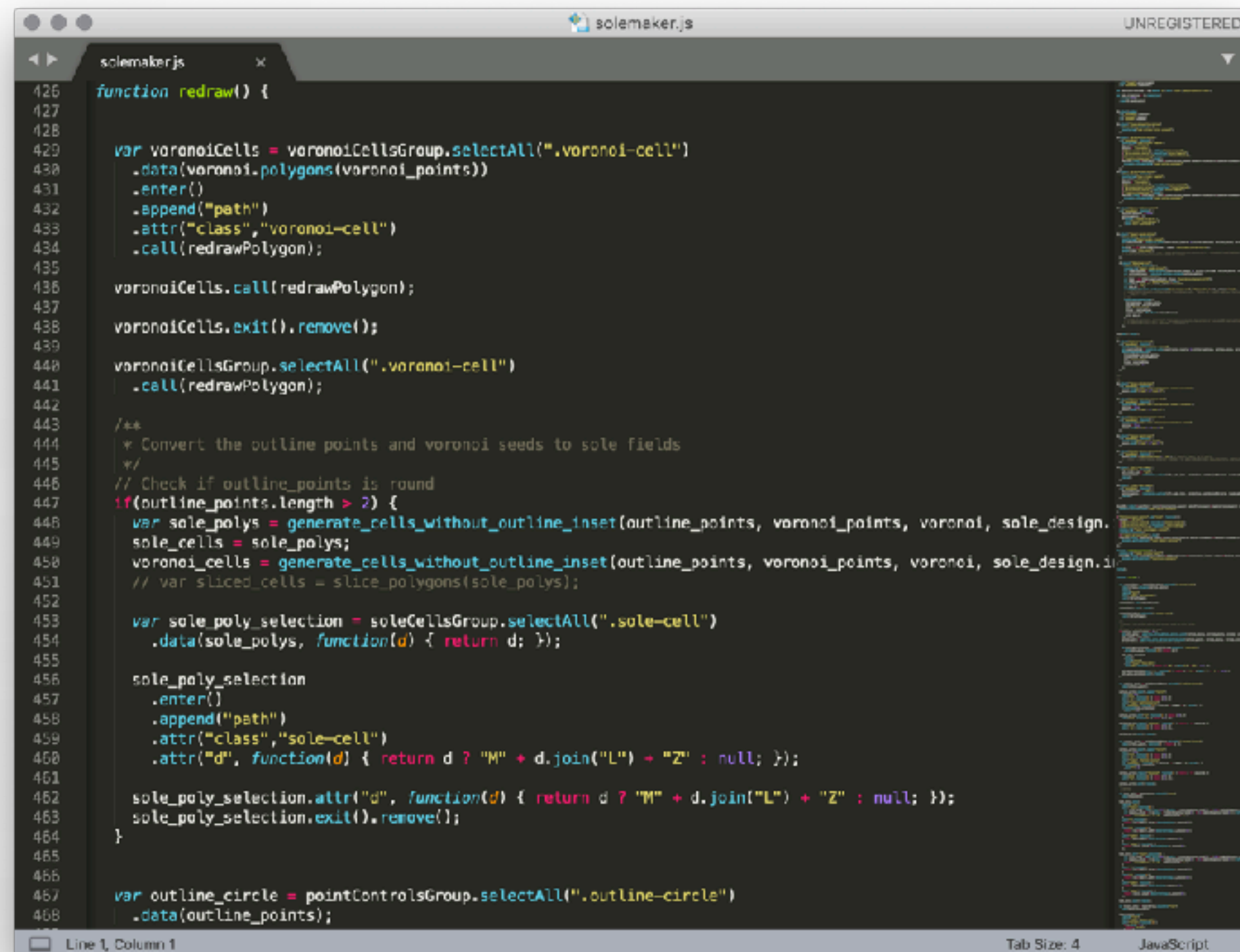


Data as a Material?

