Singularity 1.

## 1 EXT. COLLEGE GATE - DAY. FADE IN

1

It is a bright, cold day in SPRING, the trees are light green and the birds are chirping. The school bell tolls at a distance.

Some students hustle across the college gate, others are advertising their clubs and activities.

A squad of BOYS and GIRLS are laughing and talking as they walk, one of whom wearing a hoodie with "PHYSICS" printed in the front.

Blocking their path, a looming shadow. They look up to see a tall MAN in a black coat standing before them with his back to the sun. It's hard to make out what he looks like since his face is buried in the shade cast by his hat.

#### MAN

(In a polite but cold manner)
Apologize for interrupting your..
chit-chat. Are you scholars that
belong to the physics institute?

The students stare at him in a strange way, then look at each other.

### GIRL 1

(whisper)
What's wrong with his tone?

# BOY 1

..Yeah, we're from physics, 'f that's what ya mean.

#### MAN

-Mmm, I should think so too. Perhaps you will happen to know... this fellow scholar of yours?

The man draws out a piece of poster. It reads: "..Time traveller from the future and space voyager from distant galaxies requiring help or discussion for your quest in this particular era...contact Mike Frey at.. Your information will be strictly kept confidential.. provide complete paradox-free and multi-galactic cultural service.."

The students start to whisper among themselves with ridicule.

Singularity 2.

### BOY 2

What'd you want HIM for?

## 2 INT. PHYSICS BUILDING - LECTURE HALL - DAY

2

In front of the blackboard, Professor ARNOLD LOWELL, hair half-white in his sixties, gives a lecture on Black Holes, limps on his left leg while writing formulas, speaking in a dull tone.

In the front rows, most of the students are having a hard time catching up with his derivations and some are even dozing off. In the back rows, there is a student seated in complete isolation from everyone else.

MIKE FREY, junior undergrad, bespectacled with close-cropped black hair, reading Heinlein's sci-fi Stranger in a Strange Land on his desk in a casual and relaxed manner.

Beneath the desk, Mike has his shoes and socks taken off, and is typing fluently on his laptop placed on the floor with his toes, taking notes on everything the professor said via LaTeX.

#### LOWELL

(writing as he speaks)
Technically, the actual substance of
the black hole only exist in one
point in space which is called the
singularity, write this down,
singularity.

The students in the front row all jolt upright and write down this definition, then doze off again.

## LOWELL (V.O.)

At this very point, every law of physics that we know of will no longer apply. However, there is still one important boundary that marks the grasp of black hole gravity, from which even light cannot escape upon entering...

A student late for class enters the lecture hall from the back door, taking a seat in the back row hastily.

She winced as she smells something rotten. She looks around and sees Mike and his toes, rolls her eyes and quick rises to find a seat elsewhere.

Mike pays no attention to her.

Singularity 3.

#### LOWELL

...And we can calculate the event horizon's radius to be two GM over c squared. (writes answer) Remember this formula, I will ask you to apply this in the final exams.

Lowell taps his chalk on the board.

The students in the front row jolt upright and begin to write down this formula, then doze off again.

### LOWELL

If you happen to enter the black hole's event horizon, you won't be able to get out no matter how fast you try to escape, for you cannot exceed the speed of light. The only fate that awaits you is to be torn apart by the gravitational shear into a string of atoms-

#### MTKE

I disagree.

Lowell pauses. Everyone turns to look at Mike.

Mike puts down his sci-fi book and pushes his glasses.

## MIKE

(dramatically)
If our salvation lies not in fleeing at the face of danger, why not grasp the chance of survival by confronting it!

A lot of giggling.

## LOWELL

(controlling his patience)
What's your bright idea THIS time,
Mr. Frey?

# MIKE

Well, this is all very logical, prof. If my spaceship has drifted into the event horizon, naturally I won't try to accelerate to try to escape out of it, 'cos according to what you said, it's futile and you would still be dragged downwards.

## LOWELL

So?

Singularity 4.

