom (**Fig 3**) to begin his program set up. Turn the On/Off switch off and then on again. When you hear a "beep" it means Roscoe has come to life!

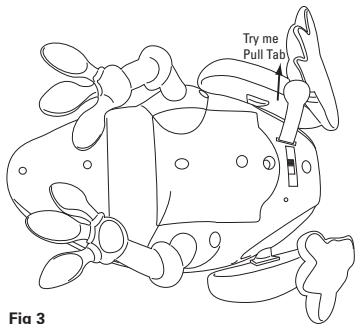


Fig 3

3. Understanding Roscoe's Programming

Roscoe uses the latest in Tekno 2.0 artificial intelligence software. He has the intellect of a real Frog. Frogs aren't perfect and, from time to time, he may have a mind of his own. Sometimes Roscoe will respond to your commands, and other times he will do what he wants to do. It all depends on how he feels and how you are trying to communicate with him.

Like all Frogs, Roscoe needs attention. Yell out his name and clap your hands to let his know you're there. Pet him on the back when he is lonely. Feed him regularly with this Robotic Fly. Change his batteries when he stops working. Just think of him as a real Frog and he will be your friend for life!

4. Roscoe's Inputs, Sensors And Outputs

To understand how Roscoe works you must know about his input devices. **(Fig 4)**

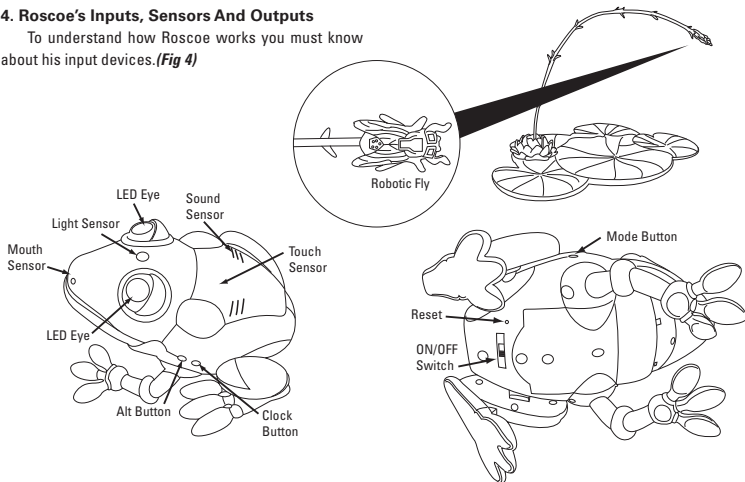


Fig 4

Located on top of Roscoe's head you will see his **LIGHT SENSOR**. This measures the changes in light levels.

The **SOUND SENSOR** in Roscoe's body allow him to respond to voices and other noises.

Roscoe's **TOUCH SENSOR** in Roscoe's body let's his computer know he is being petted.

Roscoe's **ROBOTIC FLY** is on a Flower stem attached to the Lilly Pad base. When it placed near his mouth, the **MOUTH SENSOR** lets Roscoe know he is being fed. You'll know he enjoyed his meal when he thanks you!

The **MODE BUTTON** is used to program Roscoe and teaching him tricks.

The **CLOCK BUTTON** is used to program Roscoe's internal clock functions

The **ALT BUTTON** is used to help to set Roscoe's functions.

LED EYES will light when Roscoe is awake and alert.

MOUTH will open and close whenever Roscoe is talking. His **ROBOTIC TONGUE** will come out when he

is feeding.

Roscoe powers up or shuts down when you move the **ON/OFF SWITCH**.

The **RESET BUTTON** refreshes Roscoe's brain back to the beginning of his programming.

5. Roscoe's Basic Functions

Turn the On/Off switch to the ON position. You will hear a "beep". Roscoe is alive!

Roscoe will begin to sense what is going on around him automatically. If you yell his name or clap, he may start to hop, beg you for attention, or any number of other things.

Keeping Roscoe Happy

Roscoe needs attention and stimulation to be happy. Just like a real Frog, it is important to play with him and not forget to take care of him. Gently stroking his back, talking to him, or clapping your hands will meet with many different reactions from him. If he is in a great mood, he might say "You da' man!". If he is full of energy, he will say "Hot time in the swamp tonight!" and start to hop. If he is really happy, you'll hear him laugh or sing. However, if he feels he is not getting the attention he needs, he might ask where you've been. If he gets tired or bored, he will stop croaking and will rest awhile.

