

INSTRUMENTS OF KNOWLEDGE:

**Celebrating the First Moon Landing through
U-M Library Collections**



OR: How 7 people used 1000 pushpins in 12 hours

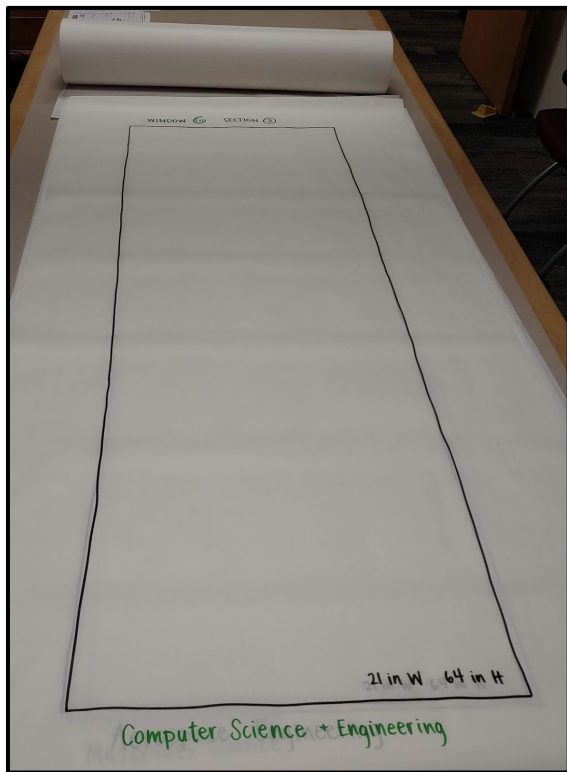
JAMIE NIEHOF—Engineering Librarian

PAUL GROCHOWSKI—Engineering Librarian

Timeline



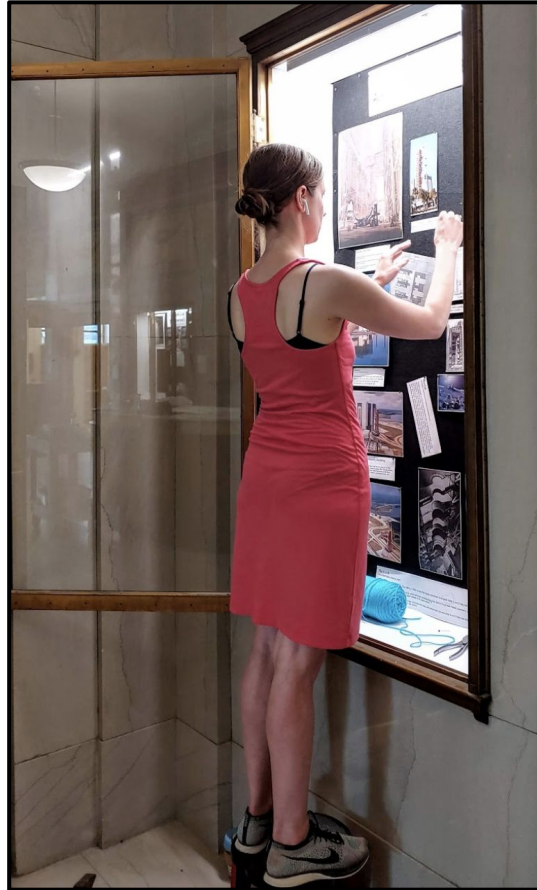
Process—layout



Process—taking over the conference room



Process—installation



Process—corrections & completion

Apollo 11 F-1 Engine Parts

DATE: 1986
 MANUFACTURER: Rocketdyne, Division, North American Rockwell
 ORIGIN: Los Angeles, CA
 MATERIALS: CRES steel, copper, aluminum, teflon, Inconel X
 ORIGINAL DIMENSIONS: 18 feet long; 12 feet diameter

Wernher von Braun and his mightiest creation, the first stage of the Saturn V rocket. The F1 engines behind him were a source of lengthy and unremitting development difficulties, but ultimately proved to be tough, reliable and powerful.

Saturn V Rocket

"Saturn V was to have three stages: the S-1C stage, the S-2, and the S-4B. The S-1C stage is approximately 138 feet long and the 33 feet in diameter. Weighing 280,000 lbs empty, it holds some 4.4 million pounds of liquid oxygen and RP-1 kerosene fuel. Each of its five engines, designated F-1, can develop the 1.5 million pounds of thrust produced by the entire first stage of Saturn I.

Saturn V's first-stage thrust of 7.5 million pounds makes it the most powerful carrier known to be under development anywhere in the world. The S-2 stage is 81.5 feet long and 33 feet in diameter. It is powered by five liquid-oxygen hydrogen J-2 engines producing a total of 1 million pounds of thrust. The third stage is the S-4B, 58.4 feet long, 21.7 feet in diameter, and powered by one 200,000 pound-thrust J-2."

HISTORY OF ROCKETRY & SPACE TRAVEL, 1966
 CALL # TL781.V945

“We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard...”

—John F. Kennedy
 Rice University
 September 12, 1962

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The growth of our nation and education will be enriched by new knowledge of our university and environment.

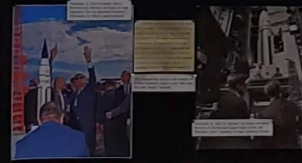
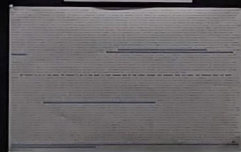
Only power can give the great nations the power to be great. Power, however, is not an end in itself, but a means to an end. It is the power to do good.

These people believe that the future of our nation is in the hands of the young. They are the leaders of the future.

For the eyes of the world now look into space, to the moon and to the planets beyond.

We have vowed that we shall not use space filled with weapons of mass destruction, but with instruments of knowledge and understanding.

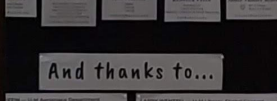
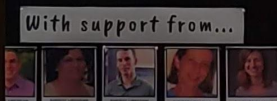
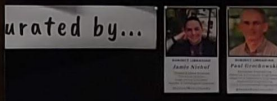
President John F. Kennedy, August 14, 1961



EARTHBOUND TALK HAS ENDED. VERBAL HISTORY HAS BEGUN.

WE CAME IN PEACE FOR ALL MANKIND.

THE MOON, IT TURNS OUT, IS A GREAT PLACE FOR MEN.

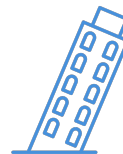


Lessons Learned

“Quotes matter”



as do italics



Check your closed captions

Start planning earlier



Spellcheck with more than two eyeballs

MOON EXHIBIT: By the Numbers

940

Pushpins



200+

Work Hours

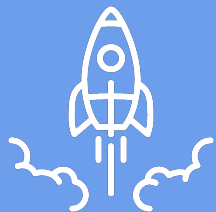
105

Feet Butcher Paper



50

Years
Space
History



21

Windows

2

Bags
Swedish Fish



1

LEGO
Astronaut



Riders on Earth Together, Brothers in Eternal Cold



To see the earth as it truly is, small and blue and beautiful in that eternal silence where it floats, is to see ourselves as riders on the earth together, brothers on that bright loveliness in the eternal cold—brothers who know now they are truly brothers.