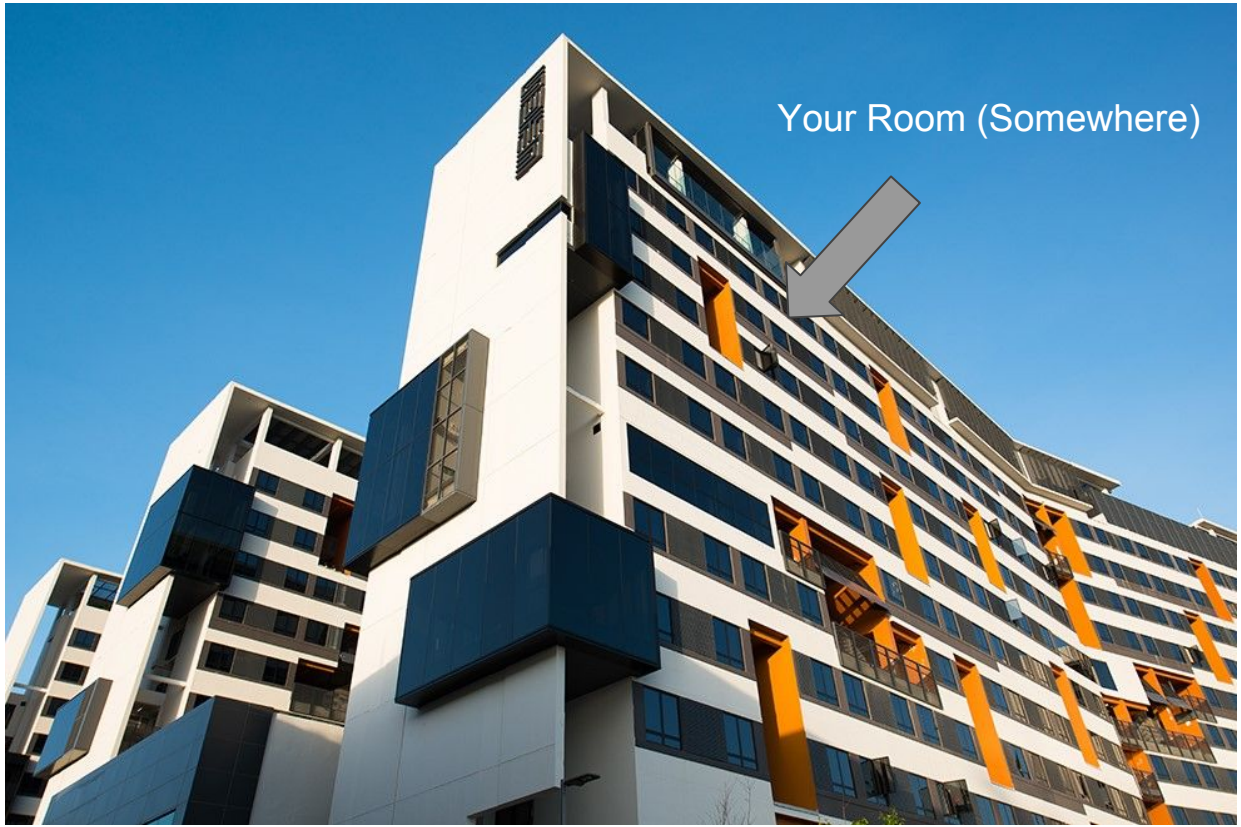