Roscoe loves to race. You can race him against other Robot Frogs to see who has the best pet owner. The more you play and exercise Roscoe, the more stamina he will have in the race.

Roscoe will get tired at the end of a hard day. When the lights go down low or he crawls into a dark space, Roscoe will fall asleep. You can wake him up by turning on the lights or making some noise. He will be happy to see you again!

Roscoe loves to eat! Remember to feed him once a day (*or more if you prefer*). Roscoe always likes a mid-day snack during the day. In fact, he may actually say "Feed me!" when he is hungry. If you don't he will try harder and can even get a bit sarcastic. You can take care of his needs by place the tip of his ROBOT FLY near his MOUTH SENSOR (*fig 5*) on the top of his nose. You'll hear the slurping noises. After that he'll thank you to let you know he's one satisfied froggie.

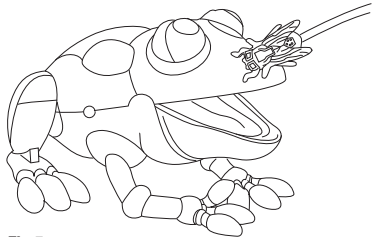


Fig 5

How You Can Tell Roscoe Is Unhappy

Roscoe's voice will let you know by his tone. If you hear him sound sarcastic (*You talkin' to me?*) or show off for attention (*It's boogie time!*), it's time to turn his frown upside down. To make him happy again, just feed him, pet him on his back (*Fig 6*), and play with him.

Roscoe does not like to be left alone. If you haven't played with him as often as he'd like, he will become bored and say "I think I'll just take a nap..." When you return to play with him, in most cases he will be extremely happy to see you again. All will be forgiven when you pay attention to Roscoe.

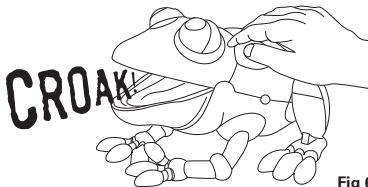


Fig 6

When Roscoe Gets Sleepy

Roscoe likes to sleep several times a day. Occasionally, you will hear him yawn. If he is left alone for a few minutes, he will start to Snore and go to sleep. You can easily tell if he is asleep as his **EYES** will be not be lit.

Roscoe will also go to sleep as night-time approaches. Roscoe's **LIGHT SENSOR** will let his computer know it's late at night. You can wake Roscoe up from this heavy sleep by tapping on his body, making some loud noises, or turning on the lights.

6. Teaching Roscoe His Everyday Tricks

Roscoe is amazingly smart - but he needs **YOUR** know- how to program him so he can perform his tricks. Follow these steps **EXACTLY** and you will be

able to make Roscoe astound your friends and family with your combined talents.

Here are the tricks he can do:

Trick name	What Roscoe will do	How to program him	How to make him do the trick	How to make him stop doing the trick
Croak on demand	Croak whenever you call him.	Hold the MODE BUTTON and TOUCH SENSOR for 3 seconds until you hear a "beep".	Call his name or make a loud noise.	Pet him on his back.
Rude Noises	Make occasional rude noises and excuse himself.	Press MODE BUTTON for 3 seconds until you hear a "beep". Press ALT BUTTON and hear 2 "beeps". Press the MODE BUTTON again and hear the rude noise.	Roscoe will make these noises all by himself for about 10 minutes.	Wait 10 minutes and Roscoe will stop all by himself or press and hold the ALT BUTTON and MODE BUTTON for 3 seconds.
Sing And Dance	Play music and move in an animated pre-programmed pattern with the music. Roscoe will perform to one of three different songs.	Press MODE BUTTON for 3 seconds until a "beep" is heard. Press ALT BUTTON and you hear a beep. Press ALT BUTTON again, then press the CLOCK BUTTON once each time to select a song. One Beep is song 1. Two Beeps is song 2. Three Beeps is song 3.	Press the MODE button to confirm your selection. Call out his name or clap your hands to start his routine.	He will say "that was great!" when the routine is finished.
Hop on demand	Hop whenever you call him.	Press the Touch Sensor for 3 seconds until 2 "beep" are heard. Press the Touch Sensor for 3 seconds and hear a "beep"	Call his name or make a loud noise.	Pet him on his back.

