

# Mini Drone Golf

Mini Drone Golf\* is a game soon to be played at the world famous LVL1 Hackerspace in Louisville, Ky. It is a fairly simple idea - set up a mini golf course that can be played with miniature toy quadcopter drones.

## The Drones

The drones we use for Mini Drone Golf are Cheerson X10 or similar sized drones that can easily be purchased on Amazon, eBay or other outlets. The drone's size is approximately 3" by 3" or about 4 1/2" diagonally. These drones will fit in the palm of your hand. Any drone that is about that size will work and, of course, you could scale the hole size to fit a larger sized drone. Another factor for using these mini drones is that they are really inexpensive. They often cost less than \$20. When you purchase your drone, be sure to get extra blades and a blade guard. The Cheerson X10 does not have a replaceable battery, but the battery lasts long enough to have fun and it recharges easily with USB power. Some drones might have replaceable batteries so you may want to look for that. Search Mini Drone on the internet for many options. Radio Shack, Best Buy, Brookstone and other retail outlets may also have mini drones that would be appropriate. YMMV



LVL1 does not own any of these drones, our members and guests will. Anyone who wants to play needs to borrow one from a friend or buy their own. Really, they are cheap and you want one, so go buy one and practice at home.

## The Golf Course

The golf course we (will soon) have is 9 hole course that is set up around the hackerspace. Typical golf courses are 9 and 18 holes, but nine is probably most appropriate for this. Each hole consists of a "tee box" and a "green". The tee box is a green board approximately 12" square. It is made from cardboard, foam board, wood, corrugated plastic, etc and is decorated so the number of the hole is on the board. The tee box only serves as the launching point for the mini drone and does not need to be fancy at all.

The green for the hole is a larger board that is cut to look like a golf green. It has a single 5" diameter hole (use a coffee can as a template) somewhere on it to be the hole for the quadcopter to fall into. The green is made from cardboard, foam board, wood, corrugated plastic, etc and is decorated so the number of the hole is also on this board. Since this is your mini golf course we encourage you to be very creative in decorating your green with obstacles, lights and other things.

Mini golf would not be mini golf without fun obstacles. Build your course with windmills, creepy clown faces, loop-de-loops and hula hoops to fly through. Be creative here, put your tee box low and the green high, or vice-versa. Perhaps have fans blowing on your green. Make it so you can't see the green easily. Have spectators shoot the drones with Nerf guns! Your imagination is your only limit. All holes are par 3 so make it easy enough.

As we begin making our golf course, we plan on making one hole and showing how it works with a couple of mini drones. Then we are going to have a hackathon a few weeks later to build the rest of the holes around the space. This will give folks time to buy a mini drone and practice. A golf tournament will happen after the hackathon followed by the "19th" hole!

### **The Rules**

Mini Drone Golf is played much like Mini Golf but you are using a drone and not a putter and ball, duh!

The object of Mini Drone Golf is to fly your mini drone into the hole on the "green" in as few "strokes" as possible.

A stroke is defined as anytime the quadcopter crashes and has to be restarted. If it needs to be flipped over or moved to a more suitable location, that is part of that stroke.

A drone can be moved no more than one hand distance to a more suitable location for restart.

A bounce on the floor or the table or some other object or obstacle does not count as a stroke. So the drone could bounce itself all the way to the green and that is OK.

Once the drone lands (or crashes upon) and comes to rest on the green, strokes are counted as follows: If the drone is on the green: 3 strokes, if it is on the green, but some part of the drone is over the hole: 2 strokes. If the drone is in the hole: 1 stroke. So if a player takes off from the tee box, flies and lands in the hole then it counts as one stroke and is a hole in one!

If a player has teed off and needs to recharge his or her battery then that counts as one stroke. Between the holes, there is no penalty for recharge.

One person per hole at a time, unless players decide to go as a group, then one goes, then the next and so on. Figure it out!

No skipping holes. Play in order.

Breaking a propeller counts as one stroke. Breaking 2 counts as two strokes. Breaking 3 counts as three strokes. Breaking all 4 propellers during the same crash counts as a hole in one.

Accidentally flying the drone into another living being (including yourself) counts as one stroke.

Maximum strokes per hole is 6. If you cannot control your drone enough to make this happen then you should go practice.

All holes are par 3

BONUS: If you do a flip sometime between teeing off and landing on or in the green, you get to subtract 1 from your score. But only 1 bonus per hole! This means it is possible to get a hole in zero.

BONUS: If you can complete 9 holes without recharging your battery, you get to subtract 3 from your score. (we will have to see how good this rule is - so it may go away or be modified!)

No cheating, golf is a gentleman's game! You are expected follow the rules whether or not someone else is watching.

And, as always, Be excellent to each other!

*\* Mini Drone Golf is an idea that was conceived by some of the members of LVL1 and therefore if you are so inclined to "borrow" our idea for business purposes we would appreciate some love. In other words, say where you got the idea because you are capitalizing on it. Be excellent to us! [www.lv1.org](http://www.lv1.org)*





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Hole	1	2	3	4	5	6	7	8	9	Total
Name										
Name										
Name										
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