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Who hasn't fantasized about finding a hidden hoard of coins or relics with a metal detector? The allure of buried treasure has always been enticing—just look at the legends of Captain Kidd or Oak Island. And using a metal detector to find coins or jewelry hiding in plain sight, is probably the closest to living it we'll likely find in our day-to-day lives. Of course, as any serious detectorist will tell you, the reality of metal detecting involves more long, pleasant strolls in the sun and fewer treasure chests. It often takes hours of work to find anything of value. The thrill you get from finding something interesting, though, makes it worth it. Heck, you might even find a hoard of ancient artifacts. But even if you don't stumble on anything, metal detecting is a fun and relaxing hobby, especially with friends. To find the best metal detectors for new hobbyists and experts alike, I also consulted with an expert detectorist, who helped me understand what makes a great detector. Then, I spent two days hunting for treasure across the beaches of South Florida to test them. I didn't find any treasure, but I did find a lot of fun. Steven T. Wright: As a longtime nerd and technology writer, I've covered computers and tech products for almost 10 years at publications like PC Gamer, Ars Technica, and Polygon. I have extensive experience testing and reviewing all sorts of consumer gear, from gaming keyboards to pizza ovens. I consulted Jeff Lubbert, an expert detectorist who has been tracking down treasures and finding lost rings since the mid-'80s. He has used his metal detector in 28 states, one U.S. territory, five foreign countries, and three foreign territories, where he has recovered items adding up to approximately \$980,000. He is president of the Eureka Treasure Hunters Club in Denver, Colorado, and has written articles about metal detectors for outlets like American Diggers and appeared on the TV show Forensic Files.While shopping for a metal detector, you need to take into account a number of key factors, particularly the type, coil size, weight, and extra features like backlight and frequency customization. Weight and build quality also make a big difference, especially when you use these devices for hours at a time. It was initially hard to weigh these distinct traits, but after testing these machines myself, the features worth springing for became clear.If you're going to shop for a hobby-grade metal detector, it's important to understand how they work. This is fairly technical equipment, so manufacturers will cater their products primarily to veterans who already have a bit of knowledge, which may be intimidating to new people. Most metal detectors have a round head called the "search coil," which is the actual detector itself. It has two parts, the transmitter coil and the receiver coil, which work in tandem to produce an electromagnetic field that shoots down into the ground wherever you wave it. When the field hits metal, it triggers another magnetic effect in response, which the coil picks up. Depending on the device, that signal may be able to tell you how deep an object is buried, based on the strength of the response. Most of the detectors I recommend can determine what kind of metal they're reading by measuring the object's "phase shift," or the time it takes for the object to react when the coil changes its magnetic current. This function, called "discrimination," can sometimes help you figure out if your quarry is worth digging down to find a child's toy buried 6 inches deep in the surf.It's not the most complex detector on our list, but it's easy to handle. And relying on disposable AA batteries, while not environmentally friendly, is more convenient when you're using your detector and need to top up.My only knock against the Vanquish 440 is that it comes with a very flimsy pair of headphones, which broke the first time I used them. That's not a huge loss, though: Many of the detectorists I know prefer to connect their own headphones, and even an inexpensive pair will do. In the end, this is a dynamic, accurate detector and relatively affordable, to boot.Credit: Steven T. WrightProsIncludes backlight and four find modesAll-in-one kit comes with a carrying case and a diggerGood performance for the priceConsLess precise than my other recommendationsTypeVLFCoil Size11 in.Weight2.6 lbWaterproofYes, up to 5 meters (16 ft)Since I primarily spoke with experts and enthusiasts, the Nokta FindX Pro was not remotely on my radar when I first began my research. But it may just be the best option for new detectorists looking to dip a toe into the hobbyist pool. It's an all-in-one kit, complete with an effective digging tool, a nice duffel bag, and decent headphones—all for less than \$200.While it is not as accurate as my other recommendations, it's a more than capable VLF detector. I was able to find items at both parks and beaches, though I noticed that its performance really suffered on wet sand and underwater. Its compact frame and adjustable handle make it accommodating to a wider-than-average range of newcomers, including kids and adults.If you're interested in the hobby and don't want to spend too much to try it, the FindX Pro is a great fit for beginners.ProsvsVery affordable for a waterproof detectorBacklight and flashlight modes help with visibilityLightweight and easy to useConsBluetooth-enabled model costs moreTypeVLFCoil Size9.5 in.Weight2.6 lbWaterproofYes, up to 5 meters (16 ft)The Simplex line is often recommended