The dozing students become very attentive in listening to their conversation, some begins to bite popcorns.

Mike stands up, making excited gestures as he speaks.

#### MIKE

So I would accelerate downwards and ram straight into the black hole instead! That way, I may have a chance to reach the singularity before the tidal force tear my spaceship to pieces!

(To make these visual, there should be background diagrams helping to explain stuff)

#### LOWELL

And what good will that possibly do? You'll end up nowhere!

#### MIKE

And everywhere! Just like you said, the singularity is a place where all the natural laws of our three dimensional universe cease to exist. But it might just as well be a higher dimensional space of infinite possibilities! (dramatic tone) Instead of the gates of inferno, it might be the stairway to heaven!

More giggling and whispering.

### LOWELL

That's quite enough, Mr Frey. (slamming his chalk pen down to the podium) You need to stop misleading everyone in class with your sci-fi rubbish! You can never do serious science if you continue to dwell on these far-fetched fantasies!

## MIKE

(muttering)
That's all reasonable deduction...

### LOWELL

And put your shoes back on for God's sake, don't you feel pity for your laptop? I can smell your feet twenty feet away!

# MIKE

Singularity 5.

Where does the other 18 come from?

LOWELL

GET OUT!

## 3 INT. PHYSICS BUILDING - CORRIDOR - DAY

3

Mike walks down the corridor with a backpack dangling on one shoulder. Everyone seems to be keeping away from him consciously.

### MIKE (V.O)

The name's Mike Frey. Undergrad at Physics department of Burpley. As you can see, my "foot-loose" (snapshot of his feet) nature and upright speeches(snapshot of him standing up making gestures) has pretty much made me an outcast in the whole department.

CUT TO

## INT. CLASSROOM 1 - MONTAGE

Mike is showing some idea of his on the blackboard by drawing a lot of ducks waddling across water and talking non-stop, the lecturer is not pleased with him hindering course progress like that.

## LECTURER 1

-That is irrelevant-

CUT TO

# INT. CLASSROOM 2 - MONTAGE

Another lecturer losing patience with him.

### LECTURER 2

-Please go back to your seat-

CUT TO

# INT. PHYSICS BUILDING - LECTURE HALL - MONTAGE - A WHILE AGO

### LOWELL

GET OUT!

Mike rolls his eyes and begins to pack his stuff.

# MIKE (V.O)

Singularity 6.

Especially that old geezer Arnold Lowell, man! He's being WAY TOO harsh on his poor student. Doesn't his ancient head open to ANY new opinions?

Lowell watches as Mike walks past him and exits via the front door, head hanging low. Lowell picks up the chalk pen back from the podium unconsciously and starts to resume writing on the board, before realizing that the chalk has been replaced by a strip of gum that firmly sticked to the blackboard.

### LOWELL

What the...

CUT TO

# INT. PHYSICS BUILDING - CORRIDOR - PRESENT

Mike takes out the stolen chalk pen from his pocket and twirls it on his hand, before throwing it into a bin.

CUT TO

## INT. DORMITORY - MIKE'S ROOM - FLASHBACK

Mike is sitting in front of a wobbly desk, on which a lot of weird-looking gadgets are piling in a mess. Poster of *Doctor Who* and *Star Trek* are on his wall.

# MIKE (V.O.)

It's not as if I'm bad at following all that theoretical knowledge, they are quite simple. To tell the truth.

Mike licks a finger and goes through some of his term papers like counting banknotes. Most of them show a score of more than 90 per cent. He takes out a number of them after some careful consideration, folds them and stuffs them under one desk leg. He grins in satisfaction as he see the desk is not wobbling anymore.

CUT TO

## INT. PHYSICS BUILDING - CORRIDOR - PRESENT DAY

Mike continues to walk along the corridor.

## MIKE (V.O.)

But just writing down all those formulas following the "correct procedures" (mockingly) is simply not interesting enough for me!

Singularity 7.