7. Teaching Roscoe Advanced Tricks

Now it's time to really concentrate. Roscoe's advanced tricks are a bit more difficult to program but well worth the effort.

Trick Name: Alarm Clock

Roscoe will wake up at exactly the time you want him to and start to get you to wake up too.

To program Roscoe, you must teach him to tell time.

Press the **CLOCK BUTTON** for 3 seconds until you hear a "Beep". You are now in CLOCK SET MODE.

Next, you need to set the hours of the day. To do that, you press the **ALT BUTTON**. Check your clock to see the current time of the day and press the **ALT BUTTON** the correct number of times to match the hour. If you see that both of Roscoe's eyes are ON and you hear a low pitched "beeps", it means you are in **A.M.** (*midnight to noon*). If his eyes are Off and the beeps are a high pitch, it means **P.M.** (*noon to midnight*).

Press the **CLOCK BUTTON** when you have finished

and you will hear the number of beeps that equal the number you pressed. If you set the wrong time, you must press **turn him off and on again** and start over. If the number of beeps is correct, press the **MODE BUTTON** again. You have just set the Hours of the day.

To set the minutes, look at the current time and divide the minutes into 5-minute segments. Each five-minute segment will be equal to 1 "beep". For example, 15 minutes equals 3 "beeps" 25 minutes equals 5 "beeps", etc. Press the **ALT BUTTON** (*listen for the beep*) once for each 5-minute interval of time. Press the **CLOCK BUTTON** when you have entered the correct minutes and you will hear the number of beeps you have entered. Press the **MODE BUTTON** one more time. Roscoe will return to his normal programming.

To Set The Alarm:

In setting Roscoe's alarm, press the **MODE BUTTON** and the **CLOCK BUTTON** for 3 seconds. You'll hear a high, low, and high beep. You're now in Alarm Mode.

To select a wake-up time, repeat the same process

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To select a wake-up time, repeat the same process

8. Making Roscoe Race

Now it's time to show how well you having taken care of your Frog — by making him race. You can race him against his best time by himself or against other Roscoe Frogs of your friends.

First, find a smooth flat surface to race your Frog. A tiled floor is a good place. Make sure there is plenty of room. If you are planning to race Roscoe against his best time, you will need a stopwatch to time him.

To program your Roscoe into Race mode, press

the **MODE BUTTON** for 3 seconds until you hear a "beep". Next, press the **MODE BUTTON** one more time and Roscoe will say "Lets Race awhile!".

Place your Frog down on the race track surface quickly (**Fig 7**). Roscoe will give you two seconds to do this. After two seconds, Roscoe will start to listen for your command. He waits patiently until you yell "GO!" (*and start the stopwatch if you have one*). Then it's off to the races!

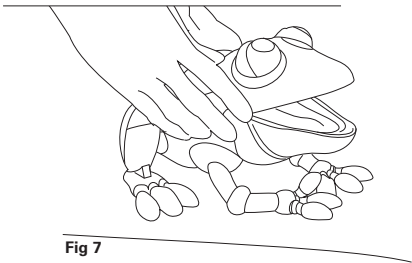


Fig 7

You can race Roscoe against other robot Frogs of your friends. If you want, place a yellow sticky pad note on your robot Frog's back to identify him from the others.

The Frog who lasts the longest, wins! **(Fig 8).**

Your Roscoe can race again right away. Just repeat the race routine and let him go!

NOTE: *If you turn the On/Off switch off or press the RESET BUTTON, Roscoe will return to the beginning of his programming and you must play with him again to get his race stamina back.*

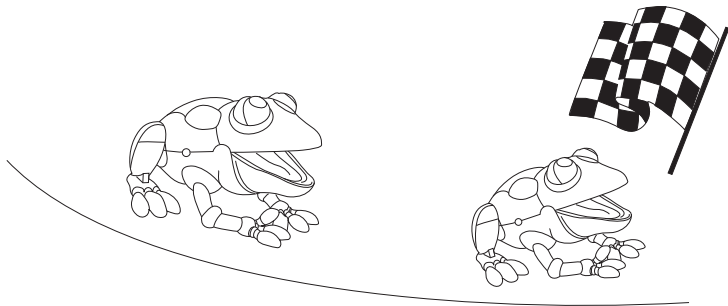


Fig 8

9. Roscoe's Home Base

Roscoe loves to rest in his home base (**Fig 9**). This is a good place to leave your Frog when you are not playing with him. You can store his ROBOTIC FLY on the Lilly flower (**Fig 10**) for safe keeping.

