

Programmation STIEM et Makerspace

STEAM and Makerspace Programs at Edmonton Public Library



Spread the words.

Overview:

1. Context
2. Current services and programs
3. How
4. What's next

Context

Edmonton

- Pop. ~980,000
- +20% in 10 yrs.
- 31% >35 yrs.

**Gov., university,
oilfield support
industry**

**“hockey, hipsters,
pick-up trucks...
and festivals!”**



Edmonton Public Library

- 20 Branches
- 3 Storefront
- 4 Literacy Vans
- ~450 FTE



Business Plan 2016 - 2018

Act as a Catalyst
for Learning,
Discovery, and
Creation



Key Philosophies

- **Community-Led Service Philosophy**
- **Digital Literacy**
 - Core Library Service
 - Comprehensive staff training
 - Troubleshooting



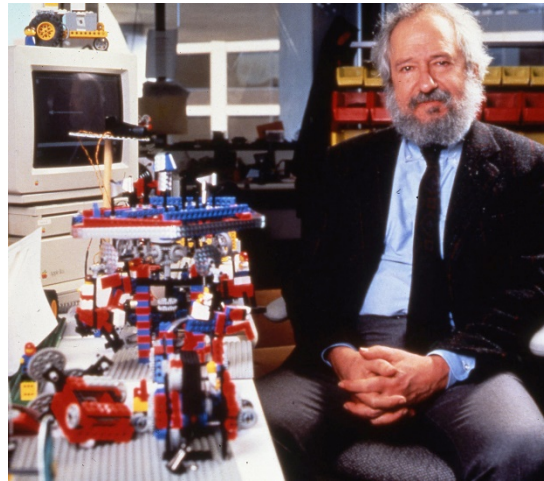
Key Influences

Hanging Out,
Messing Around,
and Geeking Out

Kids Living
and Learning
with New Media

with contributions by Judd Antin, Megan Finn,
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YOUmedia

*Design
Thinking for
Educators*

Current services and programs

Current Makerspace

Downtown

200 - 278 m2

3.4 FTE*

6 staff

**Temporary
Location!**



Ethos

- Free, or low barrier
- All ages
- All open hours
- “Getting started”
- Flexible



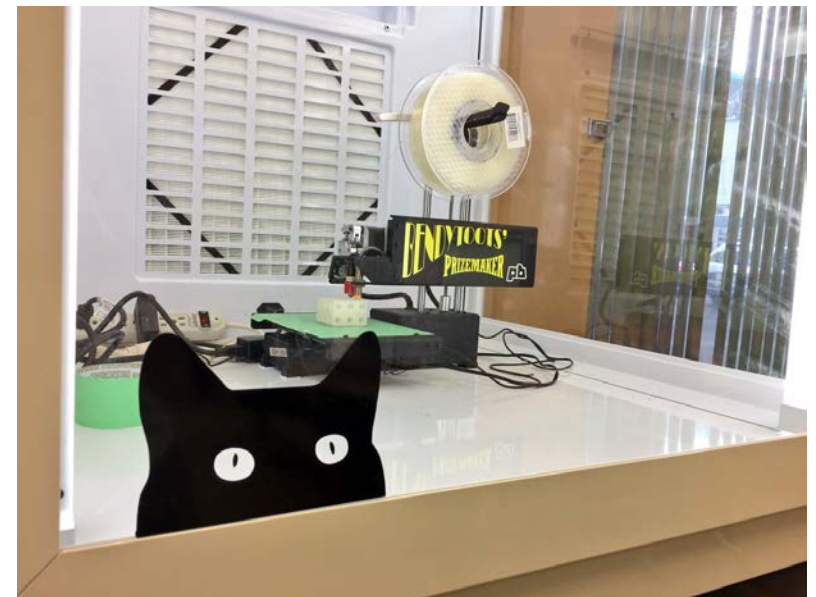
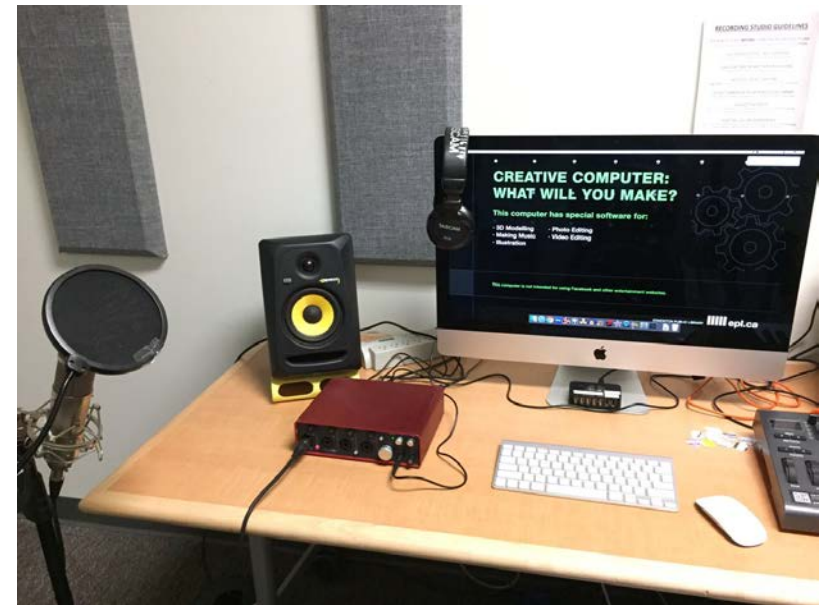
Methods

