**Sensor Assembly:**

Use sharpie to mark top of green solder attachment to indicate where pin will be (this is so that it is clear which pin on the sensor is which, even after potting the sensor or gluing it into a PVC cap)

Insert green solder attachment onto sensor (with lettering towards sensor)

Solder sensor onto green solder attachment as pictured

Solder wires into green solder attachment as pictured

**Snake sensor:**

- Cable length ~ 10 ft

- Cut about 1.5” of clear vinyl tubing (3/8” Inner Diameter)

- Cut about 2.5’ of gage 12 Solid THHN insulated wire

Use electrical tape to tape wire to cable of sensor (wire taped just beyond sensor so no interference with sensor). Tape middle of wire and other end of wire to cable.

Insert sensor into 1.5” tubing

Prop sensor up somehow, and use silicone to glue sensor to tubing/close gap between sensor and tubing. Let dry for a few hours (or overnight)

Next day: Tilt sensor downward – fill with epoxy. (Shouldn’t leak, unless there are gaps in the silicone. If it does leak, just let it dry. Easier to peel off sensor or surface in large chunks. Doesn’t leave residue that way either. On surfaces: use razor blade to scrape off.) Let dry overnight.

**Canopy sensor 2019 design:**

- Cable length ~ 15 ft

- Drill hole in pvc cap (we used ¼” spade bit)

- Cut about 6” of gage 12 Solid THHN insulated wire

Use electrical tape to tape wire to cable of sensor (wire taped just beyond sensor so no interference with sensor).

Feed cable and wire through PVC cap. Hole should be big enough to fit both cable and wire, but small enough that the cap will stay on wire without slipping down.

Use silicone to seal gap between cable/wire and PVC cap. Let dry for a few hours or overnight.

Next day: Prop sensor up, facing down, and fill part-way with epoxy. (Just enough to cover bottom of cap and seal sensor in though. If epoxy fills too much of cap, cap may not stay on PVC pipe piece it will be attached to). Let dry overnight.

**Soil sensor:**

- Cable length ~ 10 ft

- Drill hole in PVC cap that is wide enough to fit sensor

- Place sensor in

Roll a small amount of putty into snake-like shape. Wrap around sensor and insert into drilled hole in PVC cap, making sure the putty seals the gap between sensor and PVC.

Face sensor downward and secure in place so that when filling with epoxy, PVC cap will not tip over.

Fill cap part-way with epoxy glue (Just enough to cover bottom of cap and seal sensor in though. If epoxy fills too much of cap, cap may not stay on PVC pipe piece it will be attached to). Let dry overnight.

Next day: Feed 1” PVC elbow through cable and pull all the way to end over top of ¾” cap. Tilt sensor upwards and secure in place. Fill gap between PVC cap and elbow PVC with epoxy or silicone. (Let dry overnight)