by experts as a good entry point for new detectorists. Nokta is one of the two biggest brands in the metal detecting game—the other is Minelab—and the Simplex Lite is a strong, basic VLF detector. I found it had top-notch discrimination, plenty of find modes, and a good coil size that easily found my testing materials and led me to beer cans, aluminum foil, and plenty of other objects on the beach.Because this is a single-frequency VLF detector, it doesn't perform as well as the Vanquish 440, especially on the mineralized sand at saltwater beaches. It's still a very capable machine, though—even more so if you're searching for a specific type of item, particularly coins and jewelry. Though it offers fewer customization options than its more expensive multi-frequency counterparts, it's also much easier to pick up and use as a newcomer.For those who are looking to spend a bit more, you can upgrade to the Nokta Simplex BT, which adds Bluetooth support, or the Simplex Ultra, which gives you precision detector tools like target ID scale and depth.Now 9% OffCredit: Steven T. WrightProsBluetooth connectivity for wireless headphones is extremely convenientAmazing performanceVery customizableConsComes with a learning curveTypeMulti-frequencyCoil Size11 in.Weight2.8 lbWaterproofYes, up to 5 meters (16 ft)The Minelab Equinox 900 is the most feature-rich metal detector I tested. From the second I picked it up, I could tell that it would be a cut above the rest. The build quality is noticeably better than other, less expensive models I tested—it just feels more substantial.Its features and performance back up that first impression. The Equinox 900 consistently performed better than its less expensive counterparts, as well, pinpointing targets precisely and identifying both their depth and target ID. Though I was able to find my planted targets with every detector, the Equinox 900 directed me precisely to all three, making the process quicker and easier in both dry and wet sand.It also features a number of settings and tools that improve the detecting experience, including six customizable frequency settings, an easy-adjust handle, and Bluetooth support so you can use wireless headphones. All that customization is incredible if you're an expert. I personally had more success using the pre-made settings, but I can see detectorists like Lubbert fine-tuning searches to great effect. I was especially taken by its handgrip vibration feature, which gives you a rumbling haptic response when the Equinox picks up a target. It's a great way to get your attention in a loud area, if you're hearing-impaired, or if you're just on a long walk and not paying close attention. Personally, I found it very helpful while roaming some very popular stretches of Miami's beaches.It's worth noting that Minelab lists the Equinox 900 as a bit heavier than the other models we tested, though I personally didn't notice a difference, even after several hours of sweeping. At more than double the price of my best overall pick, it's fair to say that the Equinox 900 is an investment for serious hobbyists. But it is far and away the most effective choice I tested and a worthy upgrade.Prosparallel performance2D ID Map creates a physical space on-screen as you exploreAbsurdly customizable with 10 search modesConsHeavyTypeMulti-frequencyCoil Size11 in.Weight2.9 lbWaterproofYes, up to 5 meters (16 ft)While I wasn't able to get it in for this round of tests, Lubbert recommended the Minelab Manticores for expert detectorists looking for the ultimate metal detector experience. 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These precise, short-range auxiliary detectors help you determine the exact location of a find after picking something up with your detector's large coil.This one, from Minelab, is relatively expensive, but its fully waterproof design and five sensitivity levels work very well. It also features ferrous discrimination, which allows it to tell if a target is made of ferrous metals like iron or non-ferrous metals like gold, silver, or copper. It isn't strictly necessary, but it is a nice extra feature to have in trash-filled parks.Trevor Raab"Make each swing of the detector take about 2 seconds and overlap your swings so that the coil covers all of the ground," Lubbert says. "Wear headphones, as it helps you hear those deep target whispers." Lubbert also said that detectorists should be happy with what they find, and that you should expect 95 percent of your digs to result in trash. 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And, of course, if you plan to use your detector on private property, you should obtain permission from the owner, or else you might dig up a lawsuit instead of treasure. Steven T. WrightSteven T. Wright is a freelance writer based in Miami, FL. He has been a full-time writer of various things for around a decade, especially long-form features about tech and digital culture. He enjoys spending time with his wife and cat, hiking, and reading weird fiction. You can follow him on Twitter @MacCathedral. Expert consulted:Jeff LubbertJeff Lubbert has been an avid metal detector since 1980 and joined The Ring Finders directory in 2010. He is an active officerholder in Denver's Eureka Treasure Hunters Club and the co-host of American Digger Magazine's Relic Roundup, a weekly metal detecting podcast. Who hasn't fantasized about finding a hidden hoard of coins or relics with a metal detector? 