- Drop-in project help
- Production services
- Bookable Equipment
- Programs



Equipment

- Creative computers
 - 3D printing
 - Book making
 - Vinyl cutter
 - Recording studio
 - Green wall
-
- VR/AR
 - Gaming PCs
 - Robots and electronics





Community Gaming



System Wide Programming

Successful exports

- STEAM
- Robotics
- Scratch
- Recording studio





- **Made the mayor smile!**
- **Robot SAFELY delivered scissors!**
- **(As functionally required.)**
- **Bold way to position EPL as a STEAM program provider.**

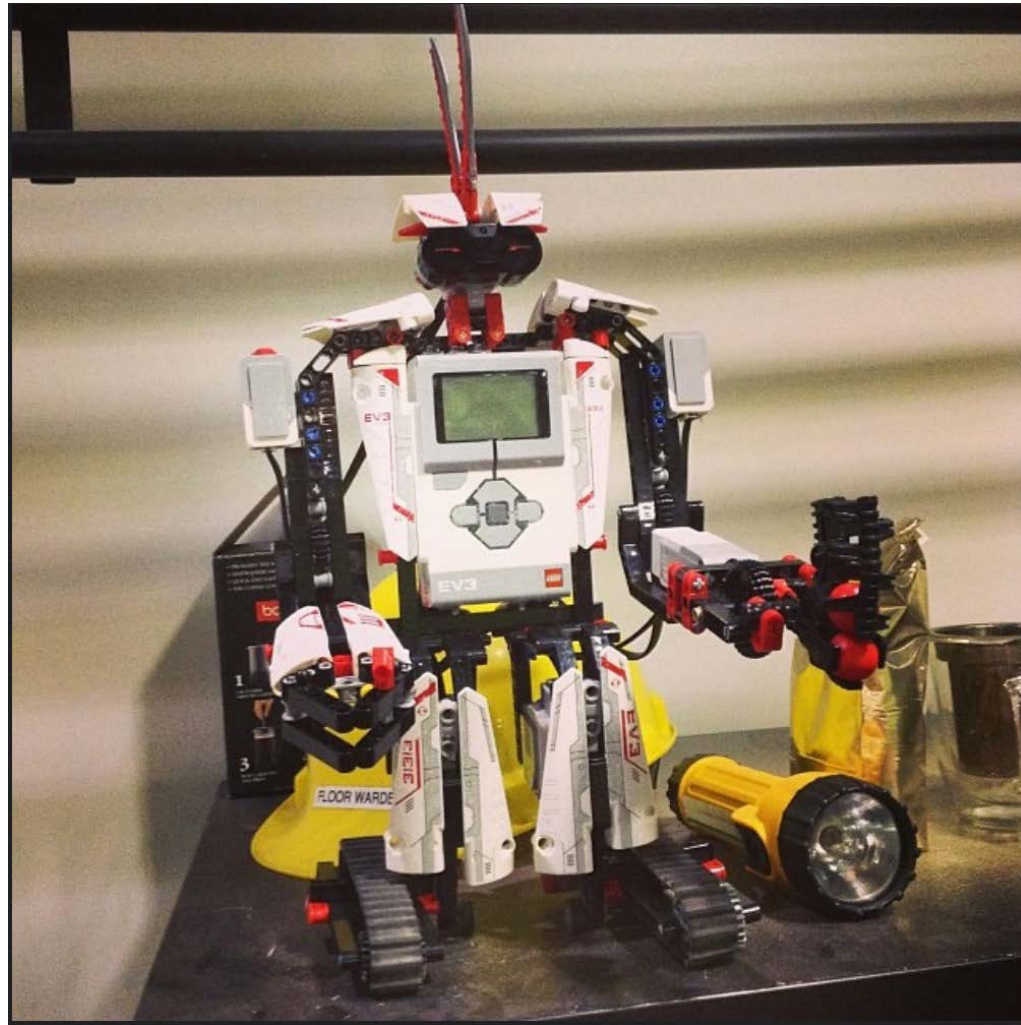
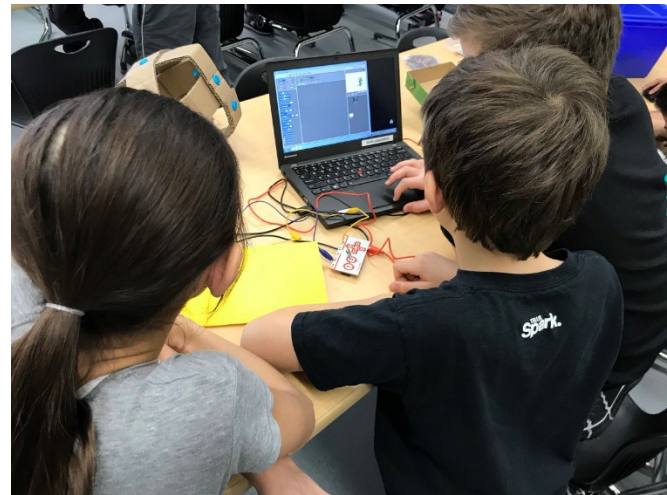


Photo credit: VR Developer @egoant (tested out VR in makerspace, won an award!)

