

# Winter Cycling Tutorial

Bicycle commuting year-round in the second coldest capital on the planet.

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# Who am I?

- Native of Ottawa
- Long-distance touring cyclist
- Comp.Eng grad, U of Ottawa
- “SunRaycer”, RALOS-II Elec.Sys.Co-ord
- Kernel network security (FreeS/WAN, Audit)
- Bike hacker
- Husband, Father of two
- Work for Red Hat, remote, in Ottawa

# Motivation

- Lazy, safer than winter walking
- Freedom
- Touring bicycle hazards on ice
- Nookawarra station, Western Australia
- Car-free
- Green party
- Cheapskate

# Clothing -- Layers

- Cross-country skiing – layers to peel
- Long underwear (thin wool)
- Pants (cotton)
- Rain pants (gore-tex or other breathable shell)
- T-shirt/undershirt
- Long sleeve cotton shirt
- Sweatshirt (optional, depends on temp)
- Gore-tex or other breathable shell (jacket)

# Clothing -- extremities

- Downhill skiing -- extremities such as feet, hands, head, face, eyes
- Socks
- Winter bike shoes/boots (Gore-Tex, Lake MXZ302)
- Gators
- Scarf
- Balaclava to cover chin/mouth, ears, forehead
- Helmet with visor (can mount lights/cams)
- Ski goggles (for very cold or precipitation)
- Beards work very well for cold-weather protection

# Vehicle

- Vehicle dedicated to winter (salt)
- Upright for balance, or trike (beware slush)
- Avoid rim brakes since they ice up
- Avoid derailleurs since they ice up
- Good lights - very frequently riding in darkness
- Studded tires add peace of mind
- Tires: wide vs skinny

# Vehicle – evolution

- Used frame from local community bicycle shop
- 7-speed internal hub w/coaster brake (Sachs Super 7)
- Front dynohub (6V, 3W) with roller/drum brake
- DIY lights
  - 1W power LEDs (2 white front, 2 white rear)
  - 1.25" plumbing compression drain fittings w/hose clamps
  - 18 AWG lamp cord
- Studded commuting tires with centre bead (44mm)
- Longtail reduces fishtailing (Xtracycle)

# Vehicle -- tires

- Carbide studs last a lot longer
- Off-centre studs (~100) no need for weight of 240-stud tires for commuting
- Line inside of tire with dead tube for extra flat protection
- Keep good tire pressure to avoid pinch flats or studs wearing through
- Great: Nokian, good: Schwalbe, fair/poor: Innova



# Technique

- Be predictable
- Well-lit, bright/reflective clothing
- Follow the rules, signal
- Walk before you run
  - Learn how to ride in summer first
- Give yourself escape space
- Take your rightful place and right of way
- Use bus routes (better maintained)

# References

- <http://tricolour.ca/cycle.html>
- <http://icebike.com/>
- <http://icebike.com/Articles/Ottawa.htm>
- <http://mudhead.uottawa.ca/~pete/bike.html>
- <https://twitter.com/YehudaMoon/status/549898972031385601>
- <http://www.bikeforest.com/arctic/>
- <http://www.icetrikes.co/community/ice-blog/world-record-set>
- <http://wintercyclingcongress2015.org/>
- <http://www.bicycles.net.au/forums/viewtopic.php?f=29&t=3715>