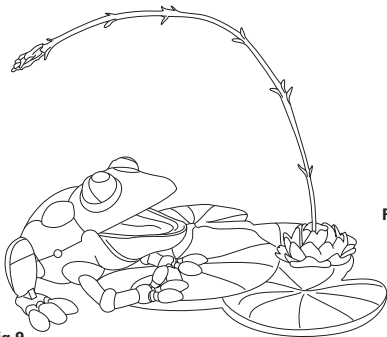


Fig 9

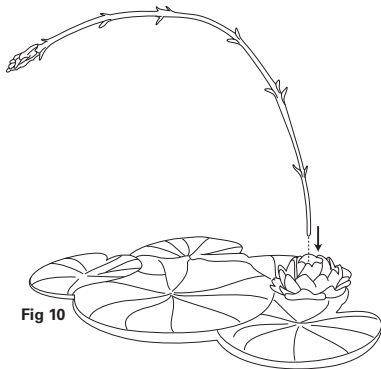


Fig 10

10. Replacing Roscoe's Batteries (Fig 11)

Roscoe runs by battery power. When his batteries are low, he will not respond to any of your commands. To replace the batteries, unscrew the small screw on the **BATTERY DOOR** on Roscoe's belly. Pull the Battery door out. Replace the batteries in the orientation shown. **USE ONLY ALKALINE BATTERIES.** Never use Rechargeable Batteries or these will damage Roscoe's electronic circuits.

Under the environment with electrostatic discharge, the sample may malfunction and require user to reset the sample.

BATTERY CAUTIONS:

IMPORTANT: Only parents should replace batteries.

- Do not use rechargeable batteries.
- Do not attempt to recharge non-rechargeable batteries.
- Insert batteries as marked and always follow the toy and battery manufacturer's instructions.
- Use only the same or equivalent type of battery as recommended.
- Do not short-circuit the supply terminals.
- Do not mix old and new batteries. Do not mix different types of batteries, such as alkaline, standard (carbon-zinc), rechargeable (nickel-cadmium).
- Always remove exhausted or dead batteries from the product.
- Remove batteries from the product before extended storage.

SPECIAL NOTE: You can keep your Frog's race stamina level if you work quickly to replace his batteries. First, do not move the ON/OFF SWITCH to the OFF position. Next, after you have removed the battery door, try to replace the batteries within a minute or two. Your Roscoe should have keep his previous stamina level from before you changed of the batteries.

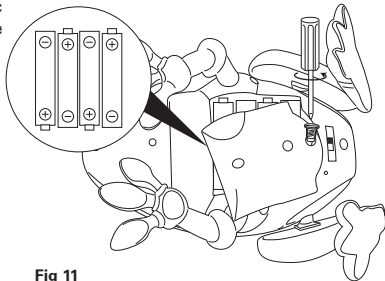


Fig 11

11. Trouble Shooting Tips

Difficulty	Solution
Roscoe keeps saying "I think I'll just take a nap." and wants to go to sleep.	He is in a place that is too dark. His computer thinks it is night time. Place him in a brighter area and he will return to normal.
Roscoe does not respond to me when I call him.	You may be speaking too quietly. Try to get closer to him, speak louder, clap your hands, or tap his shell. He is always listening.
I've lost Roscoe's Robotic Fly and now I can't feed him.	You can use any small magnet to feed him with, such as those that attach small objects or notes to refrigerator doors.

12. Interacting With Other Robotic Pets

Roscoe's programming is designed to hear and respond with other Robotic Pets from the Institute of Robotic Technology. These include Tekno the Robotic Puppy, Kitty the Tekno Kitten, or Polly the Tekno Parrot -- as well as other Tekno 2.0 robots such as Boomer the Robotic Puppy and Flash the Robotic Turtle. If you have a friend with another Tekno pet, place them near one another. You'll see they begin to react to each other and all sorts of fun ways! They'll hop, talk and generally like each other's company. It's a great way to keep your robotic Frog happy!