CUT TO

## INT. DORMITORY - MIKE'S ROOM - FLASHBACK

Mike is watching the new season of *Rick and Morty* on his laptop, with one earphone on and the ear on the other side listening to his DAD talking from his cellphone.

#### MIKE

(not paying much attention)
Yeah, I get that. No, you are
totally right, dad.

## DAD (V.O.)

I mean, if you really have so much creativity to unleash and ideas to burst, why not do some proper research work and leave the poor lectures alone?

CUT TO

# INT. PHYSICS BUILDING - LABORATORY 1- FLASHBACK

A professor is criticizing Mike, pointing to a mug filled with some squishy stuff on a working desk.

# **PROFESSOR**

I had let you join my group to do some harmless data analysis, and you used up half of our material supply in less than a week? How is our next experiment going to be carried out?

### MIKE

Sorry, prof. Just taking a little advantage of the local resources-

### PROFESSOR

(raising Mike's mug for him to see) Taking liquid nitrogen to make ice cream?

# MIKE

You know, I think this has potentials for an industry.

### PROFESSOR

Just like the laser-grill franchise you came up with last time getting in the wrong side of Professor Shapley? Now I really should have listened to her!

Singularity 8.

The professor goes on and on about teaching Mike a moral lesson, pointing to the mug now and then.

### MIKE (V.O.)

Nope, research is not the way out. I always end up pissing off even more of my professors.

The professor takes a look at his watch and hurries away leaving some last warnings for Mike. Mike sees him off, and then takes another gobble from his ice cream mug.

### MIKE (V.O.)

How did it get to this?

CUT TO

# INT. PHYSICS BUILDING - CORRIDOR - PRESENT

Mike turns down a hallway, looking a bit crestfallen.

### MIKE (V.O.)

C.P.Snow said there exists a communication barrier between the scientific minds and the literary minds. That's understandable.

# INT. DORMITORY - MIKE'S ROOM - FLASHBACK

Mike is reading The Two Cultures and the Scientific Revolution, his laptop shows rows and rows of codes running down in the terminal.

## MIKE (V.O.)

But he didn't tell me that if someone reads Shakespeare and masters the second law of thermodynamics at the same time...

CUT TO

### INT. CLASSROOM 3 - FLASHBACK

An invited speaker is giving a talk on "Dynamics of cometlike object Oort 1". Mike is listening in the audience. Lowell is the host, peering now and then towards Mike's direction worryingly.

## MIKE (V.O.)

..Will end up appreciated by neither of the two cultures!

## SPEAKER

Singularity 9.

.. So the tidal force drags Oort 1 into a highly eccentric shape, until it snaps in the middle to create this retrograde trajectory.

Mike raises a hand, Lowell makes a furious expression signaling him to put down his hand but it is too late. The speaker ses Mike.

#### **SPEAKER**

Yes?

### MIKE

That makes sense. But have you considered the possibility that it might be a light sail built by aliens propelled by solar energy? The Oumuamua of the Oompa-Loompas! Great name for a Nature cover article.

Everybody stares. Mike doesn't sense anything wrong.

#### MIKE

Oumuamua. It means "messenger" in Hawaiian.

# SPEAKER

(Whispers to host Lowell)
Is he one of those amateur scientists from outside?

### LOWELL

Right, never seen him before.

# SPEAKER

Strange. I thought they only care about overthrowing relativity.

CUT TO

## INT. CLASSROOM 4 - FLASHBACK

During a literature workshop, a student presents a poem she wrote.

### GIRL 2

...Drops of tears, sinking into the dying twilight,
A balloon let loose, drifting hundred miles high.

## MIKE

Singularity 10.

Nice poem you have there, but wouldn't that balloon explode? I mean, it would have already reached stratosphere in 20 miles and the mesosphere in another 20, the surface tension isn't going to maintain the pressure equilibrium, you know.

### GIRL 2

Who let him in again?

CUT TO

### INT. PHYSICS BUILDING - CORRIDOR - PRESENT

Mike pushes open the front door of physics building and exits the building.