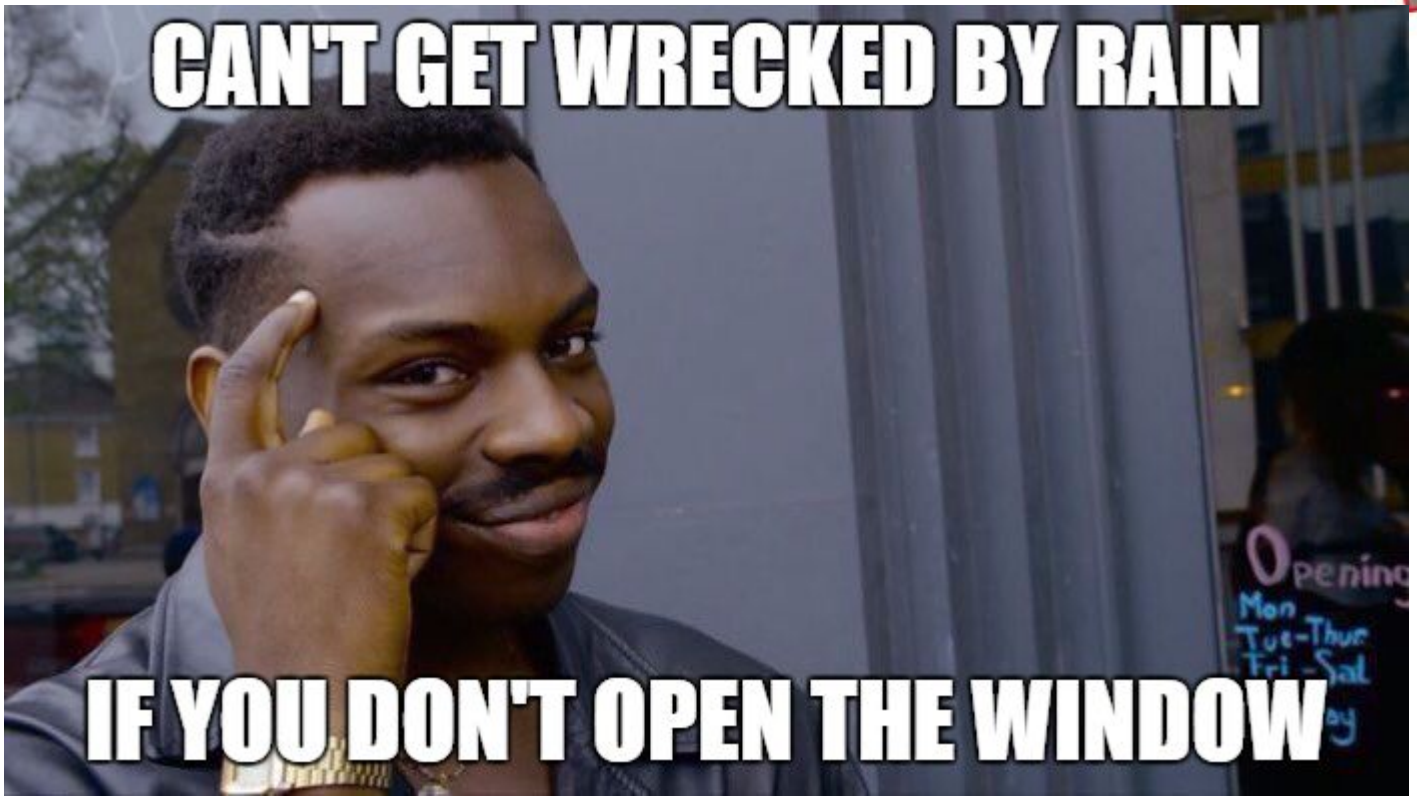
A smarter home,
A drier home