STEAM programs

- **System “branded”**
- **Science-based**
- **Hands-on**
- **8-12 yrs old**
- **Featured in seasonal programming**



STEAM programs



How?

Digital Literacy Training (since 2011)

- **It's okay to say, "I don't know," as long you also say, "but I'm ready to help you find out."**
- **Learning alongside, not being an expert (co-learning)**
- **Ask questions – what do people already know about the device / issue?**

Troubleshooting Hotshots: *a game of intelligence and accuracy*



Program Structure

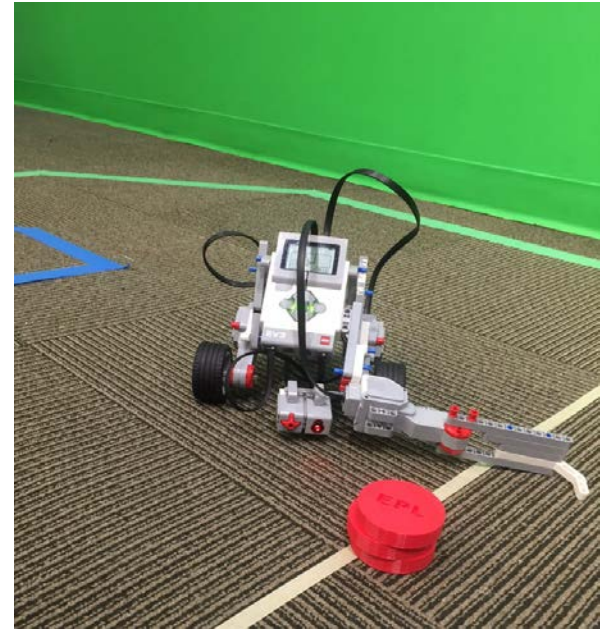
- Outcomes
- Exploration <-----> Challenge-Based