# MIKE (V.O.)

Anyway, I guess no accounting for taste. They are allowed their opinions - just as I should be allowed mine.

CUT TO

# EXT. COLLEGE GROUNDS - PRESENT DAY

As Mike walks down a small lane, He looks up a nearby bulletin board on his left, searches over it and pins some of his earlier posters covered up by newer ones back to the front, including stuff about "Looking for collaborators in building anti-entropy machine", "Seeking volunteers for psychological tests: Does the human brain work quantum mechanically?" leaving his e-mail and phone in the end.

On one of them, another hand-writing goes: "Quit fooling around, Mike! You are disgracing the department" Mike sighs.

## MIKE (V.O.)

If I could, I really want to find someone who can properly appreciate my ideas, if not the contemporaries..

He takes down one of the copies of the "time traveller or space voyager" poster that appeared in the first scene and looks at it.

### MIKE (V.O.)

...I believe there still might be others. I really do.

Singularity 11.

Suddenly, a strong wind blows away the poster from his hands, Mike shrugs and lets it go.

But then, the wind suddenly changed direction and the poster comes back, did a gymnastic twirl right in front of his eyes.

#### MIKE

What the devil ...?

He reaches out to grab the poster, which evades him at the last second, this clearly stimulates his curiosity, and he begins to run to track down the poster flying at a wild trajectory.

#### MIKE

Now that! Is! Artificial!

Mike follows it running down a steep slope, takes a great leap and finally catches it.

#### MIKE

Gotcha!

Mike lost his balance while landing and tumbles down the slope. Luckily, he isn't really hurt and gets back on his feet right away.

Patting off the dirt from his trousers, he noticed from the corner of his eye that someone is watching him.

### MIKE

Sorry for the embarrassing sight. Bit of an accident.

### MAN

(slowly)

There are no accidents.

### MIKE

(jokingly)

Right you are, Master Oogway.

Mike noticed something wrong and looks up, he sees the mysterious tall man with the hat directly staring at him, feeling a bit intimidated.

### MIKE

Who are you?

The man holds up a poster.

## MAN

It appears that the winds of change has brought you to your destiny.

Singularity 12.

Mike takes a good look at the identical poster that he had painstakingly tracked down. He rolled his eyes as if accustomed to it.

#### MIKE

You know, you could have just called for room service.

TITLE SEQUENCE: SINGULARITY

## 4 EXT. COLLEGE GROUND - SLOPE - DUSK

SUBTITLE - "2 YEARS LATER"

Mike is trekking up the same hill that he tumbled down 2 years ago, carrying a strange apparatus like a tape recorder on his back. Some gears and disks are spinning inside the transparent exterior.

One cable extends from the machine, connecting to a pad held in his hand. Mike checks the screen constantly. Right now it reads "Top of Toughguy hill."

Mike reaches the top of the hill. Some teaching buildings stands before him, with lightings on. He solemnly holds the pad close and speaks to it.

## MIKE

Now give me the specific details, will you?

The screen of the pad shows a loading page "Transferring inquiry.. Receiving reply... " and then turns into the instruction "throw coin at 2 'o' clock downhill". The clog and gears clicks and whirs inside the machine.

# MIKE

Right.

Mike takes out a penny coin from his pocket, and throws it down the slope. The penny hits the ground some distance away with a high initial velocity, and continues to roll forwards.

# EXT. COLLEGE GROUND - ROADS

The penny coin slowly rolls onto a manhole cover in the side walk, collides with a wheel of a bicycle passing by, and then bumps off to slide into the hole on the manhole cover.

## INT. SEWERS - DUSK

The coin drops into the water, sinking slowly to the bottom, then lies inert.

Singularity 13.

# EXT. COLLEGE GROUND - SLOPE - DUSK

Mike waits patiently, starting to whistle to himself.

## INT. SOMEONE'S HOUSE - TOILET - DUSK

A man finishes defecating and is also whistling while he flushes the toilet.