Embodied Ideation

Hfg Karlsruhe, 27 May 2021



```
solemaker.js
UNREGISTERED

function redraw() {
  var voronoiCells = voronoiCellsGroup.selectAll(".voronoi-cell")
  .data(voronoi.polygons(voronoi_points))
  .enter()
  .append("path")
  .attr("class", "voronoi-cell")
  .call(redrawPolygon);

  voronoiCells.call(redrawPolygon);
  voronoiCells.exit().remove();

  voronoiCellsGroup.selectAll(".voronoi-cell")
  .call(redrawPolygon);

  /**
   * Convert the outline points and voronoi seeds to sole fields
   */
  // Check if outline_points is round
  if(outline_points.length > 2) {
    var sole_polys = generate_cells_without_outline_inset(outline_points, voronoi_points, voronoi, sole_design);
    sole_cells = sole_polys;
    voronoi_cells = generate_cells_without_outline_inset(outline_points, voronoi_points, voronoi, sole_design);
    // var sliced_cells = slice_polygons(sole_polys);

    var sole_poly_selection = soleCellsGroup.selectAll(".sole-cell")
    .data(sole_polys, function(d) { return d; });

    sole_poly_selection
    .enter()
    .append("path")
    .attr("class", "sole-cell")
    .attr("d", function(d) { return d ? "M" + d.join("L") + "Z" : null; });

    sole_poly_selection.attr("d", function(d) { return d ? "M" + d.join("L") + "Z" : null; });
    sole_poly_selection.exit().remove();
  }

  var outline_circle = pointControlsGroup.selectAll(".outline-circle")
  .data(outline_points);
```