1. Welcome / Challenge
2. Demo* / Exploration
3. Make it!
4. Sharing, reflection



Program Design

- **Consider the audience**
 - Outcomes
 - High/low tech
 - Their interests
- **Iteration**
 - Flexibility
 - What's sticking?





Facilitation Strategies

- Prepare for trouble!
- Make your troubleshooting process “visible.”
- Push questions back in encouraging trial and error.
- Evoke other or further imaginings.



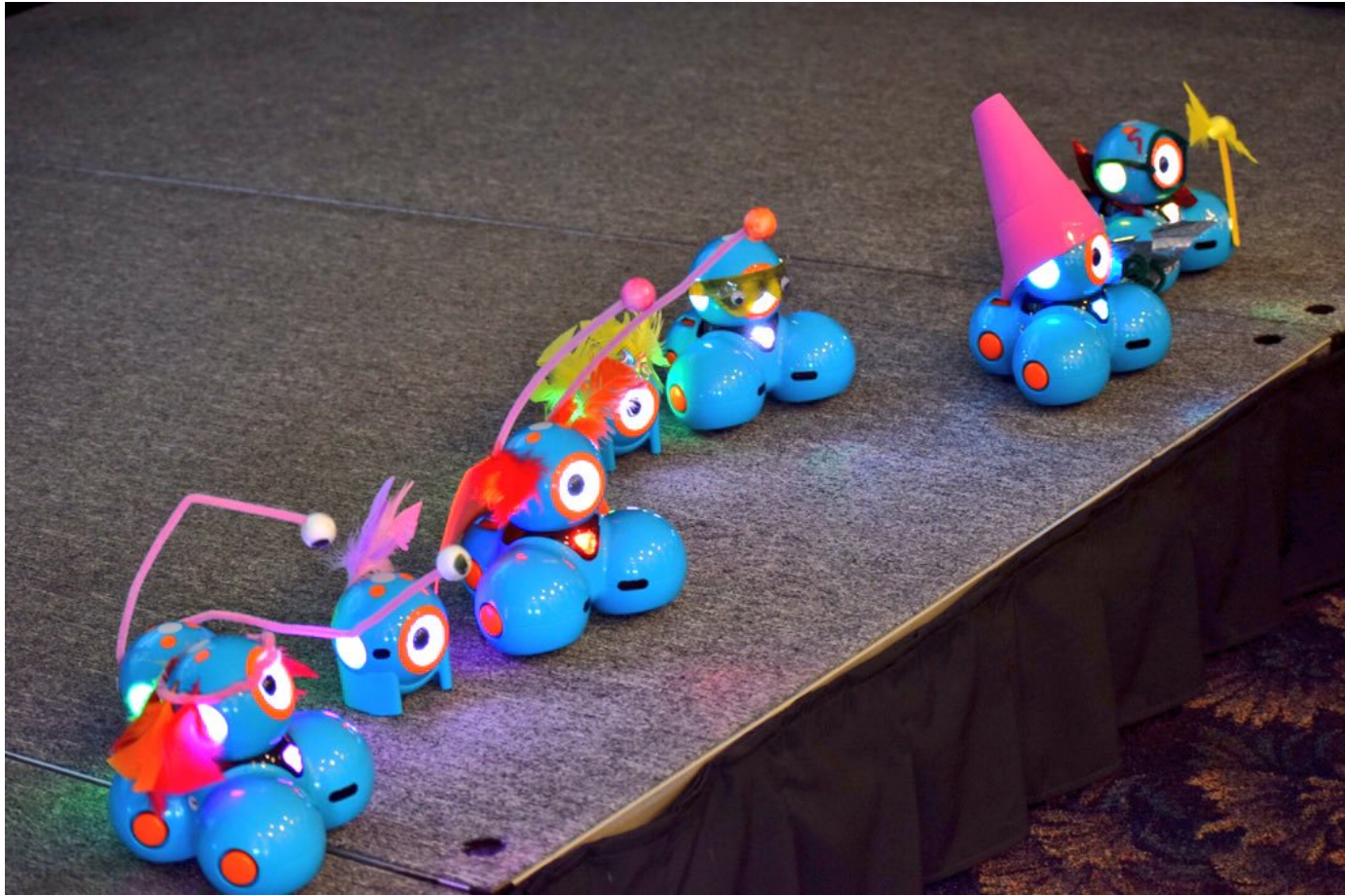


"I wanted this program before I even knew it existed. I've been looking for this machine and this program [Tinkercad] 95% of my life. One day