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RFIDs on hummers

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20 de diciembre de 2019, 11:27

Hi Marcelo,

So sorry I didn't respond earlier!

Here are a few photos, below. Basically, I start with a [First Nature hummingbird feeder](#) and make several modifications. First thing is to completely cut off the ring around the base which is meant for the birds to perch. For me, I don't want to allow the bird to perch because the antenna will record a bird while it is simply sitting, but not feeding. Then I cut it up that plastic ring into smaller pieces. I glue one back to the top to give the bird an option to perch but it's in a location that the antenna will not read. I cut two smaller pieces to hold the antenna up vertically and glue those back as you can see in the photos. Each smaller piece has a notch to fit the top and bottom of the antenna. The antenna wires run down to the circuit board which is housed underneath in a plastic box. The power wires lead from the circuit board down to a motorcycle battery on the ground. I use a piece of red plastic to cover up the rest of the feeder holes so that the birds can only feed from the one hole with the antenna.

The way this is designed, you have to use hot glue to keep the antenna in place (we used wireless glue guns in the field), and then pick the glue off when you need to refill or clean the feeder. You can take the circuit board off by releasing the lid which is stuck to the bottom of the feeder. This allows me to clean the entire thing without worrying about the circuit board getting wet. It's also important to remember you don't want any metal on the feeder structure because that can interfere with reading. That's why I can't use metal clips to keep the antenna in place... has to be the glue.

In terms of range, it really depends on the size of the antenna and the angle of the tag relative to the antenna. If the tag is perpendicular to the antenna you can get a read from around 8 cm but if the tag is parallel it's more like 4 cm. The range is best on the inside of the antenna circle, and you will get a read from maybe 0.5 cm on the outside edge of the circle. With the Eli Bridge system you can make yourself a bigger antenna but from my experience even an antenna that is 10cm in diameter does not drastically improve the range. Plus, making antennas is a huge pain. The max size of antenna is around 10cm for Eli's readers.

I hope this helps, and let me know if you have any questions!

Best,
Jay







[El texto citado está oculto]

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