Embodied Ideation

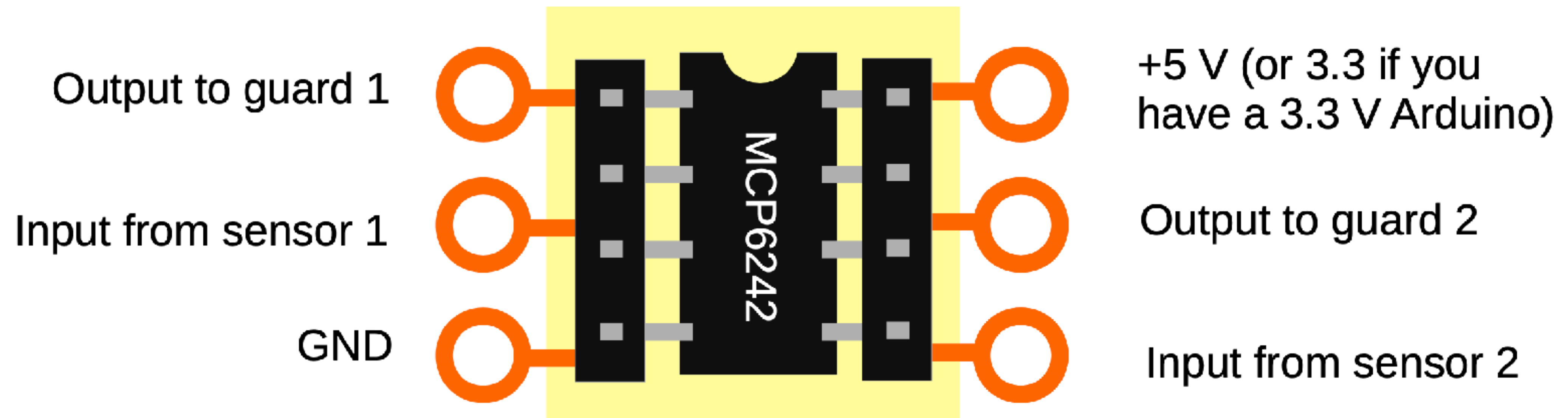


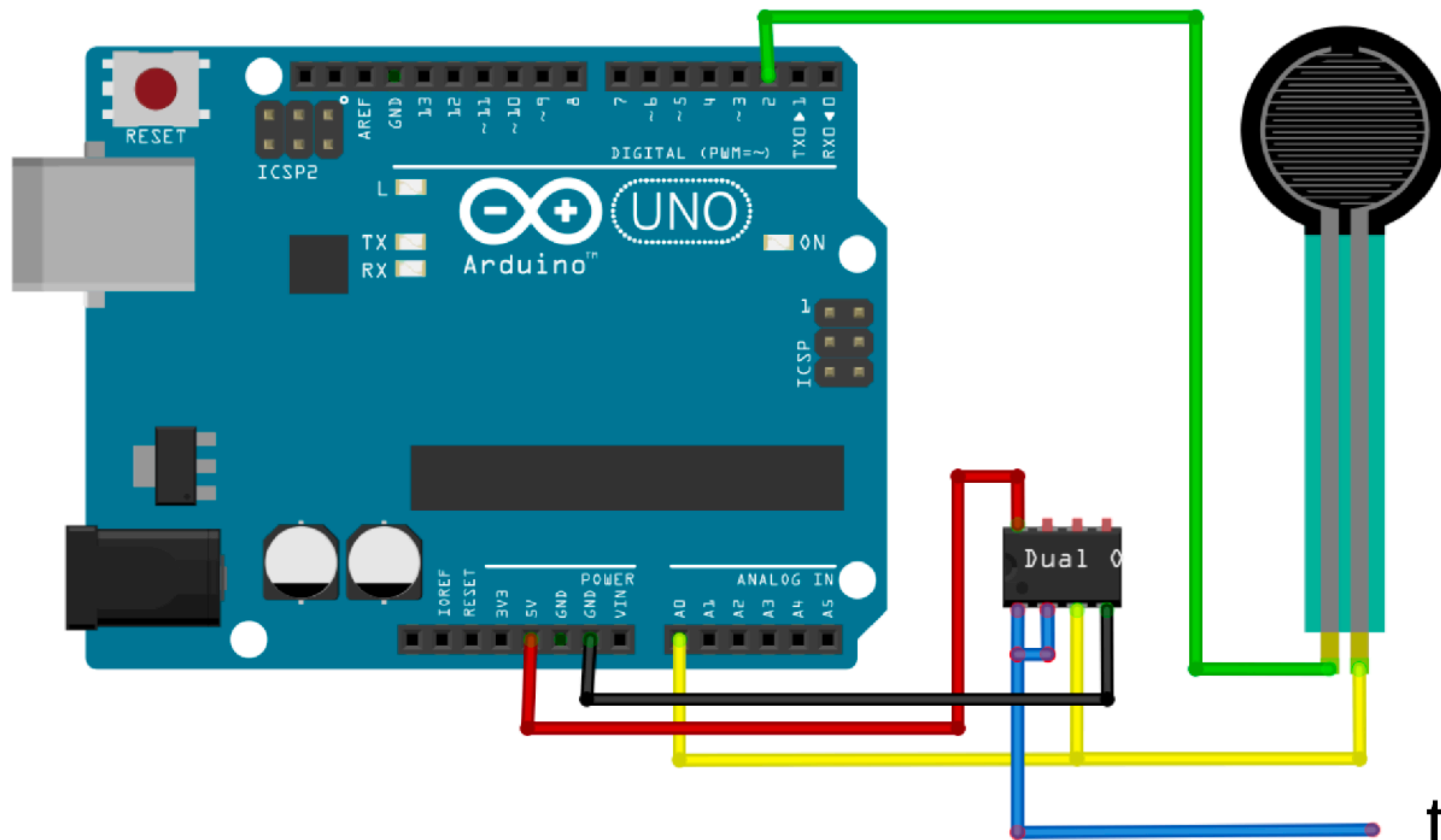
em·bod·y | əm' bädē |

- em·bod·y | əm' bädē |
- verb (embodies, embodying, embodied) [with object]
- 1 be an expression of or give a tangible or visible form to (an idea, quality, or feeling): a team that embodies competitive spirit and skill.
- provide (a spirit) with a physical form: nothing of the personality of the Spirit as embodied in Jesus will be lost.