I was sitting here minding my own business and decided to build a house. I was outside the Makerspace and Ben called me in and showed me what I could do here. I was instantly hooked."

"I'm a ghost in Canada, trying to survive and pay my bills off."

Staff Training

- **Core staff programming training:**
 - “School Aged Services 1 or 2”
 - “Digital Literacy 1 or 2”
- **Lego Robotics**
 - Movement and basic programming
 - Sensors and logic
- **Scratch 101**



What's next?

Milner 2020

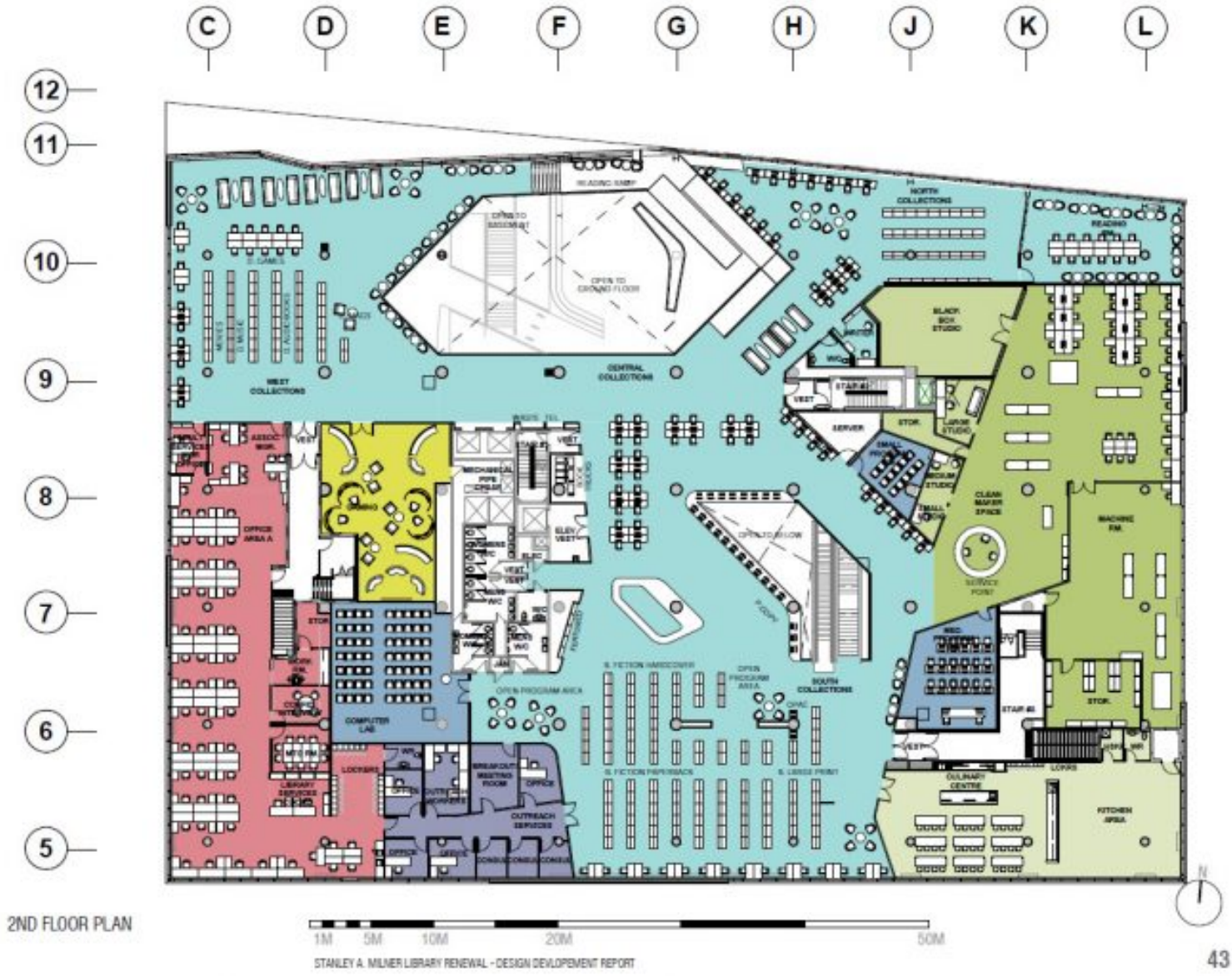
- 10,000 sq ft.
- Children's Makerspace
- Fabrication
- Sewing
- Art