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However, as Lubbert notes, discrimination is not always reliable, and it's generally best to err on the side of digging if you think you've found something worthwhile.The first thing to look at before buying a metal detector is where you plan to use it, as some detectors are better equipped to scan specific types of terrain. For example, if you live near the coast and plan to sweep your local beach, you may want a different model than someone looking under hard soil in local parks. Though there are many kinds of detectors, I focused on the two most frequently used by novices and veteran hobbyists. Very low frequency (VLF) metal detectors operate on one frequency at a time. They are generally cheaper and easier to use than multi-frequency detectors, but come with certain disadvantages. Most VLF detectors allow users to switch among a number of frequencies but rarely allow you to input a specific one yourself. They often don't work as well in mineralized soil or on saltwater beaches, and they're not ideal for gold prospecting. In general, VLF machines are great for those who plan to look for coins and jewelry in favorable conditions. Multi-frequency detectors run a range of frequencies simultaneously. They're expensive but generally very effective, which makes them appealing to seasoned enthusiasts. Multi-frequency detectors are ideal for conditions that challenge VLF machines, such as mineralized soil, wet sand, and saltwater beaches in general. They tend to be more complicated, and often weigh more. Think of it as a sign of your commitment to the craft. The best of the best can actually get quite light, but they're also very expensive.The physical size of the metal detector coil is important, too. If you don't sweep the coil over an object, you aren't going to get a ping, so bigger is better. Under most conditions, Lubbert recommends looking for a coil that's at least 11 inches in diameter. That said, Lubbert advises that smaller coils have their uses, especially in wooded areas, since it's easier to get between twigs, grass, and weeds with a more compact head. Larger coils can theoretically detect objects that are deeper underground, but they're also more susceptible to electromagnetic interference from the environment. He recommends having both a compact coil and a large coil option if you plan to scan a wide range of environments. In general, all of our recommendations here seem relatively light on paper—the heaviest weighs only a few pounds. Keep in mind, though, that you could be waving this device around with one arm for hours at a time. Even a few ounces can greatly impact how quickly you tire out.Mid-range and high-end metal detectors tend to feature backlit displays, which comes in handy when searching in low-light conditions. 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To find the best metal detectors for new hobbyists and experts alike, I also consulted with an expert detectorist, who helped me understand what makes a great detector. Then, I spent two days hunting for treasure across the beaches of South Florida to test them. I didn't find any treasure, but I did find a lot of fun. Steven T. Wright: As a longtime nerd and technology writer, I've covered computers and tech products for almost 10 years at publications like PC Gamer, Ars Technica, and Polygon. I have extensive experience testing and reviewing all sorts of consumer gear, from gaming keyboards to pizza ovens. I consulted Jeff Lubbert, an expert detectorist who has been tracking down treasures and finding lost rings since the mid-'80s. He has used his metal detector in 28 states, one U.S. territory, five foreign countries, and three foreign territories, where he has recovered items adding up to approximately \$980,000. He is president of the Eureka Treasure Hunters Club in Denver, Colorado, and has written articles about metal detectors for outlets like American Diggers and appeared on the TV show Forensic Files.While shopping for a metal detector, you need to take into account a number of key factors, particularly the type, coil size, weight, and extra features like backlight and frequency customization. Weight and build quality also make a big difference, especially when you use these devices for hours at a time. It was initially hard to weigh these distinct traits, but after testing these machines myself, the features worth springing for became clear.If you're going to shop for a hobby-grade metal detector, it's important to understand how they work. This is fairly technical equipment, so manufacturers will cater their products primarily to veterans who already have a bit of knowledge, which may be intimidating to new people. Most metal detectors have a round head called the "search coil," which is the actual detector itself. It has two parts, the transmitter coil and the receiver coil, which work in tandem to produce an electromagnetic field that shoots down into the ground wherever you wave it. When the field hits metal, it triggers another magnetic effect in response, which the coil picks up. Depending on the device, that signal may be able to tell you how deep an object is buried, based on the strength of the response. Most of the detectors I recommend can determine what kind of metal they're reading by measuring the object's "phase shift," or the time it takes for the object to react when the coil changes its magnetic current. This function, called "discrimination," can sometimes help you figure out if your quarry is worth digging up before you go to the trouble of getting your digging tools out. However, as Lubbert notes, discrimination is not