



Georgia Tech Modular Roll-to-Roll (R2R) Facility

The modular pilot-scale roll-to-roll (R2R) facility at Georgia Tech serves as a testbed for scaling up manufacturing research. It is open to Georgia Tech researchers and academic and industry partners worldwide. R2R manufacturing transforms flexible substrate materials into complex rolls by coating them with fluids, which are then dried or cured. This efficient method is ideal for sustainably producing components for solar cells, batteries, flexible electronics, and separations—industries that have recently expanded in Georgia, in addition to other thin film materials used in industries like automotive, semiconductor, and biomedical, to name a few.

The R2R equipment contains three unique coating stations:

- Flexography / Gravure Printing
- Inkjet Printing
- Slot-Die Coating for Fabrication

To cure and dry samples, the equipment includes:

- Ultra Violet Curing
- Infrared Heat
- Convective Drying Module

To prepare substrates, the R2R equipment has:

- Corona Treatment
- Chemical Pretreatment Station
- Meech Stations
- Contact Cleaner
- Barcode Systems for Labeling

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