NORTH ELEVATION

STANLEY A. MILNER LIBRARY RENEWAL 701 WINSTON CHURCHILL SQUARE, EDMONTON, AB T5J2N4

Teeple Architects^{inc} Architecture
Tkalcić Bengert



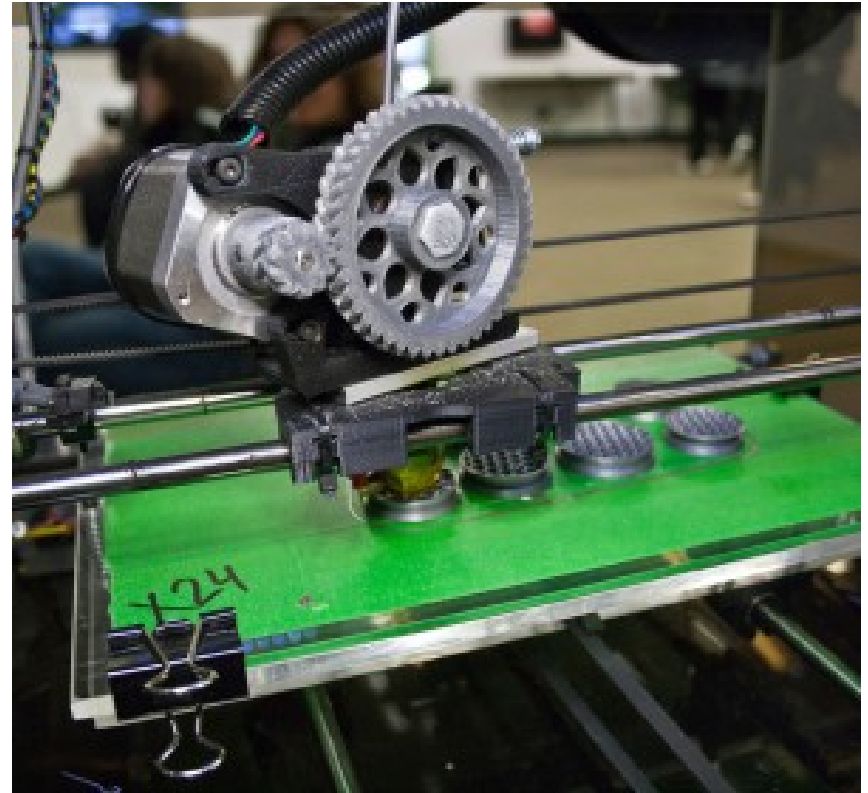
2ND FLOOR PLAN



STANLEY A. MILNER LIBRARY RENEWAL - DESIGN DEVELOPMENT REPORT

New directions, new considerations

- Expanding what's working.
- Self-serve.
- New services, opportunities.
- Renew, retry.



Thank you!

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Edmonton Public Library
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