always reliable, and it's generally best to err on the side of digging if you think you've found something worthwhile.The first thing to look at before buying a metal detector is where you plan to use it, as some detectors are better equipped to scan specific types of terrain. For example, if you live near the coast and plan to sweep your local beach, you may want a different model than someone looking under hard soil in local parks. Though there are many kinds of detectors, I focused on the two most frequently used by novices and veteran hobbyists. Very low frequency (VLF) metal detectors operate on one frequency at a time. They are generally cheaper and easier to use than multi-frequency detectors, but come with certain disadvantages. Most VLF detectors allow users to switch among a number of frequencies but rarely allow you to input a specific one yourself. They often don't work as well in mineralized soil or on saltwater beaches, and they're not ideal for gold prospecting. In general, VLF machines are great for those who plan to look for coins and jewelry in favorable conditions. Multi-frequency detectors run a range of frequencies simultaneously. They're expensive but generally very effective, which makes them appealing to seasoned enthusiasts. Multi-frequency detectors are ideal for conditions that challenge VLF machines, such as mineralized soil, wet sand, and saltwater beaches in general. They tend to be more complicated, and often weigh more. Think of it as a sign of your commitment to the craft. The best of the best can actually get quite light, but they're also very expensive.The physical size of the metal detector coil is important, too. If you don't sweep the coil over an object, you aren't going to get a ping, so bigger is better. Under most conditions, Lubbert recommends looking for a coil that's at least 11 inches in diameter. That said, Lubbert advises that smaller coils have their uses, especially in wooded areas, since it's easier to get between twigs, grass, and weeds with a more compact head. Larger coils can theoretically detect objects that are deeper underground, but they're also more susceptible to electromagnetic interference from the environment. He recommends having both a compact coil and a large coil option if you plan to scan a wide range of environments. In general, all of our recommendations here seem relatively light on paper—the heaviest weighs only a few pounds. Keep in mind, though, that you could be waving this device around with one arm for hours at a time. Even a few ounces can greatly impact how quickly you tire out.Mid-range and high-end metal detectors tend to feature backlit displays, which comes in handy when searching in low-light conditions. (Some high-end models even come with flashlight functions). Though not a universal feature, I consider this an essential for all but the cheapest options. High-end metal detectors grant you a degree of customization through advanced settings, allowing you to set a specific level of discrimination that, when properly used, can help you identify relics and coins in a variety of environments. You need to know what you're doing to take full advantage of these do-it-yourself search modes, but there are guides online to help you learn as you go. Lastly, most metal detectors I researched and/or tested feature built-in batteries that last for hours on a full charge. That said, some models—including one of my picks—use disposable batteries instead. There are advantages and disadvantages to both: Disposable batteries can be replaced quickly, but you need to keep spare cells on you. It comes down to your preference, so go with what feels right. I selected the best metal detectors after trying a handful of options that came recommended to me by Lubbert, other expert detectorists, and enthusiast websites like MetalDetectingForum.com.To test accuracy, I buried an old spoon and two different coins—a quarter and a penny—8 inches underground to check their level of discrimination and pinpointing. I also used each detector for several hours in a variety of conditions, including a grassy park and at the beach, in both dry sand, wet sand, and under several inches of surf.Credit: Steven T. WrightProsMulti-frequency functionality works well over terrainPhysically durableFind modes are easy to use and understandConsHeadphones are underwhelmingTypeMulti-frequencyCoil Size10 in.Weight2.3 lbWaterproofYes, up to 1 meter (3.3 ft)Because it's a single-frequency VLF detector, it doesn't perform as well as the Vanquish 440, especially on the mineralized sand at saltwater beaches. It's still a very capable machine, though—even more so if you're searching for a specific type of item, particularly coins and jewelry. Though it offers fewer customization options than its more expensive multi-frequency counterparts, it's also much easier to pick up and use as a newcomer.For those who are looking to spend a bit more, you can upgrade to the Nokta Simplex BT, which adds Bluetooth support, or the Simplex Ultra, which gives you precision detector tools like target ID scale and depth.Now 9% OffCredit: Steven T. WrightProsBluetooth connectivity for wireless headphones is extremely convenientAmazing performanceVery customizableConsComes with a learning curveTypeMulti-frequencyCoil Size11 in.Weight2.8 lbWaterproofYes, up to 5 meters (16 ft)The Minelab Equinox 900 is the most feature-rich metal detector I tested. From the second I picked it up, I could tell that it would be a cut above the rest. 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