A Team 10.009 production

Background

Once upon a time...

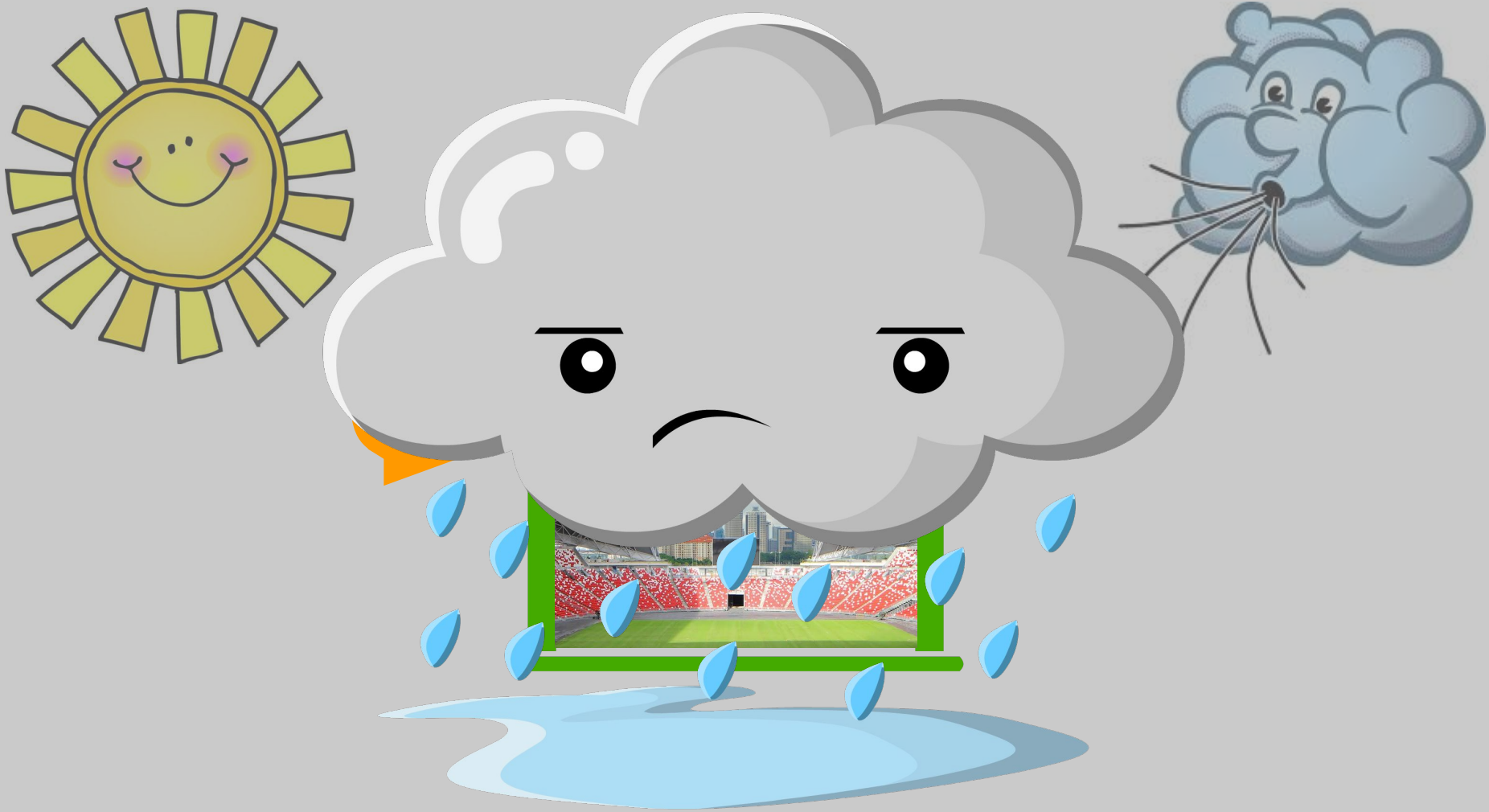

Your Room (Somewhere)