#### INT. SEWERS - DUSK

A rush of water suddenly comes in, brings the coin afloat and propels it forwards.

## EXT. CITY EDGE - RIVER - DUSK

The penny coin flies out with a surge of water from a tube into the river. Its speed is slightly smaller than the water so it follows a slightly different trajectory.

A water skipper is hit by the coin and sinks below the surface.

A fish rushes from the deep to gobble up the water skipper and the coin. Its color getting more apparent to be spotted from above the water surface - for predators.

A bird dives down and snatches the fish up in its claws. It flies away. Fish struggles.

## EXT. AIRPORT - DUSK

The bird is flying high above the buildings. The fish has used up its last strength and dies. The coin drops from its mouth.

the coin skids across the buildings and flies into the airstrips.

The coin hits a plane just taking off, and bounces off the fuselage with an extremely high velocity.

The coin flies back towards the city.

# EXT. COLLEGE GROUND - ROADS

The coin flies towards a telegraph pole.

## EXT. COLLEGE GROUND - SLOPE - DUSK

Mike checks his watch.

## MIKE

How long till-

Singularity 14.

CHA-CHIN! In front of Mike, the lights of the teaching buildings go off one by one.

#### MIKE

Took you long enough.

## EXT. COLLEGE GROUND - ROADS

The coin is stuck on the telegraph pole, deforming one of the cable junctions. Sparks are going off all around it.

# EXT. COLLEGE GROUND - SLOPE - DUSK

Mike treks down the slope slowly still carrying the strange looking apparatus, holding the pad in one hand. People evacuating the buildings are going past him. A squad of boys and girls catches up from behind.

### BOY 1

What's that...

He is whispering and pointing to the giant machine on Frey's back. His fellows quickly mentions him to stop. But Mike hears him and turns towards them excitedly.

#### MIKE

Yes, my friends! (dramatic tone)
This doomsday weapon unveils the
secrets of causality and brings down
the wrath of God to...

No one is listening. The squad of students goes down the slope talking among themselves.

### GIRL 1

I wonder what has brought down the power this time.

### BOY 2

Winds, must be.

Mike shrugs. The pad beeps.

# MIKE

Oh, yes of course.

He holds up the pad. His sound comes out:

### MIKE

(recorded voice)
How do I get a power breakdown that disables the all the classroom equipped for presentation? But spare the dorms, please.

Singularity 15.

Mike types: "Top of Toughguy hill." and presses a button. Screen shows "sending message to earlier self.. Success."

#### MIKE

That's the first batch...

Lowell walks past him, limping a walking stick and carrying a bag.

#### LOWELL

Frey! (panting and pointing the walking stick at him) What is that ridiculous gadget on your back? To think you are already a second year graduate!

#### MIKE

Why hello prof! Just testing a new invention of mine, (boldly) hope you happened to save your simulation data before the power outrage?

#### LOWELL

You are saying as if you caused this power break?

## MIKE

Ha! This gadget gives me the power to manipulate the possibility of the impossible! And-

#### LOWELL

Might I remind you, Mr Frey! That your PhD qualification is due the end of this semester and you don't even have ONE PUBLICATION on your resume.

Mike stiffens.

### LOWELL

The grad program sponsors the cultivation of real scientists, not buffoons who build toys out of garbage and fantasize about superpowers! Do you understand?

### MIKE

Well, prof, I think I'm very close to making a discovery-

## LOWELL

You'd better be, or I'll personally see to it that you seek your

Singularity 16.

academic career elsewhere.

Lowell leaves furiously.

Mike sighs. Then his pad gives another beep.

# MIKE

(Recording)
Now give me the specific details, will you?

Mike types: "Throw coin at 2 'o' clock downhill", goes over it carefully and changes the capital "T" to "t". He presses button and screen shows again "sending message to earlier self.. Success."

Mike looks up and sees the only tall building still with lights on. He grins and sets forth.

5 INT. MIKE'S DORM - NIGHT

5