OED 2020

Wiring of opamp





Software: same
as for system
without guard

to guard

Note: wires to / from capacitive sensor (green and yellow) are sensitive to skin presence as well → keep wires as short as possible and twist guard wire (blue) around green and yellow wires to reduce this effect. If possible, use coax cable where you can use mantle of cable as wire to guard.

Pressure sensor stackup

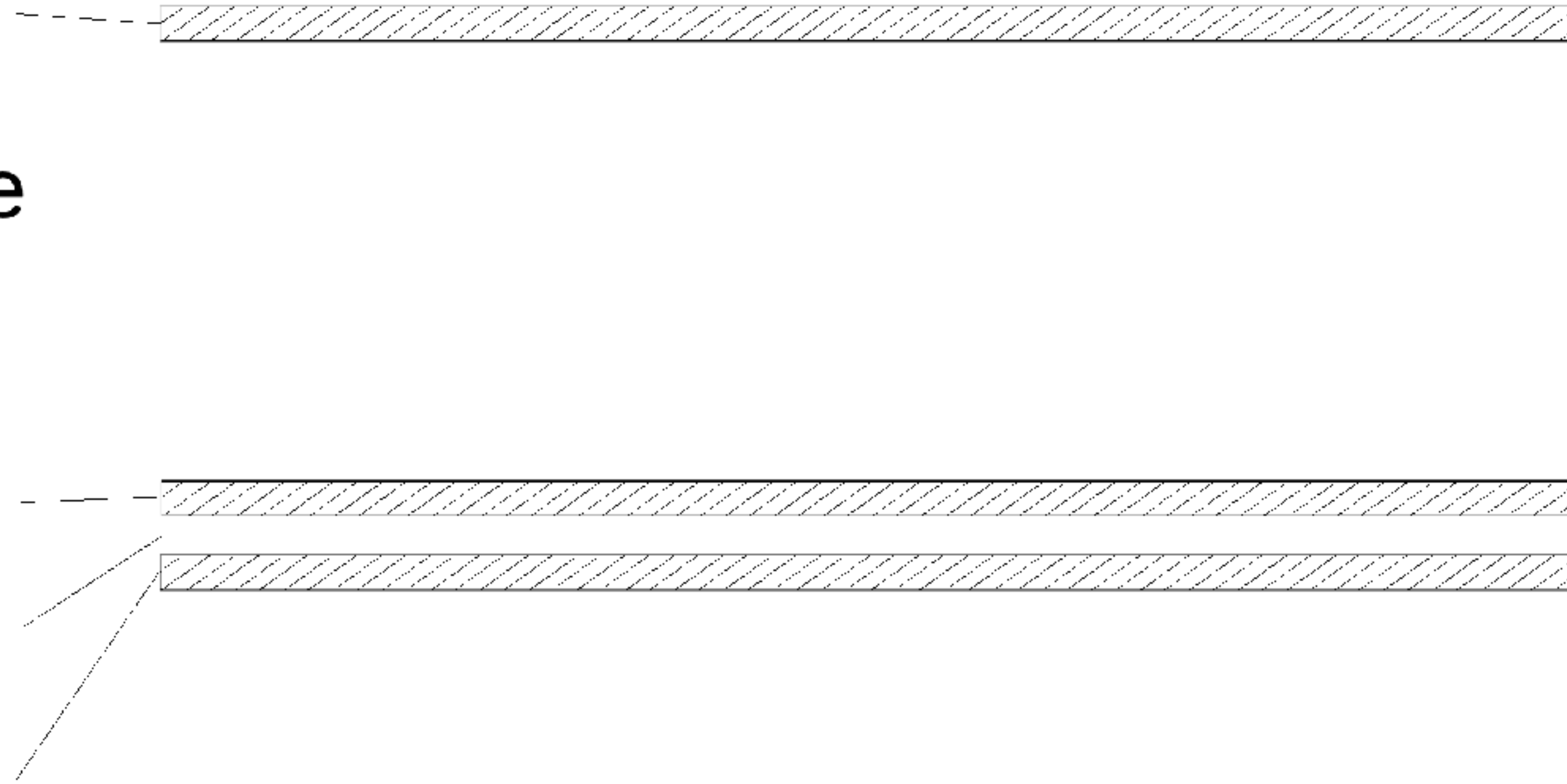
Electrode 1

Resistive pressure
sensitive material