CAN'T GET WRECKED BY RAIN
IF YOU DON'T OPEN THE WINDOW

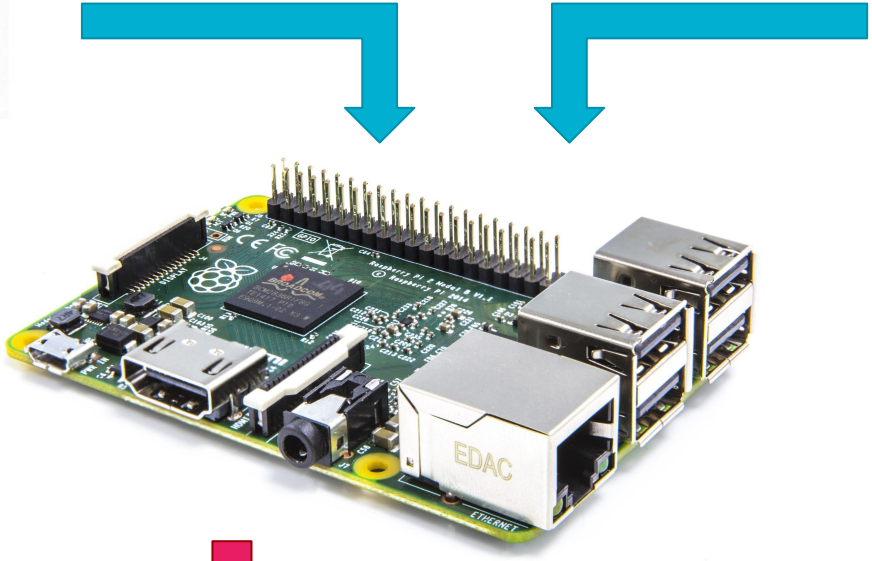

ONE DOES NOT SIMPLY
LEAVE HIS WINDOW CLOSED IN SUTD

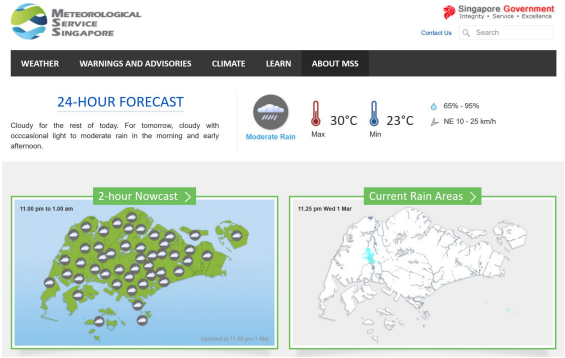

WHY CLOSE THE WINDOW YOURSELF
WHEN YOU CAN MAKE SOME COOL RASPI THINGY TO DO IT FOR YOU

Concept

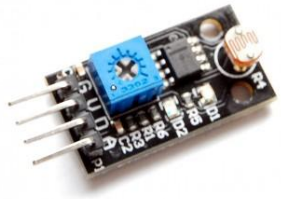


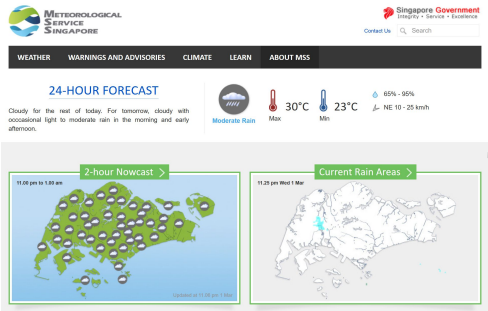
Implementation

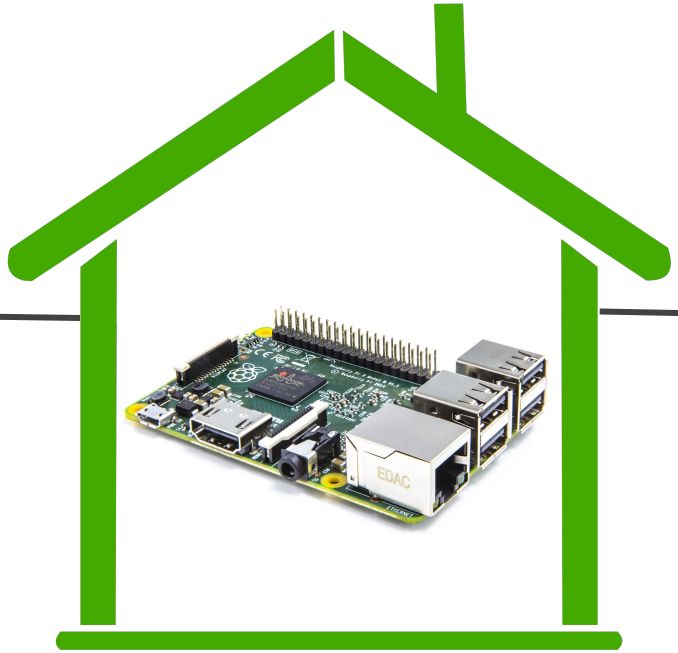




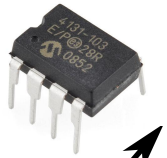
www.weather.gov.sg




METEOROLOGICAL SERVICE SINGAPORE
Singapore Government
WEATHER
WARNINGS AND ADVISORIES
CLIMATE
LEARN
ABOUT MSS
24-HOUR FORECAST
Cloudy for the rest of today. For tomorrow, cloudy with occasional light to moderate rain in the morning and early afternoon.
Moderate Rain
30°C
Max
23°C
Min
65% - 95%
NE 10 - 25 km/h
2-hour Nowcast
Current Rain Areas



EDAC



Things we need...

Rain Sensor (Real Time Information)

Light Sensor (To implement Smart Home)

Servo Motor (The Hands)

1x Raspberry Pi (Heart of System)

Digital Potentiometer (For Light and Fan Control)

NEA Data on RAIN and WEATHER PATTERN / FORECASTS (Preempting)

Costs

Rain Sensor $5

Light Sensor $10

Servo Motor $10

Raspberry Pi FOC

Digital Potentiometer $5

LED & Fan $10

Acrylic Sheets $10

Potential Impact

Remember that dream holiday you've always wanted to embark on?

You don’t have to worry about returning to a puddle of mess.

Hostel walkways will be so much safer.

Toward Week 12

Further Development...

Programming in Python for respective Raspberry Pi sensors

Build Remote Controllable Web Interface capability on Raspberry Pi (Kivvvvvy)

Construct Scale Model of Smart Home with Window Slider using Servo Motor