* Tyler: I noticed there are plenty of sources on conformal printing or just non-planar printing in general
  + Novelty lies in obtaining information from nothing → deriving general or edge-case toolpaths (and any accommodations necessary for our material interacting with the environment)
  + Toolpath generation appears to be an open ended problem; there doesn’t seem to be any considerations on physical analysis - in which case we can possibly choose to do so? This would need some evidence as to why it’s necessary.
  + [Survey on AM Using Robots](https://pdf.sciencedirectassets.com/306190/1-s2.0-S2214860419X00068/1-s2.0-S2214860419312266/main.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjEKz%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEaCXVzLWVhc3QtMSJIMEYCIQDwv4NBH7k0rgfcn0dnFOvmzY45C6h4qsRJvlPRY2FWcQIhALbZMS1d69nGPxOOmsyNBAUmNXKGWolVOvaqu2xPvRVDKr0DCLX%2F%2F%2F%2F%2F%2F%2F%2F%2F%2FwEQAxoMMDU5MDAzNTQ2ODY1Igzsk4z%2BGicayOfcqvMqkQMQ9n5%2FFfGR4Lh5bOskzBr62GzYxJHZVHnkJeQ9n%2BZlsvjGt4CvGaE4fPpR2LG%2FiwT1eOWDU5qhQsro0z%2B%2Fh65AiNgM5WJLJY8CnWB3L1rYUd0m7a5zIUhR7ZlTkZKcJMHgWgssQBW7Xm%2FyiEUWOeGirTVlL27ZnyVfYiOVrFW%2BcdMGqzDvrhN%2B93Xlx35W6y%2Fxl5tR8LL%2FV5T%2BvaV%2Fpzb%2Buu3sJ6VO8GYphxPY9D%2BODuF3ufU5J2ewvNUU%2FgbqYcDRDIkSeXoAcgX11kcJ7xBFGhIIHH0J%2Bqhya3HHGXKVHf8dJjlcI7k5%2BNqr%2B3m0br2dFJgxs5QpPDgTsA56HiQQLzOjNUdoR69o9OpKBm3R7jXa4mIeNm1ynrAoFgprIjqyUONV%2BoGKh7oRZ96aozpwjv8h9w3XAMb2XDAg4NxYwQl63EnCvEuA%2FujXeC5u6F9dxbz0a8KpCrtWvmmXaRazBqqnvqLv9h8Y2caY2P9I6pwbDWcpUkPofv7x1UVMbvk8By9iSsn4tGgBklGh2xrgADDx6q%2F0BTrqAehOySjkwsy%2FiWHbM9lk%2B78JoFfPBVBPrw1S40JQjmfVX2j8S8af0RW4AtGW1HWpJQmLl3yxz484gcZ9CfslbI9YZAKofyWV3xFH%2F%2Bd5NH2II0nbtwn8CYSPpg61B%2FkZheIrzHBoRAAgLFEat9m1OFfQy5da66RgJuhpSc%2Fd7L01T9d0lAN2QbGEtbXJj1P6RmwlOdlGMiax2tFgBWqPz1FSbloaoLyI8wwPuf406qWh1oMuNXlb%2BP1KAXo2FOFKwExq8NrHuG9sIM8OXaboRpVQe9X56f0%2BKd8jJAz9vo2AYbcHz%2F3Co7iklg%3D%3D&X-Amz-Algorithm=AWS4-HMAC-SHA256&X-Amz-Date=20200407T043003Z&X-Amz-SignedHeaders=host&X-Amz-Expires=300&X-Amz-Credential=ASIAQ3PHCVTYUD4WXUXE%2F20200407%2Fus-east-1%2Fs3%2Faws4_request&X-Amz-Signature=1f2c056673073202ea8eb033c34044b5d29c7e82b61a80af22fe19c5001fd56c&hash=f4ec5d516ae9eed8a7ef0e9f4efabf724a65b0c071828ccc4f2257e42f5e61c5&host=68042c943591013ac2b2430a89b270f6af2c76d8dfd086a07176afe7c76c2c61&pii=S2214860419312266&tid=spdf-e7fdf99f-f4c9-43bc-911b-96d46cb5b81f&sid=90a896481ab3f24ee2681175c2c62267c8fbgxrqa&type=client) (2020)
    - “ Decomposing a part and developing slicing algorithms for conformal layer generation is an active research area”
    - “Repair: Repair is a task in which a damaged part is fixed without remanufacturing or replacing the whole part. Conventional AM is not capable of performing repair work due to two reasons. Firstly, it is not portable enough to be moved to the location where the part is to be repaired. Secondly, the conventional AM setup is not flexible enough to selectively print on the damaged region. As discussed before, robots are easily portable to task locations. Due to the high DOF, robots are flexible. The challenge in such a problem is multi-fold. The robot needs to register the damaged part or damaged region of the part and determine the extent of repair. Then the robot has to determine the position from each it can reach the damaged region. Finally, a motion planning problem needs to be solved to fill the damaged region and repair the part.”
    - Without scanning, the project is ultimately physical analysis on conformal printing - which seems like there hasn’t been a dedicated paper on it yet so this is possible.
    - List of new research interests as viewed by the authors of the survey:  *(1) multi-material components, (2) ultra-large parts with small scale features, high accuracy, (3) high build speeds, (4) in-situ printing, (5) hybrid manufacturing, (6) repair, (7) micro-scale parts*