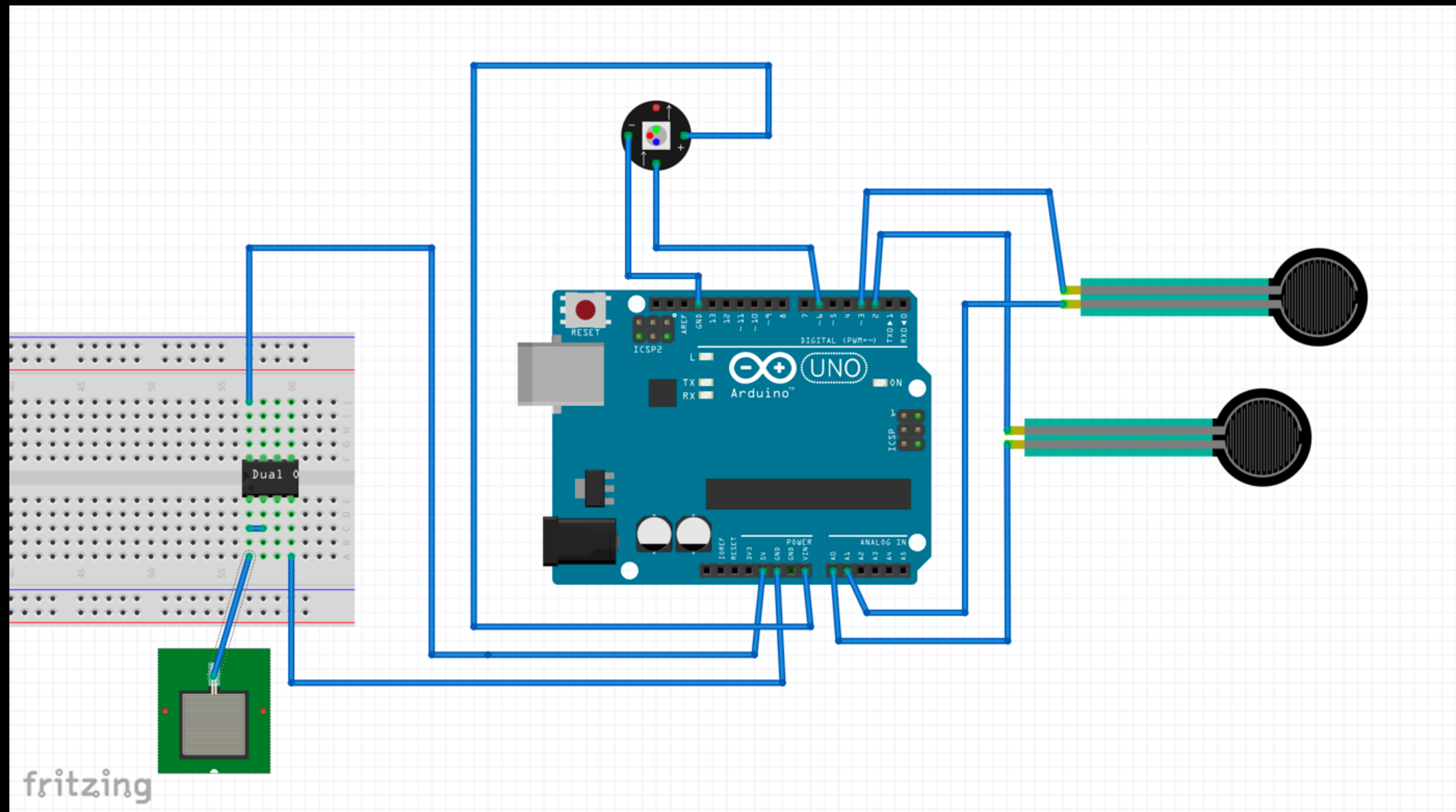
Electrode 2

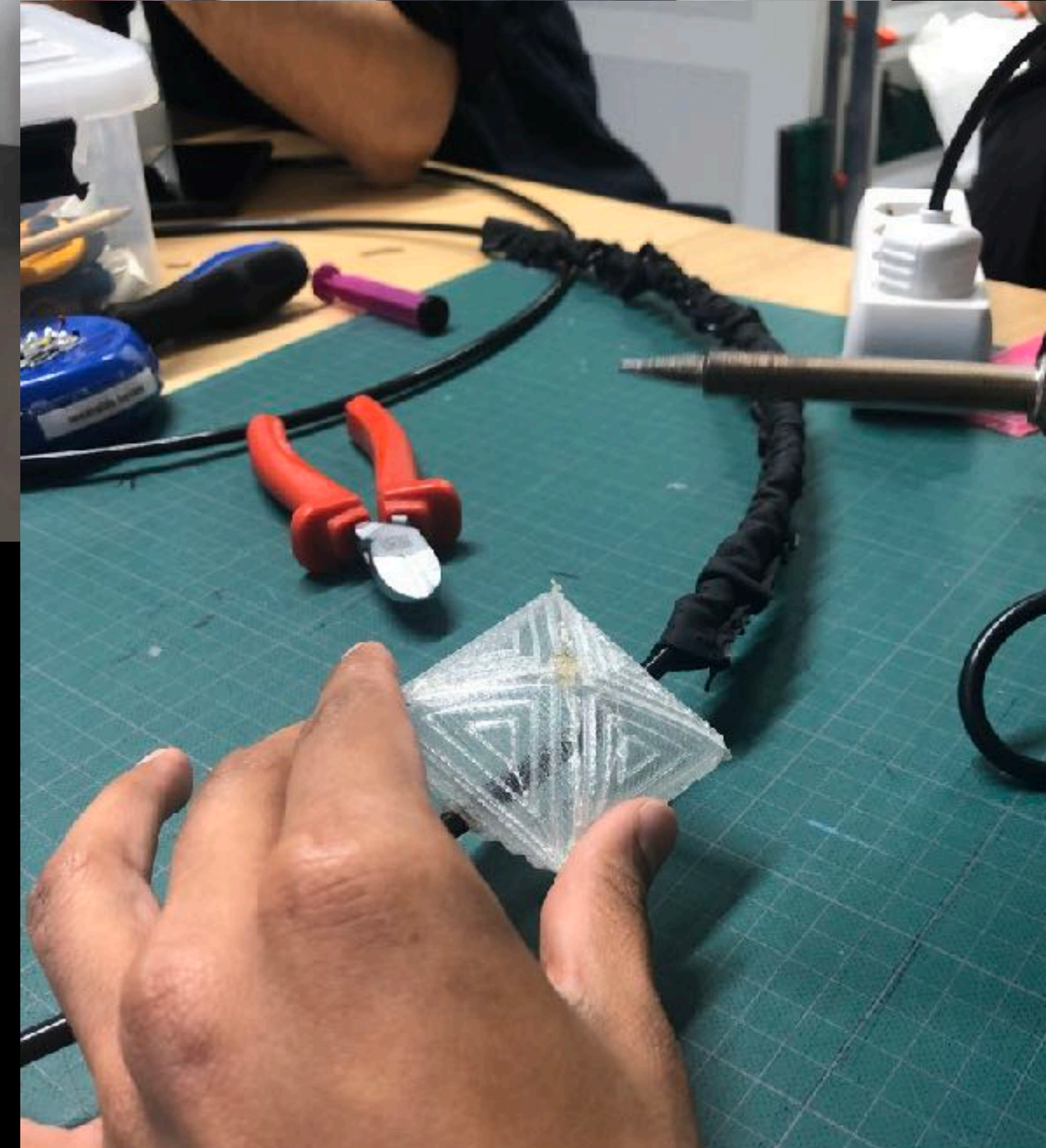
Insulating material

Guard



On the breadboard







**What does it mean to wear
data on the body?**

**What does it mean to Interact
with data near the body?**