RAM

Really Awesome Memory

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UMD

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Agenda

1. Announcements
   - Projects 5, 6, and 7
2. Intro + Background

Announcements

Projects 5, 6, 7

- Projects 5, 6, and 7 are now released on Piazza
- Relevant instructional material is/will be linked
- They can be done in **any order**, but I would suggest doing them in order (5, then 6, then 7)
- We already did a lecture on Project 5 and 6, today we'll be talking about **Project 7**

Intro

Intro

- We've built the ALU; the brains of the operation
- Now we need a few more things to take this from just a calculator circuit to an actual computer
  - Ways to **store** programs
  - Ways to **interpret** those programs
  - Ways to **execute** those programs
  - Ways to **store data** for those programs while they're executing
- We're going to use the digital logic circuit theory to build circuits to address all of these! (Projects 5, 6, and 7)

Intro

- Ways to **store** programs - **ROM** *(Project 5)*
- Ways to **interpret** those programs - **389E Assembly** *(Project 5)*
- Ways to **execute** those programs - **Program Counter** *(Project 6)*
- Ways to **store data** for those programs while they're executing - **RAM** *(Project 7)*
- Today, we'll be talking about ways to store data for these programs, using registers of **RAM**.